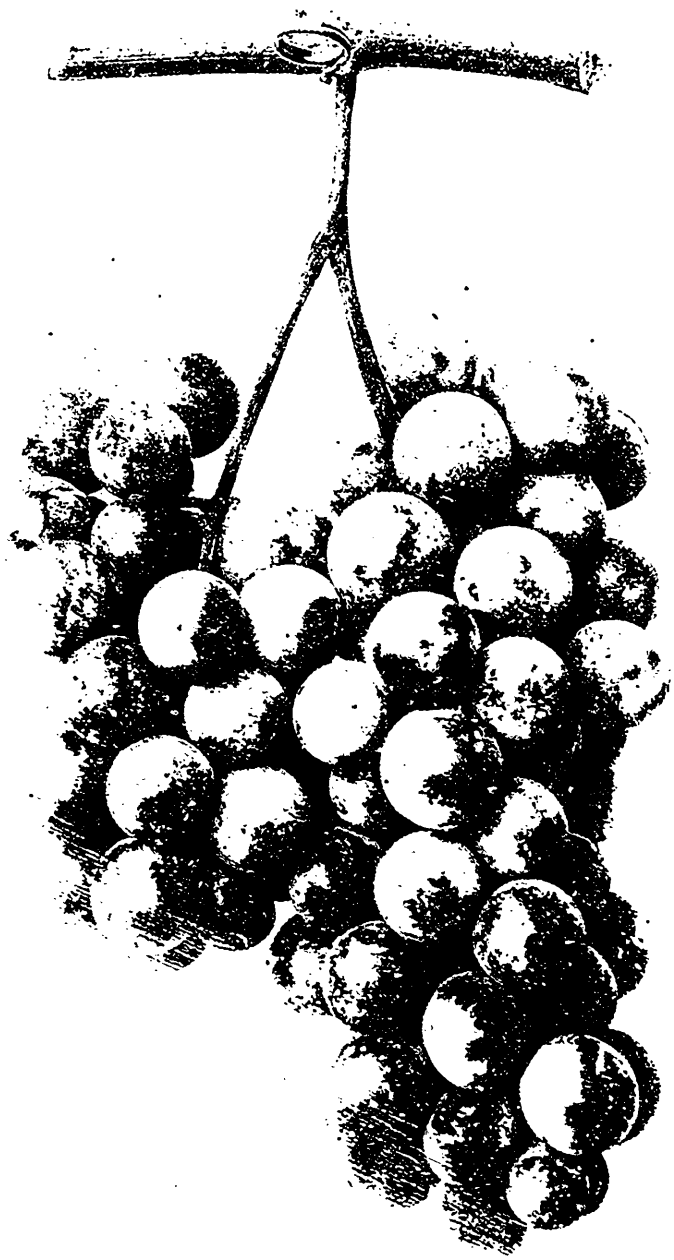


Photo by Miss Brodie.

FIG. 2167. JESSICA.

THE
CANADIAN HORTICULTURIST
VOL 24 — 1901 — No 11

NOVEMBER

JESSICA.

An excellent dessert grape for the amateur's garden.

ORIGIN: Canada, a seedling raised by W. H. Read, of Port Dalhousie, introduced by Mr. D. W. Beadle, of St. Catharines, and first described in the Canadian Horticulturist for February, 1884.

VINE: fairly vigorous, hardy and healthy.

BUNCH: 5 inches long by 3½ broad, shouldered, compact.

BERRY: medium, ½ to ⅝ of an inch in diameter; color, yellowish green to white; skin thin; pulp tender, juicy; flavor sprightly, sweet and very agreeable, free from foxiness.

QUALITY: very good for dessert.

VALUE: market, too small; home uses, first-class.

SEASON: last of August.

ADAPTATION: general.

WHEN well grown and well ripened the Jessica is a variety of which we are not ashamed to say that it is of Canadian origin. Our photograph, by Miss Brodie, well represents its appearance, and is almost a fac-simile of a colored plate prepared for Mr. Beadle by Rolph Smith & Co., of Toronto, in 1884.

Mr. Alfred Hoskins, of Deer Park, Toronto, ripened this grape in 1883, and claimed for it productiveness and earliness, and the merit of being the only one out of twenty varieties which fully ripened its fruit. Mr. Jas. Vick writes in his monthly in 1885 that the Jessica ripened with him, on Canandaigua lake on August 22, ten days earlier than Champion, and in 1887 Mr. S. Powers wrote of it as follows:—

The Jessica outdoes in flavor any garden grape known, and it is a wonder that no more is said about it. The little white grape, with its small clusters, is not over-attractive, but once between your lips, you will avow it has all the good qualities a grape can have in one. Sweet, with honeyed touch at first taste, succeeded by a freshness of mild acid, and a bouquet that lingers on the sense, it is a grape for connoisseurs to linger over and praise.

All these good words are fully borne out this season by its conduct in our experimental plot. Near it we had the Green Mountain, and on selecting samples of both for photographing we were much struck with their close resemblance in bunch and berry. The flavor of our Canadian was superior to Green Mountain, but otherwise one could declare them identical.

We in Canada have been much disappointed in the latter, which was introduced with so much eclat by Stephen Hoyt &

Sons, of Connecticut, It is too small for market, and inferior as a dessert grape to Jessica, and yet the Bushburg catalogue gives nearly a column to it, and less than an inch to the latter; while the Jessica is not even mentioned in the catalogue issued by the American Pomological Society.

We have had a remarkably fine showing of grapes of all kinds at Maplehurst this season.

Moyer was the first to ripen, and was quite delicious eating long before Early Victor, Berckman, Ohio or Campbell's Early were ready for use. This Moyer is another that is valuable for a home garden, but probably not profitable for market, because of its small berry and straggling bunch, but it is a treat to get so pleasing a flavor so early in August. The Moyer too is of Canadian origin.

SUCCESSFUL STORAGE OF APPLES.

THE following should prove interesting to fruit growers and produce men generally, as it proves again that cold storage of fruit pays and pays well:

For three years now we have placed Baldwin apples in cold storage with remarkable success. We refer to cold storage houses worked by ammonia and machinery, such as are built in large cities on scientific principles. We pick our apples as soon as they have matured, place them immediately in barrels, and draw at once to the cold storage house. The sooner they are put into cold storage after being taken from the tree the better; when the apples have lain in barrels for a week or two, they have not kept as well as those moved at once to cold storage house. We find that the apples shrink some, and have to be run over before shipment if held until the latter part of March. Sometimes it has taken one barrel to fill out the shrinkage of ten barrels. We often find five or ten decayed apples in a barrel of Baldwins opened about April 1. If the apples were held in barns a few weeks before putting in cold storage we might find a peck or more of bad apples. Baldwins which we put in cold storage, and which we could have sold for $1.20 per barrel last fall, we find no difficulty in selling in large quantities at $3 per barrel March 15.

Our apples have been carefully graded, and have pleased our customers wherever they have gone. C. W. Jennings, a large dealer in North Carolina, w tes us that he has bought many carloads of apples each year, but that he has never seen such fine apples as those we sold him; he says the quality and flavor and beauty are superior to apples he has previously purchased, and yet we do not consider our Baldwins of last year up to the average size on account of the long spell of dry weather. Our experience encourages us in placing long keeping winter apples in cold storage. It is certainly profitable to do so. We pay 50 cents per barrel for cold storage from November 1 to May 1. Bartlett pears can also be put in cold storage with profit.—*Green's Fruit Grower.*

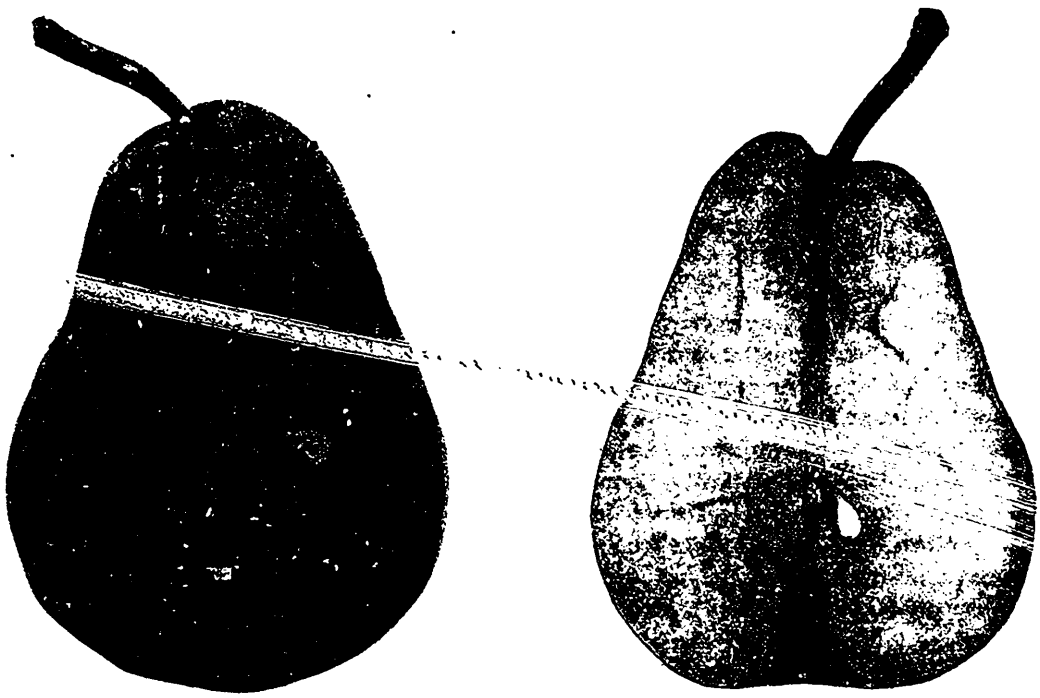


FIG. 2168. THE WILDER PEAR.

THE WILDER PEAR.

A valuable early market pear, being beautiful in appearance, of fair size and very good flavor; probably the best of its season, but inclined to rot at the core if left hanging on the tree.

ORIGIN: chance seedling on south shore of Lake Erie.

TREE: vigorous, very productive and an early bearer when grafted on the quince.

FRUIT: fair to large in size, 2½ to 3 inches in diameter; form, ovate, obtuse pyriform, sometimes shouldered at stem; color, greenish yellow, with deep red cheek and numerous grey dots; stem stout, ¾ and 1 inch in length, calyx open.

FLESH: white, tender, fine grained; flavor sweet, aromatic and very pleasant.

SEASON: August 12th to 25th.

QUALITY: dessert, very good.

VALUE: home markets, excellent.

WE have a few trees of this variety in our experimental plot, and there was none of them that attracted so much attention as the Wilder by reason of its rich beautiful dark red cheek on a yellow ground. The Giffard, an excellent variety, and the Summer Doyenne were just over for all purposes, the Clapp not ready, and if perchance there were some of the former still hanging, they were not to be looked at when such fiery cheeks were in view as were presented by the Wilder.

Our readers will be interested in the following little account of this pear, which we found in an old copy of The Farm and Home :—

. The original tree of this delicious pear was found on the shores of Lake Erie. It came up wild in a thicket of sprouts and rubbish and was grafted to Buffum, a few branches being left for natural fruit. The latter was found to be so good the Buffum branches were removed. Since then the tree has borne profusely each year. It

somewhat resembles Bartlett in shape with smooth skin, pale yellow with a deep shading of brownish carmine. The basin is shallow and regular, the eye nearly closed, sepals long and reflexed, apex rather abrupt with slight cavity, stem short, core closed and small. Seeds small, flesh pale whitish yellow, fine grained and tender. Its quality is very good, resembling the Bartlett, but the flavor is more sprightly and free from all muskiness. It is in season in August in New York. The tree is a vigorous, upright grower, wood dark, resembling Clapp's Favorite.

BLACKBERRY CULTURE.

FOR blackberries I prefer clay soil, as it holds the moisture much better than black loam. After putting my ground in good condition for planting I take a single shovel plow and run furrows eight feet apart. Then I took good thrifty plants and plant in the furrows four feet apart in the row. When through planting I cultivate between the rows to fill up the furrows. The first season I raise potatoes between the rows set. I hoe and cultivate blackberry plants every season and do not mulch with hay or straw. I prefer keeping the ground clean and a dust mulch. Plow two or three times a week with cultivator.

My experience has been mostly with the Snyder. I think they are most prolific in bearing and surer of a crop than Ancient Briton or Stone's Hardy. With me the canes do not grow large or stiff, which makes them easier to lay down in the fall. In this respect I prefer the Synder, and they are not much harder to handle than raspberries except for the thorns. In putting them down I use the same method as in raspberries.

I do not pinch or trim the vines off in spring, but I go through and trim off the new wood that comes out in the way of picking the fruit. Early in the spring I cut off the toss of canes that are to bear fruit, leaving canes three and one-half to four feet high. Pruned in this way, they send out branches producing a heavy crop of fruit. The last two years I have received $2.00 per case for 24 quarts each throughout the season, making $200 per acre some seasons. Some of my neighbors have tried raising blackberries on marsh lands, but it has not proved a success. One great objection is that the stalks grow too large and are then too brittle to lay down. I do not wire them upon a trellis, as the vines hold the fruit up good in clay ground. Those vines that are eighteen inches to two feet above ground and where the fruit is shaded, I find bear the largest and sweetest berries.—*Report Minn. Horticultural Society.*

GRAPE WINE.—No. 1: To 1 qt. grape juice, add 3 qts. water, 2½ lbs. brown sugar, stir until the sugar is all dissolved, and store in an open vessel for three weeks, covered with mosquito netting or cheese-cloth, to protect against insects. Put in jugs and keep closely covered until March or April, then rack off, bottle and seal.

No. 2: To each gallon of juice, add 1 lb. white sugar, let stand 3 days, skim, strain and measure, and to each gallon add another pound of sugar, let stand three days, measure, and again add a pound of sugar. Bottle and seal. This recipe makes a very rich, sweet wine.

NOTES ON SUMMER PEARS.

OUR experimental plot of dwarf pears consists of over fifty varieties, and we had hoped for a splendid assortment of samples for our report, but, unfortunately, the same condition which blighted our hopes as commercial fruit growers, also swept away our hopes of a grand collection of varieties for study and for exhibition purposes.

The first pear to ripen with us in the season of 1901 was Summer Doyenne about July 30. The fruit was in clusters, very small, too small for market, but of delicious quality for dessert. The trees are not as thrifty as Brandywine or Wilder. The last picking was August 12th.

The Chambers closely followed the Summer Doyenne, ripening about the 5th of August. The trees are heavily loaded, and the fine size of this pear makes it the most promising variety of its season for market. The tree is vigorous and healthy and, so far, has not shown any tendency to blight. The last picking was August 20th.

The Giffard closely followed Chambers in season of ripening, coming in this year, which is unusually late, about August 10th. It yielded a good crop, and the quality is so good and its appearance so pleasing, that it is the most largely planted for market in the Niagara district of any early variety.

Osband's Summer ripened about August 10th, and is a variety over much planted; this year the trees were heavily loaded, but very small, especially on the older trees. We do not recommend the planting of this variety now that finer ones of the same season have come in.

Lawson and Andres des Portes ripened about August 12th, on dwarf trees, but both are rendered worthless by a fault in com-

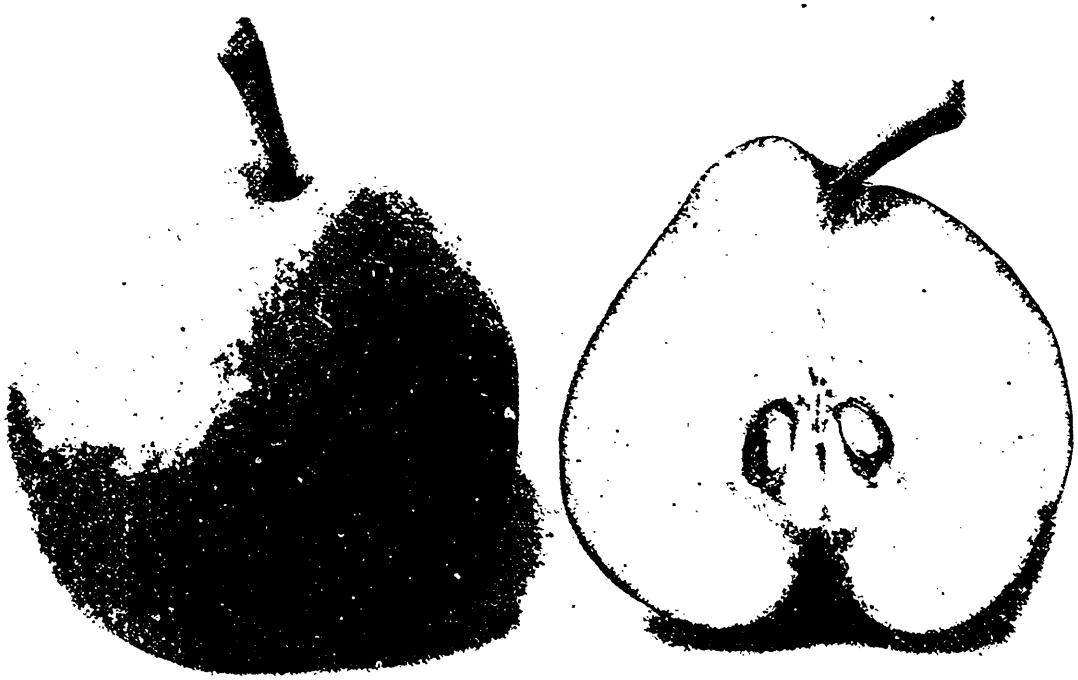


FIG. 2169. ANSAULT.

mon, namely, the rotting at the core almost before maturity. Lawson is a beautiful pear and the tree is very vigorous, but this season is unproductive, and fruit stung with the curculio.

Wilder ripened about the same time, reaching full maturity and beauty about August 15th. The quality is fine when not allowed to hang too long and become mealy. The pears grow to above medium size and take on such gorgeous coloring that passers by are compelled to stop and look in wonder.

owing to its dull green color, it would not sell for any more than other small pears, and brought only about 30 cents per twelve quart basket in the Ottawa market. If this pear could have the superb coloring of the Wilder, it would be a wonderful treasure.

The Tyson began ripening about the last week in August, and, if left hanging, would come in about with the Bartlett; but it is so much smaller and inferior to that variety that we gathered the Tyson while still green and shipped them forward so that they

FIG. 2170. MANNINGS ELIZABETH.

Surely this would be a grand seller.

Manning's Elizabeth began to ripen on the 17th of August and continued in use, many still hanging, until the end of August. They were borne in great clusters and the tree showed great productiveness, but the fruit was too small to be valuable for the market. The quality was very good.

Rostiezer came in about the same time, and was unusually large, averaging 2¼ inches in transverse diameter. The quality is the very best for dessert purposes, but, might not come into competition. The trees are wonderfully healthy and vigorous. Some of them are now fifty years old and have never shown the least indication of blight.

The Brandywine began ripening about August 23rd. The samples were above medium size for pears, and fairly attractive, with dull red cheek on a yellow ground.

Clapp's Favorite was harvested about August 20th. It had attained full size and color, but was not ripe. The samples were magnificent. No pear of its season equals

FIG. 2171. WEALTHYS PLANTED 10 X 10 FT. APART AT THE C. E. F. AS AN EXPERIMENT.

it for market. The year previous we exported a large share of our Clapps and they sold at the best prices.

Doyenne Boussock bore a magnificent crop ; one tree twenty years planted yielded twelve baskets of fine pears. This pear ripens throughout September, about the same season as Bartlett, but we usually harvest it in advance of that variety.

The Bartlett came in about the 1st of September and continued ripening until its season was over, about the 15th of September. It was subject to knots and scabs on clay soil poorly cultivated, but, where cultivated and manured, it gave a magnificent crop of very fine fruit. We put up several hundred cases for the Glasgow market and will report the result later on in the season.

Among the newer pears, we were much pleased with the Ansault (page 451) as a dessert pear. Too soft for distant shipment, it would find a place only in gentlemen's gardens. It is not very attractive in appearance, being a dull green, nearly covered with russet, but when cut it reveals the finest and most delicate texture of flesh which can be described only by the old term "buttery", while its rich, sweetly perfumed flavor is is most agreeable to the taste. The samples were photographed about the 20th of September, and remained on our table until about the 7th of October when one of them was spoiled and the other in the last stage of ripeness.

CENTRAL EXPERIMENTAL FARM NOTES—XVIII.

ANOTHER season has come and gone and with it another year's experience has been gained with the many species and varieties of fruits and vegetables, and the trees, shrubs and herbaceous plants being tested at the Central Experimental Farm. This year has more fully convinced us of the value of some things and the inferiority of others.

The apple crop was light at the Farm this year, as it has been nearly everywhere, and though there was no scarcity of summer and autumn apples there is little winter fruit. The Wealthy apple does not appear to succeed as well in Western Ontario as it does here and in some parts of the province of Quebec. This variety is a wonderful bearer and it is surprising that the trees live after the great crop which they produce. The fruit in this part of Canada becomes highly colored, keeps in condition until early winter, and s of good quality. There is no apple of its season tested here that can compare with it as a commercial fruit. The McIntosh Red apple grows in favor every year. It seems perfectly adapted to this part of Canada, the tree being very hardy and a vigorous grower, and the fruit highly colored and of excellent quality. Where the trees are properly sprayed there is little trouble with the black spot fungus, and though there is never a heavy crop the tree bears annually. The Salome is one of the few winter apples that has fruited well this year. This variety is a good keeper and if the fruit were not so irregular in shape would be one of the most desirable winter apples for this part of Canada, as it keeps well and is a very handsome fruit, but there is always a lack of uniformity about it which is very much against it. The Milwaukee is one of the most promising of the newer winter apples which have fruited here. This variety is a seedling of Duchess of Oldenburg, which it resembles somewhat, but is flatter. The quality also is not unlike the Duchess. Trees planted in 1895 began fruiting in 1899, and there has been a crop

every year since. The fruit keeps in a good cellar until the 1st of March.

The cherry crop was a failure, the flowers being killed by winter. There has not been a full crop of cherries here since 1898.

There were practically no European plums, but many of the American varieties yielded well. The demand for these plums at Ottawa is at present greater than the supply, and good prices are obtained for them. The number of varieties of American plums under test at the Experimental Farm is now very large and every year additions are made. After this year's experience the varieties considered the most satisfactory are the following in their order of ripening:—Bixby, Cheney, New Ulm, Wolf, Silas Wilson, Stoddard, and Hawkeye. These varieties cover a period of nearly five weeks. Several seedling American plums have been originated here which are very promising, being of large size and of better quality than most of the named varieties which have fruited here.

Last winter raspberries suffered very much in this locality, as a result of which the crop this year was small. A seedling known as Herbert, which was originated several years ago by Mr. R. B. White, of Ottawa, proved much hardier than most of the other varieties tested and there was a good crop of it. It is hoped that this fine variety will soon be offered for sale as it should prove a most desirable acquisition to the kinds now on the market. It is of the largest size, bright red, moderately firm, of good quality and very productive, and its hardiness will make it especially valuable in the colder parts of the country.

The strawberry crop was fairly good here, though the season was much shorter than last year owing to dry weather. A season like the past brought the bad points of Clyde into prominence. This variety promised a very heavy crop, but owing to the small amount of foliage and the hot weather the fruit was literally "cooked" and little of it was fit for market, while a large proportion of the crop never ripened. The Glen Mary, Buster, Bubach and Williams all did well and are among the best of the varieties tested. It is unfortunate that the Wm. Belt does not succeed better when grown in the ordinary way, as it is of the best quality, but it is not as good a berry as many of the older varieties. The St. Joseph, an over-bearing kind, much advertised in Europe, has not proved a profitable kind to grow here and while an odd berry may be found as late as October there were so few that it is not worth growing for the sake of getting them. Judging from this year, Rough Rider is not as good a berry as many of the older varieties, and the Senator Dunlap did not yield as well as many other kinds.

The potato crop was good here this year, though a light crop is reported in this vicinity. The long continued hot, dry weather checked the growth of the vines very much where proper cultivation was not given, but on the Farm they grew well.

The results of spraying with Bordeaux mixture to prevent blight were more noticeable than usual this year and the crop was much greater where the vines were sprayed than where they were not. The following four varieties produced the largest crop of marketable potatoes:—Burnaby Mammoth, Uncle Sam, Dreers's Standard, and Early White Prize.

W. T. Macoun, Horticulturist
Central Experimental Farm,
Ottawa.

OUR HORTICULTURAL SOCIETIES AS LOCAL IMPROVEMENT ASSOCIATIONS.

FIG. 2172. A VINE-WREATHED LAMP POST.

WHILE attending the convention of the National League of Improvement Associations at Buffalo, in August last, we thought of our own excellent Horticultural Societies and could see no reason why in Canada any additional organization would be needed, if our societies are willing to enlarge their work a little. Here is a list of objects which are before this League, all of which we believe should be the objects for which our societies are seeking increased interest and co-operation :—

Arbor Day.
Artistic home planting.
Botanical gardens.
Children's improvement associations.
Cemetery improvement.
Cleansing and beautifying public buildings.
Care of vacant lots.
Cycle paths.
County park systems.
Collection of natural objects.
Educational excursions for school children.
Factory planting.
Flower and fruit mission.
Floral exhibitions.
Foot-paths for reaching scenic beauties.
Fountains and wayside springs.
Garbage crematories.
Good roads and good streets.
Home bee culture.
Hand-books and guide-posts locating points of interest.
Historic and scientific museums.
Improvement of city back yards.
Increased attractiveness of farm life.
Lectures on nature and outdoor topics.
Model children's gardens.
Nature study.
Neighborhood gardens for boys.
Open-air band concerts.
Parks for all the people.
Proper care of streets and alleys.
Private residence parks.
Prize awards for home planting.
People's play grounds.
Public assembly and lecture halls.
Proper patriotic celebrations.
Public baths.
Popular instruction in landscape gardening.
Public libraries.
Pleasing church exteriors and surroundings.
Photography as promotive of improvement.
Popular art collections.
Preservation of native plants and animals.
Preservation of historic buildings and localities.
Preservation of groves and natural features.
Removal of unsightly fences.
Rural libraries and reading clubs.
Removal of bill-boards and objectionable advertising.
Railway station grounds.
Rest rooms in towns and villages.
Summer camps for boys and girls.
Study of civic improvement.
School gardens.
Shelter houses for parks and cemeteries.
School yard planting.

Sanitary and storm sewage systems.
Street, road and river-side planting.
Street and road sign-posts.
Traveling libraries.
Vacation schools.
Vacant lot cultivation.

Together with other local needs of home and community.

Miss Jessie M. Good, of Springfield, O., has written a pamphlet on

"THE HOW OF IMPROVEMENT WORK,"

from which we extract a few paragraphs. She says :—

If your town is bleak and unshaded, plant trees, but give a thought to what and how

FIG 2173. THE ROAD PASSING FAIR GROUNDS, BEFORE IT WAS IMPROVED.

you plant. Because you love elms you certainly show a selfish affection when you plant them twenty feet apart upon a paved street sixty feet wide, knowing, as you must if you love them, that the elm is one of the trees that needs great space and moisture for its full development. Few shade trees should be planted closer together than from twenty-five to thirty-five feet. Why not intersperse them with some ornamental flowering trees—red-buds, dogwoods, crab-apples, catalpas, etc.? Why always plant forest trees for city shade? Why not plant fruit trees? I see you smiling, but in Erie, Pennsylvania, I know that years ago Parade street was shaded for many squares by cherry trees that were a perennial delight, beautiful in their neat, compact growth and glossy foliage, and a joy when in blossom and fruitage. But did not the boys steal the fruit, you ask? The loss was not material. Boys who have all the ripe cherries they want at home, will not steal cherries away from home. They will hunt for green apples.

If it is sidewalks you most need, create such a strong public sentiment in their favor that those reticent old taxpayers who always protest against everything but a reduction of taxes will not dare fight against the improvement. But do not think when you have laid new sidewalks and planted your trees that your work is finished. It is but begun.

What is the condition of your back yard and alley? Is the latter an impassable mire in winter and a weedy lane in summer, or is it a well-graded, rolled and drained passage-way? Is your back yard green with grass and gay with flowers, making it a beautiful and wholesome place in which your children may play? Or, is it a death-trap, adorned with a fragrant swill barrel, heaps of ashes and garbage, piles of old boards, an untidy fence, while the bare ground is soaked with greasy dishwater, making it a place abhorrent to your children as a playground, and as unsafe from a sanitary point of view as a sewer? If you have such a back yard, let me tell you the day is nearly over when educated people keep what some one has wittily called "Queen Anne fronts and Mary Ann backs." Can you wonder why Johnny and Willie prefer to play in the street instead of the yard? I think their preference for the street shows a proper instinct and good judgment.

Does your grocer and fruiterer expose the foods he expects you to eat to the dusty contagion of the street? If so, you should teach that you never offer such contaminated

foods to your family. If an organisation of influential housekeepers speaks clearly upon this point, glass-covered boxes will be quickly provided that will show the goods quite as well.

How about your dairy supply? In a certain town a shocking infant mortality was traced to the milk. A body of indignant women making a protest against an incompetent dairy inspector was told by the politician, of whom the inspector was a protege, that they were going outside their sphere when meddling in politics. He was quickly answered that "women's sphere was not only outside the home but inside the baby." A weekly or fortnightly visit by a committee from an improvement association would have a deal to do with wholesome dairy premises. No educated woman of this age dares to be indifferent as to the source of the food with which she supplies her family. Beauty and health are synonymous terms—you cannot have one without the other.

Have you parks and open squares as breathing places for the people? Have you public playgrounds for your children? This one matter of public playgrounds in all towns is of vital importance. When the influence upon the character and morals of children of healthful play under the care of a watchful, high-principled man or woman is fully understood, no money will be spared to provide such playgrounds, and a new profession, that of play professor, will be among the honorable and well-paid callings.

The possibilities of such playgrounds are almost unlimited. What mother would fear to send her boys to the public playground if she knew that awaiting them was a man who could teach or oversee them in their games and athletic sports, noting and repressing evil tendencies in speech and manner? On occasion such a man would take them on fishing and swimming trips and excursions through field and forest. The woman teacher has charge of the girls' plays and games, and teaches to both sexes—without seeming to teach—botany and nature study and kindness to birds and beasts, until even boys will see a bird, or cat, and a stone in juxtaposition without desiring to pick up the one and throw it at the other. This is not a severed dream of mine. In a modified way these playgrounds are being tried in various cities, with the happiest results.

Are there any provisions for public baths in your town? If there are none please observe on the following pages what Brookline, Massachusetts, offers its citizens. Interest the young men of your town in this matter.

Have you casinos where the social life of your town may find expression? Have you a public library? If not, and your town is too small to support one, there are ways of obtaining traveling library cases. If your state library has no provision for distributing to the people the books your taxes so expensively house, petition your legislature until these books reach the people who need and want them.

The disfigurement of streets and landscapes by bill-boards and advertisements is a nuisance that is attracting the attention of many of the best men, both at home and abroad.

FIG. 2174. THE SAME ROAD AFTER BEING IMPROVED BY THE LOCAL SOCIETY.

PAN-AMERICAN HORTICULTURE—V.

SIR,—Before this number of the Horticulturist will reach the hands of your subscribers, the Pan-American Exhibition will have passed the last milestone of its existence, and to a great extent will have become a memory. As a representative collection of the achievements of the Americas in Science, Art and the various industries, which have been here displayed, it will live forever in the thoughts and memories of those who have been privileged to enjoy its beauties. It will also, I am sure, have a very potent influence upon the minds and hearts of the many thousands who have visited the grounds and buildings during the past summer, in giving a strong impetus to the love of the beautiful and artistic, and, I believe, that the influence will come with greater force to no class of people than to those who are engaged in cultivating the soil in the neighboring republic and in this Canada of ours. Inasmuch as our Canadian people have visited the Exposition in vast numbers and have repeatedly done so, there is no doubt thoughts and ideas have been carried away in connection with the improvement of home surroundings in our rural sections, and a longing to reproduce in a modified way, around home and farm, some of the beautiful effects that have been seen and admired. This will result in more careful selection, more thorough cultivation, and a greater attention to the small details of landscape improvement and adornment, and hus we will see on every side steps taken in advance that will be of exceeding value to every section of our country.

I, however, Mr. Editor, started out not so much to give your readers a dissertation on the general result of the Exhibition as a whole, as to send you a few jottings having reference to the Horticultural features, more particularly of our own exhibit. Ever since the meeting of the American Pomological Society, on the 12th and 13th of September last, the fruit exhibits have been at their best, and from day to day a magnificent collection of the fruits indigenous to the United States and Canada has been maintained. In this friendly competition, thanks to the hearty co-operation of so many fruit growers from all over the Province, I am glad to be able to say that we have had no particular cause to be ashamed of our display. As the awards in our Department for fruits at this writing have not been finally determined, it will be premature on my part to go into particulars; I might, however, say that so far, we have obtained one gold medal, three silver, three Wilder silver, four bronze and two awards of honorable mention upon our preliminary entries, and I trust that these awards are but a harbinger of what is to follow. In the brief space at my command it will not be possible for me to mention more than a very few of the principal exhibitors during the past month In apples, Messrs. W. H. Dempsey, Trenton; Harry Dempsey, Rednorsville; R. L. Huggard, Whitby; Francis Peck, Albury; R. J. Graham, Belleville; Harold Jones, Maitland; Prof. Macoun, Central Experimental Farm, Ottawa; Wm. Rickard, Newcastle; Thomas C. Hagaman, Oakville; J. Pritchard, Harriston; C. L. Stephens, Orillia, and many others, have furnished as fine specimens as it would be possible to procure even in a season of full crops of this standard fruit. From the Queenston, St. Catharines, Fonthill, Niagara, Brantford, Grimsby and Essex districts, through many constant contributors, we have had an excellent supply of peaches from day to day, and I can

safely say that our peach and grape display has attracted a great deal of attention, and has elicited many exclamations of surprise and amazement. Supplies of assorted fruits have been coming in regularly from the Burlington Horticultural Society, sent in by nearly every member, through Mr. W. E. A. Peer, who was appointed collector. In grapes and pears, Messrs. Orr, Pettit, Pay, Stewart, Haynes, Griffiths, Secord, T. R. Merrit and yourself, Mr. Editor, are only a few out of many who have contributed largely in this respect. We have also had a full and constant supply of cut flowers in season from Messrs. Morris, Stone and Wellington, Fonthill, and our old friend, Roderick Cameron, of Queen Victoria Park, Niagara Falls, adding much to the beauty of our exhibit. In tropical fruits, Mr. Randall, of Niagara-on-the-Lake, has sent us white Genoa figs on several occasions, and our Florida and California neighbors have been astonished by the production in Canada of fine samples of Philodendron or Monstera Deliciosa, a most delicious tropical fruit.

A full list of the various exhibitors is being prepared, together with whatever awards will have been given, and will appear in due course. It will be my desire that every exhibitor shall receive a copy. As I have already trespassed on your space, I will leave the final summing up of the results until a later issue.

Buffalo, N. Y., W. H. BUNTING.
Oct. 18th, 1901.

PAN-AMERICAN NOTES.

Before these words reach the eye of the reader of the Horticulturist the Pan-American Exhibition will most likely have come to an end. The great buildings, majestic tower, and temples of all the arts, which have been the scenes of busy life and friendly rivalry for the past six months will have become desolate, and the busy hands that were engaged twelve short months ago in rearing those majestic structures will be again employed in their destruction and defacement. But while defacements may go on, even to the complete obliteration of those temples of industrial manifestation the memories of competitive triumphs and national honors won will remain to many of us a proud and pleasing recollection. Especially will this latter be the case with the thousands of Canadians who visited the great Exposition and noted with proud satisfaction the honorable position their country held in all the competitive and industrial departments in which she entered. Say what you will of the average Britisher, he is very much of a sentimentalist as well as a shopkeeper, and when he tastes his roast beef and plum pudding and finds it a trifle better in quality, then his bucolic breast will swell with national pride quite as perceptibly as that of his more demonstrative neighbor the Frenchman.

In his patriotic sensibilities the Canadian is more acute than the old-land Britisher, and his national enthusiasm is keener and more manifest.

It was my privilege to be a visitor at the Pan-American, and also at the meeting of the American Pomological Society held at the Epworth hotel in Buffalo when the Wilder awards for the special fruit exhibits were announced. And when the name of our own province was announced as having won a silver medal for a general collection of fruits, another silver medal for a display of grapes, a bronze medal for an exhibit of plums, and still another for a general collection; and this in competition with the great fruit districts of the United States, it is needless to say that the Canadians present let the rest of the meeting know they were there.

Our own general fruit exhibit in the horticultural building I was especially proud of. At first sight it did not strike one as attrac-

tive as the Wisconsin display close beside it. But on closer examination our display had the far greater quality and value. While the Wisconsin exhibit was largely made up of such showy apples as McMahan's White, Wolf River, Alexander, Wealthy, Fallawater, and Maiden's Blush ; the Northern Spy, Baldwin, Ben Davis, King, Russet, and several of the pippins, entered largely into the Canadian display. In pears, during my visit, there was no state exhibit better up than the Canadian ; and this might likewise be said of grapes and plums. In peaches, while Ontario made a very creditable display, and one sufficient to create considerable wonderment among American and foreign visitors, Michigan, with her extra display of this luscious fruit, of course carried off the palm.

It was quite natural that Ontario surpassed all the States in apples of long keeping quality ; and the cold storage exhibit, then in September, still sound and fresh, was a striking object lesson to the visitor in proof of this fact. I noticed that all the western States ran to showy apples such as I have named above, while New York State alone crowded Ontario closely in fruit of real solid quality.

I cannot leave this subject without a word of commendation to Mr. Bunting for his management of the Canadian fruit exhibit, and a word of congratulation as well for the success he had made in attracting attention to it. No Canadian fruit-grower could be otherwise than pleased with the manner in which the fruit interests of his country were presented at the great continental Exposition. And how can I close without a word for our old friend Mr. H. H. Groff? Truly his display of gladioli in the wing of the horticultural building was the admiration of everybody. Even a visitor from Bermuda remarked that he had not seen anything like it before in the world. "Where is Simcoe," one lady from the South asked, and when told that it was up in Canada she exclaimed "What! did all this lot come from that country?" It is but a mild compliment to Mr. Groff to assure him that he scored a greater triumph in the expressions of admiration that his magnificent gladioli display drew from the thousands of visitors who stopped to look with delight upon it than in the thirteen prizes and medals he captured out of the total fifteen offered. Ten thousand spikes of gladioli in constant display for six weeks is a sight no other man could have given to the world save Mr. Groff.

Mitchell. T. H. RACE.

AN ATTRACTIVE FRUIT DISPLAY.

It was naturally expected that Canada would make a good showing in live stock and dairy produce at Buffalo. Live stock and dairying are well established industries in this country, and even our American friends have begun to learn something of what Canada can do along this line.

But fruit production is a comparatively a new thing. It is only within the last quarter of a century that apples have been produced in any considerable quantity in this country, while peach-growing and vineyards, on a commercial basis, are a matter of yesterday. Still this Province alone has made an exhibit at Buffalo, in everything except the tropical fruits, which has equalled that made by the best of the States across the line. As Mr. Norris, master of the New York State Grange, said last week (and he kept well within the limits of truth in doing so), "Ontario does not take much of a back seat from any of them."

Mr. Norris' statement is well sustained by the preliminary list of Exposition awards published last week. This list shows that the Province obtains no less than nine awards on fruit—one gold medal, three silver medals, the same number of bronze medals, and two "honorable mentions."

These awards were divided as follows :

Gold medal—Display of wines, Ontario Department of Agriculture.

Silver Medals—Installation of exhibit, Department of Agriculture ; general display of domestic and canned fruits and vegetables, Ontario Department of Agriculture ; pickles and relishes, Shuttleworth & Harris, Brantford.

Bronze medals—Wines, Geo. Barnes, St. Catharines ; wines, E. Girardot Wine Co., Sandwich ; wines, J. S. Hamilton & Co., Brantford.

Honorable mention—Canned fruits and vegetables, L. M. Schenck & Co., St. Catharines ; Mineral Water, Spring Bank, A. J. Bain, St. Catharines.

AN ATTRACTIVE DISPLAY LAST WEEK.

The tables in the Ontario department of the Horticultural building were particularly attractive last week—laden as they were not only with still luscious looking grapes and peaches, but with the fruit of this year's later apples as well. Warden Rickard, of the United Counties of Durham and Northumberland, who showed early in the season the best last year's Spys seen during the whole Exposition, had on show some of this year's apples that were no discredit to the reputation already earned. While his 1901 Spys were not equal to those of last year, they were still remarkably good, and his specimens of Ben Davis, Greening, Baldwin, Fameuse and Alexander, were splendid specimens in size, color, and freedom from blemish.

W. H. Dempsey, of Trenton, had on the table some fine La Rues and McIntosh Reds, the former being particularly handsome.

Harold Jones, of Maitland, showed some of the Scarlet Pippins and Fameuse of the kind which have given him a Provincial reputation, and J. Pritchard, of Harriston, sent as his contribution some Alexanders almost equal to the one which recently made the centre of the face of a barrel.

The finest quinces seen in the building last week were those shown by J. Clement, of Brantford, and as proof that Ontario is nearer the tropics than the North Pole, fine almonds were shown by Robert Currie, Niagara, and perfectly developed peanuts were exhibited by J. Haven, of Louth township. The keeping quality of our fruit was illustrated by the fact that Wickson plums, which had been on the open table for weeks, were still firm.—*The Weekly Sun.*

NOVA SCOTA AT THE PAN.

SIR,—It was with extreme pleasure that we welcomed the advent of the genial President of the Nova Scotia Horticultural Society, Mr. Bigelow, and his excellent wife, to the circle of exhibitors in our building.

Mr. Bigelow arrived about Oct. 1st with a very fine consignment of Nova Scotia fruit, including the celebrated Gravenstein, Tompkin's King and Ribston Pippin apples in quantity, and very fine samples of about 84 varieties of apples and 20 varieties of pears, also an excellant display of Nova Scotia potatoes. He has taken up the location occupied by North Dakota in the earlier part of the season, and has certainly staged an exhibit of very fine fruit in a most attractive manner. The casual visitor to the Horticultural Building will now find the fruit products of Canada displayed at either end of the building to which he may chance to go. Ontario occupying a large space in the south section and Nova Scotia being found at the extreme north side. Mr. Bigelow has displayed great taste in his arrangement of flags, having placed a portrait of our late beloved Queen Victoria with an English flag and another of the late President McKinley with an American flag upon a large Nova Scotia flag, and draped the entire group with royal mourning, expressing a fine sentiment and giving a most beautiful effect. Mr. A. C. Starr, who has sold his orchard of 26 acres of apples this summer for the sum of $8,000.00 is one of

the principal exhibitors through Mr. Bigelow. There are in all 14 exhibits in the names of different individuals entered for awards, and if quality counts, as no doubt it does, I am sure Nova Scotia will obtain her share of awards. The far Eastern Province is to be congratulated upon having such a public spirited citizen as Mr. Bigelow, who has got together such a creditable display.

I fear, Mr. Editor, that I am again trespassing on your space at too great a length, but I felt as though your readers would be pleased to learn something about what our Nova Scotia friends were doing here.

WM. H. BUNTING.

Buffalo, Oct. 21, 1901.

REPORT OF COMMITTEE ON AWARD OF WILDER MEDALS.

The committee on Wilder Medal awards begs to report that it has examined the fruit placed on exhibition in the Horticultural building and recommends that the following medals and awards be given.

The following Silver Medals were awarded:

Los Angeles Chamber of Commerce, Los Angeles, Cal. General display of fruits and nuts.

Ellwanger & Barry, Rochester, N.Y. Display of fruit, pears 131 plates, plums 50 plates, grapes 52 plates. apples 90 plates

M. Pettit, Winona, Ont., Canada. Collection of 131 varieties of grapes.

Albert Pay, St. Catharines, Ont., Canada. Display of fruit. Peaches 21 varieties. apples 3 varieties, quince 1 variety, grapes 32 varieties, plums 23 varieties, pears 26 varieties.

Kansas State Horticultural Society. Collection of fruit. Apples 140 plates, peaches 14 plates, pears 21 plates, plums 6 plates, grapes 31 plates.

Ontario Fruit Experiment Stations, L. Woolverton, secretary, Grimsby, Ont. Display of fruit. Apples 119 varieties, grapes 20 varieties, plums 22 varieties, pears 43 varieties.

Horticultural Department, Cornell University. Collections Hybrid plums, pears and grapes.

T. S. Hubbard Co., Fredonia, N.Y. Fifty varieties grapes.

Geo. S. Josselyn, Fredonia, N.Y. Sixty varieties grapes.

Missouri State Horticultural Society. Display of 900 plates fruit.

Wisconsin State Horticultural Society. General display of fruit.

Theodore Williams, Benson, Nebraska. Collection of Seedling and Hybrid plums, and as a recognition of valuable work done in cross-breeding plums.

Oregon State Fruit Exhibit, Display of fruit in charge of H. E. Dosch.

Washington State fruit exhibit, in charge of Chas. H. Ross. Display of fruit.

The following Bronze Medals were awarded:

C C. Shaw, Milford, N.H. Collection of apples.

W. M. Orr, Fruitland, Ontario, Canada. Collection of fruit. Grapes 5 varieties, peaches 5 varieties, plums 20 varieties, pears 10 varieties.

Michigan Agricultural College. 28 varieties pears.

W. E. Rowe, Grand Rapids, Mich. An exhibit of commercial fruit of this day, Sept. 13th, 1901. Pears, Angouleme (Duchess), Bartlett; grapes, Worden, Delaware; peaches, Elberta, Engle Mammoth; plums, Wickson, Grand Duke; apples, Wealthy, Maiden Blush.

South Haven Sub-Station Michigan Agricultural College, Collection of fruit. Pears 14 plates, peaches 20 plates, grppes 4 plates, apples 9 plates, quince 1 plate.

Maine Pomological Society. Display of fruit.

Orlando Pineapple Association by C. E. Howard, Orlando, Florida. Exhibit of pineapples.

Luther Putman, Cambridge, Vt. Collection of 33 varieties Vermont apples.

The following received Honorable Mention:

Fred Pfeifer, Jacksonville. Florida. Carson Pomelo exhibit.

Exhibit by Los Angeles Chamber of Commerce: Southern California Fruit Exchange, Valencia Late Oranges. C W. Leffingwell, Whittier, Cal., Eureka lemons. New Hope Fruit Farm, Santa Ana, Cal, Fall Pippin. A. P. Griffith, Azusa, Cal., Citron of Commerce. Ludwig & Mathews, Los Angeles, Cal., Hungarian prunes. Rivers Bros., Los Angeles. Cal., Black Morocco grapes.

Silas Wilson, Atlanta, Ia. Exhibit of McPike grapes.

W. E. Rowe, Michigan State Fruit Exhibit. Exhibit of commercial plums, Wickson, Washington, Pond Seedling, Juane Purple, Lombard.

Roland Morrill. Benton Harbor, Mich. Exhibit of Elberta peaches.

S. Copper, Delavan, N.Y. Photo Pan-American strawberry with potted plant bearing fruit.

G. H. Gibbons, Winter Haven, Florida. Exhibit of Hart Late orange.

W. B. K. Johnson, Allentown, Pa. Collection apples, pears, peaches and quinces.

In addition to the above the committee noted the following exhibits:

F. N. Benham, Diamondale, Mich. Wolverine apples, which at this time were not sufficiently mature to test.

G E. Ryckman, Brocton, N.Y. Chautauqua climbing currant, an interesting form of a trailing currant bearing fruit of the size and appearance of red grape.

E. P. Beebe, Elizabeth, N.J. 2 plates sweet apples for exhibition only.

Delaware State Board of Agriculture, Dover, Del. Exhibited apples, pears and peaches.

Your committee wish to recommend that fruit which is placed on exhibition for Wilder Medals should be forwarded for that purpose and should not be allowed first to compete in other exhibitions which may chance to be open at the same time and place

Committee: F. M. Hexamer, N. F. Murray, E. S. Goff, W. J. Green, W. T. Macoun, John Craig.

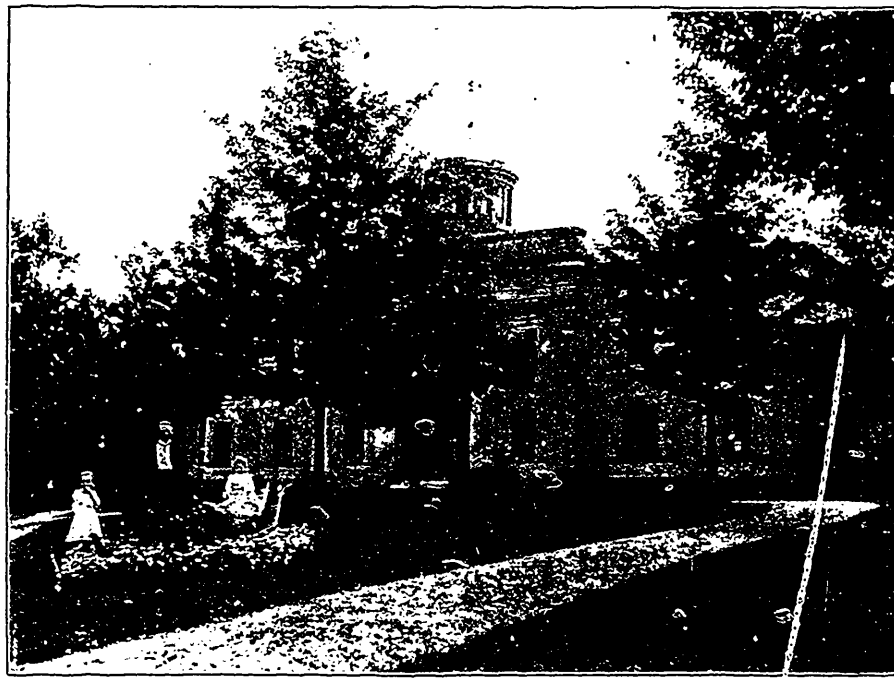


FIG. 2175. A GLIMPSE OF THE COURT HOUSE, CAYUGA.

THE EVOLUTION OF A LOCAL HORTICULTURAL SOCIETY.

CAYUGA, although a very small town, has many natural attractions, a fertile soil, a picturesque landscape and is the county town of the County of Haldimand. For a long time the only public floral embellishments consisted in the wild flowers of the river islands, and the rank street growth of the sweet clover; people kept pigs and cattle pastured on the streets. Upon the engaging, however, of J. E. Skeele, as principal of the High School, it dated a new era. The school premises for the first time were really cleaned and tulip beds were set out. Numbers of the citizens began the systematic culture of flowers and a desire for improvement manifested itself. At this juncture Mr. Thos. Beall, your organizing director, called upon me. He arrived one day in December, 1900, about 6 p.m., and only stayed that evening, but his coming seemed providential. We were ready to do something, but did not

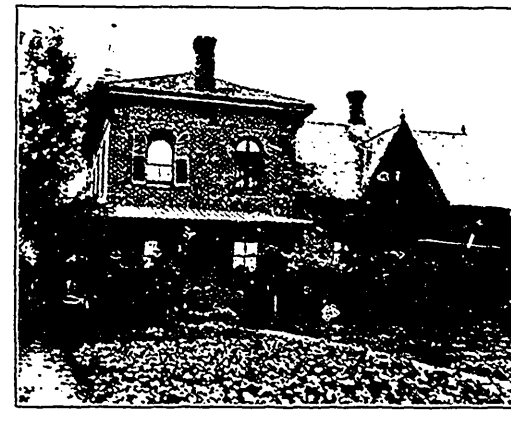


FIG. 2176. RT. REV. DEAN LAUSSIE, D. D., HIS HOME AND GARDEN.

FIG. 2177. RESIDENCE OF A. K. GOODMAN.

know what; his arrival was most opportune, but our hearts failed us at the idea of getting 50 members in Cayuga. However three of us, Mr. Skeele, our president, Mr. Morson, manager of the Bank of Commerce, our treasurer, and the writer as secretary, started on the tramp—after hours. At first people laughed at us but we soon had 78 members and then everyone said "I told you so." In the spring we were impatient to see the snow go, everybody cleaned up, bonfires were general, pigpens were abolished, the cattle shut up. The Cayuga Horticultural Society was on every tongue and lazy men apologized and said "If I'd a place of my own I'd go in for flowers too." As the season opened street trees and evergreens were planted, many new gardens were made. The county council was waited upon and gave a grant of $50 for 1901 for flowers. Governor Murphy joined forces with us and with great taste and skill directed our local florist, Slocum, to the end that gardens in our Court House park grounds of 12 acres, of great natural beauty, excited the admiration of everybody. The public, the grand jury, the county council and the visiting justices of the Supreme Court, all spoke well of the work and praised the exquisite taste of the guiding hand and the beneficial and wholesome results attained. The town council, too, gave us $20 with which three handsome beds were made in the town park; these were even watered and cared for voluntarily by good citizens. Our government grant was $60. A handsome cedar hedge was donated to the High School grounds and many took advantage of the opportunity of buying choice stock at wholesale rates. Our public meeting held in the Court House was attended by an immense number; Mr. Wm. Bacon, of Orillia, the government lecturer, was simply astounded to see the life and snap exhibited by a year-old society, the floral decorations, the orchestra and the intense interest and Mr. Bacon's well-known ability made this meeting very attractive. But we have just commenced and next year is already bright with promise. Our County Council in most eulogistic terms granted us $50 again for flowers in 1902. Our membership list is growing steadily and we look forward to a year of great improvement.

The general outside opinion is that our society has already done a great deal of good

FIG. 2178. ASTERS.

to Cayuga. I feel sure the organization of a local Horticultural Society would prove of equal benefit to any other place and there are many places where weeds, laziness and a lack of flowers seem to be the noticeable features. The four cuts are, 1. A glimpse of the Court House with Mr. Murphy and children. 2. The Rt. Rev. Dean Laussie D. D., his home and garden. 3. My house showing the southern terrace just opposite the Court House. 4. A bunch of Asters picked from one of my beds that contained at one time 5000 asters in bloom. These photos were taken by J. W. Sweatman, son of the Bishop of Toronto.

Cayuga, Ont. A. K. GOODMAN.

OUR ANNUAL MEETING.

THE 42nd annual meeting of the Fruit Growers' Association of Ontario will be held in the City Council Chamber and the Grand Opera House, Cobourg, on Wednesday, Thursday and Friday, the 4th, 5th and 6th of December, 1901.

The day meetings will begin at 9 a. m., and the evening meetings at 7.45.

PROGRAMME.

TUESDAY EVENING.

Directors' meeting—As far as possible all business matters of the directorate will be disposed of at this meeting.

WEDNESDAY.

Morning—*Business and Legislation;* the fruit exhibit; appointment of committees; (1) nominations; (2) fruit exhibit; (3) resolutions; (4) correspondence.

Reports of standing committees—

New Fruits—Prof. Hutt, O. A. C., Guelph.

Codling Moth—Joseph Tweddle, Stoney Creek.

Industrial Fair—W. E. Wellington, Toronto.

Western Fair—J. S. Scarff, Woodstock.

Eastern Fair—R. B. Whyte, Ottawa.

American Pomological Society—G. C. Caston, T. H. Race and others.

Quebec Fruit Growers' Association—H. Jones, Maitland.

FRUIT PACKING, GRADING AND INSPECTION.

Afternoon—*Practical and Educational.*

Report of committee on Fruit packages—E. D. Smith, Winona.

Fruit packages for fancy fruit (with samples)—Wm. Wilson, London.

Apple packing, illustrated—San. Nesbitt, Brighton.

Address—Prof. H. E. Van Deman, ex U. S. Pomologist, Washington, D. C.

Evening—Music and recitations by local talent.

Address of Welcome—the Mayor of Cobourg.

Annual address by the President, W. M. Orr, Fruitland.

Address—Mr. C. C. James, Toronto, Deputy Minister of Agriculture.

"The fruit trade in England"—Prof. J. W. Robertson, Ottawa.

"General phases of maritime fruit growing."—Rev. Father Burke, Alberton, P.E.I.

THURSDAY.

Morning—*Business and Legislation.*

Report of nominating committee.

Report of directors and executive committee.

Report of secretary-treasurer.

Report of finance committee.

Report of Auditors.

Report of transportation committee—W. H. Bunting, St. Catharines.

"Freight on fruits"—H. W. Dawson, Toronto.

"Organized effort for fruit exhibit at St. Louis"—H. Jones.

The Fruit Marks Act.

Report of inspectors—E. Lick, Oshawa, Alex. McNeill, Walkerville, and others.

Afternoon—*Practical.*

"Our Affiliated Horticultural Societies."

Reports of representatives—"What we have done and how we did it."

Reports of lecturers.

"Amateur rose growing"—John S. Jackson, Port Hope.

"Spraying"—J. E. Orr, Fruitland.

"Pruning"—W. N. Hutt, Southend.

Evening—Music and literary programme by local talent.

Question drawer opened and answered.

Introduction of visitors and representatives of sister societies.

Address — G. C. Creelman, Toronto. "Horticultural Societies; their relation to the home, the school and the province."

Address by the Hon. John Dryden, Minister of Agriculture.

Illustrated address on the orchard—Prof. Waugh, Horticulturist Vermont Experiment Station, Burlington, Vt.

FRIDAY.

Morning—*Reports of committees*—

Fruit exhibit, cold storage apples from Buffalo, resolutions, etc.

Address by Prof. Macoun, Central Experimental Farm, Ottawa.

Afternoon—*Unfinished business*—

Our Experiment Stations.

Profitable varieties of grapes—M. Pettit, Winona.

The best gooseberries—S. Spillett, Nantyr.

The new strawberries—Rev. E. B. Stevenson.

How to grow raspberries—A. M. Smith, St. Catharies.

Our best commercial apples—W. H. Dempsey, Trenton.

Cherries for Northern Ontario—G. C. Caston, Craighurst.

How to produce fine apples—H. Jones, Maitland.

Our export trade in fruit—E. D. Smith, Winona.

Topics suggested for Question Drawer—

The expensive tree protector.

The cherry aphis.

The torch and trap lantern in the orchard.

Perennial flowers.

Date of our annual meeting.

N.B.—*Headquarters will be at the Dunham House, Cobourg.*

OUR FRUIT INSPECTORS are at work, and although only seven in number, they are making their presence felt in all the provinces. Several times, for example the Toronto and Hamilton markets have been surprised by them, and, while no actual convictions have been made, a wholesome dread of the penalty which they have the power to inflict has resulted in more honesty of packing and better satisfaction for the fruit buyer. On Tuesday, Oct. 15th, we were favored with a call from Mr. W. A. McKinnon, chief of this department, and Mr. Alex. McNeill, one of the inpectors. They reported that the educational feature of their work seemed more important than the prosecution for fraud, at least for the first season. Consequently Mr. McNeill is holding demonstration meetings with farmers, at which he is showing them how to properly pack their own fruit, and thus, combining together they can save to themselves the profits of the speculator. The inspectors at work are: Alex. McNeill, Walkerville, Elmer Lick, of Oshawa, E. H. Wartman, of Kingston, E. J. Carey, of Cobourg, J. F. Scriver, of Montreal, George Vroom, of Middleton, N.S., and Richard Burke, of Charlottetown, P.E.I.

OCEAN COLD STORAGE NOT YET A SUCCESS.

Bartletts Either Cooked or Frozen.

FRUIT growers generally will never enter with confidence upon the export of tender fruits, such as Bartlet pears and peaches, until the cold storage service on shipboard is more satistory, or else until the Government will guarantee us against loss in transport. We are willing to risk the markets, but it is provoking to have our fruits either frozen or cooked, and no redress.

A few of us at Grimsby, anxious that the experiments so well undertaken should be continued, forwarded at our own risk, to Glasgow from Montreal on the 12th of September per Donaldson line 1,120 cases of Bartlett pears, green and hard, and in a condition in which we believe they would carry on deck in the open air in safety. Our surprise was great to have a report from Thos. Russell, Glasgow, the consignee, dated the 28th September, to say that the whole shipment landed in "*in bad condition and over ripe*," and had to be sold at from 2s. to 5s. a case, and a good many cases were "worthless"; and that some of the lots will barely cover the freight. This is rather discouraging to private enterprise, for 10 shillings is not unusual for our half cases of pears in Glasgow when they are carried at a proper temperature.

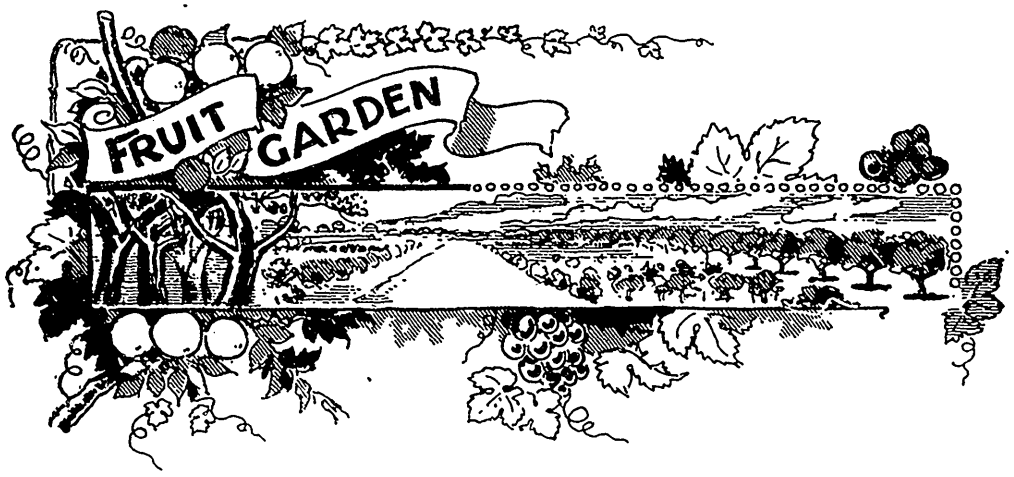
While our shipment was kept at too high a temperature on shipboard, both while lying at Montreal and for the first three days out, when it was *at last* got down to 40°, we noticed that the first experimental shipment of Bartletts by the U. S. government was injured by too low a temperature, and some of the fruit frozen. The following account is from the Fruitman's Guide of New York city:

The Guide's English mails this week brought it interesting information concerning the sale of the experimental shipment of American Bartletts sent over in September to London under the auspices of the United States Government. As told in the The Guide at the time the fruit was grown near Barker, Niagara Co., N. Y., and was shipped by F. M. Bradley, for himself and six others. It was picked on September 2nd, packed September 3rd, and placed in the refrigerator in New York on September 5th. It went by the Minneapolis, which sailed on September 7th, and was sold at Covent Garden by Garcia, Jacobs & Co. on September 18th, results in detail being as follows:

1 bbl.	American	Bartletts	.....	38s.
1 bbl.	American	Bartletts	.....	31s.
8 half-boxes	American	Bartletts	.....	4s.
15	"	"	.....	6s.
120	"	"	.....	3s. 3d.
20	"	"	.....	3s. 4½d.
84	"	"	.....	4s. 9d.
36	"	"	.....	5s.
12 boxes	American	Bartletts	.....	9s. 3d.
25 boxes	American	Bartletts	.....	6s. 3d.

The two barrels brought an extraordinary high price, 25s. being a good price in the London market for this stock. Evidently the barrels contained fine fruit, which arrived in perfect condition, and the barrel which fetched 38s. or $7.60 must have been remarkably fine indeed. But the half-boxes show a great slump, and prices were anything but good. Our correspondent informs us that this was due to the fact that the pears in the half-boxes arrived frozen, the chamber temperature on the voyage across having evidently been kept too low.

However, it is just to find out through the schooling of experience such points as this that the experiments are being made. The Government experts are making the shipments with this purpose well in view—to find out the exact temperatures best suited for the shipment of the different varieties of fruit. It is safe to say that profiting by experience, those in charge of the shipments will have no more Bartlett pears arriving frozen on the other side. Rome was not built in a day, and it will be some time yet before the experts get things down to such a fine point as to be able to gauge the proper temperature for various kinds of fruits with mathematical precision. But they are "getting there just the same," and the American exporter and the European receiver of fruits will yet arise to call the men responsible for this much needed display of activity on the part of our Government "blessed."



FALL TREATMENT OF PEAR BLIGHT.

IN those orchards where the blight has been carefully and persistently removed and destroyed most of the trees have been saved. In some instances the cutting was not severe enough to remove all the blight producing organisms, that is, the diseased branches were not cut far enough below the lowest discolored point on the bark to remove the organisms, and as a result the disease remains in the tree and continues its destructive work so long as soil and weather conditions are favorable.

At this season it will be observed that the blight is not spreading and the disease is not advancing even in the partially dead branches. It has been found however that the disease producing organisms, although inactive during the fall and winter, are not dead, that they are capable of living over the winter if the diseased branches have not been removed from the trees. As soon as the sap begins to flow in the spring these organisms again become active and it is from these so-called hold-over cases that the blight is spread. When the organisms become active in the spring they find their way to the surface of the infested branches either through exuding of the sap or otherwise and are carried by the bees or wind to neighboring trees where they lodge and produce disease.

It is clear from these facts that have been determined by careful investigation that there is only one way in which to prevent an outbreak of this disease next season and that is by destroying all the organisms before the sap begins to flow in the spring. The only method by which this can be accomplished, so far as known at present, consists in cutting out and burning the affected branches. In many orchards where the blight was so destructive the past season it was found that little or no effect had been made to destroy this pest during the preceding season. While the blight was not so destructive generally in 1899, as in 1900, it was present in most orchards and in many isolated trees; hence where it was not cut out it accumulated and became more destructive during the past season.—*Small Fruit Grower.*

BEES AS BLIGHT DISTRIBUTORS.

I HAVE thoroughly worked out the question relative to bees carrying blight. The conclusion reached is that bees carry pear blight extensively, and, with other insects, are the principal or almost the only agency of distribution of the germs. The occurrence of the blight on the blossoms in great quantities and the great rapidity with which the disease spreads from flower to flower indicate a normal and very effective method of distribution. The germs were found growing freely in the nectar of the blossoms.

Bees were seen repeatedly visiting the infected flowers, and some were caught taking infected nectar, and by means of plant cultures the pear blight germs were isolated from their mouth parts. By covering parts of the trees with sacks of various kinds of material, including mosquito netting, and then artificially infecting certain flowers on the tree, the blight was observed to spread very freely over the uninfected and uncovered blossoms, but was entirely absent in the blossoms covered by mosquito netting.

Blossoms were infected and at once covered with sacks and the blight in such cases was retained in the infected blossoms. Pear blight germs died very soon after being dried up, and lived for only a brief period on exposure to weather conditions out of doors, hence they cannot live in dust and be blown around to any great extent by the wind. Pear blight virus, particularly that which occurs on the blossoms, is a very sticky substance, and is readily carried by insects, birds or other animals, but cannot be blown by the wind.

It may also be well to state that as a result of this serious charge against bees, I was led to carry on an extensive series of experiments in the pollination of pomaceous fruits, and as a result of these I found that bees are indispensable to the pollination and setting of most of our pomaceous fruits, hence they should not be destroyed, as some growers think. They simply carry the pear blight incidentally while performing an important and necessary function.—*American Agriculturist.*

FALL PLANTING TREES.

ON the question of whether it is better to plant fruit trees in fall or spring Professor F. A. Waugh, of the Vermont Experiment Station, says that one time is just as good as another providing the soil is in good condition and the trees are all right.

There are some advantages in setting trees in the fall, the principal one being that there is commonly more time for it at that season. There is always a rush of work in the spring, but at this time of the year farm operations are less pressing. Sometimes also the trees can be had in better condition in the fall. Usually prices are slightly lower for nursery stock. Furthermore when fall planting is really successful the trees are apt to do better than when spring planted. They become established to some extent during the winter, and are all ready to start with the first growing weather in spring.

The chief requirement of fall planting is good soil in a state of high cultivation. Raw, lumpy, soddy soil will not answer. Positions in which water stands will not do for fall planting. (In fact trees should never be set in such places.) Where the soil is not light and well drained it is liable to freeze and heave, thus doing much injury to young trees.

But if the soil is right, and the trees are right and the man is ready to plant, fall setting of fruit trees is nearly always advisable.

STORING CELERY FOR WINTER.

WHEN cold weather comes celery should be removed to the cellar. In case there is not room in the cellar let a space be cleared and levelled in the garden and boards set up about it. The space between the boards should be subdivided by other boards set two feet apart. The bunches should then be taken up with a spade, roots and all, and all the dirt allowed to remain that will cling to the roots. Set the plants close together in the space until they fill it compactly and snugly, then cover with boards and over that throw a pile of straw. Water occasionally, but not by sprinkling over the tops of the celery, as this will cause it to rot. Use a tin spout or iron pipe an inch in diameter. Set the lower end of the pipe among the roots, place a funnel into the other end and then pour the water into it. This gives abundant moisture to the roots and the tops are kept dry. When boxes of celery are exposed in the market for sale, it may be kept fresh and moist by laying wet gunny sack on the box. The plants absorb the water from the wet cloth and yet do not become wet enough to cause them to rot. It seems that very few dealers and grocers know of this simple plan to keep their celery attractive and crisp.

If the celery is taken into the cellar, build an inclosure as described for outdoors, deposit a layer of rich dirt within, set the plants out just as if they were outdoors and water occasionally as described above. Celery put away in this manner will last all winter and grow continually. It will be white and tender until late in spring, and even until early summer, and the last will be found to be sweet and crisp. A good plan in using celery for home consumption is to break off a single stalk at a time. Thus the heart remains alive and new shoots will constantly appear through the winter. A space two yards square will be sufficient to supply a family with celery all winter if this plan is followed and care is used to prepare the plants for continued growth. These outshoots are the daintiest and crispest sort imaginable, and they will grow with remarkable rapidity.

In growing celery it is profitable to mulch between the rows with course barnyard manure. This is not so much for the purpose of securing the fertilizing material, as to secure a thick covering over the soil between the rows to prevent the escape of moisture. Try this method of mulching your celery rows, and do not be afraid of getting the manure too thick. Do not let it come in contact with the celery, but pack it in compactly all over the space between the rows.

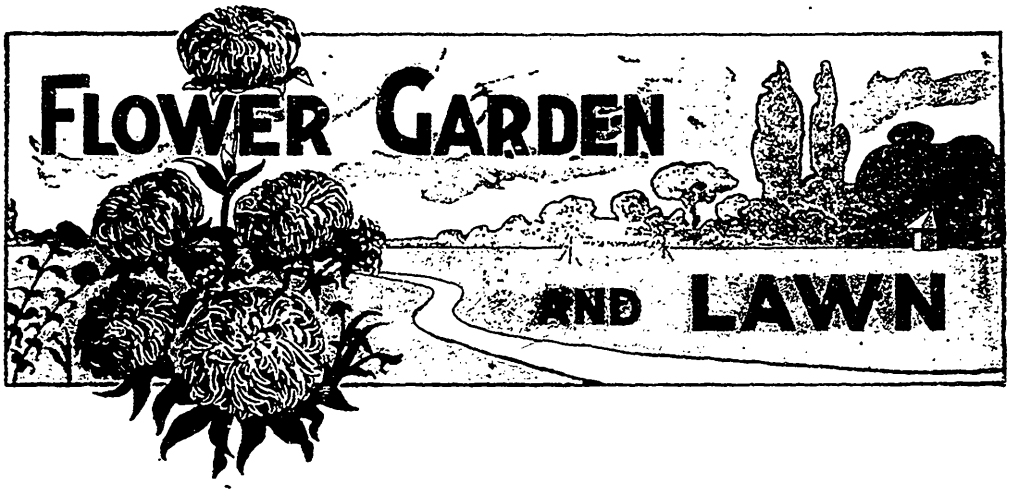
Celery set out as late as the middle of August will grow to maturity before freezing weather. Frost does not injure celery, indeed it seems to enliven it and cause it to grow faster than before. It is suggested that unless the plants are unusually stocky when they are set out, they should be pinched off just above the heart. The leaves only should be taken off the young plants. This serves to concentrate the vigor of the plant to the roots and heart as well as causing the bunch to grow broader and thicker. Scores of gardeners have made fortunes cultivating celery for city markets, but methods involved in producing it on so large a scale have to do with special machinery and appliances provided for the purpose.—*American Agriculturist.*

PREPARATION OF GRAPE JUICE.

EACH year, as the grape season approaches, we are asked how to put up grape juice for family use. Several readers have given their methods, but it seems well to repeat former instructions. In proceeding, use only clean, well-ripened grapes. I prefer expressing the juice in an ordinary hand cider mill (same as making cider) by grinding the grapes. The advantage is you get the juice at once and that which is expressed by grinding is clear and retains so little foreign matter or pomace. It may, by careful straining through double thickness light flannel, be immediately bottled, while that obtained from pressing the skins, pulp, seeds, etc., will require, besides straining, a little time to precipitate a sediment resulting from pressing. I sometimes filter through a few inches of clean washed river or creek sand. The sooner, however, it can be bottled and corked the less fermentation and the more of the peculiar grape aroma may be retained. Whereas, if the grapes are crushed in a tub or barrel I find it difficult or impossible to express the juice until fermentation dissolves the pulp, thereby losing much of the grape flavor, but the fermentation cuts no figure in the keeping qualities, as I sometimes, for variety, let some ferment to a certain flavor, when I heat and seal it with the assurance that when opened in the months, or years following, the same flavor will prevail. I use the ordinary wine and beer bottles—carefully wash and drain them, fill to within about three inches of the top. Set in ordinary wash boiler on the stove ; put an inch of sand on the bottom or fit a thin board over the bottom to prevent the bottom of bottles overheating to break or give the juice a cooked flavor ; fill the boiler with bottles as close as they will stand without crowding and fill the boiler with cold water within about four inches of the top of the bottles. Lay on the lid and start the fire. Bring the water slowly to a distinct simmer, but in no instance allow it to come to a boil, as this, too, will cook the juice. Have your corks steaming. I use a one-quart fruit can ; fill half full of water and put in the corks, lay on the cap, set along the boiler to heat and steam while bottles are heating.—*Green's Fruit Grower.*

PEARS, says the Fruit Grower, have been a good crop in North Kent, England, this season. There is not, however, a very considerable area under this fruit, particularly of the large and heavy sorts. This seems to be an oversight in some respects, as the soil and climate are apparently suitable for the cultivation and successful ripening of such good kinds as Louise Bonne, Pitmaston Duchess, Williams and others. By far the largest number of trees consists of Hazels. Very large gatherings have been made of these small pears in places. Except when they are placed in a very exposed position, they stand well on the trees. As much as five and six bushels have been taken from individual trees, the gatherings from two trees in one instance working out at the total of 12½ bushels. The price now being realized is from 3s. to 3s. 6d. per bushel. Evidently a long dry season is suitable for this fruit. Williams, in some instances, have returned 8s. per bushel.

With the close of the apple gathering now just at hand, the tendency of the market has much improved. This probably is due to the fact that the fruits remaining on the trees after the severe gales were limited in quantity ; in fact, only those trees which stand in exceptionally sheltered positions escaped with any appreciable quantity of fruit left on them, the bulk of the crop being marketed as windfalls. Good apples have realized 5s. per bushel. Drops are still at a low figure, and some growers have yet a stock of them in their store rooms which they are marketing a few bushels at a time.



WINTER PROTECTION OF OUT-DOOR PLANTS.

THIS is a subject that is often a source of anxiety to those who have a collection of plants in their garden that are not entirely hardy in character, and that are unable to resist the vicissitudes of winter weather successfully, unless some protection other than that provided by nature is given them.

Our anxiety for the welfare of the tender occupants of the garden is very often an inducement to bestow too much care and attention in this matter of artificial winter protection.

A mistake also that often occurs in this respect is that of covering up and protecting the plants too early in the winter, before the growth has been sufficiently hardened to enable it to resist even the partial exclusion of air that of necessity takes place when any artificial covering is given to plants. This early covering of plants as mentioned, results at least in a decided weakening of the vitality of the plant, besides rendering it more liable to attacks of mildew and other diseases during the following season.

Roses often suffer in this way from being too heavily mulched and protected before the wood has been even fairly well ripened. Where an earth mulch is applied by banking up the soil around the stem of the plant, it has of necessity to be done before severe frosts set in. The time for this operation, however, can often be extended well into December, by applying a mulching of straw manure or some similar material on the soil around the plants, so as to keep the early severe frosts from penetrating the soil. This mulch can be removed when there is a probability of severe weather setting in, when the earthing up process can be attended to finally.

When artificial protection is given plants during the winter, more especially roses, tender climbers and shrubs, it is necessary to take into consideration two very important points, so as to secure the best results possible. These points are to arrange the material used, so that air is not entirely excluded from the growth; and due regard given as well, so that moisture from rain, melting snow, etc., will be prevented from penetrating the protective material used. Placing dry leaves around the growth and retaining these in position with brush wood until a barrel can be placed over them, is a good way to protect many of the dwarfer

FIG. 2179. CLEMATIS JACKMANII ON HOUSE OF MR. JAS. CRAIG, KINGSTON.

kinds of shrubs, roses, etc. The barrel should, before being placed over the plants, have several one-inch holes bored in the sides at irregular distances from the top varying from six to eight inches apart. No holes should be bored below the largest part of the barrel except a few on the sides and very near to the bottom of the barrel. By boring the holes in the manner mentioned very little moisture will find its way inside the barrel. The top or lid of the barrel must of course be removed, but the bottom should be left intact. When the barrel is turned bottom up over the inner protection of leaves before mentioned, not only will all moisture be excluded, but the holes bored in the sides will allow of a circulation of air sufficient to prevent the leaves from becoming heated, and still give protection sufficient for the well-being of the plant. Objection may be taken to barrels being used for protective purposes on account of their unsightliness. This objection can be remedied by covering the barrels with branches of evergreens.

Another effective method of covering the kind of plants before mentioned is to secure some long straw, long sedge grass, or similar material, lay it out as straight as possible in small quantities, and then cover the trees or shrubs with about an inch or two in thickness of the material. Care must be taken, however, to commence laying on the covering from the bottom so that each successive layer overlays a few inches the layer below it. The top of this thatch or covering should be tied closely with twine, and the twine carried around the covering down to the ground so as to keep the successive layers in place.

Where a very slight protection is needed the matting used to cover tea chests, makes

an ideal protection for plants, as it wards off a great deal of moisture, and is also sufficiently open to admit air to the plant, whilst it effectually excludes the sun's rays, the latter being an element of danger to plants in winter, especially when it induces successive thawing out in the day-time, and as a natural sequence successive freezing at night. This latter condition of successive thawing and freezing by the heat of the sun in the day time and frost at night is one of great danger to plant life of any kind during the winter, and one that should be avoided if possible with all plants and shrubs of a tender nature. Protecting the plants however with a covering of some thick close material that effectually excludes the air, and at the same time absorbs and retains a large amount of moisture around and about the growth of the plant is a serious mistake. I have known large plants of the comparatively tender English Ivy kept in good condition out-of-doors for several successive seasons by a judicious use of long straw and the grass matting before mentioned. For the tender varieties of roses, clematis, small and recently planted altheas, Japanese spireas, etc., the covering mentioned is of great value as a winter protection. But where a thick close material has been used for this purpose the result as a rule has been most disastrous to the plants so protected. The branches of plants to be protected should first of all be tied up together rather loosely before being covered up.

In the case of low growing plants, such as gaillardias, campanulas, peœnies, etc., and many other similar border plants that may require some protection, a much simpler method can be adopted than for shrubs and taller growing plants. In protecting these lower growing plants, one cannot do better than to follow as nearly as possible the condition found, where plants are growing in their native haunts, or in positions similar to that in which they are found when growing naturally. How often perhaps have many of our readers been surprised as I have been, at finding may be only a single stray specimen of some choice tender plant looking fresh and bright in the spring time, that has had no covering except a few leaves or the protection of a covering of foliage of some other near-by plant; whilst perhaps a whole patch or row of plants of the same kind that were entirely covered over and protected with too great care, presented only a mass of rotten foliage and perhaps dead crowns and roots. Covering up the plants too early in the winter and smothering them with a close heavy covering of manure is too often the cause of failure in wintering over half-hardy border plants.

Partially covering the plants with trimmings of fruit trees or of currant or raspberry bushes first, and then shaking a light covering of dry leaves in and about the brush-wood, I have found to be a most simple and effectual covering for semi-hardy border plants. The covering can be increased by the addition of a little long strawy manure placed over the brush-wood so as to form a rough thatch to pitch of the moisture. A wide board supported an inch or two above the tops of the plants in addition to the coverings mentioned, is also of great value for winter protection.

Good surface and sub-soil drainage are also great factors in growing tender border perennials and plants successfully. Without good drainage even the most careful and skilful methods of protecting plants in winter will be found to be unsuccessful and at least comparatively worthless.

In short to be successful in giving winter protection to plants, simular to those mentioned, cover them as lightly as possible to be effective, so that the rays of the sun, and as much moisture as possible is excluded, whilst sufficient air is still given the plant to sustain life.

Hamilton. W. HUNT.

HOW TO GROW HOUSE PLANTS SUCCESSFULLY.

AFTER a long experience with a large variety of plants I wish it might be possible for me to convince people who are thoroughly discouraged with trying to grow them, that if they will only follow a few simple rules they may enjoy perfectly healthy and beautiful specimens in their homes under almost all conditions.

Do not think for a moment that you can take any plant which you may have, or buy, and put it just where you most desire to have it for effect, without regard to what that particular plant needs. Some cannot thrive without a large amount of sun, while others require very little. I believe every variety needs direct light and a little sun for perfect health, and if they do not get it, death is sure to come sooner or later.

At different seasons of the year the same plants need to be changed from perhaps an eastern to a southern exposure, or vice versa. Begonias and ferns are especially happy in a south window until about February 1st, when the sun becomes so powerful that the curtain must be drawn from ten in the morning until about three in the afternoon or they will be seriously burned.

Every day give them plenty of fresh air, always open the windows and doors for a few moments, even in the coldest weather, but do not have the draught come directly across your plants. Try to follow nature as possible, remembering that she never makes mistakes in caring for her children.

Great care should be used in watering. I am sure hundreds of noble healthy specimens are ruined by continued daily watering. Always have the water luke warm for the reason that a large number of our house plants come from the tropics. Give them a very generous soaking, not all at once, but wait five minutes between waterings and you will be surprised to see how much some of the plants will take up. I always water twice, and sometimes thrice, until the saucers are full, then give them a grand rest for three or four days, until the surface earth is dry to touch. My heart has ached so often when shown choice plants which were truly dying of consumption from daily drinks of ice cold water. You will be greatly pleased to find how clean your pots will keep when you find out the secret of correct watering.

Watch your plants and if they do not look quite right, just carefully turn the pot down, striking the rim against some object by a quick rap, holding the plant and earth in the other hand, and you may be greatly surprised at what you find. Often the writer has found worms and insects sucking the life of the plant day by day. Never allow the pots to stand in the sun, without being protected either by cardboard or by sinking them in a box of sand. Nature is never so unkind as to submit roots to a baking process.

Do not think that, because you purchased your plants at a florists, they must be all right, for many times I have found sad conditions, which in a few months would result in the ruin of the most healthy plant.

It is much cheaper in the end, when repotting in the fall, to buy of a florist a bushel of prepared loam, at fifty cents, than to use any common garden soil, for with such preparation you will have no use for tonics of any sort during the winter.

Do not forget to always give good drainage, even in a small four inch pot, using small pieces of crockery, stones or charcoal; the latter is most excellent, serving also as a dressing.

Many people will tell you that it is impossible to have healthy plants if your house is heated by a furnace, or lighted by gas, but I have found, after using both for many years, that it is not the fact. I believe if

your gas fixtures and furnace are perfectly constructed, as they should be for the good health of your family, your plants will not be troubled in the least by their use. Try to keep the temperature as even as possible, about 70 during the day and not lower than 50 or 60 at night.

We often hear it said that plants, especially a large number, are unhealthful in the home, but do not be at all worried, for physicans of both schools are not of that opinion.

Try, my friends, this coming winter, to grow plants as nature intended and you will be surprised and charmed by the results.

—*Ex.*

GREENHOUSE AND WINDOW.

CHRYSANTHEMUMS should now be in their full glory. The later varieties may still require some attention in the matter of disbudding. Possibly the black aphis may cause trouble yet, if so syringe the plants frequently with strong tobacco water, or a weak solution of kerosene. The latter can be made by mixing about a tablespoonful of kerosene in a pint of water, or in the same proportion if a larger quantity is needed, but the tobacco water is the safest and most effective remedy.

Syringe carnation plants and roses at least once every two days with clear water. Tepid water about 45° to 50° is safest to use.

Fuchsias will also require frequent syringing with clear water, especially on the underneath side of the foliage.

Freesias will require plenty of water. Early struck geranium cuttings should be potted into 2½ inch pots.

Give Genistas and Azaleas plenty of water at the roots. The Azaleas should be syringed daily.

Canna and Dahlia roots should be stored away in their winter quarters where the frost cannot touch them. Underneath the benches in the greenhouse, away from the hot water or steam pipes is the best place for Cannas in the winter. Dahlia roots can be stored in the same way, but a dry cellar with a temperature of about 45° will suit Dahlias the best. Place the roots in boxes and cover them with sand or earth.

Palms, Ficus, Dracenas (Cordylines), etc., should have their foliage sponged once every week or two. If they show signs of scale on the foliage use a weak solution of whale oil soap and water, or soapy water, to wash them with.

Show and fancy pelargoniums and scented geraniums are very liable to attacks of green fly or aphis. Frequent fumigating with tobacco, or syringing with tobacco water, will rid the plants of these pests.

Cuttings of Glechoma variegata, Lobelia, Vinca Japonica, O. Crassifolia, and other varieties suitable for window boxes or hanging baskets should be taken. These are often left until it is too late to secure cuttings that will give good large plants to use in early summer.

The last batch of winter and spring flowering bulbs should be potted, and pots of these for successive flowering brought in for the window or conservatory, from the cellar or frames.

Gloxinia, tuberous begonia, and fancy Caladium bulbs should be kept quite dry and stored away in the pots, or the bulbs taken out, packed in charcoal or dry soil, and placed in a cool temperature not lower than 45°.

Easter lilies are very subject to aphis or green fly. Examine the tips of the growth frequently and use a little dry tobacco dust or tobacco water as a preventive or remedy for these pests, as they are hard to eradicate, if they once get possession of lilies and similar plants.

Water all plants early in the day, and retain as moist an atmosphere as possible where the plants are growing.

Hamilton. W. HUNT.

HOYA CARNOSA (WAXPLANT).

FIG. 2150. HOYA CARNOSA IN GREENHOUSE.

THIS well known greenhouse climber is a native of far eastern lands, having been brought from Queensland, Australia, about a century ago. There are about fifty species of the Hoya,—all natives of eastern countries,—few of which however, with the exception of Hoya carnosa and the variegated type (Hoya carnosa variegata) have found much favor with floriculturists. The generic name "Hoya" was given this plant to do honor to the name of Thomas Hoy, who many years ago had charge of the beautiful gardens of the Duke of Northumberland at Sion House.

Although the Hoya carnosa cannot be considered an ideal house plant, it will, under favorable conditions and culture, often produce quite a number of its beautiful waxlike sweetly perfumed umbels of flowers.

The plant, as shown in the photo, is growing in a bushel pot, and has not been repotted for four or five years. A compost of equal parts of enriched loamy potting soil, leaf mould and sand, suits the Hoyas very well. Thoroughly good drainage is a very essential feature for the successful culture and subsequent flowering of this plant. To secure this, fully an inch of broken pots or similar material should be placed in the bottom of the pot when re-potting the plants. When once the plants are well established frequent re-potting is not necessary, once in every two or three years being sufficient if the drainage is perfect. A top dressing every spring composed of three parts of dry pulverized cow manure to one of loamy potting soil makes a good top dressing for these plants when they are not re-potted annually.

One feature in favor of the Hoya as compared with many other climbers is its freedom from the attacks of insect pests, scale and mealy bug being about the only pests that give any trouble in the culture of the Hoya. The mealy bug is the most troublesome, and is hard to eradicate, if it once gets possession of its closely packed umbels of flowers. Frequent syringing, or sponging of the leaves with a weak solution of whale oil soap and water will prevent the appearance of these pests.

The variegated type of this plant (Hoya carnosa variegata) makes a nice addition to a collection of window or greenhouse plants, its fleshy, silvery margined leaves, giving it an additional attraction as a window plant. Both the variegated and the plain type of the Hoya require about the same culture and treatment. To flower them successfully the plants must be treated liberally, so as to produce as much young growth as possible early in spring. This young growth will usually produce in July or August a wealth of bloom as seen in the photograph.

Hamilton. W. HUNT.

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.

ANNUAL MEETING.—Notice the change in date: the Cobourg meeting will begin Wednesday, December 4th, and continue three days.

PROF. VAN DEMAN, ex-U. S. pomologist, will be with us at Cobourg and will contribute largely to the interest and success of our meeting.

SEEDLING PEARS.—Mr. E. C. Bevan, Newcastle, Ont. sends in four specimens of a very fine pear, which he says are seedlings. They are uncommonly large, and the flesh is fine and buttery.

APPLE BOXES.—The regulation size as used in New York shipments is in inches inside measure, 9¾ high, 10¾ wide and 20¾ long. Our own box is 10½ x 11½ x 23 outside measure, which is essentially the same.

BETTER RESULTS.—The shipment of fall pears sent forward by the Grimsby growers on the steamer Kastalia has netted them much more satisfactory returns than did the Bartletts. The average net returns is 92 cents per half bushel case.

APPLE SCAB.—Professor T. J. Burrill, of the Department of Agriculture of the University of Illinois, has announced that the parasitic fungus, usually called apple-scab, does not winter as supposed on the twigs of the tree, and therefore cannot be killed by spraying before the buds open. This is deemed a very important matter in practical orchard management for success hinges upon its destruction and dependent on a knowledge of its life history. For best results the first application of the fungicide (usually Bordeaux mixture) should be made just after the leaf buds open.

MR. GEORGE C. BRADY of Detroit, a mem- of our Association, who is well known in American society, called at our office in October, and we gave him a carriage drive among our orchards. He was delighted with our country.

PROF. WAUGH, author of Plum Culture and other excellent works for fruit growers, has promised to be with us at Cobourg and give an address, illustrated with a stereopticon. Mr. Waugh is counted the life of the convention wherever he goes.

THE KIEFFER PEAR is quoted at 13s. to 15s. sterling for barrels, with half boxes at 3s. in the Liverpool market. Not a high price, indeed only about the price of good stock in ordinary seasons, but of course it is every cent that such a pear is worth, and perhaps a good deal more.

COLORED PLATES.—Our readers will be pleased to know that we are arranging to use an occasional colored plate as a frontispiece of this journal. These are very expensive, one plate costing about $50 for each issue. The first one will appear in the number for January 1902, and will represent the Windsor cherry.

THE WELLINGTON.—A new seedling peach apparently of considerable merit, has sprung up in Toronto, where we would little expect such a tender fruit to originate. It is a free stone, of yellow flesh, somewhat resembling a Longhurst, but much larger in size. The tree has been fruiting for years in Toronto, and shows great hardiness, never having been killed back in the slightest degree.

A MONUMENT for the original Wealthy apple tree is proposed by Mr. Jacob W. Manning, of Massachusetts. This has been done for the Baldwin apple at Wilmington, Mass. A granite pillar has been erected near the site of the original tree, and on its top an apple as large as a peck measure is carved. The Baldwin is named after Col. Baldwin, an eminent civil engineer, who discovered the seedling tree in the year 1790.

THE YORK IMPERIAL APPLE, according to a writer in the R.N.Y., varies greatly both in eating and keeping qualities according to the section in which it is grown. It is not good for any purpose, in fall or winter, but if well stored it is good for all purposes in spring. It will stand up longer and bear more handling than any of the finer varieties, and coming when all finer varieties are out of the market, it sells well.

FORMULA FOR OUTSIDE PAINT. — This proves very satisfactory after five years' application, is as bright as when first laid, and appears to stand the weather well. Take 1 gal. linseed oil, 10 lbs. dry zinc paint and 10 lbs. whiting and reduce to a paste ; dissolve 1 lb. potash ; reduce with skim milk thin enough to spread as freely as oil paint. Ground zinc may be used, but does not require so much oil. I was a practical house painter for more than twenty-five years, using French zinc almost entirely for outside work, and am surprised at the result of the above. I shall try it on my outbuildings. [G. E. Chadbourne.

PEAR BLIGHT AND BEES.—A committee of fruit-growers, Missouri, have reported against bees as spreading this disease of the pear tree as follows :—

"First.—The pear blight is not in the least abating, but it seems to be increasing. There is no pear orchard in the county free from the disease, and many orchards have the appearance of having been burned over.

"Second.—No remedy has been discovered that will check the disease.

"Third.—No change has been produced in the minds of your committeemen in relation to the original cause of the rapid spread of

the disease, that the bees are the principal agents in the spread in the flowering period of the pear trees.

"Fourth.—We believe the only remedy is the removal of the bees, to at least 5 miles from the fruit districts, otherwise the pear industry will soon be a thing of the past in this county.

"Fifth.—We, your committee, would ask the Board of Supervisors to give the fruit growers any aid in investigating the subject of pear blight or the removal of the same, for which we believe the bees are largely responsible, to do the same."

PRINCE EDWARD ISLAND, Mr. McKinnon says, is worthy of more attention from intending colonists than it has hitherto received. Only recently, it appears, has she awakened to her possibilities for the production of dairy products, oats, sheep, potatoes, apples, etc., and the province well deserves the appellation given it "The Million Acre Farm," or "The Garden of the Gulf." Mr. McNeill added, for both these gentlemen have just returned from a visit there, "I never saw strawberries anywhere equal to those I saw in Prince Edward Island, near Georgetown. They seem to have exactly the right combination of light soil and abundance of moisture for the best success.

EXPERIMENTAL SHIPMENTS of pears are still being continued from Grimsby, at the risk of the shippers, as the Dominion government has dropped the matter, without as yet achieving complete success. The steamer Lakonia, leaving Montreal Sept. 12, took 1120 cases of Bartletts; the Marina on the 19th, 560 cases of Bartletts, and the Kastalia of Oct. 3rd, cases of various kinds. These pears were green and hard on leaving Montreal, and the same stock kept in Grimsby cold storage until after the date of sale, were still firm; but advices from Glasgow just received (Oct. 7) state that the Bartletts forwarded by the Lakonia arrived in a very over-ripe condition. Evidently the cold storage on the steamships is still unreliable.

GOOD RESULTS OF FRUIT INSPECTION.—The following circular, addressed by Mr. Eben James, of Toronto, to his foremen packers, and to apple dealers, shows that the results are proving the wisdom of the Act. He says:—

Please take notice the government has appointed inspectors at points of export and throughout Ontario.

The law holds the packer responsible for the quality of the contents of the barrels. There is nothing to be feared from it if common sense is used in packing and proper precaution taken in observing the following rules without deviation.

Foreman packers should handle every basket put in barrels, observing that the pressman knows his business, and by careful explanations to sorters work can be made easy and proper results insured.

BRANDING.

The grade of every barrel must be marked on it at the time of packing either by a brand or written legibly in pencil so that should apples not be branded until arriving at station the man branding cannot make a mistake, and will run no risk of branding No. 2 wrongly as No. 1.

The name of every boss packer must in all cases be written on every barrel in pencil.

Brand carefully and neatly; above all see that proper name of fruit is put on barrel; if in doubt put "Unknown", using best judgment.

GRADING.

The size for No. 1 must not be smaller than 2½ inches unless Romanite, Russett, Winesap or Jonathan and kindred varieties which must not be less than 2¼ inches in diameter.

No. 2.—It is quite lawful to pack second grade, however pack no apples with a wormhole in the side. A wormhole in the blow, if the apple is of good shape, size and color, can be accepted as No. 2.

FOUR DISTINCT CLASSES OF APPLES WHICH ARE CULLS AND MAY NOT BE CLASSED AS SECONDS.

1. Wormy apples other than in the blow end.
2. A badly shaped or warped apple of undersize.
4. A badly scabbed apple (not the wart scab).
4. Small apples no matter how perfect. Under 2 inches for Romanite, Russett, Winesap, Jonathan, and kindred varieties, and under 2¼ inches of other standard varieties such as Spies, Greenings, etc.

In all cases packers must show common sense in facing seconds; this does not mean putting the worst on the face, but make the face appear a fair representation of the contents of the barrel.

Note thoroughly our instructions "How to pack apples for export." Pay attention to under or over pressing. Above all pack well.

Ask your principal for instructions as to price to be paid for seconds where only firsts have been purchased. It is not compulsory to pack a second grade but a season like this it may pay if a satisfactory price can be arranged between grower and purchaser.

Show your best judgment in all things.

DISPUTES.

In case of disputes with grower have a copy of "Fruit Packing Act" at all times and if he will not let you pack accordingly notify your principal.

The Apple Market.

Canadian growers who are fortunate enough to have a crop of apples are quite in fortune this season, and need not trouble to export them, for the buyers will take them at their doors at $3.00 and $4.00 a barrel according to The Guide.

W. N. White, who has just returned from a trip through the Canadian apple sections, reports things "on the jump" there. Ontario, he figures, will turn out from 200,000 to 250,000 barrels. By no means all of this crop will go to Great Britain, as many of the apples—particularly the Northern Spys—have been bought by American operators to go into cold store. In fact nearly all the crop is already bought up, the representatives of some Liverpool houses and such Canadian firms as Hart & Tuckwell, John Barry & Sons and the Peterson Bros. being particularly active. "Bidding is very active," said Mr. White, "and prices high. For fruit on the trees $3.00 is an average price and I saw one orchard of Nonpareils sold for $3.75. Nova Scotia, which will not exceed 250,000 barrels, is also a scene of great activity."

Mr. White predicts that America's total export of apples to Europe this season—outside of box apples from Oregon and California—will range between 550,000 and 600,000 barrels and will in no case, however high prices go on the other side, exceed the latter figure, so small is our exportable surplus this season. The demand from Europe should be very keen, as not only is England short of fruit, but so too are Germany and Holland. The latter country is usually a large exporter of apples to England, but mail advices this week say that her crop is so short and her domestic market so high that she will have nothing to ship to England. Altogether it looks as if The Guide's prediction that before long "the fancy American apple would be at a record breaking premium in the great marts of London, Liverpool, Glasgow and Hamburg and so yet bring a chance this season for all hands to make some money in the apple export business," would come true in every particular.

"The remarkable shortage in apples continues," says the American Agriculturist, "the chief topic in the fruit trade, advices reaching the American Agriculturist every day show further intensification of the heavy losses. President Cupp, of the Mississippi Valley Apple-Growers' Association writes us under date of Oct. 1 that 'now, at time of picking, prospects are for only 20 per cent. of a crop, and poor at that.' One of the largest commercial orchards in Nebraska shows up not more than 4 per cent. of a crop, others in that state somewhat better. Conditions in Michigan and eastward are much the same. The western half of New York has been further damaged by heavy wind storms. The crop in Ontario is probably the smallest on record. General shortages are the rule in Pennsylvania and New England. Connecticut farmers are now getting $4 per barrel for choice fruit.'"

Liverpool, Oct. 16th.

Messrs. Woodall cable—"Fair demand. Nova Scotians 16s. to 19s. 6d.; others 13s. to 19s. No Canadians selling to-day.

Messrs. Simons, Shuttleworth & Co., Liverpool, cable the apple market as follows: "Sound parcels of apples are in strong demand, and meet with a ready sale at our quotations. Receipts as a rule are landing in bad order. The following quotations are

for sound fruit: Blenheim Pippins 20s. and Cranberry Pippins, Baldwins, Ben Davis 18s. to 20s.; Kings, 24s. to 27s.; Spys, Golden Russets, 16s. to 18s.; Snows (sweat spotted), 10s. to 13s.; Bellflowers, 12s. to 15s.; Talman Sweets, 13s. to 16s. Only choicest parcels made top figures. Wasty fruit rules from 3s. to 4s. less than the lowest quotations for sound fruit.

Messrs. Simons, Shuttleworth & Co. Liverpool, cable today that there is no change of moment to report in prices. The market retains a strong tone under light supplies, and an active market is anticipated for good apples.

Messrs Simons, Jacobs Co., Glasgow, cable their market as follows:- Kings, 22/ to 24/, Cranberry Pippins, 19/ to 21/, 20 oz. Pippins, 18/ to 20/, Gravensteins, Spitz, Seeks, Canada Reds, 16/ to 18/, Colverts, 15/ to 17/, Ribstons, 14/ to 16/. Lower grades and conditions ruled from 2/ to 3/ below the above quotations for sound fruit.

Mr. Thos. Dennis, who has travelled through the west to the Pacific Coast reported to the Fruit Trade Journal as follows:—

"We have now ten cars of California apples between the Coast and London. I believe that more apples from the Coast will go to London this season than ever before. Newtowns of course are shipped almost exclusively, and these are pretty well in the hands of a few large operators.

"Big prices are ruling in the West, so big that we must make good figures on the other side in order to induce consignments. But in view of the fact that the Canadian crop, according to the latest reports, is much shorter than previously calculated, I can see no reason why holders of Pacific Coast and Western apples should doubt that our market can return good profits on their investment.

"It may be a matter of interest for shippers to know that of the first cargo of Nova Scotia fruit consigned to London, we had consigned to our care about 1,100 barrels, of which the No. 1 fruit realized 18s to 20s, a figure which left a considerable margin for the grower.

"I consider prospects on our side very favorable, and have no hestitation in confirming this opinion, as expressed in our recent circular. Our country is certainly dependent upon the United States and Canada for apples this year.

"Our house is selling in London to-day a car of California White Pippins, and I am now awaiting cable advices of the result"

The cable which Mr. Dennis received late yesterday afternoon gave great news of this sale. The apples averaged 9s. 6d. per box, or $2.40 in United States money, which is equal to $1.40 net to the local growers. This, it will be seen, is a most satisfactory result for the California growers.

The American Agriculturist, commenting on the apple situation in the United States, says that a general shortage is practically everywhere apparent, and the average yield must be far less than an average. A Western New York operator tells the Agriculturist that prices in his section are $2.50 to $3 per barrel and upwards. Country Gentleman reports that Coombs & Co. of Kansas City have refused $50,000 for the crop of their 1,800-acre apple orchard. The crop is figured at 32,000 barrels, and the growers believe that they have $100,000 worth of apples on the trees. They are, therefore, not selling their crop, but are buying from others to add to it.

The Agriculturist, in speaking of the general apple situation, says that Germany has very few good eating apples, Italy a very short crop, France hardly any, and England only about one-third. Speaking about market prospects in Europe, the Agriculturist says there is a good market in Germany for Baldwins and York Imperials at $4 80. W. F. Freeman, representing European houses, is quoted as saying the United Kingdom alone can take 2,000,000 barrels, provided packing and quality are right, and it is reported that Belgium and the north of Europe generally also offer good markets for American apples.

In the United States, the Agriculturist adds, the demand for choice hand-picked apples continues good and prices at leading markets rule strong. Highly colored fruits attracts most attention, as is almost always the case. In Missouri and Kansas some contracts were being made last week on the basis of $1.50 to $2 per barrel, but in Albion, N. Y., fine winter apples were selling at $3.25 to $3.75 per barrel, just as they come from the trees. At New York choice varieties continued firm, with Alexander $3 to $4 per barrel, Jonathan $3 to $4, King $3 to $3.50, Greening $2.50 to $3, and Gravenstein $3 to $3.50. Pears were $2 to $4.50 per barrel. Choice to fancy evaporated apples were 8¾ to 9½c and common to prime 5 to 8½c. Dried were 4¼ to 5¾c.

FLOWERS AND FERNS IN THEIR HAUNTS, by Mabel Osgoode Wright, author of Birdcraft, Citizen Birds, etc., with illustrations from photographs, New York, McMillan & Co., 66 Fifth ave., 1901. This is the most delightful book imaginable, not only from a literary and scientific view point, but also from that of the nature lover, or even the ordinary garden amateur. The illustrations are unique, artistic and wholly original in the make up, and the text itself is such delightful reading that when you begin reading it is as if you were reading a sprightly novel, and you cannot soon put down the book. No one will regret investing $1.50 in a book of such excellence.

QUESTION DRAWER.

1254. SIR.—Will you kindly inform from whom I may obtain a small Grape Press? I have been unable to see any "ads" in the Horticulturist anent such an article, yours truly,

Bridgeburg Ont. O. F. WILKINS.

Would dealers please respond.

The Three in One Apple.

1255. SIR,—In reply to your letter I would say that I have been in the fruit business for fifty years, and in this case, instead of grafting to procure the apple (Thompson's Seedling) I took two buds with some bark and a little wood. I split each bud in two and took half of each bud, and united them to make one complete bud. I then raised the bark of a third tree and placed the bud in. I was careful to see that the bud grew as one. Hence this new apple, which I claim is a perfect three in one (Duchess, Kentish Fillbasket and McIntosh Red).

Uxbridge. ALEXANDER THOMPSON.

We have never heard of varieties mixing in such a way. One or other bud would produce the apple, or else one half the apple would be one variety and one the other; they would not hybridise in such a manner.

The apple is Kentish Fillbasket.

Growing Sweet Potatoes.

1256. SIR.—My next door neighbor has laid in a stock of sweet potatoes with a view to plant and grow a crop next year, in place of the other kinds. And he being a member of the Kincardine Horticultural Society urges me to request you to get some one to tell him in the Canadian Horticulturist, how to proceed from beginning to the end. Will you oblige him?

JOSEPH BARKER.

The sweet potatoes are usually started in a hot bed, covered with a few inches of soil, when the buds will soon start and root, throwing up shoots. These are removed when they are about 8 inches long and planted out. The larger potatoes will need to be split lengthwise, and laid flatwise down in the bed. In Ontario it would be early enough to start the beds about the middle of April, and the plants would be ready for setting from the first to the middle of June. Any soil but a heavy one, will do, even poor light sand, if judiciously manured.

The Keiffer.

1257. SIR.—Knowing that you have had considerable experience in the line of pears, have concluded to write you in regard to the idea of planting 1500 Keiffer trees upon ground that I have tested with this pear. Would you be kind enough to let me know if you think the transaction would prove profitable.

Leamington. W. L. CLARK.

The Keiffer pear tree is a prodigious bearer, unequaled in this respect by any variety in existence; on favorable soil, with proper treatment no pear equals it in beauty during the month of October; and for distant shipments it will stand up a long time without cold storage. If the quality were even fair, its other points of excellence would make it the most profitable of all commercial varieties, but the quality is "poor," and often even "very poor," so that no one will purchase it a second time for his table. Those, who first planted this pear, have already made some money out of it, but every year its value declines. Last year we purchased 500 baskets at from 15 to 25 cents, and in many places they were sold at 10 cents a basket.

They are really of little use except for the canning factory, and we would advise no man to plant 1500 trees of them.

Boxes or Barrels.

1258. SIR.—In the annual report of the Fruit Growers' Association of Ontario, I notice an article written by you re shipping choice fruit in bushel boxes to England.

I have since been trying to find out how the fruit so packed carried as regards bruising, etc., and from what I can gather on the subject the complaint is that the apples bruise worse. Could you inform me how these boxes are made of what material and whether they have a partition or not. Do you use excelsior and paper? I have some very choice Blenheims which I propose sending in boxes. Would you advise sending No. 1 and No. 1 extras, or only extras? Our next boat sails on

the 9th October, so if you could reply by return post you would greatly oblige.

Wolfville, N. S. J. D. SHERWOOD.

Our experience is that apples packed in boxes carry quite as free from bruising as when packed in barrels; indeed when the barrel head is pressed home with a screw press, we often find that every apple in the barrel is bruised. But whether we pack in box or barrel there should always be a cushion used at each end to act as a pad and prevent direct pressure. A paper cushion has been invented for barrels, and for boxes we find excelsior or wood shavings a capital cushion for top and bottom. All this takes time and trouble from start to finish if we would make money out of our produce. The boxes are made at a box factory of ¾ inch ends and half inch sides, and need no partition, unless thinner sides are used.

Your Blenheims should pay you well if carefully put up in bushel boxes a season like this.

The Tent Caterpillar.

1259. SIR,—The Order-in-Council of 25th April last, pursuant to the provisions of "The Noxious Insects Act" (63 Vic. G. 47) mentions the "Expansive Tree Protector" as one of the bands which may be used for destroying the codling moth. I have been instructed by our directors to ascertain from you where this protector can be purchased and price and what is your opinion of it as compared to the other devices.

Our directors also express surprise that the above Order-in-Council makes no provision for the destruction of the tent caterpillar, which in our opinion is more destructive and uncontrolable than the codling moth, inasmuch as a man may keep his own orchard free from the former yet have it infected from his neighbor's which is uncared for, while on the other hand the female codling moth, being unable to travel, can only injure the orchard in which she happens to be, so that, if a man keeps his orchard free from them, it makes no difference to him what his neighbour does.

As a society we have during the past summer taken active measures for the destruction of the tent caterpillar, but feel that our efforts are very much in vain when we have no legal enactments to back us up and compel people to so keep their orchards that their neighbors will not suffer pecuniary loss from their laziness.

I would also like to know how poison ivy can be destroyed otherwise than by pulling it up and if it is infectious at all seasons of the year or only at times.

GORDON J. SMITH,
Sec'y Paris Horticultural Society.

Mr. W. E. Wellington, Toronto, is president of the company introducing this tree protector, and will give our correspondent full information.

Can any one give any other method of destroying poison ivy except by digging it out by the roots?

Summer Pruning the Peach.

1260. SIR,—Enclosed you should find $1 for my subscription to the Horticulturist. I appreciate it very much and find many helpful ideas in it. I have, however, failed to find in it what I want to know about summer pruning. Last spring I set out 500 peach trees, near Boston, on a worn out sandy farm. The trees were a long time on the way from the nursery and arrived in full bloom. The ground had been ploughed and 500 pounds muriate of potash and 250 pounds phosphoric acid harrowed in per acre. The trees were pruned to a switch two feet high. They made a good start—only ten died. I kept the ground clean by a weeder. In August I visited them and found a great many sprouts or suckers and a luxuriant growth in most of the trees. I immediately began to prune. I cut out weak suckers, the weakest of two or more shoots, leaving the stronger, all branches that were liable to cross or make a too thick head and the tops of all switches that had died, making clean cut surfaces. In other words I cut off fully twice as much as I left. It attracted a great deal of attention because I removed so much at that time of year and almost everyone who passed told me I was simply killing the trees. I shall be very thankful if you can find time to tell me your opinion of such radical summer surgery. The middle of August I sowed cow horn turnips and dwarf Essex rape to be ploughed under about the middle of November. The trees have continued to make a good growth as have the rape and turnips. What I fear is that the pruning will so weaken the trees that they will winter kill. Your opinions will be thankfully received and fully appreciated.

You will be pleased to know that I again took first prize for cranberries at the Halifax Exhibition. They were raised in Nova Scotia.

Very truly yours,
ELI E. JOSSLYN, M. D., Philadelphia, U.S.

Light pruning of fruit trees may be done at any time of the year; old Peter Pruning Knife used to say the best time was when the knife was sharp. Heavy and radical pruning is better done when the wood growth is in a dormant condition, or else the growth of the tree is liable to be too much checked.

The leaves of a tree, being its lungs, are active in the summer supplying the carbon necessary to the building up of the tissues, and the work is scarcely completed in August. A little later the vigor of the leaves is absorbed into the wood, and being of no further service, they gradually fall. Then such pruning is safer. Possibly, however, these trees, being of a vigorous habit, may overcome the severe treatment given them and show little evil resultant.

Fruits for Name.

Mr. W. Jeffers Diamond, Belleville. The apple is Wealthy ; the pear probably Tyson.

Mr. W. J. Clarke, (postoffice not given.) The pear marked B. is Vicar, a winter pear; that marked D. is too ripe for identification.

Open Letters.

FIG. 218. A FOUR YEAR OLD SEEDLING PEACH GROWN BY MR. D. SARE, ROSE VILLA, LONDON, ONT.

Rainbow Peach.

DEAR SIR,—I am sending by this mail three photographs of peach grown by me. Our president, Mr. John Balkwill, advised me that when writing you with regard to the same I was not only to make photographs, but was to give you a history of the tree, so as you could give it a place in your valuable journal. My wife and I bought some peaches when at Mackinac Island in August, 1897. My wife put two or three of the stones in her trunk and on our return home I planted the same, the following spring they grew, one of them more vigorous than the others. I gave this one particular attention as to pruning, etc., and have been rewarded this spring by seeing my tree well covered with bloom. The tree set about one hundred peaches, which were thinned out to about thirty, and I harvested about twenty very fine peaches, four of them weighing one pound six ounces and a half and each measured in diameter as near as possible three and a half inches, the rest of the peaches were all very fine but not quite so large as these. The fruit is very fleshy, luscious, and has a very small stone, the color is a golden yellow inside with pink markings, finer peaches we have never

eaten. Is this not a remarkable growth for a seedling to have such fine fruit considering I paid no attention to fertilizing? I called them the rainbow peaches because their colors were so magnificent and beautifully blended, from a straw color to a purple. You will see that I have sent you three photographs that I made. The first one is out of focus, after making it I cut the peach in half before developing the plate, so I made another negative placing the peach together again, and thus the mark you see in the photograph. As you will see by the photo of divided peach, it is quite freestone. Can you give me the name of the peach? I have never seen one like it before. The height of the tree is eleven feet. If meritorious kindly give space in your valuable journal and oblige,

London South. DAVID SARE.

Benefit of Irrigation.

SIR,—I am reaping the benefit of last year's irrigation. I have sold a car load of apples, while in many of the orchards here there is only one or two barrels. Even in one corner of mine, which is too high to be watered, there are very few apples, while just below the same varieties are loaded.

Vandeleur. J. J. GRAHAM.

Value of Our Reports.

SIR,- Would you kindly inform me as to the best way in which I can procure the bound reports of the Ontario Fruit Growers' Association. I am a Canadian, and among my other books I had a copy of a report of your Association, and living here in the centre of the Ohio Fruit Belt, has proved of great interest and use to myself and neighbors, and have been requested to write you to see if I could secure other copies, and if possible a set of them. I myself am a florist, and when in Canada worked with Messrs. Manton Bros., Eglington, W. W. Gammage, of London, and A. H. Ewing, of Berlin. There are quite a number of fruit growers and men interested in horticulture gather in our potting shed and discuss horticulture, and your reports will do a great deal of good. Any trouble or expense you may go to I shall gladly pay. Trusting you will be able to lend me your assistance in the effort to enlighten and help along the fruit grower and horticulturist, and thanking you in advance, I am, Sir,

Yours very truly,

HARRY MCNAUGHTON.

Farmers' Institutes.

SIR, The valuable character of the work done by the Farmers' Institutes in raising the standard of agriculture, and encouraging improved methods of farming is generally recognized. The report of Superintendent Creelman for last year has just been issued by the Provincial Department of Agriculture, and contains a great deal of valuable matter, embodying the latest conclusions of specialists in every department of farm work. It comprises, in addition to a record of the progress of the movement, a number of addresses and papers read at Institute meetings, with explanatory diagrams and illustrations.

Among the changes made in the system, with excellent results so far, is the transference of the lecture work before the Horticultural Societies heretofore carried on by the Ontario Fruit Growers' Assseiation, to the Department of Farmers' Institutes. A number of the local bodies will in future hold their annual meetings at the nearest Fruit Experiment Station, where they will have the benefit of practical instruction in grafting, spraying, etc.

The subject of poultry has received much attention Special poultry meetings have been held at which leading poultry specialists gave demonstrations as to the best methods of killing and dressing poultry in accordance with the requirements of the market. Among the speakers at these gatherings were W. R. Graham, Prof. A. G. Gilbert, J. E, Meyer and G R. Cottrell, well-known as poultry experts

A notable feature of the year is the striking increase in the number of Women's Institutes, of which there are now 32 in operation, some of them having a membership of over one hundred.

As in previous years excursions have been run to the Agricultural College, giving many thousand farmers an opportunity to become familiar with the most modern process of scientific agriculture.

Action was also taken to promote the attendance at the Provincial Winter Fair, with the result that 1518 members, representing 34 Institutes, were in attendance. A special program was provided for Institute workers, and addresses delivered by a large number of prominent agriculturists and instructors.

Seed Fairs have been established in connection with four Institutes, viz., East York, South Wellington, West Wellington, and South Gray. These are held annually in March, and the farmers bring their best samples of grain for sale or exchange.

A leading topic at Institute meetings was that o cold storage, regarding which a good deal of valuable information has been furnished. During the meeting of the Experimental Union the delegates visited the cold storage plant at the Agricultural College and received an insight into the process of refrigeration.

An important step in the interest of the work was taken by the appointment of Superintendent Creelman to the position of assistant secretary and editor of the Association of Canadian Fairs and Exhibitions, which will give additional opportunity for advancing the movement.

Very substantial progress was made during the year covered by the report. Later information gives the total membership of the Farmers' Institutes in June last as 20,389, as compared with 18, 058 for the previous year. The banner local Institute is that of Halton with a membership of 743.

China can be mended with water glass and powdered asbestos. Mix the asbestos with the water glass until like a thick cream. Cover the broken edges with this and press together, fastening firmly. The article should stand several days to allow the cement to harden.—November Ladies' Home Journal.

FIG. 2182. MUSK MELON.

Our Affiliated Societies.

TORONTO JUNCTION.—An interesting meeting of the Toronto Junction Horticultural Society was held on Friday evening, the 20th inst., in the High School, upon which occasion Mr. J. B. Spurr gave a paper on "Melons," practically illustrated by about forty specimens, embracing several different varieties. In the collection were watermelons with red seeds, black seeds and white seeds, red flesh, pink flesh and yellow flesh, golden rind, black rind, and rind with dark and light stripes, also muskmelons and cantaloupes in great variety, some netted and others with smooth skin, some red flesh, others with green flesh; oval melons, round melons, melons with ribs, melons without ribs, button melons and long melons like huge bananas. Mr. F. C. Colbeck, president of the society, occupied the chair, and around the long table were a number of interested listeners. Mr. Spurr's lecture dealt first with the early history of the melon, and traced the development of the netted musk melon from the rough and warty exterior of the cantaloupe, the first form of melon introduced into Europe, so named from the Castle of Cantaloupe in southern Italy, in the gardens around which the melons were first grown from seed introduced from Armenia. The lecturer had with him melons grown from seed which had been imported from Syria, Germany, England, the Transvaal, California and many American and Canadian localities. The largest watermelon grown was the Australian watermelon, which matured in the latter part of August and weighed 25¾ lbs. Only one hill of this variety was planted, none of the fruits were thinned out and the vine matured nine large fruits. The Australian melon is a red seeded variety with deep red flesh and was pronounced the best flavored by those who were present. It is not claimed for it that it grows to a large size.

The Cuban Queen, which sometimes grows to a weight of 90 lbs., did not go more than 22 lbs. This watermelon is late in maturing and not especially adapted to the Canadian climate, although of excellent quality where sufficient heat is at command to mature it properly.

Another large watermelon did not succeed better than some of the common watermelons grown from seed purchased in the stores in the previous summer. About 22 lbs. was as large as this melon grew. Ice Cream, Dixie, Fair Oaks hybrid, Golden Rind and a white seeded variety from Syria were also grown, also Green and Gold, a very sweet melon, rather undersize, with bright yellow flesh and yellow seeds.

Among musk melons few of great size were exhibited. All the large Montreal Market, Pride of Alaska and Perfection melons had been stolen out of the garden a short time previously. Of these the Montreal Market would probably have been the largest; but the Perfection melon, seed of which was imported from the Transvaal, might have equalled it. The Perfection melon is illustrated in the photogravure accompanying this article and is the large netted melon so conspicuous in the picture. This melon tipped the scales at 17¾ lbs. To the right is a cantaloupe, Cantaloupe Von Trevana, to illustrate the difference between a cantaloupe and a melon, and on the table are two mature melons of the Jenny Lind variety to contrast with the large netted one. In the background is a spray of the wild aster, Aster Multiflora, which

brightens our autumnal landscape by its delicate sprays of little starry flowers. In High Park, near Toronto, during the latter part of September, this flower mingles with many other varieties of asters, and the little bye-paths appear to be hemmed in by natural hedges of it, like spirea in the springtime.

A feature of the lecture was that portion of it which dealt with the physiology of the vine, the nitrates, and the effect of watering and liquid fertilizers upon the flavor of the fruit. Mr. Spurr's argument in short was, that melons planted in a sunny location transpired through the leaves to a greater extent than those shaded; that the function of the leaf was to extract carbon from the air and deposit it in the stem; that the greater transportation caused a greater deposit of carbon and the more carbon in the stem, the more material there would be for the fruits to draw upon when nearing maturity. To water the vines to excess when ripening was to dilute the carbon in the stem, encourage new growth of the vine and lessen the quality of the fruit in point of flavor.

Some of the musk melon varieties exhibited and sampled were: The Melrose, Exquisite, Read's Scarlet, Nectar of Angels, Golden Eagle, The Carmes, Hackensack, Banana melon, 23¾ inch in length by 14 inches in circumference; Osage, Netted Nutmeg, a green flesh melon from Syria, very unique; Cantalonpe Von Trevana, Jenny Lind and Perfection.

DESERONTO.—The fifth annual flower show of the Deseronto Horticultural Society was held in Union Hall, on Wednespay, Oct. 2nd, and it was a huge success. The judge, J. D. Collip, of Belleville, expressed unstinted admiration of the magnificent display and said it was doubtful if any of the towns or cities for many miles around Deseronto could equal it. The hall, which has been repainted and decorated, made a good setting for the magnificent display of plants, flowers, fruit and vegetables, which were arranged with exquisitely good taste and effectiveness. The illumination in the evening added greatly to the beauty of the exhibition. The music of the Deseronto Citizens Band and the good things provided at the ice cream stand, which was under the able management of the charming president, contributed largely to the enjoyment of the evening. The fine bank of ferns which faced the main entrance was much admired and the collection of palms to the left contained some splendid specimens of rare and beautiful plants. The two collections of greenhouse plants were worthy of careful study and they received it. The arrangemeut of the plants in both collections showed that the gardeners were skillful and artistic florists.

SIMCOE.—The annual exhibit of flowers and vegetables took place in the Town Hall on Thursday, October 3rd. A beautiful display of potted plants and flowers were shown by the ladies of the society and others. The ladies seem to take more interest in the exhibit than the men. The vegetables and fruit were not so good. Mr. Groff, of Simcoe, came down in the evening. No one is better known than the genial President of the Simcoe Horticultural Society. That gentleman gave an excellent address on the Buffalo Exposition, chiefly in connection with horticultural and floricultural exhibits there. Le Lovering contributed largely to that exhibition, and won many prizes.

The hall was crowded, and a very pleasant and instructive evening was spent.

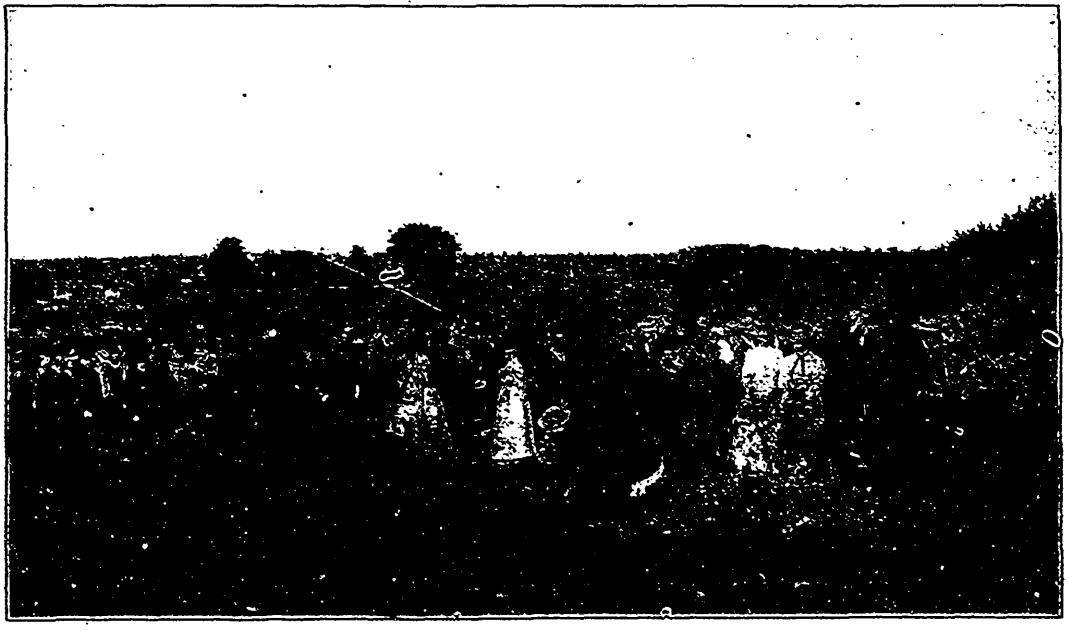


FIG. 2183. A HORTICULTURAL AND FARMERS' INSTITUTE MEETING AT SHERRINGTON'S FRUIT STATION, AT WALKERTON.

OUR BOOK TABLE.

APPLE CULTURE. and distinct lists of apples suitable for Ontario and Quebec, with descriptions of varieties, by W. T. Macoun, horticulturist, Central Experimental Farm, Ottawa.

This is one of the most practical and generally popular of the bulletins sent out by the Experimental Farms, and since it may be had by simply writing a post card to Prof. Macoun, surely no apple grower in Ontario will lose the opportunity. The pamphlet consists of 75 pages, and deals with Apple Culture, the Nursery, the Orchard, Varieties, Pollination, Pruning, Cover Crops, Renovating Orchards, Packing, Marketing, etc, etc.

FRUIT CULTURE AND FORESTRY is the subject matter of Prof. Macoun's evidence before the Select Standing Committee on Agriculture for 1901, and is certainly of much value to fruit men. The system of questions and answers adopted, brings out a large number of interesting particulars regarding the various fruits.

KINDERGARTEN OF LANDSCAPE GARDENING.—"What is a Kindergarten?" is written as the first part of a series "Park and Pavement." It is the forerunner of a new departure in landscape gardening where the association of plants with plants, and plants with mankind will receive the foremost consideration. Under Kindergarten I compass a spot as Froebel would have selected and equipped in extending his indoor kindergarten.

The book contains nothing borrowed from cover to cover, and is as valuable for the teacher as for the house builder, for the student of child character as for the philanthropist.

This book is by George Hansen, landscape architect, Berkeley, California, and may be purchased for 75 cents from this office.

EXPORT OF CHEESE AND APPLES.—Evidence of J. W. Robertson, Commissioner of Agriculture and Dairying before a select standing Committee on Agricultural, 1901.

This pamphlet contains much information relating to the apple trade in England, and the best methods of storing, handling, and exporting apples.

REPORT OF THE DIRECTOR, Wm. Saunders L. L. D., of the Central Experimental Farm Ottawa.

This is Dr. Saunders' fourteenth annual report, and shows the result of very much careful experimental work with such farm crops as wheat, oats, barley, peas, potatoes etc.

It concludes with a most interesting account of the Doctor's visit to Great Britain and France.

THE MACMILLAN COMPANY. who were the fortunate publishers of *Elizabeth and her German Garden*, will issue another anonymous work shortly. This time of American out-door life that bids fair, so say those who have read it, to rival Elizabeth's book. *The Garden of a Commuter's Wife—The record of a garden that began in Autumn*, will appear in time for the holiday season. It is now in press.

Seton-Thompson and the Bluejay.

"The author of 'Wild Animals I Have Known" has a gleeful way of wrecking conventionallty,' writes Myra Emmons, who describes a day in the woods with Ernest Seton-Thompson, in The Ladies' Home Journal for September, "with some unexpected, boyish, utterly frank, natural and human word, look or prank. When we had finished luncheon on Ab's Rock he went to see how the painters were progressing on his new house

"'Those window frames must be a light peacock blue on the outside,' he instructed them. The head painter demurred. He could not mix such a color.

"'If I mix it you can copy it, can't you?' asked the naturalist.

"'Oh, yes.'

"'Then bring your colors.'

"In a few minutes he was blending yellow, blue and green in a masterly way and trying the effect on a piece of board. Suddenly he looked up, laughed and went on painting.

"'Did you hear the bluejay?' he asked. 'As I hit the right shade he said, 'Bl-loo! Bl-loo! That's it! That's it!'"

How Sankey Composes His Hymns.

As he sings, so Mr. Sankey composes the tunes for his hymns inspired by the feeling of the moment. Often he will stop suddenly in the midst of reading or talking to jot down on the ever-ready music-paper some bit of melody that comes to him. These jottings he gathers together and develops at his leisure, sometimes fitting them to poems preserved in his scrapbook, sometimes getting Fannie Crosby or another hymn-writer to write words especially for his music. He once said: "Good words will soon attract a good tune." He believes in melody always over harmony as a power to move people.—November Ladies' Home Journal.