

FIG. 2069. THE SNEED PEACH.

# THE CANADIAN HORTICULTURIST



※ ※ JUNE ※ ※

## THE SNEED PEACH.

A promising early variety for home use and near markets.

ORIGIN; Tennessee, by Judge Sneed, of Memphis, about 1880, from a pit of the Chinese Cling.

TREE; vigorous, but slender in young growth; productive, an early bearer.

FRUIT; medium, about 2 x 2 inches in diameter, roundish oval, slightly one-sided; skin, light greenish white, with red cheek, and short thick down; cavity narrow and deep, with distinct suture, and a small pointed apex, in a slight depression.

FLESH; semi-cling; color, yellowish white at maturity; texture, tender, fine, very juicy; flavor mild, vinous, pleasant.

SEASON; July 20th and 30th, 1900.

QUALITY; dessert, good.

VALUE; home market, fair; distant market, useless.

**T**HE earliest peach to ripen in our experimental orchard at Maplehurst, in 1900, was the Sneed, which began to mature about the 20th of July. At one time there was great profit in early varieties. Thirty years ago we began with Early Purple, which ripened about the 20th of August. One season we had such good prices for that variety that we set quite a large orchard of it. The fruit was excellent if you ate it just at the nick of time, but alas! if you left it an hour too long it was all juice, and could not be ship-

ped a mile from home. Then came Hale, which ripened about the 15th of August, and colored up so beautifully on the trees, but was so disappointing when you tried to bite it. Firm was it? Why it would not get ripe enough to eat unless you knew just how to handle it, but usually it chose to rot first, in a large section, as suddenly as if struck by fire blight. But it sold well, and that was the chief consideration for the grower. Since its introduction we have many claimants before us as early varieties, such as Amsden's June, Early Canada, Louise, Rivers and Alexander, the latter of which ripens toward the end of July, and has a very attractive appearance, if well grown. But Crawfords, and other better varieties from the South and from California began pouring into our markets by cold storage from Florida and Southern California, and thus crowded out our inferior varieties of early peaches, until it now scarcely pays us to grow them at all in the commercial orchard.

The Sneed adds one more to the list of these early varieties, bringing in the peach season still earlier than Alexander. Last year it ri-


pened for the first time with us at Maplehurst, and it impressed us favorably as a dessert peach for the home garden, because of its tender, juicy texture and pleasant flavor. It is not a cling like the Hale, but only a semi-cling, like the Early Purple, which was always a favorite dessert peach, when fresh from the tree. The tree is a fine grower, and quite productive, and evidently an early bearer, for it produced its first fruit at three years of age. When ripe, the skin and the flesh are both creamy white, with a red cheek.

This peach would be wholly unsuitable for shipping to a distant market, as indeed are nearly all our early varieties.

The Sneed originated in Tennessee about 1880, and was named after the originator, Judge Sneed, of Memphis. It is a seedling of the Chinese cling.

Lourance, of N. C., wrote in the Rural New Yorker, last year, very favorably of this peach, as follows: "The Sneed is about ten days earlier than Amsden's June or Alexander; it is somewhat larger, ripens much better to the pit, is of excellent flavor, juicy and, when fully ripe, the skin readily peels off with the fingers. It has a large, full bloom, and therefore is not so easily killed by frosts. It is also rather late blooming."

## PAN-AMERICAN HORTICULTURE—I.

UR second official visit to this grand exposition was made on Dedication Day, the 20th of May. Wonderful changes had taken place in the buildings and grounds in the month since our last visit, for then heads and trunks of statuary lay topsy-turvy and prospective elegance of architecture still revealed bare construction timbers. Now these are all in place and the magnificent, many-colored buildings now blend into one harmonious whole, in style a fine representation of the Spanish Renaissance, rich with sculpture and color decoration. One can well believe Mark Bennitt's statement in his "Illustrated Souvenir" that this great enterprise represents a total expenditure of \$10,000,000, not to mention the enormous value of the exhibits themselves.

Entering by belt line railway from N. Y. C. station, one is ushered through the Propylaea and its wings or colonnades, decorated with beautiful statuary, into the very midst of these magnificent structures; before you the Electric tower, 410 feet in height, a sort of guide to keep one from being lost, and in front of it the grand esplanade, where

thousands of people can be seated and watch the electric glory of the evening lights, which mark out the outlines of the buildings to people miles away on every side. On the east wing is a group of statuary by H. Adams representing "The Age of Enlightenment," expressing the progress of man from the "age to the enlightened state. Another group is "Heroic Music," by Kontè, showing the blind bard with the lyre and over him a winged female figure carrying the laurel branch, the whole expressing the conventional idea of heroic music. Cuts of these groups were kindly sent us by Mr. Bennitt, Chief of the Publicity Department.

We just hint on the general beauty of this marvellous exposition, because it emphasizes the importance of the opportunity here afforded of exhibiting our Canadian industries to the world. More attractive than the World's Fair at Chicago, more convenient of access to Canadians than any great exposition has ever been, there will be more Canadians at the Pan-American than at any former one, and we cannot stir up the national pride of our country in a more

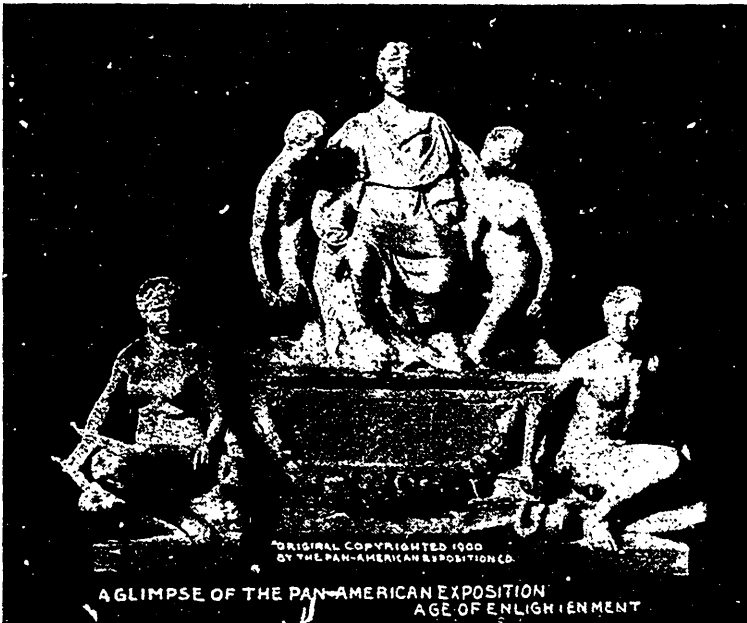


FIG. 2070.

laudable manner than by showing our products side by side with all others, and thus proving their superiority.

To the right of the esplanade after passing the Temple of Music, going south, you reach the Horticultural Building and Ontario's Court, near a grand entrance. Mr. Bunting, Mr. Robt Thompson and Mr. Collins were here to meet the public and give all information. The tables and arches were most appropriately designed and painted pure white; the tops of the tables were covered with a dark green cloth on which the white plates of fruit showed up beautifully. Fine white pillars stood around the whole space, and on the principal aisle faced the arches, the pediments of which were decorated with deer heads, and on the entablature of which stood out in bold relief "ONTARIO, CANADA"; the whole was surmounted by beautiful silk Canadian flags and Canada's coat of arms. The large pillars were utilized to show bottled fruit and pickles, and pictures of Ontario fruit farms, while the trophy erected



FIG. 2071.

in the centre was most attractive with its exhibit of culinary fruits in glass jars.

"The whole of this installation was erected by Ontario workmen," said Mr. Bunting proudly, "and only at six o'clock on Saturday night did the workmen finish the work, and then we had all the work of setting out our exhibits still to do." Well it was creditably done, if it was done in a hurry; and the apples, placed in cold storage last fall, came out for the most part in perfect condition. With the apples, some two hundred bottles of domestic canned fruits in glass, and an exhibit of pickles from Bow Park Farm, Brantford, the fruit exhibit will command its full share of attention until strawberries and other fresh fruits begin to come in.

#### LIST OF EXHIBITS.

The following is a list of the principal exhibitors of fruits and decorations as set forth on the 20th of May.

#### FRUITS.

Department of Agriculture,—American Pippin, Baldwin, Ben Davis, Blenheim, Bottle Greening,

Grimes' Golden, Russett. Holland Pippin, King, Canada Red, Cranberry Pippin, Fallawater, Mann, Ontario, Red Russett, Snow, Stark, Spitzenburg and Winesap. Other varieties to be added from time to time.

A. A. Leslie, of Aylmer, sends a collection of apples from fourteen contributors at Sparta, Gravesend, Lakeview, Copenhagen and Bayview, each giving two or three varieties.

W. Richards, of Newcastle, shows twenty-nine plates of choice Northern Spy.

S. B. Morris, of Rodney, Spys and Baldwins.

Robt. Thompson and W. H. Bunting, of St. Catharines, King, Snow, Greening and Wagener apples and Keiffer pear.

Albert Pay, of St. Catharines, Spy and Baldwin; and James Titteringtoe shows Fallawater.

G. C. Gaston, of Craighurst, canned fruit, shown at Industrial, Toronto.

W. H. Bunting, collection of canned fruits from various contributors.

Shuttleworth & Harris, Bow Park, Brantford, pickles in jars.

#### DECORATIONS.

Ernest Hack, Grantham, the White Owl that surmounts the trophy.

E. J. Lovelace and Dr. Kilmer, the deer heads on the pediments.

Dr. May, Frank Coy, Albert Pay and R. Thomson, St. Catharines, the deer heads on the pillars.

Dr. Comfort, of St. Catharines, stuffed birds, and Frank Coy, a hunting scene, etc.



FIG. 2072. KING OF THE FOREST.

## CENTRAL EXPERIMENTAL FARM NOTES—XVII.

MANCOURN

**T**HIS has been a very favorable spring for garden and orchard work. There was no frost in the ground to delay operations when the snow disappeared, and since that time the weather has been all that could be expected. The only frost that has been recorded since early in April was on the 20th of that month, when the temperature was  $31.3^{\circ}$  F. Since that time there have been several white frosts which the thermometer has not recorded. There were warm days during the last week of April and the first and second weeks of May, the highest temperature in April being on the 28th, when it was  $79.8^{\circ}$  F. In May the highest, so far, was on the 8th, when the temperature rose to  $81.2^{\circ}$  F. There has been comparatively little rain during the past month, but to-day there is a heavy downfall.

Everything is well advanced at this date, May 17th, and the season is more than a week earlier than last year.

Now that the leaves have expanded and the flowers are opening, a better idea can be obtained of how the various trees, shrubs and herbaceous plants wintered than it was possible to have a month ago; and it is also much easier to predict what the crop of fruit will be.

There were few deaths from winter killing in the apple orchard and the trees are now looking well. A large number of trees were affected by blight last year, and while the terminal growth in many cases was not destroyed, the fruit spurs were killed; as a result, the crop of apples on the trees will be small. Trees which were not blighted and which did not fruit heavily last year will probably bear good crops. The apple crop on the whole will be below the average. The American plums have bloomed very freely and there will likely be a heavy

crop of them. There will, however, be no European plums, as the flower buds were killed. The hardier cherries came through the winter well. The flower buds on all the trees, however, were practically all killed. There was evidence that the bloom would have been heavy, as the buds on the branches near the ground which were covered with snow were uninjured and there was a good show of bloom. Grapes were uninjured and are looking well. Some varieties of raspberries wintered well, while others were more or less injured. Golden Queen was killed to the ground and Cuthbert was considerably injured. Strange to say, the Shaffer under the same conditions, never looked better. The blackberries, also, came through the winter better than usual. Strawberries are exceptionally good and the prospects are very bright for a fine crop of this fruit. Ornamental trees and shrubs are looking well and the injury to the tenderer things was probably about the same as usual, with the exception of some of the evergreens, which were badly browned. Trees of the Ontario apple were again badly injured by winter. Mr. Harold Jones, of Maitland, Ont., reports that at the St. Lawrence Fruit Station this variety is quite hardy, and it may succeed in more sheltered places near here, but is not safe to plant.

There are few early blooming shrubs which are hardy here, and on this account attention should be drawn to *Spiraea arguta*, a comparatively new species which is not generally known, but which is very beautiful. This species somewhat resembles *S. thunbergii*, but is of much more graceful habit and has the advantage of being quite hardy. It began to bloom this year on May 12th, when the bushes were simply covered with small white flowers. Maule's

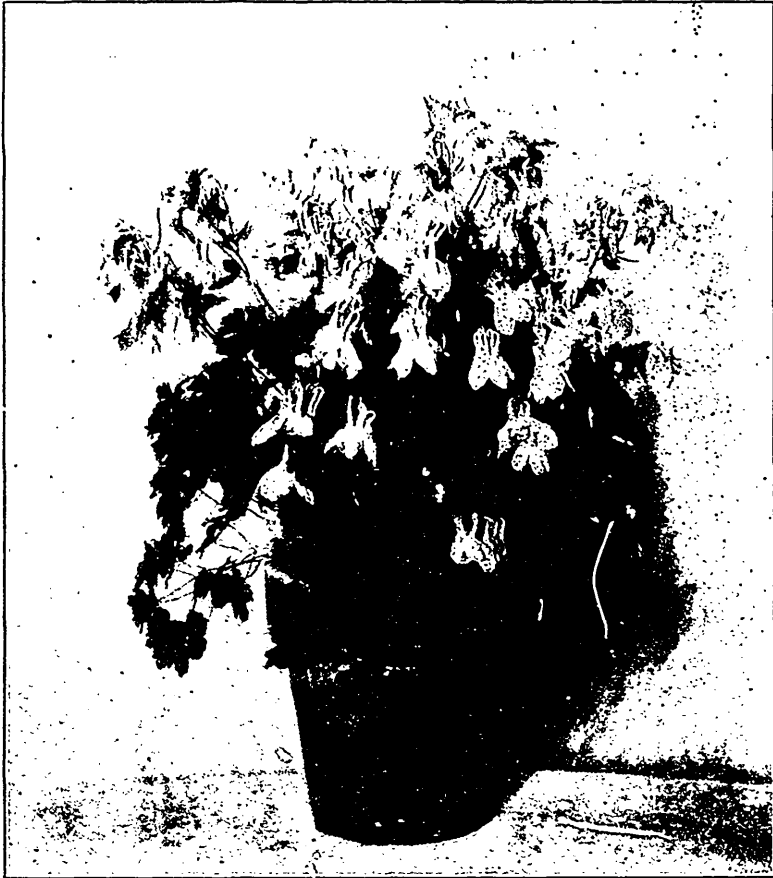


FIG. 2073. RUSSIAN COLUMBINE (*AQUILEGIA OXYSEPALA*).  
(Photo. by F. T. Shutt.)

Japanese quince (*Pyrus Maulei*) is another hardy shrub which should be in every garden where *Pyrus Japonica* is not hardy. The flower buds of this species have never been injured by winter here and the flowers are large and of several shades of red. It blooms about the middle of May.

In the year 1887 a large collection of seeds was obtained from St. Petersburg, Russia. Among these was a Columbine which came under the name of *Aquilegia oxysepala*. This species, which has been grown here for fourteen years, is still as fine as when first introduced. The flowers are very large and are of a rich shade of bluish-

purple. The plant is a very free bloomer and as it flowers early in the second week of May, when there are few other plants in bloom, except bulbs, it is especially desirable. Most columbines are difficult to keep pure, as they cross very readily, but as this species blooms so early it is self fertilized.

We had good success this year in forcing parrot tulps in the house and have decided that we shall never be without them in the future. They do not make very good pot plants, as they are not stiff enough, but as cut flowers they are fine, the blooms lasting for two weeks if the room is not too warm. They are more difficult to force than the

early tulips and should be kept back as long as possible, As about half of the bulbs do not bloom they should be planted rather thick in large pans, pots or boxes. The double tulips are also very satisfactory for forcing in the house and succeed better than outside. Some of the best are: Murillo, Couronne d'or and Imperator rubrorum. Murillos when well grown in the house and fully expanded have measured nearly six inches in diameter. If the house is not too warm the flowers of double tulips will last from ten days to two weeks.

The perennial border is often bare looking

after the spring bulbs have done blooming, but we find that the border may be kept bright by growing Iceland poppy, the seed of which should be sown broadcast. This beautiful poppy makes a fine show of colour until other flowers begin to bloom. They also take away the patchy appearance of a border which has but a few clumps of perennials and fill up the gap until the annuals begin to flower.

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## NOTES FROM THE BIOLOGICAL DEPARTMENT OF THE ONTARIO AGRICULTURAL COLLEGE.—IV.

### THE BUFFALO TREE-HOPPER.

**F**RUIT-GROWERS during the spring pruning of their orchards frequently come across limbs disfigured with oval-shaped scars (Fig. A) which are decidedly injurious to the tree. Frequently the affected limbs break off during strong winds, and as the grubs of borers are often found in these broken limbs, the inference is too often made that the borers are the mischief-makers. The real cause of the scars, however, is a greenish bug about one-third of an inch in length, triangular in shape, and with some slight resemblance to a buffalo, hence the name—*Buffalo Tree-Hopper*. (Figs. C and D).

In late summer and autumn, it is often possible to catch these tree-hoppers, or to watch them at work depositing their eggs in slits on the twigs. My illustration (Fig. B) shows the slits, not at the time of deposition, but in the spring when the scars have become quite large and unsightly.

The females deposit their eggs on young wood in late summer, preferring but little the two or three years old growths on young trees to those on old trees. The curved slits are made close to each other, enclosing a portion of bark, and in each of these slits six or more eggs are laid. The purpose of the double slit is apparent, for if only one were made the eggs deposited in it would almost certainly be damaged by the subsequent rapid healing process. With the two slits, arranged as they are, the enclosed portion of bark is killed, and the eggs are preserved from injury by any subsequent growth.

The eggs remain over winter in the slits and hatch about the first of June. During the winter and following seasons the slits gradually widen, and the scar becomes oval in outline on account of the dropping away of the enclosed central piece of bark.

It would appear that the Buffalo Tree-Hopper does not confine its attentions to apple and pear, but will produce scars on



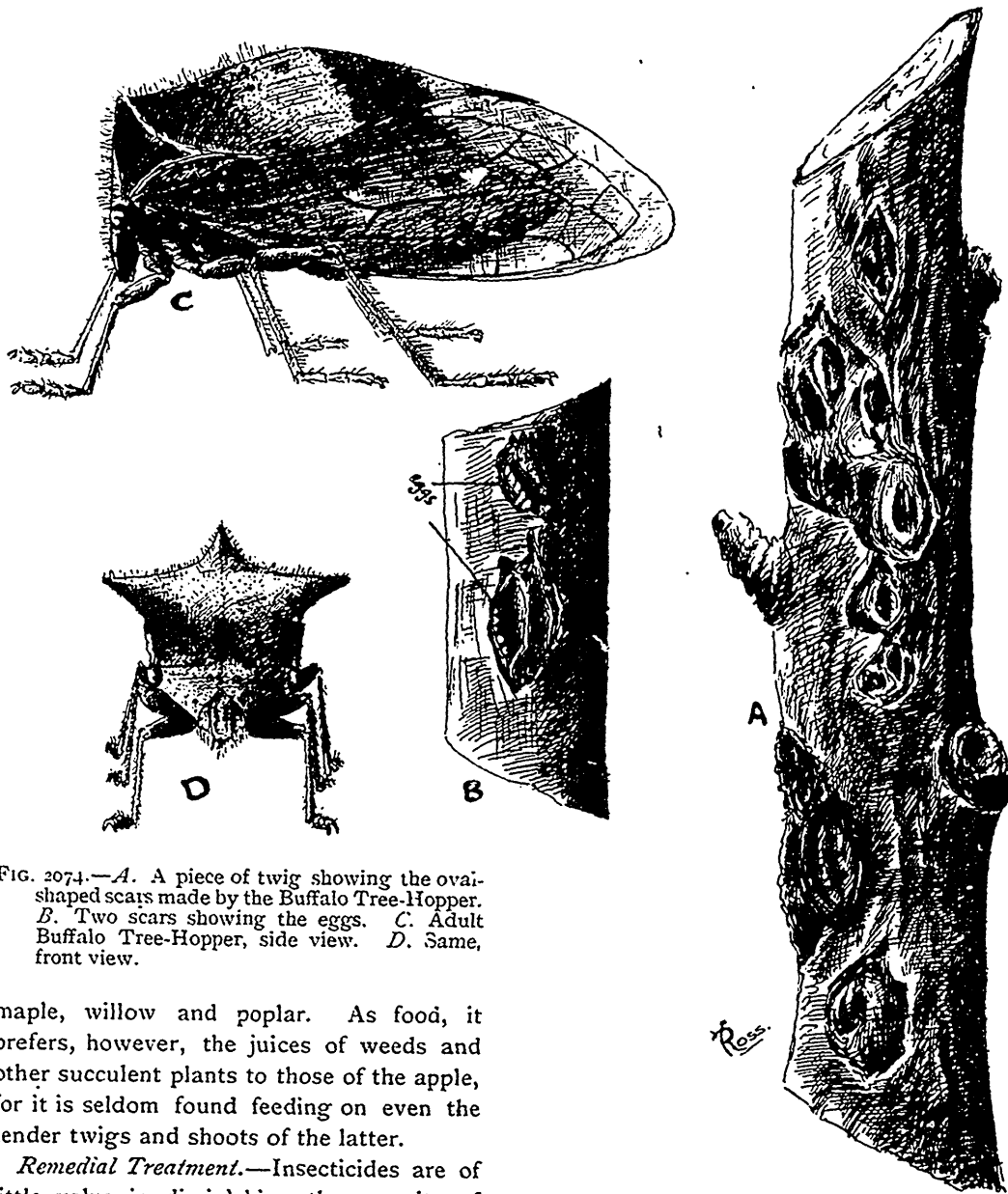


FIG. 2074.—A. A piece of twig showing the oval-shaped scars made by the Buffalo Tree-Hopper. B. Two scars showing the eggs. C. Adult Buffalo Tree-Hopper, side view. D. Same, front view.

maple, willow and poplar. As food, it prefers, however, the juices of weeds and other succulent plants to those of the apple, for it is seldom found feeding on even the tender twigs and shoots of the latter.

*Remedial Treatment.*—Insecticides are of little value in diminishing the severity of the attacks of the Buffalo Tree-Hopper. The best treatment is to remove and burn all affected twigs and branches during the season of pruning, as the eggs will then be destroyed.

Clean culture, by which weeds and other plants on which the insects feed are de-

stroyed, will also aid appreciably in reducing the number of the pests.

#### MORE ABOUT THE SAN JOSE SCALE.

Every year brings to light some new feature in the treatment of the San Jose Scale. Last year the value of crude petroleum was clearly proven; three or four years ago,

potash whale-oil soap, and kerosene were first used with success in large operations. Contradictory results, however, were often obtained by different experimenters, and even by the same experimenter, results which could not be satisfactorily explained. For example, in the hands of some fruit-growers pure kerosene proved beneficial, while in the hands of others it was deadly to the trees. Crude petroleum, too, gave conflicting results, but when a straight paraffin crude petroleum, having a specific gravity test of 43 degrees or over on Beaume's oil scale, was used by Dr. J. B. Smith, of New Jersey, uniform success attended the application. It seems that the term "crude petroleum" is applied commercially to a great variety of unrefined oils widely different in their compositions, hence when used as an insecticide the term should be specific.

Again, in a recent bulletin, prepared by H. P. Gould, of Maryland, the reason for so many failures with kerosene is plainly stated. Mr. Gould shows that 20 per cent. kerosene *cannot be used on peach trees when they are perfectly dormant without serious results*; but that, as soon as the activities of the tree begins in spring, spraying with 20 per cent. kerosene should be commenced; that there is no necessity for using a stronger mixture than the 20 per cent.; and that peach trees may be sprayed with the 20 per cent. mixture with comparative safety during the summer when the young are crawling.

It is interesting to note that the results secured by Gould coincide largely with those obtained in the series of experiments carried on during January and February, 1900, by Mr. G. E. Fisher and myself, and by Mr. Fisher later on in the season. My notes on these experiments, based on a study of the

winter buds and San Jose Scales while the trees were still dormant, bring out the fact that in nearly every case the buds of the trees—apples, pear and plum, as well as peach—were destroyed when 20 per cent. kerosene and water was used.

Mr. Fisher, in his report of the Inspector of San Jose Scale for 1900, states: "As a winter treatment I regard kerosene as being more liable to injure trees than any other remedy with which I have acquaintance. It is not so fatal to fruit buds as soap applied in early winter, but so far as has been observed the effect on trees was almost invariably disastrous. It was used in a mechanical emulsion in the proportion of 20 per cent. with water, which was not so effective as an insecticide, and cannot be said to do even satisfactory work in killing the Scale."

The conclusions reached by Mr. Fisher regarding the value of 20 per cent. kerosene as an insecticide appear at variance with that of Mr. Gould, but it may be noted that Mr. Fisher did no spraying while the trees were active, and Mr. Gould does not report the effect of the kerosene on the Scale while the trees were dormant.

Regarding crude petroleum, Mr. Gould summarizes his results:

1. Crude petroleum seems to be effective in controlling San Jose Scale when properly and intelligently used.

2. Either a green or amber-colored oil may be used, provided it has a specific gravity of not less than 43 degrees at a temperature of 60 degrees Fahr.

3. It can only be used when the trees are dormant. In this respect crude petroleum and kerosene act directly opposite. (This applies especially to peach trees.)

4. It may be used either undiluted or in the 20 or 25 per cent. mixture.

W. LOCHHEAD.



FIG. 2075. GARDENS OF THE PALACE OF LUXEMBURG.  
(Photo. by A. L. Saunders.)

## NOTES IN AND ABOUT PARIS.

**I**N September, 1900, it was our pleasure to spend most of that month in France and more especially about Paris, which is a beautiful white city without any smoke to spoil its buildings or to interfere with one's comfort in any way.

The climate in September proved very enjoyable, being clear and warm, with very little rain, so our time was spent in constant sight seeing through the city and about the river, which is clear and very attractive, with so many beautiful bridges and boats in every direction every few minutes, making it very convenient for travellers.

The older parts of Paris are very interesting, and one sees quite a different life about Notre Dame among narrow streets crowded with goods and poor people on the side-

walks, from what you can see about the Arc de Triumph. This is a most beautiful arch and here many of the finest avenues in the city meet, here the fashionable people live and have their homes and here the driving, on a fine afternoon, is a great sight.

One of the greatest places of interest in the older portion is the Palais de Luxembourg and the beautiful gardens (Fig. 2071), connected with it, containing so many trees and flowers and fine pieces of statuary. The terrace can be seen in the picture with the two levels of the grounds, the lake being on the lower ground. All travelers visit these grounds and the palace itself is very old and contains much of interest.

The homes of the rich in Paris are built nearly always on the street line and are not



FIG. 2076. ENTRANCE TO BARON ROTHSCHILD'S ESTATE.

attractive, but if one can enter through the iron gate into the court yard behind, there is often a beautiful garden to be seen, as shown in this picture.

On September 29th, while we were still in the city, we were favored with an invitation from Col. G. B. Brackett, who had charge of the fruit exhibit of the United States at the Fair, to join a party and visit Baron Alphonse Rothschild's estate at Ferrieres, twenty miles from Paris. (Fig. 2076.) We had a most delightful day in that splendid estate, which covers an area of six by twenty miles, the greater part being used as a game preserve, with deer and other animals, as well as wild birds in great abundance. Twelve hundred acres of this is maintained as a most perfect park, where a vast number of trees and shrubs have a home. Great masses of rhododendrons, laurels, yews, hollies and many other tender things grow there, healthy and strong. A very large clump of cedar of Lebanon formed a lovely picture near the mansion, with its dark green heavy foliage and the long leaves hanging from the branches were very beautiful. The mansion, as shown in the picture, is very fine, and many fine trees and shrubs are planted near it. (Fig. 2078.)

This park is most beautifully kept and everything is in the highest state of cultivation, thousands of shrubs and trees and nothing in the least deformed or unshapely, and plenty of room allowed for all to grow in their natural forms and habits. The beautiful lake near the mansion, shown in Fig. 2077, is also kept in perfect order and is skimmed several times a day by men in boats to keep the surface bright and clear of fallen leaves, which are so numerous in September. This lake is the home of the wild water birds in the park, as are also the ponds near by, and adds a great deal to the beauty of the park. The tropical plants and large flower beds about the mansion are very effective.

About four hundred men were employed on these grounds and all parts of the grounds were in the most perfect order everywhere. There was a good aviary with several buildings constructed to suit the birds. The fruit garden was very attractive; forty men were employed and we saw a great collection of pears, peaches, nectarines and apples, mostly in full fruit and very tempting to hungry travelers. Many trees were trained against walls, while others were grown as cordons, espaliers and pyramids, and nowhere could a thing be seen



FIG. 2077. GLIMSE OF LAKE AND CEDARS



FIG. 2078. BARON ROTHSCHILD'S CHATEAU.

out of place, the care taken was so perfect, and the trees were laden with ripe fruit all

through. The vegetable garden was also very fine, with many hot-beds for tender things, as well as vegetables out of season. There were also commodious greenhouses for roses, orchids, ferns, carnations, palms, and all plants needing special care and special temperatures, with houses for raising plants and flowers for bedding out.

As it had never before been our good fortune to see such a lovely park and so perfectly kept, our day there was one of the brightest and best in all our travels.

ANNIE L. SAUNDERS.

Central Experimental Farm,  
Ottawa.

THE AMERICAN POMOLOGICAL SOCIETY holds its 27th annual session in Buffalo, N. Y., Sept. 12th and 13th.

As Buffalo is close to the famous fruit districts of Western New York, Eastern Ontario, Northwestern Pennsylvania and Northern Ohio, it is anticipated that the local attendance will be large, and that the opportunity to visit these interesting regions under favorable circumstances will be embraced by many of the members from a distance.

A program covering subjects of general and vital interest to fruit growers and consumers throughout the country is being arranged, the details of which will be announced in due time. Meanwhile members are invited to inform the secretary regarding any subjects of general interest that are of special importance in their respective sections of the country.

As a better understanding of the relations of bee keeping to fruit growing is believed to be important to both industries the National Bee Keeper's Association has been

invited by the Executive Committee to join in one of the sessions for a discussion of the various practical phases of that question. This invitation has been accepted, and a joint session on this subject will be held at some time during the meeting.

Members of the Fruit Grower's Association of Ontario, desiring to attend this meeting, may receive from the Secretary a certificate of such membership, for presentation at this meeting, if desired.

The facilities for the display of fruits entered in competition for Wilder medals will be excellent, as the Exposition authorities have tendered space for the society exhibits in the Horticultural Building of the Exposition. Such exhibits will also be eligible to Exposition awards. Members who have promising new fruits or fine collections of standard varieties which they desire to exhibit are therefore urged to plan to attend the meeting and to make the best possible showing of their products, taking advantage of the rare opportunity offered.



## TWENTIETH CENTURY EDUCATION.

**T**HE members of our affiliated societies will be much interested in a new plan of co-operative work which was presented before a large gathering of Grimsby people at Maplehurst, the home of the secretary, one Thursday in May, by Mrs. John Hoodless, of Hamilton. The subject of her address was "Twentieth Century Education," and in it she pointed out the weakness of the university training for girls, in that it withdrew them too much from sympathy and touch with any kind of real productive industry; and of the school system of Canada in that it led the student too much into a mere preparing to pass an examination, without much regard to the educational benefits of the course.

The methods of the manual training of Domestic Science Schools, lead the student to study with the thought of immediately putting that book work or lecture to a practical test. At the Normal School of

Domestic Science, Hamilton, young ladies are now being prepared to become teachers, and as fast as these young ladies graduate they are at once employed in either public or high schools, conducting certain classes in this department.

As an outcome of such training, Mrs. Hoodless claims that a large number of the now unemployed women of Canada and England will be in a fair way of becoming producers, as a result of their training. To still further favor this scheme, she seeks special provision for women at the O. A. C., Guelph, where, in addition to a thorough education in the principles of agriculture and horticulture, they may be taught such practical work as egg packing, fruit packing, preparing fowls for shipment, etc., so that our produce could be exported to the great markets of the world in such a condition as to command the highest prices.

In furtherance of her philanthropic pur-

pose, Mrs. Hoodless also brought before us the objects of the Women's Agricultural and Horticultural International Union of England, which are as follows:—

1. To form a bond between women in all countries who are engaged, whether directly or indirectly, as employers or employed, or as working amateurs, in

(a) Farming, dairying, poultry-keeping or bee-keeping;

(b) Fruit or flower growing for profit;

(c) Laying-out of grounds, forestry and the management of estates.

2. To circulate useful information, and to compare the methods of different countries and districts.

3. To advise as to training, and to make known openings for obtaining employment, and for the disposal of produce. Members can also consult each other:—For example, one intending to settle in Canada could write to a member here, and get information at first hand.

4. To endeavour to secure an adequate rate of payment for women employed in any of the indicated lines of work. To uphold the highest standard of work.

Those desirous of joining the union as members must send in their names to the honorary secretary, stating in what branch they are engaged, and enclosing the names and addresses of two referees as to their qualifications.

The rates of subscription for such members are: 2s. entrance fee, and 2s. 6d. per annum. All employers, amateurs and others interested in the objects of the union, are classed as honorary members, and pay 5s. per annum. Donors of £5 are life members. *Subscriptions are due on January 1st.*

Membership entitles to advice from the executive committee; to the receipt of such papers or reports as are issued periodically; to advice as to the disposal of produce; and to assistance in finding employment.

The papers circulated by the union will contain lists of members, and of appointments obtained by

women, articles by experts in various countries, correspondence, reports of the honorary secretary, and matters of general interest bearing on subjects coming within the scope of the union.

The council meets twice a year, the executive committee at its own option. The latter is re-elected annually. New members of council can only be elected at council meetings, and must be duly nominated and seconded.

A general meeting is held annually in May or June, in London.

Non-members corresponding with the honorary secretary or executive committee, without any intention of joining the union, must pay 1s. fee.

Mrs. Hoodless proposes that each of our affiliated Horticultural Societies, and each Woman's Institute be allowed to take one membership for the society, thus bringing the membership in touch with the union, and in sympathy with its work; and forming an organization for receiving the publications and the visiting lecturers of the union.

This might result in the direct sale of produce, properly packed, by members of the societies in Canada to members of the union in England, or to trade with persons recommended by those members.

We wish Mrs. Hoodless every encouragement in her work. She is a charming speaker, her addresses are listened to by every one with the greatest attention and interest, and we hope to induce the Department of Agriculture at Toronto to send her out to address all our affiliated societies next season.

## ADVANCES IN PLANT BREEDING.

IT IS astonishing how much there has been said and how much there has been written during the past twenty years on the subject of hybridizing of fruits and of plant breeding in general. It is also surprising in the face of this that such small advances have been made in the way of systematic production of improved varieties of fruits. Aside from the great work of Burbank

of California, the work of some other plum specialists in the south, and the monument which Rogers raised up to himself when he originated that remarkable array of hybrid grapes, there has after all been very little done in this interesting and fascinating field. However, it is cheering to note that now and then some one does work a period in the work by the production of a fruit

better in certain respects than anything which we have. Such has been the case quite recently. At the last meeting of the Eastern New York Horticultural Society there was on exhibition a very striking collection of apples, natural crosses between Spy and Newton Pippin, and Greening and Newton. Pippin. These were the result of patient effort on the part of Stephen Underhill, of Croton Point, on the Hudson. The Newton Pippin trees were surrounded by several other varieties. Seeds of the Newton Pippin were planted in every case. The young seedlings were carefully reared, and in due time bore fruit, which was remarkable in the fact that it had exhibited all gradations between the female parent on one side and the variety which probably furnished the pollen on the other. In this way there were some varieties which very closely resembled Newton Pippin. Others as closely resembled Northern Spy. One of these latter appeared to have considerable value. It was a Spy in color and size, but lacked the characteristic ribs of that variety. The flesh had the crispness of the Newton Pippin with some of the spiciness of the Spy. Its principal point of value lay, however, in its keeping qualities. As a rule the Spy is not a long keeper, as ripened on the Hudson. This variety, however, is said to keep easily until mid-winter or later. Its bearing qualities have yet to be proved.

PRUNING THE ROSE BUSHES should be attended to in May, but if neglected then, attention should even yet be paid to this work. It is the new wood that alone produces bloom, and for that reason, it must be encouraged. Vick says in his Magazine :

It is an astonishing thing to see how that, year after year, the chances of obtaining the most beautiful rose blooms are frittered away through unintelligent pruning of the plants, even in gardens of great reputation. There are thousands of rose bushes all over the country which, in spite of being found in spring to have made fine growth during the previous season, never produce good flowers,

Another interesting collection of apples, illustrating the fixity of certain types, consisted of a number of seedlings of the old Lady apple. It is well known that the Lady is one of the oldest types of apples in cultivation. It is found in all the European pomological works, and as a proof of its ancient origin has probably more synonyms than perhaps any other variety of apple grown. On account of its antiquity one would expect the type to be pretty well fixed. This surmise is strongly supported by the fact that in this collection of ten seedlings there was in every instance a strong resemblance to the parent. Some of them were exact reproductions. Others were a little larger, a few lighter colored, and one or two exact Lady apples, only improved in size and color. How much might be done in this way if fruit growers would take the trouble to follow the advice of the late Marshall P. Wilder, who said in one of the last addresses given to the American Pomological Society, "Plant the seeds continually of our largest and finest fruits. Watch the product, select the seed from the finest and plant again." In this way only can those closer adaptations to suit any climate so necessary to the production of fruit of the highest quality be satisfactorily brought about.

JOHN CRAIG.


Ithaca, N. Y.

and the explanation is generally to be found in the fact that no reasonable plan is followed in pruning.

The commonest mistake is the leaving of the older branching spray wood that has already flowered. Dwarf Rose bushes at the beginning of the year generally consist of several much-branched stems which carried bloom in the previous summer, add several strong straight shoots springing from the base of the plant. In the case of hybrid perpetuals, these older branching stems should be cut completely out leaving only the new shoots from the base which themselves should be then considerably shortened. If the old spray wood be left in it produces no flowers worth having, while the weak and crowded growths with which it becomes covered afford a perfect harborage to every known Rose pest.



## THE FRUIT AWARDS AT PARIS.

IR,—I feel that it is scarcely fair to hold back the list of awards made by the jury on fruits at the Paris Exposition last year. In handing this list to you, I do so with this explanation and caution, that while all these awards were actually made upon the dates given by the jury of group 8, of which I had the honor to be a member, the whole had to be revised or confirmed by the superior jury, whose movements and action seems to be not only slow, but uncertain. Before leaving I could not obtain this confirmation, though I made many attempts to do so, nor could I obtain any good reason why it should not be granted.

I now give the list for publication in fairness, not only to exhibitors, but to myself. The supreme jury may eventually confirm these, as they should in fairness, or they may cut out as many as they desire and give no particular reason for so doing. In any event I am informed that it will be some months ere we can look for a final decision.

Besides these awards my predecessor, Mr. Hamilton, obtained all those made from the opening of the exhibition up to the course held before Sept. 13th.

But if juries were unsatisfactory and slow there, they could not help knowing and feeling that Canada was able to hold her own against the world, especially in apples of finest form, color and flavor.

I frequently thought of discussions we used to indulge in at our meetings in years gone by, where the general sentiment went to show that in this province at all events we are growing too many apples, and that after satisfying the home demand we had no market but Britain. The fact is we have all Europe, and in order to satisfy that market our orchard capacity must be greatly

enlarged. But we must grow the quality required and to do this must get rid of enemies in insects and diseases. The fruit grower must no longer neglect his orchard if he intends to make profit. There is no use in shipping poor or even medium fruit to any market. I could buy Canadian apples at retail stores in the cities of Britain at as low a price as I would have to pay in any town in Ontario. I found cheese could be bought for as low a price and in some cases for less than at home and meat also. But mark you, all these Canadian products could only be had at low prices when the quality was inferior, these apples were spotted and wormy, irregular in form and color, and like the cheap cheese, off flavor. But fine apples, belonging to No. 1 brand, were high in price; good Canadian cheese was out of our reach in price, and prime beef, was all that the shipper could desire for profit. The poor article is not wanted in Europe, and has to be sacrificed to get rid of it.

While in Paris my time was mostly occupied in testing markets. I found abundant opportunity to enlarge our fruit market, but in order to fill my orders promptly I was compelled to purchase in Britain and repack for other markets, fearing that the Canadian shipper would not deliver such a brand as would inspire confidence in our product. I adopted mostly the bushel box, although I did sell some in barrels. To give such particulars as I could in detail of sales would occupy too much of your space. Suffice it is to say that, although Paris is not a good centre to work from, I was able to make connections sufficient to warrant me in stating most positively that our apples properly grown, selected and packed, will find a market in any country in Europe, owing to their superior quality generally over all

others. In the short stay at Paris I filled orders for France, Belgium, Germany, Norway, Sweden, Austria, Hungary, Egypt, etc. In all, my sales amounted to nearly 200,000 bushels. This was independent of sales in Britain, which of course were much larger.

If our Canadian exporters would learn a profitable lesson, let them cull and pack all their apples as you, Mr. Editor, did yours last year. Your packing was good all through, and your selection all that could be desired for any market. You tried many forms of packing, but to my mind the best for general use is to wrap every apple in paper and hand pack tightly in bushel boxes, using excelsior packing all round and in tightening layers.

The crop this season may be a very large one, at all events prospects tend that way. In such case it is well to keep the Government staff at the Glasgow Exhibition posted, so that they may prepare to handle the crop profitably. There is no better or easier point in the world from which our apple crop can be handled than Glasgow, and the staff there can easily take such orders for European countries as will ensure the handling profitably of our whole crop no matter how large it may be. Shippers should send in estimates early of probable quantities they will have for export, and, as the season advances, they should keep our friends in Glasgow thoroughly posted as to quantity and quality and form of packages. It is the lack of such information that makes the position of a fruit commissioner at such an exhibition often uncertain. He must have all the facts before him and feel that he can rely upon brands and know that there is sufficient to fill orders.

With careful culling and packing, our shippers can rely upon getting orders from Glasgow for direct shipment to most of the countries I have referred to, and thus ship only to Britain what is intended for their

own consumption. But we must be honest to ourselves as well as to our customers, and pack nothing whatever but the choicest samples, if shippers desire to make money and hold these markets, and save replacing charges and loss in culling at a British port.

ALEX. MCD. ALLAN.

Goderich, Ont., May 6th, 1901.

LIST OF AWARDS.

Sept. 13, 1900—				
Dom. of Canada, apple display . . . . .	Gold Medal.			
Province of Ontario, " " " "	"			
" " " " " "	"			
" " " " " "	"			
Sept. 28—				
Dom. of Canada, display of apples and pears, " "	"			
Province of Ontario, " " " "	"			
Prov. of Quebec, " " " "	"			
" of Nova Scotia, " " " "	"			
L. Woolverton, " " " "	"			
Oct. 12—				
Dom. of Canada, {display apples, pears, } " "				
Prov. of Ontario, " " " " " "	"			
" of Quebec, " " " " " "	"			
" Nova Scotia, " " " " " "	"			
F. G. A., Ontario, " " " " " "	"			
Pom. Soc'y, Que., " " " " " "	"			
F. G. A., Nova Scotia, " " " " " "	"			
Oct. 30—				
Dom. of Canada, display of export apples, pears, quinces; also apples from cold storage of 1899 crop, including samples packed in barrels, boxes and baskets of various sizes used by shippers for crop of 1900 . . . . .	Grand Prize.			
Dom. of Canada, display of fruit of 1900, " "	"			
Prov. of Ontario, " " " " " "	"			
" of Quebec, " " " " " "	"			
" of N. S., " " " " " "	"			
F. G. A., Ont., " " " " " "	"			
Pom. Soc'y, Que., " " " " " "	"			
F. G. A., of N. S., " " " " " "	"			
Canada, display of fruit in packages, Gold Medal.				

A gold medal was awarded the following Societies for contribution of fruits to make up the displays during the season: Grimsby Horticultural Society, Burlington Horticultural Society, Stratford Horticultural Society, Goderich Horticultural Society, Owen Sound Horticultural Society, all in the Province of Ontario; also the following in Quebec: County L'Islet Horticultural Society, Abbotsford Horticultural Society, Missiquoi Horticultural Society, Brome County Agricultural Society.

The following gold medals were awarded also: Agricultural College of Guelph, Dominion Experimental Farm, Ottawa; the Minister of Agriculture, Ottawa; the Ministers of Agriculture of Ontario, Quebec and Nova Scotia.

The following individual gold medals were awarded for special contributions of fruits: In Ontario—Dr. Wm. Saunders, Ottawa; A. McD.

Allan, Goderich; McKinnon & Sons, Grimsby; G. C. Caston, Craighurst; H. Curwin, Goderich; W. H. Dempsey, Trenton; W. Sanderson, Stratford; S. Furse, Goderich; A. C. McDonald, Dunlop; M. Burrell, St. Catharines; J. G. Mitchell, Clarksburg; W. M. Orr, Fruitland; A. W. Peart, Freeman; M. Pettit, Winona; Isaac Salkeld, Goderich; A. E. Sherrington, Walkerton; A. M. Smith, St. Catharines; W. Warnock, Goderich.

In Quebec—Auguste Dupuis, Village des Aulnais; Robt. Hamilton, Grenville; R. Brodie, Montreal; R. W. Sheppard, Como; W. Craig & Sons, Abbottsford; W. W. Dunlop, Outrement; G. B. Edwards, Covey Hill; J. M. Fisk, Abbottsford; J. M. Le Moyne, Compton.

Silver medals were awarded to the following individuals: In Ontario—G. W. Andrews, Blyth; Charles Wells, Goderich; H. Dempsey, Rednersville; Geo. Fowler, Goderich; R. L. Huggard, Whitby; E. H. Read, Port Dalhousie; A. H. Pettit,

Grimsby; John Tiffin, Goderich; Alex. Glenn, Carlow; N. Monteith, Stratford.

In Quebec—Miller & House, Quebec; C. P. Newman, Lachine Rapids; A. Aubertni, Cote St. Paul; Hon. Judge Caron, L'Islet; Asa Johnston, East Farham; J. A. Molson, Lachine Rapids; B. Renaud, Grenville; Rev. Peres Oblats, Lachine.


In Nova Scotia—C. C. Brown, Greenwich.

Bronze medals were awarded as follows: In Ontario—Thos. Acheson, Stratford; J. Beattie, Clinton; E. C. Beman, Newcastle; W. Bishop, Guelph; J. F. Brennan, Grimsby; J. K. Burt, Paris; Frank Dempsey, Albury; John Dempsey, Fairview; A. Grey, Burlington; L. L. Hagar, Grimsby; Horace Horton, Goderich.

In Quebec—Joseph Archambault, St. Linn; J. J. R. Bell, Knowlton; J. C. Chapais, St. Denis; Mme. Joseph Clontier, Quebec; James Currie, Montreal.

In Nova Scotia—G. W. Ripley, Napan.

## THE STANDARD APPLE BARREL.

 HE apple barrel being adopted by the Dominion is not exactly the one asked for by our association, but one holding about half a quart less. The following is the text of Section 4 of the Act which passed its first reading April 2nd, 1901:—

1. All apples packed in Canada for export for sale by the barrel in closed barrels shall be packed in good and strong barrels of seasoned wood having dimensions not less than the following, namely—twenty-six inches and one-quarter between the heads, inside measure, and a head diameter of seventeen inches, and a middle diameter of eighteen inches and one half, representing as nearly as possible ninety-six quarts.

2. When apples, pears or quinces are sold by the barrel, as a measure of capacity, such barrel shall not be of lesser dimensions than those specified in this section.

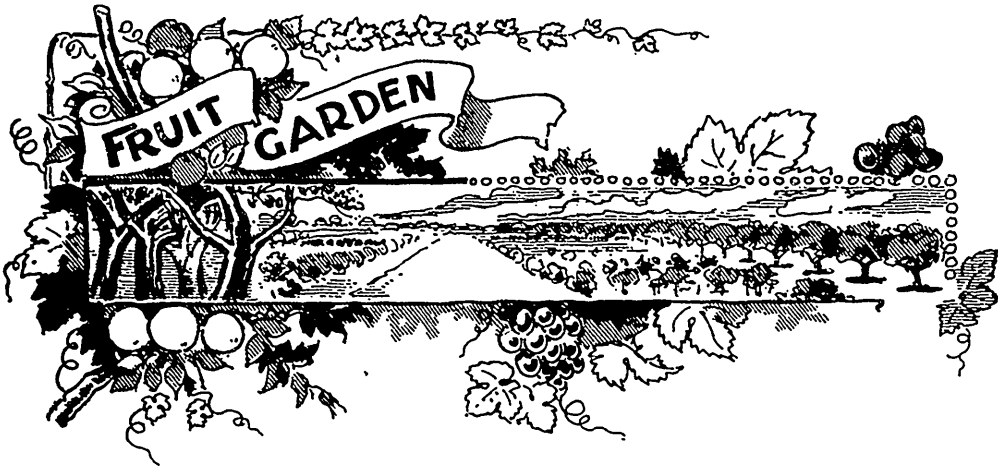
3. Every person who offers or exposes for sale, or who packs for exportation, apples, pears or quinces by the barrel, otherwise than in accord-

ance with the foregoing provisions of this section, shall be liable, upon summary conviction, to a penalty of twenty-five cents for each barrel of apples, pears or quinces so offered or exposed for sale or packed.

Mr. Wm. A. Taylor, Assistant Pomologist of the Department of Agriculture, Washington, writes as following regarding this barrel: "If the capacity of the Dominion standard apple barrel is 96.51 imperial quarts, then it is evidently about 100 quarts dry (Winchester) bushel measure, or approximately about six quarts dry measure less than the American apple shippers' standard barrel which has been adopted in New York. Your barrel is evidently of the same capacity as the pear, quince and potato barrel of New York, the capacity of which is 100 quarts.

**BOULEVARDS.**—A proposal has been made in Orillia, according to the Packet, to build the sidewalks outside the line of trees instead of the inside. The boulevards would then be between the fence and the sidewalks, and so would be effectively curbed and protected from the raids of the drivers of de-

livery wagons. People who took any interest in their property would also be compelled to keep the grass on the boulevard cut, as otherwise it would greatly detract from the appearance of their own lawns, of which it would virtually form a part.



## HINTS FOR FRUIT GROWERS.

**STRAWBERRIES.**—With the month of June the fruit season begins with most fruit growers, for usually the strawberry begins about the second week and continues until about the end. The wise fruit grower will so plant his fruit crops as to keep up as nearly as possible continuous shipments throughout the summer, and thus provide for himself a steady income, and for his employees constant work.

It is surprising how slow the growers are in becoming acquainted with the many new varieties of strawberries, and instead of procuring those large, showy varieties which are described in the report of the Fruit Experiment Stations, or of the O. A. C., Guelph, they continue on with played out varieties which bring low prices in the markets.

Accounts with berry pickers form no small part of the work of management. If you trust each one to keep his own account you will often be cheated by the dishonest and by the careless, and if you give cheques for every lot brought in some will lose them, and others waste much valuable time counting them over. Stahl, of Illinois, gave in

Popular Gardening a design of bulletin board for daily accounts, which we copy with his description, hoping it may be of some practical use to Ontario small fruit growers. He says:

A bulletin board is erected just outside of the door of the receiving and packing room. For each day a paper is prepared, to be tacked on the bulletin board. Heavy book paper of the required size can be got at almost any job printing establishment. This paper is ruled with lines half an inch apart, and horizontal when the paper is on the board. Along the left margin there is a space ruled off for the numbers, next for the names of the pickers, and then a dozen or more spaces in which to put down the number of quarts brought in by each picker. Every picker has a number. This is important; let the pickers be referred to by their numbers, not by their names.

The numbers on the paper begin with one at the top and come in regular order on the paper. Then any picker can at a glance find his or her record. No checks are used during the day. As each picker brings in a load, the number of quarts is marked in a space opposite the number of the picker. As an indelible pencil is used the pickers cannot accuse you of altering the record in their absence. As you put in the number of quarts in the presence of the picker there will be no oversights or mistakes. The pickers have no checks over which to spend time in counting or disputing when in the field. But the entire record is open to any picker at any time during the day, when she comes to deliver berries. You can see at a glance how each picker is working; or if you desire to know at any time how many quarts have been brought in you can foot it up in a minute.

Each evening the record is footed up, the total number of quarts brought in during the day by

*THE CANADIAN HORTICULTURIST.*  
*HINTS FOR FRUIT GROWERS*

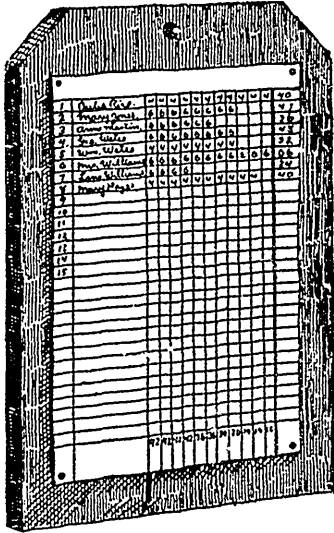


FIG. 2079. BULLETIN BOARD.

each picker being written in the last column opposite her number. Then the pickers form in numerical order and pass in a line between your table and the bulletin board. Each picker is given a check on which is written in ink the date, the number of the picker, and the number of quarts she has brought in during the day. To the use of these checks there can be no objection. As the picker gets her checks she can glance at the bulletin board and see that she is credited with the proper number of quarts.

As the pickers go home at once, and each check represents a day's wages, it is very rarely the case that a check is lost. If lost, there can be no dispute. No other picker can present it, as it has the number of the rightful owner upon it. By referring to the record sheet for that day, the number of quarts represented by the lost check can be determined.

A job printing establishment will rule the record. The date and numbers can be put on the checks in odd moments during the day. And as they are arranged in numerical order, the quarts can be called off and written on the checks as fast as the pickers can walk by.

Each evening the record sheet is taken down, folded, and the date, number of quarts picked, and whatever other memoranda may be desired, are endorsed upon it. It is then filed away. These sheets furnish a complete account of the season's picking. They also furnish valuable information for future use. They will reveal which were the most speedy or reliable pickers; on what days the most berries ripened; when the season properly opened and closed, etc. Of course it is necessary to keep a book of accounts, not to replace the sheets but in conjunction with them. And the sheets will furnish data that cannot be put in a book account.

This system is easy, simple and accurate; it avoids mistakes and misunderstandings; the record is taken during each day, and gives in convenient form a showing for each day during the season. It occasions less expense and trouble than almost any other system.

THE CHERRY HARVEST will begin before June ends, and this is becoming much more prominent among our small fruits than it was a few years ago, when cherry trees were only planted in waste corners. Now a good many are planting acres of single varieties and making a business of wholesale shipments. The black aphid is a most troublesome insect enemy of the cherry trees, not only checking the growth, but also disfiguring the fruit and preventing it from ripening. It must, therefore, be vigorously fought on its very first appearance by a thorough spraying with kerosene emulsion, or with the kerosene and water mixture, for which some pumps are now adapted. It is much easier of application than the emulsion and more economical. Some say that five per cent. of kerosene is strong enough for the aphid, but so far we have not satisfied ourselves on this point.

THE BEST PACKAGE for the cherry, in our Canadian markets, is scarcely a settled question. We have been using two sized baskets at Maplehurst, one holding about twelve Winchester quarts, and the other six, and for choice cherries we have found the small size the best. These are covered with a wood and leno combination cover, showing the fruit to purchaser without its removal. We do not face the package with any finer fruit than is found throughout, but we lay the top layer so as to hide the stems, which makes them much more attractive in appearance. We never think of shipping our cherries as they come from the trees, because they are mixed with leaves, poor cherries, etc. We bring them to a packing table, pour them out and repack so that our purchasers will get only first-class fruit.

The picking is usually done by men, especially in our old orchard where the trees

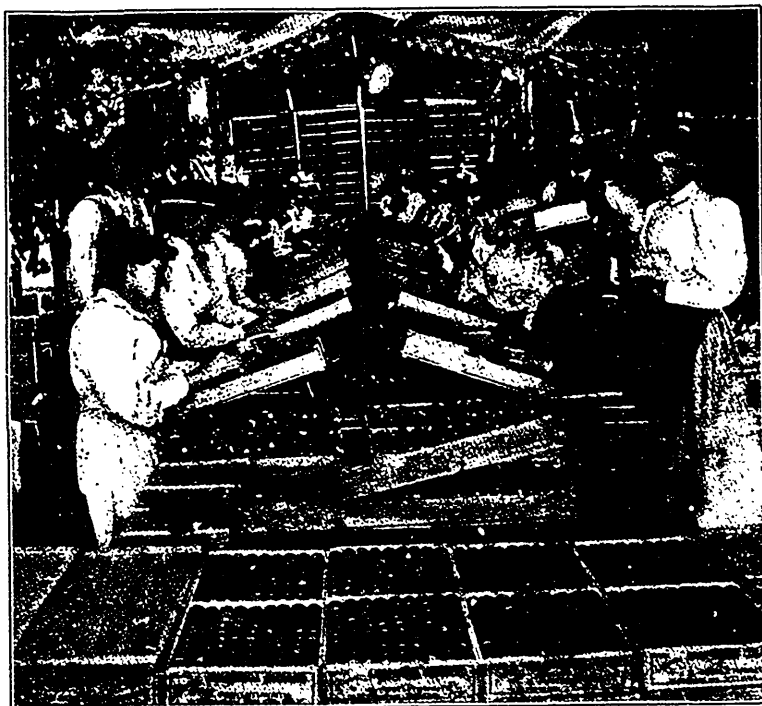


FIG. 2080. SCENE IN A CHERRY PACKING HOUSE AT SAN JOSE, CALIFORNIA.

are high and long ladders are needed. In the younger orchards, however, where the trees are smaller and can be reached by step ladders, we often employ women and girls, and find them excellent pickers.

In the packing house we employ women, for it is work they enjoy and they do it with excellent taste.

In the large cities we see the California cherries offered for sale in shallow boxes, holding about two layers, the top beautifully placed in regular rows, without a stem to be seen. Our engraving, taken from the *Fruit Trade Journal*, shows a scene in a cherry packing house at San Jose, California, where the fruit is being put up in these boxes.

The size of these boxes is, outside measurements, 18 inches in length,  $10\frac{7}{8}$  inches in width, 3 inches in depth. Inside measurement, length  $16\frac{1}{2}$  inches, width  $10\frac{3}{8}$  inches, depth  $2\frac{1}{2}$  inches. The capacity is 10 lbs of cherries.

It is an open question whether it would not be an advantage for us to adopt this package for our choice cherries.

REFRIGERATOR CARS have proved of great service to our fruit growers, enabling them not only to reach cold storage steamers with fruit for export, but also to reach the home markets with tender fruits in far better condition and at less cost than by express. The immense quantities sent forward from the Niagara district, for example, at one time so congested the service of the express trains that the goods were handled most carelessly. Now we can load a refrigerator car at leisure and forward by fast freight to such a centre as Ottawa or Montreal, and have confidence in the safe arrival even after a journey of forty-eight hours.

A great mistake is often made by overloading such cars. The hot air is driven to the top, so that there should be a space over the goods of about two feet, and, besides

this, there should be a space of  $1\frac{1}{2}$  or 2 inches between the packages for the free circulation of the cold air. For want of attention to such provisions many large shipments have arrived in bad condition, and the car blamed for what was really the fault of the shipper.

THE BORDEAUX MIXTURE.—Early treatment with this remedy for fungi of all kinds should be faithfully persevered in, if the best

results are to be obtained, always remembering that it is a prevention rather than a cure.

The lime and copper sulphate solution should be made separately, with about half the amount of water required for each. Then the copper sulphate solution should be poured into the lime water, stirring vigorously all the time. Never reverse this operation and pour the lime into the copper sulphate.

## EXPORT OF THE FAMEUSE APPLE.



AT THE recent meeting of the Provincial Pomological Society at Huntingdon, P. Q., on the 31st of January, Mr. R. W. Shepherd read a paper on the exportation of the Fameuse apple, in the course of which he said:—

The facilities for exporting apples in cold storage, on board our ocean steamships, at the present time, are limited and quite inadequate. Rarely has it been possible, in my experience, to obtain cold storage just at the particular time when most needed. The fact is, that for the short season during which it is absolutely necessary to have cold storage in transit for Fameuse or other apples, the steamships are generally overcrowded with such commodities as butter, bacon, eggs, etc., which demand storage space throughout the whole summer season, and it cannot be expected that the companies will be able to provide space always for fruit, which takes quite a different degree of temperature from butter. Just here I wish to give my experience of a shipment of Duchess apples, sent to Liverpool in August last. The fruit had been picked rather on the green side, and packed in barrels was sent to the cold storage warehouse in Montreal about the 15th August.

On the 27th August, I engaged space by telephone for shipment in cold storage, and I supposed everything was all right. I gave instructions to the Cold Storage Company

to ship the barrels the following day. I left for Ottawa that evening; but what was my amazement to find when I returned, a couple of days after, that the apples had not been shipped in cold storage. I fully expected at that season, during very hot days in August, the apples to arrive in a mush and made up my mind to suffer considerable loss. The returns were, for the fifteen barrels, £4 11s 10d, or \$1.50 per barrel. My profits after deducting freight and charges were small, but on the other hand I was pleased not to make a big loss in the transaction. I attribute it altogether to the fact that the fruit had been thoroughly well cooled in cold storage before being shipped.

But there are times, even in the month of October, when cold storage chambers on board ship are badly needed for our apples. I have noticed the Fameuse shipped during the first few days of October—that is to say immediately after being picked; or rather the first of the Fameuse picked—and when the fruit is in a hard and crisp condition, carry to England remarkably well. But in a large orchard it is not possible to pick all the apples during the first weeks of October; in fact it generally takes the whole of that month to harvest the fruit. I have also observed that almost without exception, during the picking season, we have a week or more of really hot weather in October; the thermometer frequently touching 65 to 75

degrees of temperature. It is not advisable to ship our apples to England in October in the ordinary freight compartments, if the temperature at the time of shipment is 50 degrees or over that mark. A reference to the maximum temperatures of the month of October, at Montreal, will be interesting. In 1899, the average maximum temperatures for the four weeks of October were as follows:—First week, 47 degrees; second week, 58; third week, 65; fourth week, 45.

In 1900 it was much warmer, viz.:—First week, 70 degrees; second week, 55; third week, 62; fourth week, 63.

It is strange that the third week of this month, in each year, the temperatures averaged over 60 degrees maximum—much too hot weather to pick, pack and ship Fameuse, at a time when the fruit is pretty well matured, and expect it to arrive on the other

side in a satisfactory condition. My advice is not to ship at all, except in cold storage, during the hot term. The holds of the ships are much too hot to carry the fruit over in good condition, and hence it is that we frequently hear of fruit arriving slack, and in bad order. The plan I have adopted, the last couple of seasons, is to send the cases of apples to the cold storage warehouses during the hot term, immediately after being picked, and to keep them there a month or so in cold storage, and they reach their destination in splendid order.

Last season in the month of November, I successfully exported Wealthy, in cases, which had been put in cold storage six to seven weeks before being shipped, but I could not have expected to ship the same cases in the months of September or October, and meet with the same success, unless transported in cold storage.

## THE BALDWIN CHERRY.

**I**N a publication, issued by the State of Kansas, entitled the *Cherry in Kansas*, (for which the writer is indebted to Mr. Wm. H. Barnes, Secretary Kansas State Horticultural Society), is an account of a cherry originating in Kansas which seems to give promise of being a desirable variety for fruit growers in Ontario.

It is stated that the origin of the tree was on this wise: In the spring of 1888 S. J. Baldwin, of Seneca, Kansas, planted an orchard of eight hundred cherry trees, that the bud part of this tree got broken out, that a vigorous sprout shot up from the stock, which was suffered to become a tree, and in 1892 began to bear fruit. After having borne fruit for four consecutive years, Mr. Baldwin was so well pleased with the quality and early ripening of the fruit, and the vigorous habit and productiveness of the tree that he decided to propagate from it.

In the spring of 1898 he set out two hundred trees grown from this new variety.

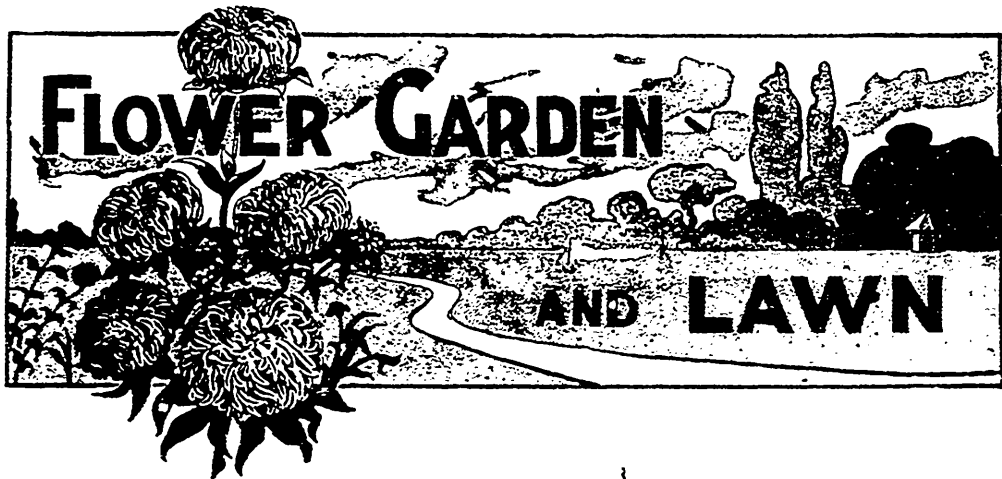
The following winter, 1898-99, was unparalleled in severity, causing the death of a great number of trees of English Morello, Early Richmond, Montmorency and others of that class, and so badly injuring those that survived that there was scarcely half a crop in the season of 1899. Notwithstanding the extreme cold the original tree bore a full crop in 1899, and of the 200 young trees set out in 1898 only four died.

The fruit is thus described by Mr. Baldwin: "Large, almost round, very dark transparent wine color, flavor slightly acid, yet the sweetest and richest of the Morello type." With commendable naivete he says that at first he named the new cherry "Kansas Queen," but learning that the rules of the American Pomological Society forbade giving compound names, at the suggestion of Mr. W. F. Heikes, Huntsville, Alabama, it is named "Baldwin."

D. W. BEADLE.

Toronto.





## GREENHOUSE, WINDOW AND GARDEN—VII.

**T**HE GREENHOUSE. There will be little doing in the greenhouse during the hot weather, as the garden and lawn will now be the chief attraction, until the chilly autumn weather arrives. The greenhouse must not, however, be entirely neglected, especially if chrysanthemums are being grown in it, as recommended in the May issue of the Journal.

Chrysanthemums require a liberal supply of water, and must never be allowed to become quite dry at the roots. This liberal supply of water mentioned does not mean that the roots of the plants must be saturated all the time, as an excess of moisture is almost as hurtful to them as an extreme of drought would be. Keep the roots of these plants moist but not seddened. Syringe the plants once or twice daily during the hot weather. Throw plenty of tobacco stems under the benches. Start early in the season with the tobacco stems, so as not to allow the green and black fly to get a strong hold on the plants. Very little, if any, shading is necessary for chrysanthus grown under glass.

Plants of primulas, ferns, begonias, seedling gloxinias, cyclamen and odd plants that are kept in the greenhouse all the summer,

must be given shade, and the watering must not be neglected. If the greenhouse is wanted to grow chrysanthus in, all of these and similar plants will do very well until late in September placed in frames, with a sash over them. The sash should be shaded and ventilation given the plants the same as if they were in the greenhouse.

Gloxinia bulbs, when out of flower, should be gradually dried off, and the pots, bulb and all, placed on a shelf in a cool dry shed or out-building until fall. No water should be given them until toward spring, when they are again started into growth. The pots must be removed early in the autumn to a position where they are secure from frost.

Plants of Azalea should be stood outside in partial shade, and not be allowed to dry out at the roots. Sprinkle tobacco stems about around the pots, and syringe the plants daily.

All plants not required in the greenhouse should be stood or plunged outside, in ashes if possible, and in a partially shaded position, so as to save unnecessary labor in watering them.

**WINDOW PLANTS.**—Windows facing the east or north furnish good positions for al-

most all kinds of plants during summer, whether in window-boxes or otherwise. Windows facing the south are not so desirable, as the shutters or blinds are of necessity kept too closely drawn in summer for the plants to succeed well on the inside, and if the plants are placed outside even in window-boxes, they usually present a shabby burnt up looking appearance in a very short time, unless some means can be found for shading them during the extreme heat of the day.

Many of the choicer kinds of what are often termed house plants, viz., plants that have occupied vases and jardinières during winter and spring, or that have perhaps been kept in a south window during that time, will succeed much better if removed to windows facing the north or east during the summer months. This is often even better for the plants than standing them out in shaded positions on the lawn or in the garden, as plants that are stood out in this way are often neglected, and allowed to become too dry at the roots for the well-being of the plants.

Plants such as dracenas (cordylines) aspidistras, cyperus (umbrella plant), farfugiums (leopard plant), ficus elastica (India rubber plant), ferns, begonias, abutilons, fuchsias, and other tender plants taken from the house or window, will however find an ideal position for the summer in window-boxes on the north side of the house. Boxes placed on the rails, or on the steps of a verandah facing the north, also provide a good position for these plants in summer, the plants often helping materially to brighten up a part of the house that might otherwise look dull and uninteresting.

Avoid giving the plants too much water when placed in positions where the sun scarcely ever reaches them, as the evaporation and exhaustion of moisture is very slow, the plants requiring much less frequent watering than in more exposed situa-

tion. Water should be given plants when they require it, and not on stated fixed days, when oftentimes water would be better withheld from them. Plants are not like clocks and watches, to be regulated and run with mathematical precision, according to dates and figures, but are more like children who thrive best when given their bite and sup when they are hungry and thirsty. The prompt and practical application of experience, gained by close observation of the needs and requirements of different plants, under perhaps widely varying conditions, is really the best guide for their successful culture and care. Nature, in plant-life especially, is constantly presenting itself to our notice in ever-varying, ever-changing conditions. Intelligence and diligence are essential features necessary to be brought into active use to be successful in plant culture.

But these remarks are perhaps out of place in what should be a really practical article, so I must not diverge from the line of practicality again.

It may perhaps be thought undesirable to have boxes of plants either in windows or on the verandah, on the score of cleanliness, as it is impossible to have these without a little dirt and disorder under almost any circumstances. This objectionable feature may in a great measure be done away with if pot plants only are used in the boxes. By packing the pots in the boxes firmly around with fresh green moss, the plants will not dry out so rapidly, and will grow and succeed almost as well as if planted in soil, especially if a little liquid manure, or a mild fertilizer of some kind be given them about once a week. Many of the commercial fertilizers can be successfully used for plants in positions of this kind, with no objectionable feature to prevent them being used.

I have used moss on the outside of boxes and tubs of plants with great success, sticking the clumps of moss on the boxes with



FIG. 2081. CYCLAMEN (3 years, from seed).

hot melted pitch. This latter material, however, is not pleasant to use. Large clumps of moss can, however, be successfully tacked on the boxes; this can be brightened up and made to look very rustic and natural looking by dotting here and there a few pieces of lichen or fungus taken from old decayed trees or stumps. Large strips of coarse bark, taken from old basswood or similar trees, makes a good outer covering for plant boxes, not only giving them a natural, pleasing appearance, but these coverings are very beneficial to the plants, preventing the soil from drying out as rapidly as it otherwise would do.

Cactus, amaryllis, clivias, pelargoniums, calla lilies, and a few other plants that it is necessary to remove from the window to undergo their customary period of partial rest during summer will require only very moderate waterings.

This is the only practicable method of giving these plants the rest that they get naturally during the dry seasons that usually prevail where they are natives, and that is so essential to most of them to produce good flowering results during the winter months.

If you have a pot of freesia bulbs, the growth of which is beginning to look shabby and yellow, stand them just as they are in

the pot on a shelf in a dry shed or out-building. No more water should be given them during the summer. In August the bulbs can be shaken out and re-potted, and grown on for next season's flowering.

Old plants or corms of cyclamen should be given very little water during the summer, only just sufficient to barely keep the soil moist. A cool position under a small sash, so as to prevent them from getting too much water, is a good position for cyclamen bulbs until about September, when they can be watered, re-potted, and placed in the window, so as to grow on for next season's flowering. If the convenience of a sash is not available during the summer, stand the plant in the shade out of doors, and place a piece of board above it to prevent it getting too much water. Extremes of either drought or moisture in summer when the bulb should be resting is almost certain to rot and destroy them.

THE GARDEN.—Many of the perennials will now be at their best in the flower garden. Some of the early sown annuals will also be producing their welcome blossoms.

If you notice the sweet pea vines looking unhealthy, and perhaps a vine or two here and there withering and dying without any apparent cause, make an examination around near the bottom of the vine; you will very likely discover that the trouble is cut-worms. These destructive grubs are quite partial to either the sweet-pea vines or those of the garden pea. By searching underneath the surface of the soil around the roots of the plants these voracious grubs can generally be unearthed. The cut-worm feeds at night, and can be often caught at its destructive work if searched for by the aid of a lantern after dark.

Most of the transient or summer occupants of the flower beds or borders, will be established for the summer by this time. It is best to water these early in the morning during June, as oftentimes the nights are

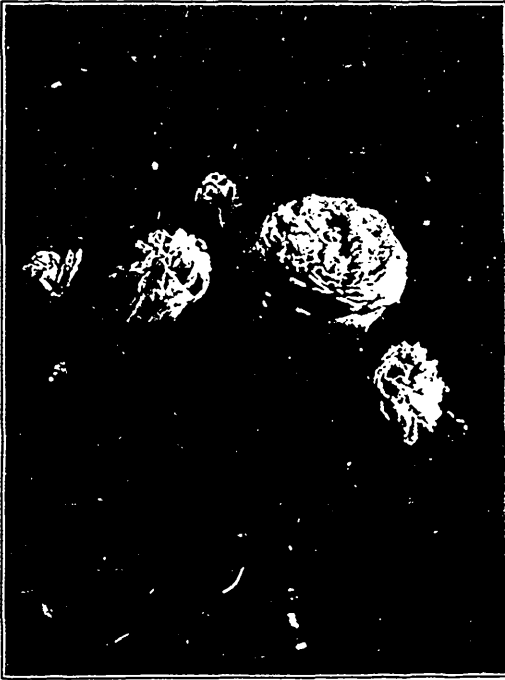


FIG 2082. CABBAGE ROSE.

chilly, and watering them at night increases the danger of chilling the plants.

If you have any plants of the pretty summer and autumn flowering salpiglossis, keep a close look out for attacks of the potato bug. The Colorado beetle is just as partial to these as it is to any of the numerous varieties of solanum, to which order or class of plants the salpiglossis as well as the potato (*Solanum tuberosum*) belongs. It takes but a few hours for these voracious Colorado bugs to destroy a good sized clump of salpiglossis plants. Some of the new varieties of this pretty annual have very beautifully marked flowers, and in shades of color so seldom seen in annuals that make them doubly attractive to flower-lovers, in spite of their being such a favorite mark for the potato bug to attack.

Syringing the rose bushes with tobacco water must be kept up if the rose-thrip is very bad, or ample supplies of stems or to-

bacco dust sprinkled about and around the bushes. This pest has of recent years attacked all varieties of the ampelopsis very badly, as well as out-door grape vines. Strong tobacco water, or a very weak solution of Paris green water, as recommended in last month's journal, applied early in the season and often, is the best remedy for these white, lively pests.

VEGETABLE AND FRUIT GARDEN.—There will be little to do in the way of planting and sowing, except perhaps to plant out late cabbage and cauliflower toward the end of June or early in July. Sweet corn and the late varieties of beans can be planted for use after the earlier sown crops are done. One of the best beans for planting for a late crop is the I.X.L. bean, it is the best variety of the dwarf bean that I have found to produce a crop in hot weather. If you have a rich piece of soil under the partial shade of a fence or a low building, plant a row of the asparagus pole bean early in June. This is a delicious bean, and crops right along until frost sets in. They will succeed in an open rich piece of ground, if well watered and the season is suitable for them.

Weeding and hoeing must be attended to; stirring the soil often, increases the growth of plants and helps to give good crop results.

Currant and gooseberry bushes must still be watched for caterpillars. Hellebore is the only really safe remedy to use for them now at this advanced stage of the fruit. Spraying the plum and other fruit trees with Bordeaux mixture must be attended to as soon as the blossoms have dropped. The crop of all small fruits in this section promises at this date (early May) to be very good if the amount of blossom on the trees is any criterion to go by. Apples do not promise such a heavy show of blossoms as last season. The steady and continuous cool weather experienced during the end of April, with north east winds, has helped to keep back and harden fruit buds and early growth

considerably, so that late frosts should not, if they come, do very much damage. Complaint is made in a few localities of a sparsity of peach-blossom. This only seems to occur in spots where heavy crops were taken from the trees last season. Over-cropping the young trees is probably the cause. There is no excuse for this injurious and unremunerative practice of allowing trees to over-crop themselves, when only one or

two trees of each kind is grown. Thinning the fruit brings better fruit, increases the weight of the crop if properly done, and lessens the liability of damage, as well as of too great a strain on the vitality of the tree, both of which evils are almost certain to occur if the trees are allowed to bear too heavy a crop.

W. HUNT.

Hamilton.

### ALDERMAN BLACK AND HIS GARDEN.

Among the horticulturists of Ottawa there is none more enthusiastic than Alderman Black, who is shown in the engraving, framed in a background of the lovely roses he grows so successfully. Good as is the half-tone plate, it but very imperfectly represents one of the most beautiful June sights of the many to be met with in the gardens of Ottawa. The splendid display of color, the exquisite shading, the grace and variety of form, are almost lost in the engraving. All the roses are from the nurseries of Hugh Dickson, Belfast, Ireland. The white rose in the foreground is one of the latest and best of Dickson's productions—Mrs. R. J. Sharman-Crawford. Next in order among the taller roses come Magna Charta, Ulric Brunner, Mrs. John Laing, Gloire de Margottin and Mad. Gabriel Luizet, while in the corner, on Mr. Black's right, is shown a fine Crimson Rambler. The Margottin had at the time the photograph was taken 214 fully expanded blooms. Among the dwarf roses is a very beautiful La France, which Mr. Black has had no difficulty in bringing through the severe winters which prevail at Ottawa. His method of protecting roses is worthy of especial notice, and has, it is said,



FIG. 2083. ROSES GROWN BY ALDERMAN BLACK, OTTAWA.

been adopted at the Central Experimental Farm, where H. P. roses have in the past suffered greatly in winter. After the surface soil freezes, the canes are bent down to the ground and securely boxed in between 16-inch boards. Dry leaves are then packed loosely among and over the canes, and a cover nailed closely to the sides. The canes are thus completely encased, and snow and rain, which cause more damage than frost, are excluded. The leaves and casings are removed on the first warm day of early spring, and the canes come out perfect to their very latest growth, and quite uninjured by the mold which has wrecked the hopes of so many rose growers.

Ottawa, April 12th, 1901.

L.

## TIMELY TOPICS FOR THE AMATEUR—XVI.

### USE AND ABUSE OF FLOWERING SHRUBS.

**T**HERE is no class of plants that adds more to the beauty of the lawn and its surroundings at this season of the year than flowering shrubs, especially if the little care and attention which they require, compared with other plants, is taken into consideration. But how seldom do we see anything like a really natural looking, nicely shaped specimen of these shrubs, with their long, graceful, drooping racemes, or perhaps their bold upright spikes of growth, laden down or almost completely covered with their beautiful buds and blossoms, as most of them should be in their flowering season if the plants have been properly cared for.

Too often, however, instead of the wealth of bud and blossom that these plants produce in such profusion, if only fairly well treated, we see stubby, miserable shorn-and-shaven looking specimens, clipped—not pruned—into all sorts of ugly indescribable shapes and forms, with perhaps a few of their bright blossoms sprinkled here and there on the stubs of young growth of the preceding year, that the destructive clipping shears had not been so severely used upon; or perhaps, in some cases, a few blossoms may be seen scattered through the centre of the shrub where the clipping shears did not reach the young flower-producing growth.

This annual clipping process, which usually takes place in July or August, when most of the flowering shrubs have about completed the season's growth, is, in the majority of cases, responsible for the miserable looking apologies for these plants so often seen on lawns, and in small plots of flower-gardens, at this season of the year.

There are few flowering shrubs, excepting perhaps tall or strong growing kinds, such

as syringa (lilac), *Cydonia japonica*, *Philadelphus* (mock orange), and the tartarian honeysuckle, etc., that cannot be effectively pruned and thinned out when in flower, so that the plants can be kept in sufficiently good shape and condition, without having recourse to the destructive system of clipping so often resorted to. Even these strong growing varieties cannot endure the clipping shears and give satisfactory flowering results as well.

Weigelas, spireas, tamarisks, most varieties of the deutzias, and even the more straggling growing forsythias and other dwarfer growing shrubs, should never have the clipping shears applied to them at any season of the year.

Almost all flowering shrubs, with a few exceptions, produce their wealth of blossom on the growth made during the preceding summer. If this is clipped off as soon as growth is completed, the result is disastrous to the next season's crop of flowers. If those, who have a plant or two on their lawns of the shrubs mentioned, will only take notice during the flowering season on what part of the growth the flowers are produced, the evil effects of this clipping process can easily be understood.

Varieties of the hydrangea such as *H. paniculata*, *H. japonica* and the different varieties of the shrubby hibiscus (*althea*) produce their flowers on wood of the same season's growth. These shrubs should be pruned back to within three or four buds of the preceding year's growth, either late in the fall or early in the spring.

But with most of the other species and varieties of shrubs before mentioned, almost all the pruning they require can be done whilst they are in flower. By cutting out



FIG. 2084. A GLIMPSE OF NINETEENTH CENTURY FLOWERS AND FOLIAGE—PHOTO OF FLOWER BEDS AT INGLEVWOOD, HAMILTON, SEPT. 12, 1900.



FIG. 2085. WEIGELIA ROSEA.

with a sharp knife here and there at different parts of the plant, the most prominent and straggling sprays or branches, the plant can be made to assume a shapely and natural appearance. The sprays or branches thus removed, will not only leave the plant in a more symmetrical condition than before, but the sprays will be found very useful and pretty for indoor decorative purposes. Care must be taken, however, in thinning out the sprays or branches, not to cut out too much of the growth of any one part of the plant, so that the beauty or shape of the plant will be marred or disfigured by the operation. By observing closely when and where the flower producing growth of the plant springs from, even the most inexperienced amateur can thin out almost any of the flowering shrubs mentioned when they are in flower, without spoiling the appearance of the plant. So little attention, however, do most of the

dwarfer growing flowering shrubs require, that it is better not to attempt to prune them at all, than to disfigure and render them useless as decorative plants, by the use of the clipping shears, as is so often the case.

The little pruning and care that flowering shrubs require is generally recommended to be done during late autumn or early spring. The summer pruning process, however, that I have attempted to describe, unless carelessly and ruthlessly carried out, does the plants no harm, and in many cases does away with the necessity of any further pruning, as well as giving a supply of their beautiful sprays of blossom so useful for indoor decorative purposes. The sprays should be placed in water at once as soon as cut, as when once wilted they seldom recover their freshness again, as most flowers do that are cut from softer wooded plants than shrubs.



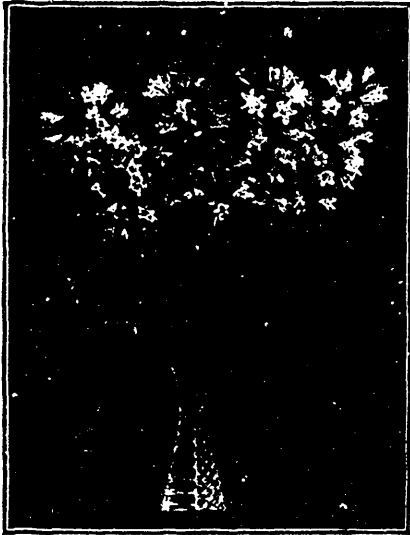


FIG. 2086. WEIGELIA VARIEGATA.

I have summer pruned a shrub of forsythia annually for the past fifteen years. Only once or twice during that period have the plants had but little fall or spring pruning. The plant is now (May 6th) a pretty and conspicuous feature on the lawn, laden as it is with its wealth of golden-bell flowers from the ground to the tips of its longest branches, before but few flowering trees or shrubs are showing any signs of their coming summer beauty. It is also a matter of regret that the forsythias are not quite hardy in the more northern parts of Ontario. Even in this section during very severe winters the tips of the growth are sometimes partially killed out. The past winter seems to have been favorable not only to this variety but also to the varieties *F. suspensa* and *F. viridissima*, as plants of the three varieties are giving splendid flowering results this spring on the lawns here at "Inglewood."

The *Weigelia rosea* as shown in the centre of Fig. 2085, is another shrub that has had no pruning for the past twenty years, excepting the summer thinning before described, when both this and other similar plants

have furnished quantities of their beautiful sprays of rosy-pink blossoms, to supply large vases and jardinières for house-decorative purposes.

Many of the spireas and deutzias and other shrubs are also useful to furnish a supply of cut-flowers in summer, but the blossoms of many of them do not retain their freshness for as long a period as do those of the forsythias and weigelias, after being cut.

Flowering shrubs are one of the most suitable classes of plants for decorating the surroundings of our homes, if judiciously planted and a little care bestowed on them afterwards. But the growth of the plants must not be ruthlessly slaughtered by unnecessary and unnatural clipping or pruning, if the best results possible of their free-flowering habit is to be attained.

Old plants that have endured the clipping process for years will be hard to redeem, so as to induce them to give good flowering re-



FIG. 2087. SPIREA DOUGLASHII AND BUMALDA.

sults. Young plants, however, if commenced on early enough, and attended to annually, will be found quite amenable to this system of summer pruning, when they are in flower, and will not, unless the growth is very vigorous, require any further attention so far as pruning is concerned.

Hamilton.

W. HUNT.

## THE NEW HOLLYHOCKS.

**T**HE hollyhock is being greatly improved and is becoming one of the first lawn flowers of the day. The improved sorts seems to be more of a biennial order than perennial. It is one of my special favorites, and why should it not be? Here is a stately stock six feet high, full of flowers, pure crimson scarlet, without the usual rough brownish lines; very large, five inches in diameter this season, perfect in shape and full double. It has been named "Crimson Jackmanii." I gave it a good strong soil and good cultivation, and get lots of flowers.

Seed may be planted any time. I prefer to plant the new seed as soon as ripe where intended to flower, under a covering of brush and hay, and I also protect during winter with same. I now have plants in full bloom (July 15) from seed so planted last August. They generally come true from seed, but not always; one in ten may be inferior, which should be pulled at once, and one in fifty be an improvement, from which the seed should be saved from a few of the first flowers and planted at once; also cut down the stalk as soon as ripe, and at same time take up and divide the root into as many parts as eyes are showing growth, and plant each part separately, shading them until established. Such divided plants will give superior flowers next year. To leave the plant undivided over winter, the chances are it would be dead in the spring.—

*American Florist.*

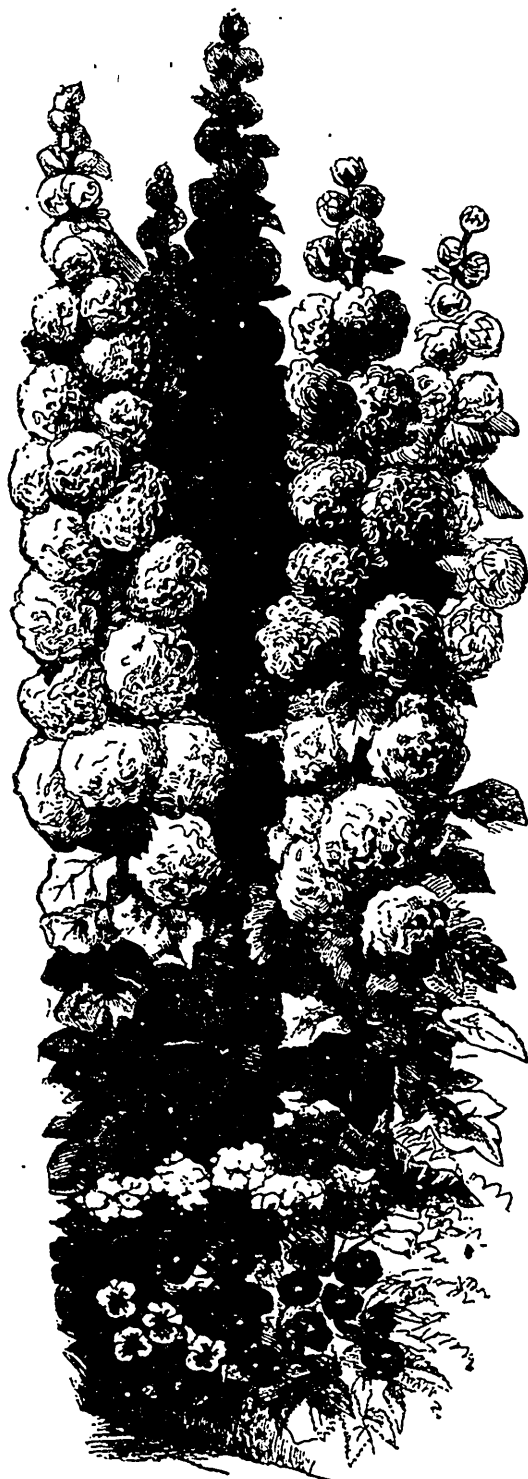


FIG. 2088. HOLLYHOCKS.



## The Canadian Horticulturist

COPY for journal should reach the editor as early in the month as possible, never later than the 15th.  
SUBSCRIPTION PRICE, \$1.00 per year, entitling the subscriber to membership of the Fruit Growers' Association of Ontario and all its privileges, including a copy of its valuable Annual Report, and a share in its annual distribution of plants and trees.

REMITTANCES by Registered Letter or Post-Office Order are at our risk. Receipts will be acknowledged upon the Address Label.

ADVERTISING RATES quoted on application. Circulation, 5,500 copies per month. Copy received up to 20th.  
LOCAL NEWS.—Correspondents will greatly oblige by sending to the Editor early intelligence of local events or doings of Horticultural Societies likely to be of interest to our readers, or of any matters which it is desirable to bring under the notice of Horticulturists.

ILLUSTRATIONS.—The Editor will thankfully receive and select photographs or drawings, suitable for reproduction in these pages, of gardens, or of remarkable plants, flowers, trees, etc.; but he cannot be responsible for loss or injury.

NEWSPAPERS.—Correspondents sending newspapers should be careful to mark the paragraphs they wish the Editor to see.

DISCONTINUANCES.—Remember that the publisher must be notified by letter or post-card when a subscriber wishes his paper stopped. All arrearages must be paid. Returning your paper will not enable us to discontinue it, as we cannot find your name on our books unless your Post-Office address is given. Societies should send in their revised lists in January, if possible, otherwise we take it for granted that all will continue members.

### NOTES AND COMMENTS.

GRAPES FOR EXPORT.—The Department of Agriculture at Ottawa is making arrangements to push forward the experimental export of grapes from the Niagara district this autumn. About 100,000 lbs. of Rogers black and red varieties will be forwarded.

A BASKET PICNIC of the Halton Farmers' Institute and Women's Institute, was to be held on the farm of A. W. Peart, our experimenter, on Victoria Day. Lunch was to be served at noon and a stroll through the orchard was to occupy part of the afternoon. We fear the storm has postponed this outing, which is but the beginning of a series which will follow.

GILLETT'S LYE.—Mr. E. W. Gillett writes: "We are getting good reports from all sections and are confident our goods are first-class for the purpose of spraying, when

used properly. While it may be true that the majority of brands of concentrated lye is nothing but caustic soda, it does not follow that that is true of Gillett's goods."

ABOUT fifty varieties of the finest French cherries have been imported for trial at Maplehurst. They came from the famous nurseries of Chas. Baltet, Troyes, France.

O. M. A.—Mr. G. B. Bracket, U.S. Pomologist, has just been decorated for conspicuous services at the Paris Exposition, with the ribbon of the Order of Merite Agricole.

THE FIFTH ANNUAL MEETING of the American Park and Out-door Association will be held Wednesday, Thursday and Friday, June 26, 27 and 28, 1901, in Milwaukee, Wis. The secretary is Mr. W. H. Manning, 1146 Tremont building, Boston, Mass.

THE GEORGIAN BAY FRUIT GROWERS' ASSOCIATION held meetings last month at Creemore, Stayner, Collingwood, Thornbury and Meaford, addressed by Mr. Alex. McNeill. The object is to organize branch associations at these places. The secretary is Mr. Chas Lawrence, of Collingwood.

THE VICTORIA MEDAL OF HONOR in horticulture was established in 1897 with the assent of Her Most Gracious Majesty, in commemoration of the Golden Jubilee of her reign. The limit in number of persons upon whom this honor may be conferred is sixty-three, a record of the number of years of her late majesty's glorious reign. Among these we notice the name of Miss E. A. Ormerod, L.L.D.

FRUIT GROWERS' INSTITUTE MEETING.—Supt. Creelman is planning a series of June meetings of Farmers' Institutes, several of them to be Field days at our fruit experiment stations. The South Wentworth Institute, for example, will make an excursion by special cars, along the line of electric railway from Hamilton to Grimsby, visiting the more important fruit farms on the way. Some of the Cabinet ministers will also be invited to attend. This will be a departure in the right direction.

TRAP LANTERNS FOR INSECTS. — This scheme for destroying insects is very plausible as a substitute for spraying, but the difficulty with it is that nearly all kinds of insects and moths are attracted by the light and caught in the trap, some of them friends of the fruit grower, while the codling moth, the one most injurious, is the one least liable to be caught.

Prof. Stedman, of Missouri Experimental station, says :—

I find that the following injurious insects, that are claimed to be caught by certain trap lantern agitators, are either not caught at all or are caught in such rare cases as to be only accidents. Codling

moth, potato beetles, plum curculio, gouger, flat and round-headed apple-tree borers, peach-tree borers, tobacco worm moths, tomato worm moths, squash bug.

The following injurious insects are caught by trap lanterns: Corn worm moth or boll worm moth, cut worm moths, June or May bugs (beetles), tent caterpillar moth, pickle worm moth, army worm moth.

On the other hand, a great many species of Ichneumon flies, which are our most beneficial insects, were caught in immense numbers, and outnumbered all other species in my traps. These insects sting and lay eggs in or upon the bodies of injurious and other insects, and their larvae prey upon their tissues and destroy them. It is in this way that many injurious insects are kept within bounds; and these Ichneumon and other parasitic insects do vastly more good than all trap lanterns and sprays combined. These Ichneumon fly parasites are what a certain trap lantern agitator calls in his circulars "Stinging fly or wasp-like insect that stings the fruit." (This is as perfect a short description as could be given). Now these parasitic creatures never sting fruit or plant at all.

Any person can see from the above facts that a trap lantern is of no value in an orchard, but on the other hand is a great injury, because of the immense number of parasites it kills.

A trap lantern is of great value in its place, and one of these places in Missouri is in the corn field at the time the corn tassels out.

IMPROVEMENT ASSOCIATIONS is a department in the journal "Park and Cemetery," conducted by Frances Copley Seavy, giving suggestions for the improvement of village and home grounds. Of late many local associations of this sort have been formed and much work done through the schools and otherwise, by arousing public interest. Wherever one of our affiliated horticultural societies exist there should be no room for any such society, for it is for just such work that these societies have been fostered.

Some useful suggestions are given in the following reports :

The City Improvement Society of Lincoln, Neb., was organized for the improvement of civic conditions. Its specific work has so far resulted in cleaner streets, better sidewalks, the cutting of weeds, placing boxes at street corners for rubbish, bettered sanitary conditions generally, the decoration and improvement of school grounds, the opening of a city park and park concerts. A comprehensive and satisfactory showing and one that should make for increased membership and influence. But, in addition, it has graded, established lawns, set trees, planted flowers, made window boxes and built protecting fences for its factory grounds, and is planning to offer prizes for well-kept lawns, flowers,

etc., and furnishes an arbor day program for use in the public schools.

The Riverside Press, Riverside, Cal., gives an account of a lecture delivered by Mr. C. M. Loring to the citizens of that town on beautifying the streets, in which he gave some practical hints that other cities would do well to observe. After telling how many European cities made even their business streets attractive by trees and grassy spots, Mr. Loring emphasized the natural beauties of Riverside, and gave some specific directions for improving their streets and home grounds as follows: Authorize trustees to plant, remove and care for street trees, and assess property owners for cost of the work; create the office of city forester; reduce width of driveway on residence streets, and keep planting spaces clean; induce property owners to adopt a regular alignment of buildings, and to maintain neat lawns; prohibit advertisements from trees, other natural objects, telegraph and electric light poles; enforce the ordinance against hitching horses to trees; keep drives and streets well sprinkled; plant trees where needed, and remove them where too thickly planted; plant more deciduous trees. "The whole city," said Mr. Loring, "should be a work of art. Even packing houses and manufacturing institutions can be made more attractive with vines."

**FRUIT REPORT.**—Barns, Secretary Kansas State Horticultural Society, under date of May 8th, sends us the following early report of fruit prospects, which, from present appearance of our blossoming season, will be duplicated in Ontario, except perhaps in apples:

Promise of fruit of all kinds was never better at this time or the year in this state.

Apricots and raspberries do not promise over one-fourth of a crop, and in some low spots peaches will fail; otherwise, all kinds of fruit promise a full crop.

We have 120 reports, from seventy-five counties, fully distributed over the state, as follows: *Apples*—77 report full crops; 13, seven-eighths; 12 three-fourths; 8, one-half; 2, one-fourth. *Pears*—68 report full crop; 4, seven-eighths; 13, three-fourths; 11, one-half; 2, one-fourth; 1, one-tenth. *Peaches*—78 report full crop; 8, seven-eighths; 12 three-fourths; 6, one-half; 6, one-fourth. *Plums*—83 report full crop; 8, seven-eighths; 12, three-fourths; 5, one-half; 2, one-fourth. *Cherries*—99 report full crop; 9, seven-eighths; 10, three-fourths; 11, one-half; 1, one-fourth; 4, one-tenth. *Apricots*—31 report full crop; 9, seven-eighths; 10, three-fourths; 1, one-fourth; 1, one-fifth; 4, one-tenth. *Mulberries*—83 report full crop; 4, seven-eighths; 1, three-fourths; 3, one-half; 1, one-fourth. *Grapes*—75 report full crop; 8, seven-eighths; 9, three-fourths; 1, one-half; 1, one-fourth. *Berries*, excepting raspberries—74 report full crop; 10, seven-eighths; 13, three-fourths; 4 one-half.

The central and western counties are especially

elated over the peach and cherry prospects; it was a little early for full reports on grapes.

Very few insects are noticed. More new planting than usual.

**SWEET PEA WINDOW SCREEN.**—A writer in the Ladies' Home Journal suggests a sweet pea window screen as a good screen against the ugliness of the sun at the back window. The following is the paragraph:

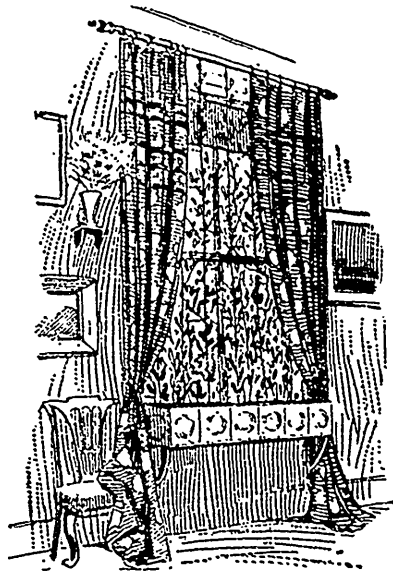


FIG. 2089.

Given a long, narrow box for this purpose with a simple trellis work of ordinary wire or twine, well pulverized and enriched earth, with a small addition of sand and a moderate amount of sunshine (sweet pea vines being easily scorched) and a pretty window, a fragrant room, and plenty of blossoms for cutting may be confidently counted on, says the authority quoted, and an accompanying illustration verifies the statement.

A peculiarity of sweet peas is that the higher they are trained the more profusely they will bloom, and if all fading blossoms are removed before they can go to seed, a constant succession of bloom is secured.

## QUESTION DRAWER.

### Spraying.

1219. SIR,—Please give me some information about spraying. When is the best time? In what proportions would you mix the ingredients for the different times? How many times should apples and plums be sprayed?

I have set out a plum orchard of five hundred trees, which are now in their second year, and they are growing finely. Would you advise spraying them before they begin bearing? Could you give me the name of a good fruit journal?

Senda, Ont.

W. T. NUTT.

The questions of our correspondent, who evidently does not receive this journal, reveal a common lack of information throughout Ontario, with regard to the purpose and manner of spraying. Much has been done by the Ontario government to make known the benefits, and yet much remains to be done. Indeed it has become a large subject, and to write a detailed reply would take much space.

Before one thinks of spraying, he should have a definite purpose. To spray those young plum trees, growing vigorously, would probably be a waste of time and money. When they begin bearing, should they be subject to rot, spraying with Bordeaux mixture as soon as blossoms fall, and every two weeks thereafter according to judgment, might prevent.

If curculio is making havoc in the plum orchard, a spraying with Paris green, three ounces to forty gallons of water, immediately after blossoms fall, is sometimes very helpful.

If the tent caterpillar or canker worm is eating the leaves of any of your trees, poison them by spraying with Paris green.

If apple scab affects your apples badly, year after year, better spray faithfully with Bordeaux every two weeks, from before bloom until the dry weather becomes constant.

If your cherries rot badly, keep them covered with Bordeaux, and the spores

that light upon the fruit cannot find a place to enter the skin.

If your grapes are inclined to mildew, begin spraying before the leaves come out with Bordeaux, and keep the vines and the fruit green with it until settled dry weather, in July or August.

Bordeaux mixture is made by dissolving four pounds of lime in one barrel of water, and four pounds of sulphate of copper in another, and then pouring the latter with the former, stirring vigorously. When mixed together the whole should make about forty gallons of Bordeaux mixture.

Spraying is a wide word, so many mixtures are used. For aphids we spray with kerosene emulsion; for San Jose scale with crude petroleum or whale oil soap, and so on. Soon a tree doctor will be needed to diagnose the disease and tell us what remedy to apply.

### Apples Compared.

1220. SIR,—I would like you to tell me in your open letter columns what is your opinion as to the relative merits of the Northern Spy, Cranberry Pippin and Blenheim Orange. Are the two last named superior to the Spy in quality and bearing. The Spy is an apple that is being extensively planted in this vicinity. It bears early and is very productive—that so far has been the experience of those who have tried it. Is there any raspberry now grown in the east that can compare favorably with the Cuthbert as to productiveness and shipping qualities. By answering the above questions you will greatly oblige me.

Salmon Arm, B. C.

J. D. MCGUIRE.

There is no apple of its season, grown in Ontario, that excels the Northern Spy. In size, beauty and quality it is the best apple we grow. With us, however, it is a long time in coming into bearing, which is its chief fault. It needs high cultivation, close pruning and plenty of fertilizer.

The Cranberry Pippin is a very showy apple and first-class for export, but somewhat uncertain in bearing, and of poor

quality compared with Spy. It is also a winter apple. With us at Maplehurst it has borne remarkably well some seasons, giving a crop of magnificent apples, and then again the fruit has been irregular in size and scant in quality. We have planted it next in quantity to Spy for export purposes.

Blenheim Orange is an early winter apple, indeed some call it a fall variety, though in northern sections it keeps fairly well. It is a magnificent apple and no one can go astray in planting it. It succeeds in places where the Spy is too tender, and is a great favorite as a market apple with some growers.

These three are all first-class commercial apples, and deserve almost equal places as money makers.

#### Double Pear Bloom.

1221. SIR.—I have mailed you to-day one cluster of bloom taken from a young pear tree, three years planted. I noticed last year that the bloom on this tree was double, in comparison like a single and a double flower.

About two-thirds of the blooms on the tree were double. The tree is in bloom just now. In looking over my other pear trees comprising about twenty varieties all in bloom, I could not find one double bloom on any of them. As I have not noticed double bloom on any fruit trees before, I thought I would call your attention to it. I have been wondering if a double bloom would develop finer fruit than a single.

Galt, Ont.

WALTER M. TURNBULL.

Double flowers are ornamental only, for the more double they are, the less likely are they to fruit. This is because the stamens which bear the pollen are transformed into petals. No doubt the peculiarity could be propagated by grafting.

#### Border Plants.

1222. SIR.—Could you give us a list of plants that once planted would come up every year. I want to plant a border and some beds. Also could you name some shrubs that would go with them.

Toronto.

H. G.

Our correspondent will find, on page sixty-two, a good list of border plants given by a professional gardener, Mr. Wm. Hunt, of Hamilton. The herbaceous perennials

there described, such as arabis, dielytra, iris, perennial phlox, pæonies, columbine, coreopsis, rudbeckia and delphinium would give great satisfaction, and make a beautiful display, year after year. They are much better than annuals for a border, because once planted they will come up year after year and give a certain permanent character to the beds.

As for a list of shrubs, our correspondent can do no better than to read over the article on deciduous shrubs, on page 197, written by Mr. R. Cameron, chief gardener Victoria Park, Niagara Falls, and select his list accordingly.

#### Destroying Ants.

1223. SIR.—Can you give me an effectual remedy for ants in lawn without injury to the grass. Am much bothered with their nests, which are not only unsightly, but interfere with the work of the lawn mower. Kindly answer in Horticulturist and oblige, yours, truly,

Erasmus.

GGO. WOOD.

The following method of destroying ants is quoted from a bulletin of the Mass. Exper. Station: "Make holes with a crowbar or convenient stick from six inches to a foot deep, and about fifteen inches apart, over the hill or portion of the lawn infested by the ants, and into each hole pour two or three teaspoonfuls of bisulphide of carbon, stamping the dirt into the hole as soon as the liquid is poured into it. The bisulphide of carbon at once vaporises and, permeating the ground, destroys the ants but does not injure the grass. One should remember while using this substance that it is highly inflammable, and not bring near it a flame or even a lighted cigar.

#### Oyster Shell Bark Louse.

1224. SIR.—Enclosed is a cutting from an apple tree which appears to have some bark disease. Will you kindly inform me if it is anything requiring attention, and if so, kindly advise a remedy and greatly oblige.

Limehouse, Ont.

SUBSCRIBER.

These twigs are covered with Oyster Shell Bark Lice. No samples are more fre-

quently sent in for identification, which proves how wide spread this insect now is in Ontario. It increases very slowly, but if neglected for years, the trees become so incrustated with them as to become unfruitful. To destroy them the bark should be scraped in early spring and washed with whale oil soap, two pounds to five gallons of water, or with Gillett's Lye, one ten cent package to five gallons of water; and then about the first week in June, when the young lice are moving, the trees should be sprayed with kerosene emulsion.

#### Value of Fruit Land.

1225. SIR,—In your March issue you question the correctness of Prof. Macoun's valuation of bearing orchards at \$1,000 per acre. It would be interesting to see published what you consider a conservative estimate of the value of (1) small fruits, and (2) bearing plum, peach, pear and cherry orchards per acre, in say the Niagara fruit district, convenient to shipping points.

Vancouver.

A. W. F.

A small fruit plantation does not so much increase the value of the land because it is so easily placed or removed. An acre of land to currants would be worth little more than land without these plants, the value of the crop is so little. Planted to strawberries it would be worth about the net value of one year's crop more than without, say \$100 more than the land without, and we would estimate raspberries about the same, so that if the land is worth \$100, the crop value would add as much more, making it \$200.

A peach or cherry orchard, and of the best varieties, would mean a much larger productive investment, and much higher value. Two acres of garden land near Grimsby, with peach and plum trees in bearing, and raspberry bushes between, have just been sold at \$600 per acre, but then the land was counted worth \$400 before the trees were planted.

We think that as an investment, any man who pays more than \$500 per acre for the finest orchard of any kind of fruit trees, is paying an outside figure, and, as for an apple orchard, some have valued it so low that they consider it an encumbrance, and begun digging the trees out; but of course this is under special conditions.

#### Vine Weeds.

1226. SIR,—What remedy is best to kill that troublesome weed commonly called vine weed or a species of wild convolvulus among raspberries, etc. It resembles a morning glory and has a small flower.

Oshawa.

JAMES A. RIDER.

We know of no simple method of eradicating this weed, generally called bind weed. If hoe and rake won't answer, better start a fresh raspberry plantation on cleaner ground.

#### Amaryllis.

1227. SIR,—Can you tell me how to make my amaryllis regina flower. I have had it 6 years and have had no bloom. Should it be left in one pot all the time or moved and the earth renewed. It has thrown out offsets till it completely fills the pot.

Prescott.

C. W. BRAVEN.

The abundance of offsets that have been allowed to grow is probably the cause of the amaryllis mentioned not flowering. Leave the plant undisturbed and grow it on until its next resting period, then just before active growth commences again, remove all the offsets. Repot the old bulb into rich loamy soil, giving plenty of drainage; water sparingly until the bulb has well started into growth. Remove all offsets as soon as they appear, these can be potted singly and grown on if required. The best time to repot amaryllis bulbs is just as growth commences after the resting period. Oftentimes a top dressing of rich soil is preferable to repotting, if the bulb is healthy and the drainage in the pot perfect.

W. HUNT.



## Questions Answered.

### Memorandum re Addition of Sal Soda to Paris Green Mixture.

In answer to the enquiry "can sal soda be used instead of lime in the preparation of paris green mixture?" the following information is submitted:—

When paris green mixed with water (at the usual rates 1 lb. to 100-200 gallons) is applied to certain classes of delicate foliage (as of stone fruits) a corrosive or "burning" effect has been noticed to follow, the leaves showing decided marks of injury as the insecticide dried upon them. This injurious effect may be entirely overcome by the addition of a small quantity of lime, the usual quantity advised being 1 lb. to each 1 lb. of paris green, though this is probably much more than is absolutely necessary.

Sal soda (more commonly known as washing soda) should chemically effect the same purpose as the lime, though in the apparent absence of recorded experimental data it would not be wise to generally advise the substitution. Arsenate of soda, as is well known, is more or less injurious to foliage, but the compound formed in the mixture under discussion would rather be arsenite of soda, regarding the action of which on foliage I cannot find any reference. I, however, am of the opinion, drawn from a general consideration of the whole subject, that lime would be better, or rather, safer to use, since the lime-arsenic compound is insoluble, while the soda-arsenic compounds are easily soluble in water and hence more likely to affect the foliage.

To obtain the neutralizing effect of 1 lb. of slaked lime, approximately 4 lbs. of ordinary crystallized washing soda would be required. This quantity of lime, however, as already pointed out much exceeds that absolutely necessary, and most probably 2 lbs.

of washing soda (equivalent to  $\frac{1}{2}$  lb. of lime) would be ample. An experiment recently made in our laboratories showed that when 4 lbs. of sal soda were added to a mixture of 1 lb. of paris green in 160 gallons of water, considerable traces of arsenic went into solution; in other words, that there had been a slight decomposition of the paris green. When, therefore, through inability to conveniently obtain lime, sal soda is substituted, we should advise not more than 2 lbs. to each pound of paris green in the spraying mixture; but in view of the general results of soluble arsenic compounds on foliage, and in the absence of any definite data from spraying experiments with the mixture under discussion, it would be safer to use lime whenever possible. The arsenate of lime that may be formed in the fluid from following this course has been shown to be non-injurious to foliage and an excellent insecticide.

Perhaps it may be pointed out that when paris green is used in bordeaux mixture, there is no need for further addition of lime or other alkali to prevent injury to foliage, and that in this mixture both the fungicidal and insecticidal properties are unimpaired.

FRANK T. SHUTT, Chemist.

Dominion Experimental Farms.

### The Sweet Chestnut.

Under notes and comments in the May number of the Horticulturist, I see you ask for information regarding the hardiness of the sweet chestnut in the north.

I have grown them here in nursery rows for the past 25 years; have 50 of them permanently set out and in bearing, and have proved them to be perfectly hardy, the frost of all these years never having injured even a single tip of any of the thousands of the

trees we have had under cultivation. I am quite sure they would well withstand a climate much farther north than even Port Elgin. Please bear in mind that I am speaking of the American sweet chestnut, never having had much experience with the Japan varieties.

For family use there is no reason why every farmer or farmer's boy should not have a few nut-bearing trees of his own growing, and we know of no more enjoyable thing than a plentiful supply of sweet chestnuts with which to treat our acquaintances when they make us a friendly visit.

Port Elgin, Ont. J. H. WISMER.

**Analysis of Certain Brands of Lye.**

In order to furnish information to orchardists regarding the relative strengths or values of certain lyes used in Canada in making spraying solutions for the destruc-

tion of scale insects and cleaning the bark before the foliage appears, analyses have recently been made in our laboratories of the following brands: Gillett's Perfumed 100 % Lye, Greenbank's Soapmaker, Babbitt's Pure Potash or Lye, Rock Potash.

ANALYSES.

	Alkali as Caustic Soda.	Alkali as Carb. Soda.
Gillett's Perfumed 100 %.....	92.48	2.77
Babbitt's Pure Potash or Lye...	85.15	4.98
Greenbank's Soapmaker.....	71.44	5.51

There is no potash in Babbitt's brand, the alkali present being soda.

A sample of rock potash obtained from a wholesale drug firm in Montreal gave the following data:—

Alkali as caustic potash.....	36.72%
" as carbonate potash. ....	43.24%
Total potash present, calculated as oxide (K <sub>2</sub> O).....	69.31%

FRANK T. SHUTT, Chemist.

Dominion Experimental Farms.

Open Letters.

**Hardy Nuts.**

SIR.—In your question drawer a Mr. Kidd asks for information as to hardy nuts, etc. Mr. W. T. Macoun, in his reply, speaks of the filbert and hazel as not likely to set fruit in the neighborhood of Toronto, and gives his reasons.

I have grown the common English hazel for several years in the township of Tuckersmith, and the trees bear plentiful crops of nuts every year. The experience of several of my neighbors accords with mine.

Mr. Macoun may be correct in his remarks as applied to Ottawa, but as Toronto is in about the same latitude as Tuckersmith, I fancy the hazel will fruit there as well as it does in this locality; at any rate the cultivation of the hazel tree should not be condemned because it does not succeed at Ottawa. Yours respectfully,

Edgmonville, Ont. EDWIN CRESSWELL.

**Tulip Culture.**

DEAR SIR,—I understand from a Holland agent for the above bulbs that it is a common complaint all through America with the gardeners and florists that they cannot grow the double tulips with long enough stems to be of much service as cut flowers. This agent informed me this spring that he cannot sell the bulbs on this account, al-

though they are prized more by florists than the single varieties and would be in demand if they could be grown with long stems like those grown by me and which he had seen here this spring. For the above reason I had the accompanying photograph taken for your valued journal. There are eight varieties in the bouquet, both doubles and singles, with stems from twelve to seventeen inches in length; they were grown in the following manner:—

The bulbs were potted in the usual way, into six inch pots, 3 bulbs in each; the crown or bulbs out of the soil; the soil was a rich composite, three parts were of decayed sods cut from an old sandy loam pasture, and one part was composed of leaf mould, river sand and bone meal all mixed together. When all were potted, the pots were thoroughly watered, and I then appropriated a cold frame which was set up in a sheltered situation facing the sun. In the bottom of the frame I placed about two inches of sifted coal ashes, the pots were then placed on top of the ashes as close as they would set together; then they were covered about three inches deep with the sifted ashes and left until the first severe frost, when all was covered over with about a foot deep of coarse farm yard manure; there was no sash put on the frame. The first of the pots were brought into the greenhouse about Christmas, the blooms were about perfect in about 6 or 7 days after being taken in, so



FIG. 2081. TULIPS.

that by taking in a fresh batch from the frame every week there would be a continuous display throughout the winter. The manure acts for two purposes, first to prevent severe freezing, secondly to allow a person to get at the pots to take the same inside when wanted. The coal ashes act for several purposes also, as to prevent worms entering the pots from above or below; to prevent mice or rats eating the bulbs; of which they are very fond; the young growth does not freeze so hard in ashes as any other material; thirdly, the growth made by the plants seems to stay just below the surface of the ashes until they are taken inside, and the time may be months—in any other material

the growth would be drawn and spoiled; fourth, if the ashes is left upon the pots or boxes containing the bulbs they will not require any water until the blooms are matured and cut; fifth, if the bulbs are in boxes, when the blooms are cut, the boxes may be placed outdoors, where the bulbs will be secure from frost, and mature bulbs for another season; sixth, it seems that the ashes prevent insects; seventh, unnecessary watering, and the cool temperature that the bulbs and roots are kept at by the ashes seem to encourage long stems. Be sure there is no wood ashes among the coal ashes used.

Niagara Falls South.

R. CAMERON.

## Our Affiliated Societies.

WOODSUCK.—The Horticultural Society held an interesting, though not very largely attended meeting in the council chamber last night, May 14th.

The following questions were received from J. C. Creelman, superintendent of the Department of Farmers' Institutes, and were answered as below.

What was the attendance at your meetings? Fairly good.

How were your members pleased with the addresses of the delegates? Very well pleased.

Was the lady speaker who addressed your society appreciated? Yes, very much.

Were the delegates well received at the schools and do you think this new departure a useful feature of the work? Yes.

In what branch of horticulture are your members most interested? Floriculture has the preference.

Have you any suggestions to offer in regard to next year's work? This was left in the hands of a committee, composed of the president, T. H. Parker, M. Dawes, J. S. Scarff and Robt. Woodroffe.

The matter of awarding prizes for the best kept cottage garden was discussed at length and left to the committee. The encouragement of the decoration of School grounds was also considered.

The secretary, J. S. Scarff, reported that 724 plants and shrubs had been given to 102 members as follows:

134 Cumberland raspberry plants.

35 shrubs.

38 apple trees, 38 pear trees, 38 grape vines, 63 palms, 126 rose bushes, 63 clematis, 63 geraniums, 63 asparagus plumosus and 63 asparagus springerii.

Mrs. Dawson, Mrs. J. H. Finkle and Mrs. Harry Davidson have consented to read papers before future meetings of the society. A number of accounts were also passed. The members of the society expressed themselves highly pleased with the attendance at the recent public meeting held at the Collegiate, under the auspices of the society, and a cordial vote of thanks was tendered the musicians and others who kindly gave their assistance on that occasion.

Mr. Whaley followed President Patullo's suggestion with regard to a prize for cottage gardens, with a suggestion to give one to school children, who would make the best flower garden—work and care of same to be done exclusively by themselves. This was endorsed by the meeting and a committee was appointed to carry out both suggestions. It consisted of President Patullo, Secretary Scarff, R. W. Woodroffe, M. Dawes, T. H. Parker and M. Richmond, who will probably meet at 4 o'clock this afternoon in T. H. Parker's office.

MITCHELL.—A most enthusiastic meeting was held under the auspices of the Horticultural Society here on April 16th. In the afternoon the pupils of the high and public schools gathered at the town hall, in charge of the teaching staff, to hear Mr. Alex. McNeill and Miss Rose, of Guelph. The scholars were very much interested in what

they heard and were asked to write an essay on the subject matter of the lectures the next day.

In the evening the hall was crowded to the doors by the most select and enthusiastic audience that ever came together in the town. President A. Dalton Smith, M.D., occupied the chair and with him on the platform were Vice-President W. Elliott, B.A., all the clergymen of the town and outlying districts and a few others. The hall was splendidly decorated with plants and flowers, and the musical selections given throughout the program by Mrs. F. B. Holtby, piano, Mrs. F. A. Campbell, vocal; Miss Pearl Waterhouse, violin, and Prof. Bridgeman, piano, were very choice. Miss Rose spoke on the subject, "Why I have a garden," and Mr. McNeill on "Plants, Shrubs, etc., for the home plot," and both received a splendid hearing. Each of the clergymen present said a few encouraging words expressing their sympathy with the objects of the society and their interest in its operations. This is what I have long contended for—the co-operation of the churches with us in our work, and in this town we are getting it. Everybody seemed to be pleased with the meeting and the society is likely to grow in popularity and usefulness as one of the results. We have now a membership of seventy-four and expect to go on increasing. Already a deeper and more active interest is being manifested throughout the town in fruit and flower culture and general home ornamentation.

T. H. RACE Secretary.

ORILLIA.—The joint committee of representatives of the Horticultural Society, the Board of Trade and the Town Council which has of late been considering ways and means of beautifying Orillia, is this week issuing a circular to the citizens, appealing to them to lend their assistance, an appeal which it is to be hoped will not be made in vain. After referring to the great business benefit that Orillia had derived from the tourist trade during the past three years, and to the unfavorable impression which our dirty streets had made on many visitors, the committee makes these proposals as a remedy:

(1) That shade trees be planted along the boulevards throughout the town, wherever there are not trees already. The Town Council offers to supply trees and have them planted at a cost of fifteen cents per tree (less than one half of the actual cost), provided application for trees be filed with the Town Clerk before May 1st. The committee would recommend maples and elms as the best ornamental trees for this purpose. The last named will thrive best in any moist, heavy clay soil, and probably in most of the southerly portion of the town. Trees should be planted during the latter part of April or first part of May, and should be protected from cattle and small boys by posts or tree boxes, and from drought by a small quantity of sawdust on the surface of the ground round the trunk. The maples should be watered regular-

ly about once a week (not oftener) for the first month or two after planting, but the elms should be watered twice each week.

(2) The Town Council has decided to have the shade trees on the streets regularly and properly trimmed by competent men, and in future private citizens wishing to have the trees on their boulevards trimmed must not have it done themselves, but should make application to the Town Clerk, when it will be promptly attended to.

(3) That the grass and weeds be kept cut on the boulevards and that an effort be made by all individual citizens to improve the appearance of the boulevards throughout the town. Arrangements can be readily made to have such work done for the season at a very reasonable rate, and any member of the Horticultural Society, Board of Trade or Town Council will gladly furnish you with the names of persons willing to undertake such work.

(4) That each citizen be asked to assist in the work of keeping the streets clean, by refraining from throwing on the streets scraps of paper or other refuse, and to endeavour individually to keep others from doing the same. Receptacles for waste paper, etc., will be placed at the principal street corners, so that there will in future be no excuse for littering the streets with such refuse.

(5) That each individual citizen will not only do all in his or her power to beautify the streets of the town, of which we are all so proud, but that each will also endeavor to improve his or her property, so that we may have in every sense a clean, healthful and beautiful place of residence. If all, or a majority will assist in this, the result will be a vast improvement in the whole. Any member of the Horticultural Society or of this Joint Committee will consider it a pleasure to assist by information or advice anyone desiring such, in the earnest hope that concerted action will be taken upon the suggestions embodied in this circular, and result in the general good.

The Joint Committee is composed of Messrs. C. L. Stephens, chairman; G. H. Clark, secretary; E. C. Roper, W. S. Frost, G. Street, S. Reeve, S. H. Black, F. Sollitt, J. H. Wilson, Wm. Bacon, A. B. Thompson, J. P. Secord and G. T. Tipping. There is no doubt that if the committee perseveres in its good work, and receives the backing it should get, the result will be to revolutionize the appearance of the town, and to make Orillia the neatest as well as the most picturesquely situated summer resort in Canada.

ELMIRA.—The local paper of this town devotes a whole column to an account of the meeting held by Mr. McNeill and Miss Rose, whom they call "two plain everyday people who will make hosts of friends wherever they go; two lecturers who have not merely the theory of the subject, but who also speak from practical experience."

KINCARDINE.—On Friday evening, Mr. McNeill, of Walkerville, and Miss Rose, of Guelph, delivered addresses in the town hall under the auspices of the Kincardine Horticultural Society. The former took for his subject: "Plants, trees and shrubs for the ordinary town lot," and the latter gave an admirable address in which reasons were set forth "Why I have a garden." The attendance was

not nearly so large as the excellence of the addresses warranted. Those who were present received much practical instruction and valuable suggestions were made as to beautifying the plots, lawns and streets of the town in which we live. In some towns prizes are given for the best kept gardens, plots and lawns, and if the Kincardine Horticultural Society would take the matter up the town would be greatly beautified. There should be two or three classes so as to give the working-man's little cottage and plot an equal chance in his class with that of his neighbor of larger premises and facilities in his class. The Horticultural Society could do very practical work by instituting such a competition. Mayor Mackendrick presided as chairman of the meeting.

LONDON.—During the first week in April each member of the London Horticultural Society received from the executive of the Society a package of seed, consisting of one large packet of the following varieties,—

Asters, New Victoria; Scabiosa, mixed; Antirrhinum, mixed; Phlox Drummondii, mixed; Nasturtium, dwarf mixed; Dianthus Heddeewiggi, mixed, and one packet each of the following Sweet Peas: America, Navy Blue, Blushing Beauty, Mars, Countess of Radnor, Black Knight, Katherine Tracey, Emily Henderson, Mrs. Eckford, Mrs. Joseph Chamberlain.

The members were exceedingly well pleased at receiving so liberal a distribution.

R. W. RENNIE, Sec'y.

LONDON.—The London Horticultural Society held their second open meeting this year on the evening of May 3rd, in the auditorium of the Y. M. C. A. Building, the meeting being called to distribute the plant premiums provided by the Canadian Horticulturist. The meeting was very well attended considering the short notice given. Dr. C. J. S. Bethune occupied the chair, the president, Mr. J. A. Balkwill, having a severe cold.

Before proceeding to distribute the premiums Dr. Bethune gave an exceedingly interesting and instructive address on the commoner destructive insects, illustrating his remarks by greatly enlarged colored drawings of insects. Mr. Wm. Gammage, who has been so successful with his carnations at the Pan-American, was to have spoken, but owing to indisposition was unable to do so.

During the evening the members were favored with songs by Mrs. Geddes and Miss Agnes Templeton, accompanied by Miss Templeton. The Society tendered these ladies a hearty vote of thanks for contributing so largely to the enjoyment of the evening.

R. W. RENNIE, Sec'y.

CAYUGA.—The horticultural society here proposes putting out a cedar hedge in front of the High School two hundred feet in length. When is the best time? The soil is heavy clay, but we can dig a trench and fill in with good loam.

J. E. SKEDE, President.

The hedge may be planted any time this month, when the ground is in good condition; indeed most experts claim that June is the very best season for transplanting evergreens.