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CHRISTMAS FANCIES

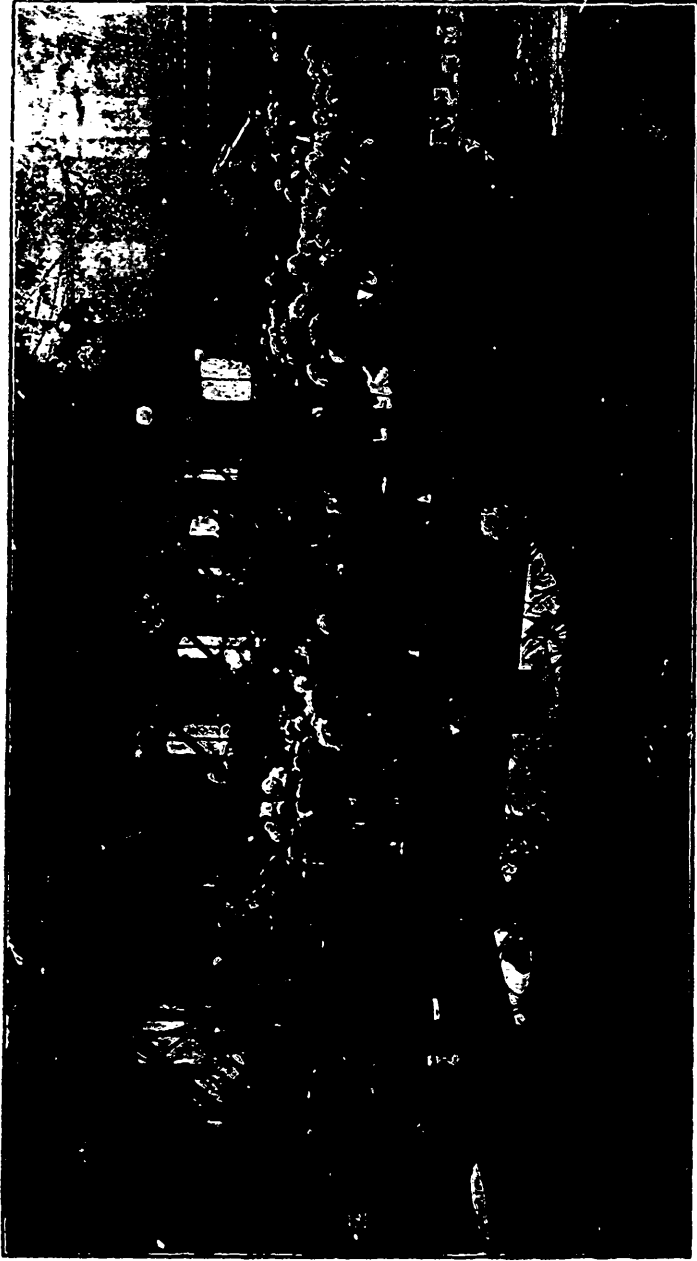
OH, sweet are the songs of Christmas waits,
And the chimes are ringing clear,
And the forest of Christmas trees bend low
With the fritage of the year.

Come, make the most of Christmas day,
Old Time steps out so fast;
The curtain rings down on the play,
'Twill soon be Christmas past.

Then give the gift of free good-will,
It never comes amiss,
For all the world would be at peace
With such a boon as this.

Come weal, come woe, we'll come again
Next year when rings the chime;
Be sure there's Christmas in your hearts
From now until that time.

ARTHUR WARD.



One of the Lovely Scenes in the Floral Rink at the Provincial Fruit, Flower and Honey Show.

The exhibit of flowers, at the Provincial Fruit, Flower and Honey Show, held in Toronto, Nov. 15-19, was a surprise to all who saw it. It was not only the largest exhibit of the kind ever made in Canada but the quality of the flowers shown was exceptionally fine. The illustration conveys a slight idea of the beauty of some of the blooms and of the decorations. Cards announcing that the Canadian Horticulturist would have a full report of the show were placed around the hall, and one of these was caught by the photographer. (From a photograph taken specially for The Canadian Horticulturist.)

The Canadian Horticulturist

DECEMBER, 1904

VOLUME XXVII



NUMBER 12

THE PROVINCIAL FRUIT, FLOWER AND HONEY SHOW

THE horticultural interests of Ontario have been obviously advanced by The Provincial Fruit, Flower and Honey Show held in Toronto November 15-19. The exhibits, in all sections, were ahead of expectations and were a revelation of the importance of the horticultural interests of the province. The thousands of people who attended have been thoroughly awakened to the fact that fruit, flowers and honey are three important products of Ontario; that there is a possibility for great development in this direction and that everything possible should be done to forward the interests of these three allied industries.

This impression having been created it is generally felt that the exhibition was a decided success, that it should be repeated next year and that there is every reason to believe that this first show will develop into an annual affair of great importance. The exhibits of fruit, of flowers and of honey were the largest that have ever been made in Canada and the quality of the exhibits was of the best.

Toronto has held some splendid flower shows in the past but this year's display set a new mark of excellence. The exhibit of fruit was also a record breaker. Owing to the lateness of the season the apples shown were well colored which added greatly to the pleasing effect of the display. More honey was shown than at the Toronto Industrial Exposition and the exhibits were arranged

to the best possible advantage. This made the apiary section one of the features of the exhibition.

The show was held in the two Granite rinks, on Church street, the flowers being on view in the smaller of the rinks and the fruit and honey in the larger. Both rinks were tastefully decorated, the former by evergreens, wild smilax and palms and the latter by bunting and flags. The combined effect of the decorations and exhibits was most pleasing.

EDUCATIONAL FEATURES WERE VALUABLE.

Probably the most striking feature of the exhibition was its value from an educational standpoint. In the floral rink the exhibits of many different varieties of chrysanthemums, carnations and roses bore printed cards giving the names of the varieties.

Even greater attention was given to the educational features connected with the exhibit of fruit. All the principal varieties bore printed cards giving their names, the months of the year during which they can be bought, a brief description of their suitability for dessert or cooking purposes and of their value for home or foreign markets.

A most excellent exhibit was made by the Women's Institute Branch of the Ontario Department of Agriculture under the direct supervision of Supt. G. A. Putnam. A large space, at one end of the fruit rink, was occupied by this exhibit. Numerous methods of cooking and preserving fruits were

shown and were described by three members of the Women's Institute staff who were in constant attendance. Preserved and jellied fruits, apple pies, baked apples and numerous other toothsome dishes were shown and drew attention to the value and possibilities of fruit as a food. Neatly printed circulars were distributed. These named the varieties of fruit best adapted for certain purposes and contained a number of simple recipes. The value of this exhibit was quickly recognized by all who saw it and numerous were the questions asked by lady visitors.

The fruit experiment stations, under the direction of the experimenters and of Supt. Linus Woolverton, of Grimsby, made a splendid exhibit of apples, grapes, pears and bottled fruit illustrative of the possibilities of the different portions of the province for the growing of fruit.

Other valuable educational features were the demonstrations in fruit packing given by representatives of the Dominion Fruit Division; representative exhibits of apples from different provinces, also arranged by

the Fruit Division, and the display of injurious insects, branches and leaves of trees attacked by them, etc., furnished by the Ontario Agricultural College. Further mention of these exhibits will be found elsewhere in this issue.

THE FORMAL OPENING.

A pleasing feature was the formal opening by His Excellency Lieut.-Governor and Mrs. Mortimer Clark, which took place the afternoon of the first day. Those present included the Hon. John Dryden, Minister of Agriculture, the president of the exhibition Mr. R. J. Score, the secretary Mr. H. B. Cowan, Mr. W. H. Bunting, president of the Ontario Fruit Growers' Association, Messrs. J. McP. Ross, vice-president; H. R. Frankland, Edward Tyrrell, Bernard Saunders and others of the directors of the exhibition and well known public men. Governor and Mrs. Clark were both greatly pleased with the beauty and completeness of the exhibition and expressed hearty sympathy with the objects and aims of the show and a hope that it would prove a great success.

FRUIT AND FLOWER MATTERS UNDER DEBATE

THE annual convention of the Ontario Fruit Growers' Association and the convention of delegates from the provincial horticultural societies, held in connection with the Provincial Fruit, Flower and Honey Show, were well attended and interesting and proved a valuable feature of the exhibition.

These meetings were held in the members' assembly room at the Parliament Buildings, about half a mile from the Granite Rinks where the exhibition took place. The fact that the meetings and the exhibition could not be held in the same building caused considerable inconvenience but it had been found impossible to make better arrangements. In the event of the exhibi-

tion being made an annual affair a determined effort will have to be made to secure accommodation that will provide for the holding of the exhibition and of these meetings in the same building.

The opening session of the horticultural convention was held Tuesday afternoon, November 15th, and was well attended. The chairman, Mr. Edward Tyrrell, on behalf of the Toronto Horticultural Society, extended a cordial welcome to the delegates.

The opening paper was presented by Prof. H. L. Hutt, of Guelph, on "The Planting of the Home and School Grounds." This was followed by an interesting address by Mr. A. K. Goodman, of Cayuga, who spoke on the subject "How Can we Best Interest

our Young People in Floral and Horticultural Matters." This address is published elsewhere in this issue. Following this the delegates joined in a discussion of the lines of work that can be carried on by horticultural societies and described the methods their organizations have adopted.

A public mass meeting was held Tuesday evening in which the members of all the different organizations connected with the exhibition joined. The gathering, which passed off very successfully, was held in the Y. M. C. A. Hall. The Hon. John Dryden presided and as usual made a most capable chairman.

An address of welcome was given by Mayor Thos. Urquhart, of Toronto, who in the course of his remarks expressed the hope that the exhibition will become an annual affair and that in the near future Toronto will be able to provide a suitable building for such a gathering.

In his address the Hon. John Dryden referred to the importance of the horticultural interests of the province and urged the citizens of Toronto to attend the exhibition. He announced that the department realized the need for better instruction in horticultural matters and that it had felt that an exhibition, such as the one being held, would prove valuable educationally. The importance of seeing that Canadian fruit is properly packed was mentioned and in this connection Mr. Dryden stated he was willing to select and send some Canadians to the United States to learn the best methods in vogue there, or to import some of the most successful packers from the United States, to show our Canadian packers how fruit should be packed. This announcement met with general approval.

An interesting address was delivered by Dr. James Fletcher, of the Central Experimental Farm, Ottawa, who spoke on "What the Busy Bee is Doing," and succeeded in thoroughly interesting every per-

son present. A scholarly address was given by Mr. C. C. James, Deputy Minister of Agriculture, who spoke on "Horticulture in Ontario." The immense importance of the floral interests of the United States were mentioned, as well as the need for a greater interest in horticultural matters. The gathering was a success and next year will undoubtedly be more largely attended.

At the Wednesday morning session of the Horticultural convention Mr. H. B. Cowan, Supt of Horticultural Societies, spoke on the relation of the Agricultural and Arts Act to horticultural societies. This was followed by a most interesting discussion, an account of which appears in this issue. A paper on "Best annuals for Cut Flowers," presented by Mr. Roderick Cameron, of Niagara Falls, Ont., is also published in this issue.

Three addresses, all of great interest, were delivered at the afternoon meeting of the convention. The meeting was presided over by Hon. John Dryden, Minister of Agriculture. As usual, when he is chairman, Mr. Dryden kept everything moving smoothly and the gathering passed off very successfully. The subjects discussed were "Hardy Vines for the House and Garden," by Mr. W. T. Macoun, Ottawa; "What May be Grown in a Small Garden During One Season," by Mr. R. B. Whyte, Ottawa, and the "Care of Window Plants," by Wm. Hunt, of the O. A. C., Guelph. Extracts from several of these addresses are published in this issue of *The Horticulturist*.

The closing session of the horticultural convention was held Wednesday evening. The principal address of the evening was delivered by Mr. H. H. Groff, of Simcoe, the noted originator of Gladioli, who spoke on the subject, "Improvement of Plants by Hybridization." A number of those present attended the meeting solely to hear Mr. Groff. An interesting address on "The

Relation of Birds to Horticulture" was delivered by Mr. C. W. Nash, of Toronto. The closing address was one of the best of the entire convention and was delivered by Mr. J. O. McCulloch, the president of the Hamilton Horticultural Society, who spoke

on "Border Flowers" and illustrated his remarks by means of stereoptican views. As a result of years of work Mr. McCulloch has gathered a valuable collection of views of floral subjects and this feature of his address was greatly enjoyed.

WHAT THE FRUIT GROWERS DISCUSSED

The various sessions of the Fruit Growers' convention were well attended and considerable interest was manifested in the addresses presented and the resultant discussions. The reports by the officers were all of a most interesting nature and showed that effective and valuable work had been accomplished during the year for the fruit growers of the province.

Much of the credit for this work, it was felt, was due to the energetic efforts of Mr. W. H. Bunting, who received a very flattering evidence of the appreciation of those present when they created the office of honorable president for the special purpose of retaining Mr. Bunting in connection with the association.

The election of officers resulted as follows:

Hon. President, W. H. Bunting, St. Catharines.

President, Alex. McNeill, Ottawa.

Vice-President, Jas. S. Scarff, Woodstock.

Sec.-Treas., P. W. Hodgetts, Toronto.

Directors: A. D. Harkness, Irena; R. B. Whyte, Ottawa; Harold Jones, Maitland; W. H. Dempsey, Trenton; Wm. Rickard, Newcastle; Elmer Lick, Oshawa; Murray Pettit, Winona; C. W. Vanduzer, Grimsby; H. H. Groff, Simcoe; A. E. Sherrington, Walkerton; T. H. Race, Mitchell; J. L. Hilborn, Leamington; G. C. Caston, Craighurst.

At the evening session a very complete report of the year's work was presented by Mr. P. W. Hodgetts, the secretary-treasurer, which showed that the financial stand-

ing of the association, after defraying all expenses connected with *The Horticulturist*, the holding of the special meetings, the estimated expense connected with the fruit exhibition, etc., was in a very satisfactory condition.

One of the most important subjects dealt with at the convention was the consideration of the report presented by the directors of the association recommending that *The Canadian Horticulturist* should be placed in the hands of a joint stock company composed entirely of fruit growers and florists. In this connection the business manager and editor of *The Horticulturist*, Mr. H. B. Cowan, announced that the magazine had reached the stage where it needs to be greatly developed and it should, therefore, be placed on a business basis. It was announced that in the event of a joint stock company being formed the association would be given \$1,000 worth of stock in the company for its good will and that it would also be given an opportunity to purchase \$1,000 in stock entitling the president of the association to a seat on the board of directors of the company. The report of the directors was unanimously endorsed by the convention and a committee was appointed to see that before the paper is finally handed over to the company the interests of the association are properly safeguarded.

CONSIDERED THE SHOW A SUCCESS.

The idea of continuing the Provincial Fruit, Flower and Honey Show was endorsed and a resolution was carried unanimously instructing the directors of the asso-



Here They Are; the Fruit Growers We Read About.

At the close of one of the sessions of the Ontario Fruit Growers' Convention, held in Toronto, November 16-18, the photographer for *The Canadian Horticulturist* managed to round up some of the growers and to take this snap shot when they were all trying to look their best. Starting with the bashful gentleman on the extreme left, Mr. W. T. Macoun, of Ottawa, the other gentlemen in the front row are Messrs. Thos. Beall, of Lindsay; J. L. Hilborn, of Leamington; A. E. Sherrington, of Walkerton; W. H. Bunting, of St. Catharines; Harold Powell, U. S. Department of Agriculture, Washington; E. Morris, Fonthill; J. S. Scarff, of Woodstock; Harold Jones, of Maitland; and Prof. H. L. Hutt, of Guelph. A number of other well known horticulturists are in the group, but their positions cannot be described definitely.

ciation to take such steps as may seem advisable to continue the identification of the association with the united show.

The opening meeting of the convention Thursday morning was largely devoted to business. This included the consideration of the president's address, the appointment of committees and the hearing of reports.

In the afternoon Mr. G. H. Powell, of Washington, D. C., gave a valuable address on "Cold Storage," a liberal extract from which is published in this issue. "Fruit Shipments to Winnipeg" was the subject of an address by Prof. Reynolds, of Guelph. The results of this shipment have already been made known through *The Horticulturist*. The important subject "The Conditions Surrounding the Canned Fruit Industry," was handled by Mr. W. P. Gamble, of the O. A. C., Guelph. This address is published in full in this number of *The Horticulturist*.

The fruit experimenters had the Wednesday evening meeting all to themselves. The chairman was Mr. G. C. Creelman, of Guelph, the chairman of the Board of Fruit

Experiment Stations. Reports were received from the various experiment stations and were of a most interesting nature. Outlines of these reports will be duly published in *The Horticulturist*.

The two sessions of the Fruit Growers' Association on Friday were both extremely interesting. In the morning the subjects discussed and the speakers were "Fungous Diseases of the Grape," by Prof. Lochhead, of Guelph, and Mr. W. T. Macoun, of Ottawa; and "Latest Results of Spraying for the San Jose Scale," by Prof. R. Harcourt, of Guelph, and Inspector J. F. Smith of Glanford. Several of these addresses appear in this issue of *The Horticulturist*.

The closing session of the Fruit Growers' Association was devoted to the consideration of cooperative work in 1904 and proved a most interesting gathering. The speakers were Messrs. A. E. Sherrington, of Walkerton; D. Johnson, of Forest; Elmer Lick, of Oshawa; Robert Thompson, of St. Catharines, and A. W. Peart, of Burlington. A report of this discussion appears in this issue of *The Horticulturist*.

A BEAUTIFUL DISPLAY OF FLOWERS

MANY were the expressions of delight heard in the floral rink at the Fruit, Flower and Honey Show in regard to the exceptionally fine exhibit of flowers. Not only was the show the largest but it was the best ever held in Toronto. The various exhibits were grouped in such a manner that they showed to the best advantage and the general effect of the exhibits and decorations was most pleasing.

The first few days a change was made in the exhibits. Tuesday was chrysanthemum day and Wednesday carnation day. On Thursday roses, violets and made-up work were shown for the first time. An idea of the extent of the floral display may be gained from the fact that there were over 1,000 chrysanthemums, 3,000 carnations and 2,000 roses shown.

The classes were so well filled the judges had a hard task when called on to award the prizes, as the quality of the exhibits and the quantity made it exceedingly difficult to select the winners. The most attractive vase of chrysanthemums was 30 blooms of Dr. Oronhyatekha, shown by Mr. W. J. Lawrence, of Eglinton, which won the cup presented for this class. Messrs. Breetmeyer & Sons, of Detroit, exhibited their new seedling Majestic, and it proved a splendid keeper, as it arrived in Toronto by mistake on the Wednesday previous to the show, and when the flowers were sold on Saturday they were still in excellent condition. The Steele, Briggs Co. displayed a vase of Strathcona, a new variety shown for the first time, and captured first for the best six white. This variety is certainly the best white introduced and will doubtless be grown more extensively next year.

That grand new pink chrysanthemum, Dr. Enguehard, was greatly admired. It is a full, round bloom of a beautiful shade and much superior to anything yet shown. Perhaps the growers have not yet learned how to handle W. Duckham to the best ad-

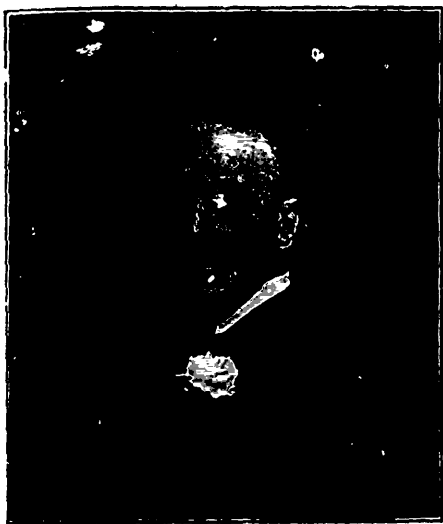
vantage, as the bloom shown were slightly disappointing after all that has been heard of this variety. Sunburst, which was introduced by Nathan Smith this year, is a very good yellow and should be largely grown next season. While Dr. Oronhyatekha is the largest yellow grown, yet that grand variety Golden Wedding still holds its own, as was proven by its taking first over Oronhyatekha in the best yellow. The largest chrysanthemum shown was one of Oronhyatekha, grown by J. F. Dunlop, which measured 24 inches in circumference.

A large display of chrysanthemums was made by Wm. Gammage & Sons, of London, including six new varieties, introductions of 1904, which won first prize. This firm also won first for the best 12 chrysanthemums in the show. Their exhibits were of superior quality, indicating the excellent methods of culture practised by this firm. All the jars used in the show for cut flowers were of the J. Davis & Sons' manufacture, and being nicely colored added much to the attractiveness of the display.

A FINE EXHIBIT OF BUSH PLANTS.

The bush plants were exceedingly fine. Those grown by the Steele, Briggs Company and the Allan Gardens were especially worthy of mention. The groups of palms, ferns and chrysanthemums were so well arranged that it took the judges some time to reach a decision. The group from the Allan Gardens, as arranged by Mr. E. F. Collins, won the award and the Hallam cup. The group of foliage plants shown by Mr. Chambers, of Exhibition Park, took first prize in this class, as did also his group of orchids, Manton Bros. being second. Splendid taste was displayed in the artistic arrangement of these groups and they were perhaps the finest ever seen in Canada.

The competition was very keen in the carnation section, Charles Turp scoring 6 first prizes and two second prizes out of the 8 entries. Great credit is due this grower as



R. J. SCORE, OF TORONTO

The presence of a number of shrewd business men on the general committee, in charge of the Provincial Fruit, Flower and Honey Show, had a great deal to do with the success of the recent exhibition. Among these must be mentioned the chairman of the committee, Mr. R. J. Score, whose assistance proved of great value. For many years Mr. Score has been closely identified with the Toronto Industrial Exhibition, the Toronto Electoral District Society and other public organizations. In Mr. Score's opinion the Fruit, Flower and Honey Show is going to become an annual affair of great importance.

he has only three houses of 150 feet long and had not the quantity of bloom most of his competitors had from which to choose.

The rose sections were well filled. The Dale Estate, of Brampton, and J. H. Dunlop carried away most of the prizes. The

CO-OPERATION AMONG FRUIT GROWERS IN ONTARIO

THAT the question of cooperation on the part of fruit growers is a live one was shown at the annual convention of the Fruit Growers' Association in November, by the great interest taken in the session, which was devoted to the consideration of that subject. It was much the most interesting session of the convention and proved that the fruit growers' cooperative associations in Ontario are doing splendid work.

The discussion was opened by Mr. A. E. Sherrington, of Walkerton. "Our associa-

tions," said Mr. Sherrington, "was organized two years ago last spring. This season it has been conducted on the central packing house system, which has proved perfectly satisfactory. A year ago each member was allowed to pack his own fruit and was required to place his name on the package in which way he became responsible for his own packing. This system did not work satisfactorily, and I believe it is not a good one. Until we have central packing stations we will never have uniform

vases of Mrs. Pierpont Morgan were superior to anything of this variety ever seen in Toronto, as were also the Canadian Queen exhibited by the same firms. Mr. J. H. Dunlop displayed a vase of five fine Perle Des Jardines which secured first prize. The American Beauty roses were a great attraction for the ladies. Those exhibited by the T. Eaton Floral Department were especially fine. A very fine display of violets was made by Wm. Findlay. As a comparison Mr. Findlay showed two bunches of violets as grown ten years ago, beside which his first prize bunches were as pansies.

The funeral designs were a revelation in the art of floral designing, the judges stating they were better than anything they had ever seen. Those arranged by J. Simmons and his chief designer were exceptionally fine.

The new fern, Tarrytown, exhibited by Pierson & Co. was a splendid specimen and was awarded a certificate of merit. At the close of the show Saturday night the auction sale of cut flowers and plants, conducted by Auctioneer Thos. Manton, proved a great success as every bloom in the hall was sold at a reasonable price. The general opinion of the florists is that the show was a decided success and that the foundation has been laid for a show greater than ever.

packing. In this connection I might state we need some means by which instruction can be given in packing. I heard what the Hon. John Dryden, Minister of Agriculture, said in regard to securing a man to give instructions in packing, and I heartily approve of the idea. If classes could be held at the Agricultural College uniform methods of packing could there be taught which would be of great benefit. Every man has his own idea of what No. 1 fruit is, and if every person packs his own fruit there can be no uniformity.

"In addition to uniform methods of packing we need cooperation with the consumer. It has been said that commission men may object to our entering their field and filling the orders of customers direct. What do we owe commission men that we should heed their objections? The fact is they owe us far more than we owe them. We should have some method by which we will know how much fruit is received in the principal consuming centres, what it has cost to handle this fruit and what the fruit realized. This is also true of shipments to Great Britain. Why should we send our fruit to strangers and allow them to do practically what they like with it?

"In these cooperative associations which are being formed we must not look for large returns at first. In some cases it may be one or two years before these associations can be placed on a satisfactory basis. If we continue, however, we will perfect our methods and finally become established on a firm footing. The greatest weakness of the various associations I have established has lain in the fact that there is no means by which these various associations can be united. They are separate and lack cohesion. If we can arrange any method by which these associations can become identified with the Ontario Fruit Growers' Association it would soon greatly increase the membership of the association and be a benefit to all concerned.

"In the Walkerville association we were able this year to pack apples for 10 to 15 cents per barrel. In other years it has cost us 25 to 30 cents. This year we have also obtained better prices and, in addition, have been able to sell thousands of barrels of apples that would have been wasted in other years through the buyers refusing to buy them when they were ready for market.

"Growers should remember that cooperation will not advance the prices of poor fruit. Even an association is unable to obtain good prices for anything except No. 1 fruit. Cooperation really begins in the orchard in the growing of the fruit."

Question: "How do you form these associations?"

HOW ASSOCIATIONS ARE FORMED.

Mr. Sherrington: "When I enter a district I first speak on the nature of cooperation, tell what it has accomplished and outline methods by which growers can cooperate. Those present are invited to take the matter up. If they feel inclined to do so they are asked to pay a membership fee of 25 cents each, arrange to hold meetings for discussions, elect officers, etc. The trouble in many cases is that there seems to be no one person ready to take hold and direct such an effort. In each case where I organized an association the growers had to be left to their own resources. Where associations were formed the growers were instructed to prepare their own rules, appoint a manager and make all arrangements in regard to the grading and shipping of their fruit."

Question: "How are these managers paid?"

Mr. Sherrington: "The manager should be paid what he is worth. Some associations pay their managers five cents per barrel. Last year the Walkerville Association paid me 3 per cent. The year before my expenses amounted to 2 cents per barrel. On this allowance I attended to all correspondence, paid for telegrams and to phone.



W. H. BUNTING, ST. CATHARINES

For two years the Ontario Fruit Growers Association has been favored by having a most energetic and capable chairman in the person of Mr. W. H. Bunting, of St. Catharines. Under Mr. Bunting's management the association has advocated a number of measures of great importance to the fruit growers of the province, and has brought about a number of reforms notably decided improvements in the transportation of fruit by the railway companies. So thoroughly had Mr. Bunting prepared his case for the fruit growers, and so clearly did he give his evidence before the Railway Commission last summer, he was highly complimented by Hon. A. G. Blair, the chairman of the commission, who said he had never heard a case better presented. At Mr. Bunting had refused re-election to the presidency or as director, the Ontario Fruit Growers, at their recent annual convention, created the office of honorary president for the special purpose of honoring Mr. Bunting and retaining him on the board of the association.

messages, looked after the packing, and in fact did all the work."

Question: "When you were through did you not think you had had the worst of the bargain?"

Mr. Sherrington: "No. I thought, if anything, that I had been overpaid."

Question: "Have you tried handling tender fruits?"

Mr. Sherrington: "No, but cooperation in handling such fruits will work to splendid advantage."

Question: "How would you handle peaches?"

Mr. Sherrington: "Easily. Some of the best cooperative associations in the world are located in Ohio, such as the one Mr. Owens described at the last convention of the Fruit Growers' Association. There are also some splendid cooperative associations in California.

"This year the Walkerton fruit growers formed a joint stock company and bought a building near the station. A rule was passed which compelled all members to take their fruit to the central packing house to be graded. Early in the season we bought our boxes and barrels wholesale, thereby making a great saving. Where farmers did not have spring wagons we had them put hay in the bottom of their wagons which prevented their fruit being bruised. As soon as the apples were received girls and boys were set to work to cull them, while one man looked after the expert packing. The results of the grading of each man's fruit were credited to him in a book kept for that purpose. If a man had 10½ barrels of No. 1 fruit he received credit for that amount."

Mr. W. T. Macoun, Ottawa: "What do you do with growers who bring in barrels of fruit that is soft?"

Mr. Sherrington: "If not up to the standard we refuse to handle the apples. Our building is 30 x 100 feet and has a cellar, in which the hardy winter stock is kept until we are ready to handle it. Most of our winter apples are still in the cellar. In this way it is not necessary for us to leave our fruit in the orchards, in all kinds of weather, where most of it would be ruined. Most of the fruit which is now in the cellar of our building would have been lost had we not had this place in which to store it. As it is, the apples of our section are now safely stored ready to be marketed when the time comes.

"This year we marketed large quantities

of such varieties as the Duchess and Astrachan, which in other years were wasted.

Mr. Haines, St. Catharines: "Do I understand that each fruit grower loses his identity when he turns his fruit over to your company, or do you allow the growers names to appear on their boxes while stating that the apples have been graded by your company? There is considerable difference in the quality of No. 1 fruit. This difference is so great as to make it possible to have various grades of No. 1 fruit. Growers who produce the best grades of this fruit should, in my opinion, receive proper credit for it."

Mr. Sherrington: "We only have three grades and growers are not allowed to place their names on their boxes."

Robert Thompson, St. Catharines: "I would not want to join a company of that kind. There is a difference of at least 25 cents in the value of different grades of No. 1 fruit, and even more in No. 2 fruit. It seems unjust that the man, who carefully cultivates his orchard and prunes his trees, that he may produce the very best fruit, should not obtain due credit for it."

Alex. McNeill, Ottawa: "One of the greatest weaknesses among fruit growers is their lack of sentiment and the manner in which they refuse to sink their own identity for the benefit of their fellow growers. We will never succeed with these cooperative associations until each grower is willing to sink his own interests for the benefit of the common cause. In a general way I think we are very much improved in this respect."

Mr. Sherrington: "In my case I did not need to join a cooperative association. I was growing enough apples to enable me to ship for myself, but my neighbors were not in such a position. By cooperating we have practically shut the buyers out of the district. Before we cooperated buyers used to visit our section and purchase a few crops at low prices. By threatening not to buy the crops of other growers they were able to secure them at ridiculously low figures, and in this way the average price was kept down to the disadvantage of all the growers. Since the association has been formed the buyers have not been able to do this, and we have all shared the benefit. Growers must work together if they are to succeed."

(Continued on page 537)

HANDLING THE FRUIT CROP FOR COLD STORAGE*

G. HAROLD POWELL, U. S. DEPARTMENT OF AGRICULTURE.

THE Department of Agriculture of the United States has been conducting investigations in regard to the cold storage of fruit. These have concerned the influence of geographic and climatic conditions, cultural practices in the orchard, commercial methods of picking, handling and shipping, conditions in cold storage warehouses, and the keeping quality and ultimate value of the fruit.

We used to think (and this feeling is apparently still shared by a considerable number of apple men) that the temperature of

the warehouse was the one factor that determined the behavior of the fruit in its compartments. If the temperature of the room was only cold enough it was expected that the fruit ought to keep under all conditions. When the barrels came out of the warehouse in the spring, slack packed, or the apples were decayed and mussy, or more scab had developed on the fruit than it showed at the picking time, these difficulties and many others were invariably attributed to the faulty management of the warehouse. The records are replete with claims of the apple

* Extracted from an address delivered at the annual convention of the Ontario Fruit Growers' Association held in Toronto, November 16-18, in connection with The Provincial Fruit, Flower and Honey Show.

men against the warehousemen for cold storage charges and other damages, especially when the selling price of the fruit has been lower than anticipated.

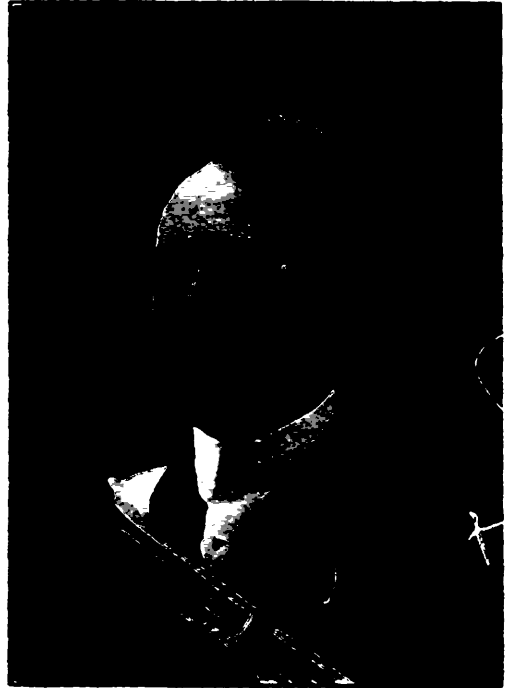
Happily, for all interests concerned, the handling and the storing of fruit, like the care of the orchard, are being reduced to a scientific basis. We are coming to appreciate, more and more, that the warehouse is the last link in the chain of successful fruit growing, depending for its strength on the character of the management of the orchard, the care in picking, packing, transporting and other handling of the fruit before it reaches the storage chambers.

The cold temperature of the warehouse exerts no mysterious influence on fruits: it simply retards the ripening processes and checks, or may prevent, the development of its diseases. A fruit is a living body: it ripens slowly in a low temperature and quickly when the temperature is high. The diseases spread rapidly in high temperatures, and some diseases, like the apple scab and bitter rot, are checked by the temperature best adapted to the storage of fruit. Other diseases, like the molds, which produce the soft brown rot in apples and pears and in some other fruits, and which cause most of the repacking of apples in the spring, grow slowly in the lowest temperature in which the fruit may be stored without freezing.

The cold storage treatment does not obliterate the differences that exist in the apples when they enter the warehouse: it rather retards, while not preventing, their normal development. If two lots of apples differ in ripeness or in the amount of disease with which they are affected, in the amount of bruising, or if the conditions in which they were grown cause them to vary, cold storage can only check the development of these differences.

Cultural conditions produce an important influence on the keeping of fruit, though

this feature is scarcely recognized in practical warehousing. Apples, for instance, that are grown rapidly and to abnormal size, like those from young trees or from orchards unduly stimulated by tillage and cover crops; fruit produced on quick-acting sandy soils, or that from trees bearing a light crop, con-



LINUS WOOLVERTON B. A.

The recently appointed Superintendent of the Ontario Fruit Experiment Stations, Mr. Linus Woolverton, B.A., of Grimby, has long been well known to readers of *The Canadian Horticulturist* as the editor of this magazine and through the numerous public offices he has held. During November Mr. Woolverton tendered his resignation as editor of *The Horticulturist* to the directors of the Ontario Fruit Growers Association that he may be free to devote his energies to the new duties he has assumed. Few fruit growers in the world are better posted, in regard to different varieties of fruit, than Mr. Woolverton, who has made a special study of this subject for years. His wide knowledge of varieties will, undoubtedly, be of great value to him in his new line of work.

time to ripen relatively fast in the storage house and reaches the end of its life earlier in the season than the same variety when grown more slowly. Such sorts as York Imperial, Hubbardston, Pound Sweet and Northern Spy, from young trees, deteriorate one to four months earlier than the same varieties from older trees.

The warehouse cannot be expected to obliterate these inherent differences in the fruit. The grower and the handler should, on the other hand, endeavor to acquaint himself with the influence of cultural conditions on the behavior of the different varieties and their disposition from the warehouse should be governed accordingly.

We used to think (and this opinion is still commonly held by apple growers and dealers alike), that fruit should be picked somewhat green to insure the best keeping quality. Investigations have shown this opinion to be erroneous. It has been our experience that the best keeping apples or peaches are those that have attained the highest color and fullest size, but which are still hard and firm when picked. The pear has kept best when it attains full size and is picked before yellowish tints have appeared.

In our fruit storage investigations we have observed that after green fruit is picked it ripens more quickly than more mature fruit of the same variety, and the chemical changes have been shown to progress more rapidly. Green picked fruit, therefore, reaches the end of its life in the warehouse as quickly, or even more so than the latter. Poorly colored fruit brings the lowest price; it does not attract the customer; it never acquires that exquisite bouquet, or aroma, or that fine quality that are characteristic of a highly colored, well matured specimen.

CAUSES SCALD.

The premature picking of the apple makes it especially susceptible to scald. Apple scald is the most serious warehouse trouble in certain varieties like Rhode Island Greening, Grimes' Golden, York Imperial and Wagener. It appears to be the result of a ferment or enzyme working beneath the skin. It attacks the apple late in the storage season on the immature or light colored side, and a crop picked prematurely is particularly susceptible to it on account of its

green condition. Highly colored apples are less seriously affected, and a crop picked when the fruit has attained full size and deep color may escape the difficulty until very late in the season, provided the fruit is stored quickly after picking, in a low temperature. Were the average grower to allow his crop of apples to hang on the trees longer than is customary it would, therefore, result in an improvement in the keeping qualities of the fruit, better flavor and quality, greater commercial value and comparative freedom from storage scald.

If I may be pardoned for digressing from the discussion of the storage problem and entering the field of orchard management, I would suggest that you consider the advisability of picking over the trees of varieties of fine quality two or three times, taking the fruit in each picking that has attained the highest color. I know of no system of apple culture or of harvesting by which the entire crop of a tree can be picked with a uniform degree of maturity at one time. The apple, like the peach tree, bears fruit that varies several days, or even weeks, in degree of maturity. The fruit on the upper and outside branches ripens first, and the interior shaded fruit later, but, by picking such varieties as the Northern Spy, Wagener, Esopus Spitzenburg and other varieties of fine quality two or three times, at intervals of ten days to three weeks, the general average in size and color of the fruit of the entire tree may be improved considerably. I would suggest, also, that much of the poor color in apples, especially in old trees under high culture, is the result of the increased leaf surface induced by this treatment. It is probable that this fault may be corrected to a large extent by judicious pruning to let the light and air in to the interior branches.

The opinion used to be quite general among apple men that it was necessary for fruit to "sweat" after picking to give it

good keeping quality. It was, therefore, placed in piles in the orchard or in buildings before packing and storing. The investigations of our department have shown that this opinion is bad in theory and worse in practice. The fruit that keeps the best is that which is stored the quickest after picking; and the fruit that rots the most in the warehouse is that which is delayed in the orchard or under other conditions in transit to the warehouse.

More than three-fourths of the practical difficulties with fruit in storage houses is the result of rough handling, coupled with delaying the storage of the fruit after it is picked. As soon as fruit is severed from the tree its chemical and physiological activities are accelerated. It ripens with unusual rapidity and most rapidly when the weather is warm. As the fruit is usually

moist in the barrels, or in piles, the conditions are favorable for the rapid spread of diseases. During a delay of ten days in warm weather the fruit may have consumed a large part of its remaining life and the disease may have become firmly established before it enters the warehouse. Slack packed barrels, rotten fruit and financial loss are the inevitable results of this practice.

Immediate storage after picking is one of the essentials in successful fruit storage. If fruit, which has been stored quickly after packing, decays, there is a fair presumption that the conditions in which it was grown produced an inherent weakness in it and that the owner showed poor judgment in holding it beyond the normal storage season of the variety. This, of course, is provided the warehouse has not been grossly mismanaged.

INTERESTING FRUIT EXHIBITS

THE educational features at the Provincial Fruit, Flower and Honey Show were so well arranged the average fruit grower might have spent a couple of days very profitably examining the exhibits and questioning the exhibitors. In many cases the exhibits bore printed cards or slips of paper explaining their educational features.

The exhibits made by the fruit experiment stations, which are located in different sections of the province, were very instructive. The main portion of this exhibit appeared on an elevated stand in the center of the hall and attracted general attention. The experimenters who exhibited were the superintendent, Mr. Linus Woolverton, of Grimsby, and Messrs. Harold Jones, of Maitland, for Eastern Ontario; W. H. Dempsey, of Trenton, for the Bay of Quinte district; Chas. Young, of Richard's Landing, for St. Joseph's Island and Algoma; G. E. Caston, of Craighurst, for Simcoe district; M. Pettit, of Winona, for the Went-

worth district, and J. L. Hilborn, of Leamington, for the Essex district.

"An important part of our exhibit, as compared with former years," said Supt. Linus Woolverton, who was in attendance at the show throughout the week, while speaking to a representative of *The Horticulturist*, "is the separation of the desirable from the undesirable varieties of fruit. For example Mr. M. Pettit, of the Wentworth station, who is showing about 127 varieties of grapes, when asked to set aside those which he considered profitable to grow from a commercial standpoint, selected only 13 kinds, or about one-tenth of the total number. These varieties were, of the black grapes, Campbell, Morden, Concord and Wilder; of the red, Lindley, Delaware, Agawam, Catawba and Vergennes, and of the white, Niagara and Moore's Diamond.

"A similar result occurred with Mr. Dempsey's collection of apples, for he set aside nearly 100 varieties which he had



One Year's Product of an Apple Tree in Eastern Ontario.

Over 12 barrels of apples taken this fall from a McIntosh tree growing in the orchard of Dr. J. Harkness & Sons, of Trena, in Dundas county, as shown by this illustration, should have an influence in removing the impression that apples cannot be grown to advantage in Eastern Ontario. The tree from which these apples were gathered is 30 years old. By thorough spraying Dr. Harkness finds little difficulty securing a large proportion of No. 1 fruit. Can any Canadian fruit grower send The Horticulturist a photograph that can beat this one?

tested and proved unprofitable. His complete list for profit was as follows, named in order of ripening: Duchess, Gravenstein, Alexander, Trenton, Wealthy, Fameuse, McIntosh, Blenheim, Greening, King, Ontario, Hubbardston, Spy, Ben Davis and Stark, of which he could not show the first four, as they were past season. Some of these were useful for both dessert and cooking, but for dessert he would add Garden Gem, Cox's Orange, Banana, Boiken and Swazie.

"The St. Lawrence station, conducted by Mr. Harold Jones, showed three hardy varieties as the most profitable in that district, viz., Snow, Scarlet Pippin and McIntosh. Three pyramids of these varieties formed an attractive feature of the exhibit. Four other varieties not on exhibition have proved profitable also, viz., Duchess, Alexander, St. Lawrence and Wealthy, but the latter is not equal to the same variety grown along the Ottawa valley.

"The Algoma exhibit," continued Mr. Woolverton, "was a surprise to many,

showing fair samples of Alexander, Wealthy, Wolf River and Longfield, varieties which will do well in that climate, with the Duchess to precede them. The Japan plums, Mr. Young reports, have done well in St. Joseph's Island, especially Burbank and Ogon. In Simcoe county and the Lake Huron district nearly all the varieties do well which succeed in the Bay of Quinte district, and splendid samples are exhibited by Mr. Sherrington, of Walkerton, and Mr. Caston, of Craighurst."

FRUIT PACKING DEMONSTRATIONS.

A large space at one end of the rink was occupied by representatives of the Dominion Fruit Division, of Ottawa, who gave demonstrations in packing fruit for export and exhibited boxes and barrels suitable for the trade. The exhibit included packing house utensils, a packing table, presses, etc. Talks were given at frequent intervals explaining the special features of the work and important points relating to fruit packing. About 50 barrels of fruit were handled in the demonstrations and valuable information was

PREVENTION OF THE APPLE SCAB

“**T**HERE is no question of more vital interest to the general fruit grower than that of the apple scab. The prime question is, Under what conditions of care and management of orchards can it be reduced to a minimum? The bottom of this question has not yet been reached, conclusions up to this time being empirical, rather than based on sufficiently wide facts.”

These remarks, made to The Horticulturist recently by Mr. A. W. Peart, of Burlington, led to an attempt being made to obtain the views, on this subject, of a number of well known authorities, including both practical growers as well as experimenters. The majority of those heard from, it will be seen, advocate thorough spraying and judicious thinning as the best means of preventing the scab.

“I have,” writes Joseph Tweddle, of Fruitland, “obtained the desired results in regard to preventing apple scab by thinning the bearing parts of the tree to let in plenty of light and air, and by spraying all parts of the tree. Spray thoroughly with Bordeaux once before bloom and at least twice after. Give the second application just after the bloom falls, the third two weeks later, and follow with a fourth, should long continued rains of two days or more take place. The mixture should be applied quickly after rain, from each side of the tree as the wind changes. It is necessary that the work should be done thoroughly.”

Much the same views were given by Mr. W. H. Dempsey, of Trenton, who states that he has had good results from the Bordeaux mixture in keeping the apple scab in check whenever it was applied carefully and at the proper time. Mr. Dempsey has noticed that Fameuse apples sprayed carefully just before the bloom opened gave better results than those sprayed only after the bloom had fallen. It is not safe to neglect spraying, which should be done three times, once before bloom and twice after.

The practice of Mr. A. E. Sherrington, of Walkerton, is to give clean and thorough cultivation to impart a vigorous and thrifty growth. With this, judicious pruning is done annually so as to let the light and air circulate freely through the trees. Last, but by no means least, Mr. Sherrington sprays thoroughly and systematically. He does not believe in drenching the trees, but in applying the spray in as fine a mist as possible. Were more growers to do this, Mr. Sherrington believes, the apple scab would be reduced to a minimum.

WHAT THE EXPERIMENTERS SAY.

The views of several well known experimenters secured, include those of Prof. L. R. Taft, of the Michigan Agricultural College, Lansing, Mich.; Prof. John Craig, of the Cornell College of Agriculture, Ithaca, N. Y., and Prof. H. L. Hutt, of the Agricultural College, Guelph, Ont. Their opinions are here given:

Prof. L. R. Taft: The extent of the injury to apple trees by scab is determined, to a large degree, by the climatic conditions, although the age and condition of the trees have much to do with it. Our growers, who have practiced thorough spraying of their apple orchards with Bordeaux mixture, have had comparatively little trouble from it. Orchards on rolling land and with trees pruned so as to give fairly open heads are much less injured than those on low land or in hollows. When the trees are sprayed it is advisable to make at least one application before the blossoms open, preferably at the time the petals begin to show. A second spraying should be given as soon as the petals begin to fall, and a third at the end of about two weeks. Ordinarily this will suffice until the latter part of July, when a spraying of Bordeaux mixture and an arsenite is advisable to prevent injury by the apple scab as well as the attack of the second brood of codling moths.

Some of our growers are making use of



J. McP. ROSS.

The vice-president of the Fruit, Flower and Honey Show, Mr. J. McPherson Ross, of Toronto, has had a wide horticultural experience. For several years Mr. Ross was actively engaged in the nursery business. He is an entertaining speaker and has contributed some interesting articles to *The Horticulturist*. As a member of the Toronto Horticultural Society Mr. Ross has held numerous offices, including that of president.

dust sprays, but, although fairly good results are secured against leaf eating insects and the codling moth, it does not appear to be nearly as effectual against apple scab as the liquid Bordeaux mixture. When the trees are growing under proper conditions and receive from three to five applications of Bordeaux mixture, according to the variety and climatic conditions, the injury from apple scab is reduced to a minimum.

SETTLING DOWN TO SPRAYING.

Prof. John Craig: New York fruit growers are using no specially new methods for controlling apple scab. They are realizing more keenly every year, however, that thoroughness of method is more important than small differences of formula or small variations in time of application, and that it is impracticable to make exact rules covering time of application and formula used. The character of the season will or should vary the treatment year by year. Our season this year may be considered to present the normal type—perhaps a little more rainy than usual.

The best growers are settling down to the habit of spraying thoroughly with Bordeaux mixture and an arsenite just before the blossoms open, again after the blossoms fall, and a third time when it appears desirable. Sometimes they are satisfied with two sprayings. As a rule, however, three applications are made. Last year the best results were secured by those who sprayed rather late in the season, and so it was the previous season. It is safe to say, finally, that nothing specially new in the methods of preventing apple scab have developed during the past year or two, but that fruit growers are becoming each year more impressed with the necessity of doing the work thoroughly. This means proper equipment in the way of stock materials and power pumps.

LET THE HOGS IN THE ORCHARD.

Prof. H. L. Hutt: It has long been established, by repeated experiments, that apple scab can be controlled by thorough spraying with Bordeaux mixture. The mixture should be applied before the buds open in the spring, then again after the blossoms have fallen, and should be repeated two or three times at intervals of ten days or two weeks, depending somewhat on the season. If rains are frequent the mixture should be applied oftener. Usually four or five sprayings are sufficient to keep the disease in check.

It is a good plan to allow hogs in the orchard to gather up all the fallen and diseased apples, as these contain spores which carry over the disease from one season to another. Spraying should not be neglected on trees when not carrying a crop, nor even on young trees not yet in bearing, for the disease lives on the foliage as well as the fruit, and it is only by thorough and systematic spraying from year to year that it can be reduced to a minimum.

I have taken *The Canadian Horticulturist* for years and could not get along without it very well. I find it very helpful and interesting.—
(Frank Metcalfe, Huron Co., Ont.)

More Fruit Being Grown

THE advantages offered by the counties bordering the north shore of Lake Ontario for fruit growing, more particularly apples and pears, are rapidly becoming better recognized. This is shown by the large increase that has taken place of late years in the acreage under fruit. An editorial representative of *The Horticulturist* who, recently, visited some of the leading fruit farms in Durham county, located between Newcastle and Bowmanville, was impressed with this fact.

"This is a splendid apple growing section," was the view expressed by W. H. Gibson, of Newcastle. "Apples in our locality grow to a very large size, and have splendid keeping qualities. A good crop can be grown here nine years out of ten. Our local dealers, who store quantities of apples from all parts of the province, including many from the Georgian Bay and Lake Huron districts, say our apples have considerably the best keeping qualities.

"Within a mile of my place there are 200 acres in young orchards, most of which are just coming into bearing. Among the well known farmers who have young orchards are Messrs. Jonas Samis, of Newcastle, 30 acres; Richard Foster, of Bowmanville, 15 acres; Henry Bowen, of Orono, 20 acres; David Gibson, of Newcastle, 20 acres; Richard Osborne, of Bowmanville, 15 acres, and a number of others. Many Stark, Baldwin and Greening apples are being raised, as well as some Russet and Ben Davis.

WELL ADAPTED FOR PEAR GROWING.

"This district also seems well adapted for pear growing, where the soil is suitable. One hundred bearing pear trees in my orchard yield me fully as good returns per tree as the trees in my apple orchard. My pears are shipped to Montreal by boat, which I find is the cheapest way, the cost of

shipment being about 30 cents per barrel, including wharfage.

"My apples are sold to a dealer in Newcastle. They are mostly late keeping varieties and should be stored, but as I have no storehouse I am compelled to dispose of them to the dealers early in the season. Last year the Ben Davis variety paid me the best, largely because it bore heavily. The dealer who handled the apples informed me that the Ben Davis also paid him the best.

"This spring I made an experiment with the Ben Davis trees in one of the rows in my orchard. A graft from a Spy tree was grafted on each tree. If the market for Ben Davis apples fails I will remove the Ben Davis limbs and encourage the grafts. Next spring I will probably graft 100 more trees in the same way."

Black Smut on Apple Trees

PROF. H. L. HUTT, ONT. AGRIC. COLLEGE,
GUELPH.

I have some young apple trees, planted last year, that during the summer were covered with a black smut. Is this a disease, and if so, what is the remedy?—(H. S. P., Courtice, Ont.)

The smutty appearance of your apple trees was no doubt due to a fungus which is in itself harmless to the trees, but which shows the presence of aphides or plant lice. These little green insects live on the leaves and young shoots, sucking the juice of the plant. While engaged in this they secrete a sweet liquid, sometimes known as honey-dew, and it is in this honey-dew that the fungus you describe as black smut finds a medium for its growth.

Another indication of the presence of these little insects during the season they are active, is the presence of numerous ants running up and down the trunks of the trees. The ants are not injurious to the tree, nor even to the plant lice, for they use the latter as cows and live upon the honey liquid which they excrete.

The plant lice are very injurious to the tree, and should be dealt with as soon as their presence is noted. They are difficult to destroy, as they feed on the under side of the leaf, which in time curls over and protects them from applications sprayed on the trees. The best method of destroying them is to spray the trees with tobacco water or kerosene emulsion as soon as the aphids make their appearance in the spring.

Packing Pears

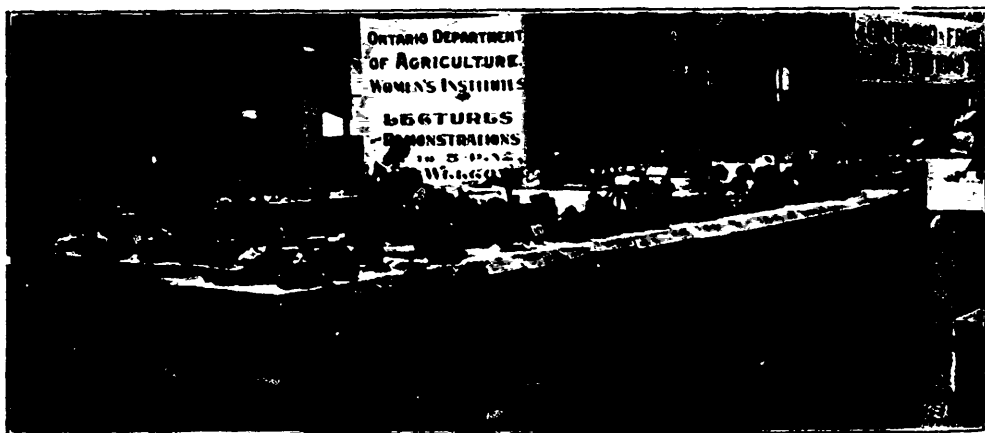
It is most unfortunate that fruit growers cannot sell XXX stock f.o.b. We ought to combine, after the scheme suggested by Mr. Murray Pettit, of Winona, and each section of the fruit district of Ontario send a representative to a general board meeting weekly, who should set the prices for the sale of our fruit for the week in advance. We had better let a part of our fruit waste in the orchards than give it away, as we often do, and pay for the privilege. For near markets no package equals the 11-quart basket for pears. It is convenient, economical and attractive. All ripe pears must go in them

be held in storage for home trade, it is still the best package.

The box recommended by the Fruit Growers' Association for pears is just half the bushel apple box, and measures 5 x 11 x 20, inside measurement. Pack from the narrow side, placing butts out and stems in; in this way the fruit fits firmly and neatly. If necessary a little excelsior should be used to cushion the lid when pressing it in place and nailing it fast.

It will require 900 of these boxes, more or less, for a carload, and the lot must be quickly made up as soon as the work is once undertaken. For this reason a co-operative shipping company should at once be formed in each fruit growing centre.—W.

When the fruit growers of Ontario have learned to produce only fruit of the best quality, and never allow inferior samples upon a tree to reach maturity, they will have learned a great secret of success in fruit growing. Then we can ship with confidence to any market and expect reasonable results.—(L. W.)



The Women's Department at the Fruit Show.

Probably not five per cent of the women in the cities know the best variety of fruit to use for cooking for dessert purposes, nor the month of the year when these varieties are at their best. Could their knowledge on these points be extended a great increase would soon take place in the demand for fruit. A splendid effort to furnish this information was made at the Fruit, Flower and Honey Show by members of the Women's Institute staff, who gave demonstrations in the preparation of fruit for the table, and described the best varieties to use. Illustration shows the institute department at the show, which at all times presented a most attractive appearance. (From a photo taken expressly for The Canadian Horticulturist.)

The Cranberry Pippin

Can you give me some information about the bearing habits, color of fruit, etc., of the Cranberry Pippin? I set two trees of this variety in the spring of '01, and they are now among the most promising in my orchard. The Baldwin, Stark and Gano varieties are about dead from winter killing. The Spy, Ontario and Golden Russet are also damaged. If the Cranberry Pippin is hardy and up to the mark in other respects it will be a great addition.—(J. C. Gilman, Fredericton, N. B.)

As the Cranberry Pippin is an apple that has been attracting considerable attention, *The Horticulturist*, on receipt of the above request for information, wrote to a number of the experiment stations to ascertain how the experimental trees are succeeding. The following replies have been received:

AT THE TRENTON STATION.

The Cranberry Pippin has been perfectly hardy in my orchard, as well as in others I know. With me it has fruited very sparingly, although the trees have been planted 24 years. Some that I have top worked, where scions were taken from productive trees, have been very slow in bearing. In other orchards it has been very productive, almost as good as the Ben Davis. It has a good bright red color, with broken stripes and splashes of darker red and large gray dots. The quality is poor to medium. It has always sold at good prices in England. It requires to be picked early, as it will fall to the ground much earlier than the other varieties mentioned.—(W. H. Dempsey, Fruit Exp't Station, Trenton, Ont.)

HARDY IN THE GEORGIAN BAY SECTION.

The Cranberry Pippin began to bear with me when eight years old, and so far has proved hardy. Its origin was accidental on a farm near Hudson river, N. Y. The tree is vigorous, healthy, spreading, and fairly productive, and the fruit medium to large, roundish oblate; skin, smooth, yellow shaded and striped with two shades of red; stem, slender, one and one-eighth inches long, in a deep cavity, calyx closed in a wide wrinkled basin. The flesh is white, firm,

crisp, moderately juicy and sub-acid, but the quality is only fair. The season is from November to February.—(A. E. Sherrington, Bruce County Exp't Station.)

IT IS A PRODUCTIVE VARIETY.

The Cranberry Pippin is an apple of American origin, being a chance seedling which grew on a farm along the Hudson river in New York State. Mr. Linus Woolverton, of Grimsby, has grown it and speaks of it highly as a commercial variety for that section. It has not been considered hardy enough for general cultivation throughout Ontario, being recommended for southern sections of the province or counties bordering along the lakes. The account of its hardiness in New Brunswick is interesting. The tree is a vigorous, healthy grower, of spreading habit, and quite productive; the fruit is medium to large, roundish in shape, tending to be conic; the skin is usually smooth, although sometimes showing warty knots, which distinguish it from most other varieties; the ground color is a lemon-yellow, shaded and striped with light and dark shades of red; the stem is much longer and more slender than in most varieties, the cavity being deep and calyx closed; the flesh is white, firm, crisp, moderately juicy, and sub-acid; the quality being only fair. It is in season from December to March, and in storage will keep even later.—(Prof. H. L. Hutt, Ont. Agri. College, Guelph.)

At the Central Experimental Farm, Ottawa, Mr. W. T. Macoun, the horticulturist, has found the Cranberry Pippin as hardy as the Stark, Spy, Gano and Golden Russet, which leads him to believe it is possible that Mr. Gilman may not have the true Cranberry Pippin. The tree has proved a very strong, spreading grower at Ottawa, and productive.

The Canadian Horticulturist is a source of delight to us.—(J. J. Ireland, Dufferin Co., Ont.)

Native Plums

PROF. H. L. HUTT, O. A. C., GUELPH.

There are a large number of wild plum trees growing in waste places in this vicinity which are heavily laden with fruit almost every year. Few of them, unfortunately, bring their fruit to perfection. The plums appear to be all right until about the last of July or early in August, when a blight strikes them. The skin of the plum shows spotted, and the plum dries up and becomes useless. As it is very difficult to make a success of growing nursery plum trees, you will confer a great benefit if you can give a cause and a remedy for this blight on the wild plum, as they seem to be much hardier than the cultivated varieties.—(F. A. Kerfoot, Minesing, Ont.

It is impossible to say definitely what is the trouble with the wild plums in your section without seeing specimens of the disease. I am inclined to believe that it is the fungus *Cladosporium carpophilum*, commonly known as scab, which is peculiar to the wild plums. This disease may no doubt be held in check by thorough spraying with the Bordeaux mixture, but it is doubtful if this would be profitable on the wild varieties.

The difficulty of growing nursery grown trees is probably due to the fact that you have not secured from the nursery the hardy varieties suitable for your section. Most of the European plums cannot be relied on for any length of time in your section. If you would consult with Mr. G. C. Caston, of Craighurst, only a few miles from your place, he could no doubt give you some valuable information regarding the kinds he has tried at his experiment station. I believe his experience has been that even the best of the European varieties cannot be relied on for any length of time, as they gradually succumb to winter killing.

There are many improved varieties of the native or wild plums which have been improved by cultivation, and are well worth a trial. They are exceedingly hardy, and although not as large as the European varieties, they are in some respects superior to them in quality. Mr. W. T. Macoun, of the Central Experimental Farm, at Ottawa, gives the following list as a dozen of the

best among seventy-six varieties which he has fruited at Ottawa: Aitkin, City, Chee-ney, Silas Wilson, Bixby, Hawkeye, Gaylord, Wyant, New Ulm, American Eagle, Wolf and Hammer.

These are given in order of ripening and cover the season from the last of August to the end of September. Some of these are not grown by Canadian nurserymen although they may be obtained from some of the American nurseries. J. W. Kerr, of Denton, Maryland, has probably given more attention to the propagation of the American varieties of plums than any other nurseryman, and his list contains nearly all the best varieties of this class grown on the continent.

Undesirable Novelties

Are the Iceberg blackberry and the Logan berry profitable, marketable and good shipping berries?—J. B. Bruce, Kanagan Landing, B. C.

These plants are presumably the stock in trade of an agent who wants to sell, at a high price, some novelties about which no one knows anything. The Iceberg blackberry is interesting as a curiosity, and the Logan berry, because it is a cross between the blackberry and the raspberry; it is about the size of the former, and unites the flavor of both.—W.

Robbins Are of Great Value in an orchard, even if they do eat some fruit. I am something of a taxidermist, and it is my belief that it would be high folly to destroy any species of the small birds, except the English sparrow. In one robin that I opened were several small moths, three or four small black beetles, a few worms and two curculios, thus showing the robin's value as an insect destroyer. They eat considerable fruit, but the good they do overbalances that bad habit. The best remedy is to plant a few more cherry trees so the birds may have a share without curtailing the supply of the fruit grower.—(Wm. Idle, Clarksburg, Ont.



A Section of One of the Benches at the Big Flower Show.

A slight conception of the excellence of the floral exhibits at the big Fruit, Flower and Honey Show may be gained by this illustration. One of the best features of the exhibit of flowers was the large number of new blooms that were shown for the first time. As will be seen the various exhibits all bore cards giving their names, which added greatly to the interest taken in the show by the general public. (From a photograph taken specially for *The Canadian Horticulturist*.)

BEST ANNUALS AND PERENNIALS FOR CUT FLOWERS*

RODERICK CAMERON, NIAGARA FALLS SOUTH, ONT.

WHEN we ask what is a good cut flower for table decoration, etc., there are two main points to be considered: First, stem; second, substance or durability. For vases it is imperative that flowers have a good stem. There are many excellent flowers, but owing to the shortness of their stems they are unfit for table decoration, except perhaps to the commercial florist.

Some of the most beautiful flowers in the garden are ephemeral, and would be a total disappointment as cut flowers; others again as the heliotrope, lack stamina, and would not keep in water but for a very short time. The hollyhock is an excellent example of substance, but the whole plant has to be cut. The salpiglossis has a good stem, but lacks durability.

Bearing the points of adaptability in mind, there are other secondary considerations, including the one of color. As there are no two persons whose tastes are exactly alike, this is a most touchy subject; one per-

son just revelling in a certain color, while another thinks "it's just horrid." There is a good deal of error and misconception regarding colors and the harmonizing of the same, which ought to be dealt with from a scientific as well as from the æsthetic point of view. Then again there are plenty of flowers with good stems, good substance and good colors, such as the zinnia, that are so stiff and lacking grace they cannot be called good cut flowers. Such flowers, except in the hands of an artist, would only tend towards the stiff, formal and mathematically exact bouquets of years ago, which looked as if they were formed in a mould. We will not err if we follow nature closely, whether in the growing of our floral pets, the grouping together of our collections, or the making up of a bouquet of nature's choicest gems.

It cannot be too widely made known that there is a wealth of decorative floral beauty to be secured by utilizing a judicious selec-

* Extract from a paper presented at the horticultural convention held in Toronto, November 12 and 16, in connection with The Provincial Fruit, Flower and Honey Show. The rest of this paper will be published in *The Horticulturist* at an early date.

tion of hardy perennials. The growing popularity and increased usefulness of hardy perennials is sufficient evidence of their value, if any is needed. Very little care is required with perennials after they are planted, other than keeping them free from weeds and the dividing of the roots when they become too large. The offsets may be planted in other desirable spots or given to friends.

SOME GOOD ANNUALS.

The choice of the professional florist in annuals is limited. The Aster is probably entitled to first place, because they are produced in any desired color, on long stems, and they can be used with their own foliage. If seeds are sown from time to time during the summer the blooms can be had up to the time of hard frost. They are used for all purposes on account of their various colors and lasting qualities. The aster carries as many desirable points for cutting purposes as any other flower in the garden.

The next choice would probably be Mignonette, principally on account of the odor of the flowers, and their adaptability for all purposes. The Sweet Peas would likely come next, and for the same reasons as the Mignonette. Centaureas, or Sweet Sultans, are beautiful, large, and sweet scented flowers that should be more grown. They are produced freely on long stems, are very easily grown, and their lasting qualities make them ideal for cutting. Their height is two to three feet.

The Ten-week Stocks are probably more grown than any other annual. No plant of its size will produce more bloom or is better suited for cutting for the border. They are extensively grown by the commercial men for cutting during the winter. Sweet Scabious, or Morning Bride, of late years, have been very much improved in size and in the colour of their blooms. The stems are ideal entitling these plants to rank among the first on our list as cut flowers.

They are produced in all colours, and grow to about three feet in height. The hardiness and very free blooming qualities of the candytuft, even when sown in the open border, claim for it a first place among annuals. The flowers are produced in several colors, the plants being nine inches to a foot high, good to cut, and suitable for the front row in the border.

Celosia Plumossus, Plumed Cockscomb, has been much improved lately, and those wishing color can obtain it in these beautiful plants. They are choice objects when planted in a small round bed in mixed colors or used as a line in a ribbon border. They are grand to cut for autumn coloring effects when used with the colored leaves of other plants. They can also be used as dried flowers and can be had in almost any shade of color. The plants are one to two feet high. Rudbeckia Tricolor Superba is an annual that has taken a prominent place of late as a cut flower. Its growth is very simple and the plants are worthy of a place in any garden.

The annual Gaillardias are among the most charming flowers to cut and for the border on account of the long duration of their blooming, which lasts from early summer until they are cut down by hard frost. They stand wind and rain better than any other flower we are acquainted with. Their quick growth and hardy nature commend them to all lovers of flowers.

There is no annual flower more popular than Nasturtiums. They are a magnificent class which presents all the richest and most varied shades found in flowers. The blooms are much used for table decorations. The taller varieties cannot be surpassed as a trellis covering, and the dwarf varieties are to be found in every window box and hanging basket. If long lengths are cut from the taller ones in the fall and placed in a glass celery dish full of water they will root in the parlor window and be a thing of



The Fruit Growers' New President.

The new president of the Ontario Fruit Growers' Association, Mr. Alex. McNeill, of Ottawa, who is also the chief of the fruit division of the Dominion Department of Agriculture, is too well known to need any introduction to readers of *The Horticulturist*. As a director and vice-president of the association Mr. McNeill has won the right to hold the position he now occupies. Already he has assumed his new duties with all his customary enthusiasm, and a year of hard work for the association may be looked forward to.

beauty during the winter. Even the roots, as seen through the glass, are very pretty.

The varieties mentioned are the annuals I consider the best for cut bloom. They are standard favorites which novelties have not been able to drive from the field.

Like many of the good things we have in Ottawa, my roses are of Irish extraction. They are sent here about the last of October. They can be planted where they are going to grow, or better I think, they may be heeled in for the winter and planted out in the spring. My experience is against bringing out roses in spring. Spring growth over there, starts as early as the month of March.—(W. G. Black, Ottawa.

Send us a card if you are not receiving *The Horticulturist* regularly. We will attend to it.

The Care of Carnations

CARNATIONS that have been planted in the open, according to Mr. E. Dale, of Brampton, should have a good start before July and should have been pinched back at least once. The hoeing should be well attended to and the soil not disturbed to a depth of over an inch.

"This work," said Mr. Dale recently to an editorial representative of *The Horticulturist*, "should always be done as soon as possible after a rain. The planting in should begin not later than the first week in August, giving the houses light shade for the first week or ten days. As soon as the plants have become well established see that all shading is removed, giving as much light and air as possible.

"Supports should be put into the beds immediately after the planting is done. Blooming commences about the middle of August and continues until the following summer. Good standard varieties with me are: Enchantress (light pink); Glacier and White Cloud (white); Adonis, G. H. Crane and Flamingo (scarlet); Governor Roosevelt (crimson); Lawson (cerise), and Golden Beauty (yellow)."

HAVE HAD A GOOD EFFECT.—There is no doubt that the city garden contests inaugurated in Ottawa by Her Excellency Lady Minto have been of very great value in promoting private gardening as a means of beautifying the city. Any person who pays any attention to this subject will notice the great improvement which has taken place both in the gardens owned by the people directly interested in the contest and in those owned by people who, while not competing, recognize the value of beautiful surroundings to the home and who have found how easily good results in this direction are attained with very little expense and time given to that fascinating art, the cultivation of flowers.—(J. E. Northwood, Ottawa.

INTERESTING YOUNG PEOPLE IN HORTICULTURE*

A. K. GOODMAN, CAYUGA, ONT.

HOW can we best interest our young people in the garden and in the orchard? There is one way, and that is the best way. Become interested yourselves. Become enthusiastically interested. It is a case of come along boys and girls, not go on boys and girls. To do any good, you must be unselfish, and in the accomplishment of any object there must be preparation.

Children's characters are more likely to be strengthened and developed along their proper lines in the brightest and happiest surroundings. Lovely flowers and green trees should, where possible, mark the abode of Canadians.

Children are imitators, and will in time, be largely what we have made them by our example. Always welcome the children into the garden and teach them as much as they are willing to learn, but never detain them when they want to play. It will not be long before they will coax you into the garden.

A busy man cannot garden all day except for profit, but the average Canadian in the small towns and villages, has enough time on his hands to make a creditable showing. I have found that it is desirable to avoid the midsummer flowers.

My garden opens with tulips. These are massed and arranged in various ways and planted in the open to receive full sunlight. Good drainage is provided, care being taken to avoid the roots of trees. They are planted four inches deep and top-dressed with well rotted manure. It is more satisfactory, though not necessary, to take up tulips every year. Then follow the general bedding out, after danger of frost is over, from the hot-bed, of caladiums, geraniums, stocks, asters, ageratum, salvia, etc., while the flowering shrubs and early perennials for a time hold the place of vantage.

With June the grandest flower of all reigns supreme, until the end of July. I love to grow a rose, because it takes such a determined effort to reach the best possible. Roses love the open and need a clay soil, enriched with cow manure, lime and wood ashes, as well as freedom to expand, good drainage and deep root feeding. Plant in the fall, prune in the spring, and spray every morning with tobacco water and lime, or soapsuds. Simply conquer the insect enemy completely. Do not tolerate any half-way measures and your reward will be a great source of pleasure to yourself and friends.

From the June roses you can go to the Ramblers (they will give you bloom for a month if you shorten the canes, cutting the old ones out every three years), to other climbers, and to the tea roses, from which you will receive monthly crops of roses until the frost. After the roses I satisfy myself with the formal beds, and in September enjoy a gorgeous display of asters and gladioli.

THE EFFECT ON CHILDREN.

The object of interesting our young people in horticultural work is to strengthen their morality, train their character and make them useful citizens. State education in the schools is fast changing from the old law of "God, Rule and Remembrance," in what was once a goal to the natural interest idea. Interest is said to be the master key of all possible education, and it conquers all. The schools of the province are doing noble work and horticulture and floriculture take a large part of the credit for the advance.

In Canada we are fast entering our growing time. The horticultural societies must plead and work for play grounds, tree planting, gardens and parks. Hundreds of our village schools are practically without play grounds. A provincial horticultural

* Extract from a paper read at the provincial horticultural convention held in Toronto, November 14 and 15, in connection with The Provincial Fruit, Flower and Honey Show.

society would strengthen the hands of local enthusiasts.

The joy of possession is a rule that works admirably in the garden. If a child plants and attends to an asparagus or strawberry bed, cuts or picks the product, carries it in sympathy to the sick, or, if its favorite color is planted, cared for, developed into perfection and it is then allowed to gather and give—it will soon learn to act with know-

ledge and discretion. To plant a grape vine, prune it, watch it attain maturity, and then to gather and enjoy it thoughtfully, is the highway to wisdom.

But, first and always, cultivate and develop the inherent natural love of flowers. Work that the children may plant; care for, that the children may gather, until in time their natures will respond to the noblest ambitions of man.

FLOWER AND PLANT LORE—THE MISTLETOE

EDWARD TYRRELL, TORONTO.

THE season of Christmas (Yule tide) will soon be round, which brings the Holly inside our churches and the Mistletoe inside our parlors. A hint has been received that some of our young readers might be pleased to have a short account of the mistletoe and its associations, interwoven as they are so closely with Christmas and New Year, but as Lord Dundreary was wont to remark, "no fellow can find out," and I am not certain that I will make it clear why Roger claims the privilege to kiss Margery under the mistletoe at Christmas, as it appears to have baffled our antiquaries.

I have clear recollections, when a boy, going with others, a day or so before Christmas, to cut holly and mistletoe for our homes: our hands and clothes had a very different appearance on our return than when we set out. The holly in Norfolk, England, has grand sharp spines, but they can not be compared to the thorns of the white thorn (May tree), from which the mistletoe is gathered. Although the mistletoe grows freely on the apple and lime trees we sought it on the trees that were the hardest to climb.

The mistletoe (*Viscum album*) is a true



One of the Mass Effects at the Big Flower Show.

In addition to the large display of cut flowers in the floral rink, at The Provincial Fruit, Flower and Honey Show, there were several unusually handsome mass effects which attracted general attention. Several of these were arranged with great care and were well displayed. One, prepared by Marion Ross, of Edmonton, was a splendid reproduction of a hill side in a wood and as such was a real work of art. (From a photograph taken specially for *The Canadian Horticulturist*.)

parasite, and when its seed has once found a congenial home in the bark of a tree it drives its roots deep into the wood, from whence it draws its nourishment. The mysterious origin of the mistletoe was perhaps one cause for the religious veneration in which it was held by the ancients who seem to have regarded it as a sort of Melchisedick among plants. Another reason why it has received such a marked degree of honor is its parasitical manner of growth, which was in primitive times ascribed to the intervention of the gods, for its seed was said to be deposited on certain trees by birds, the messengers of the gods, if not by the gods themselves in disguise. When found growing on the oak its presence was attributed specially to the gods, and as such was treated with the deepest reverence.

The ancient Druids regarded the mistletoe, when growing on an oak tree, as sacred, and the gathering of it was a most important ceremony with them. Five days after the new moon they went in stately procession to the forest and raised an altar of grass beneath the finest mistletoe bearing oak they could find. The Arch Druid, clad in a white robe, ascended the tree, and with a golden sickle cuts the mistletoe, which was caught in a white cloth held by four priests, for its efficacy, it was held, would be injured if it touched the earth. Two white bulls that never had a yoke on them, were sacrificed amid many religious ceremonies and feasts. When the Druidical religion was overthrown the church tried in vain to set aside the mistletoe as a gross heathen superstition, but the edicts of emperors and the canons of councils were unable to put it down.

The Scandinavians dedicated the mistletoe to Freya, their goddess of love and beauty, but it is curious to note that by the Romans it was held sacred to Proserpina, her doves it was that guided Æneas to the tree wherein grew the golden bough different from the tree itself. Although the mis-

tletoe in these legends is associated with both love and death, and later stories do so also as we find in the old song, "The Mistletoe Bough," still it is as being sacred to Freya, the goddess of love, that the mistletoe will be most remembered, especially among lovers to whom its sentimental associations will far outweigh any amount of antiquarian lore.

Freya from whom flows every bliss,
The winning smile, the melting kiss.

Hence arose the custom (proper or improper to Christmas) of suspending the mistletoe in halls and kitchens with the privilege that custom confers. The mistletoe had been used in the decoration of churches, but the associations connected with it were not in keeping with a sacred edifice, so in the course of time they were left out. What, however, may not be quite proper for a



Winter Protection of Vines.

In our northern latitudes protection for bushes and vines is a necessity and amply repays for what trouble may be taken to insure bushes going through the cold winter successfully. This may be done with straw, leaves, hay, pine or cedar boughs, corn stalks or any thing of such description. Do not cover the bushes or vines until winter has fairly set in. If covered too early, they will be in danger of sweating and injury. Always see the material used for covering is perfectly dry and so placed as to admit of free air.

church may be proper in another place. Even to the present day the idea of a kiss under the mistletoe bough has not quite lost its ancient mystic meaning, and we see no reason why 1900 years after the extinction of Druidism we should not set aside and forget the heathen origin of the custom, and

salute our cousins and other fair friends this Christmastide according to ancient usage and old fashioned custom, "Under the Mistletoe Bough."

The custom has been honored in the observance by a no less virtuous person than Mr. Pickwick himself. I have only hinted at some of the many legends of the mistletoe or golden bough, but will finish with a selection from Eliza Cook :

Under the Mistletoe, pearly and green,
Meet the kind lips of the young and the old ;
Under the Mistletoe hearts may be seen,
Glowing as though they had never been cold ;
Under the Mistletoe peace and good will
Mingle the spirits that long have been twain :
Leaves of the olive branch twine with it still,
While breathings of Hope fill the loud carol strain.
Yet why should this holy and festival mirth
In the reign of old Christmas-tide only be found ?
Hang up Love's Mistletoe over the earth,
And let us kiss under it all the year round :
Hail it with joy in our yule-lighted mirth,
But let it not fade with the festival sound :
Hang up Love's Mistletoe over the earth
And let us kiss under it all the year round.



A Popular Florist.

One of the most popular florists in Toronto is Mr. E. F. Collins, the secretary of the Toronto Gardeners' and Florists' Association, who acted as secretary of the floral committee which had charge of the floral exhibits connected with the recent Provincial Fruit, Flower and Honey Show. The success of this feature of the exhibition is due, in a large measure, to the efforts of Mr. Collins.

THE CARE OF WINDOW PLANTS*

WM. HUNT, ONT. AGRIC. COLLEGE, GUELPH.

TO be successful with window plants one must really love them and not begrudge the time and attention they take. It is not usually those who exclaim the loudest, on seeing a display of plants and flowers, "Oh! how I love flowers!" who are the most successful in their culture.

The most successful window gardeners are those who take a quiet, observant pleasure in watching the gradual growth and development of the beautifully varied phases and features of plant life. Many persons only love flowers as decorative objects; oftentimes from a sense of vanity or frivolity. As a rule these people are not those who succeed best in the culture of plants and flowers. The true student of nature takes as great a pleasure in his plants when in a dormant or semi-dormant stage of com-

paratively uninteresting growth as when watching the flower buds develop into beautiful, richly colored flowers.

THE WINDOW.

For window plants in winter a window facing the south or southeast is preferable, especially for flowering plants, as this aspect gives a maximum of sunshine and avoids the cold west and northwest winds. Ferns, palms, and many foliage plants will succeed as well in a window facing the north or northeast as in a south window, but flowering plants will do better in a sunny position.

Avoid draughts of cold air on plants, as they are injurious, checking the growth, and often inducing attacks of mildew. If outside air is given plants in winter, and sometimes this is beneficial, give them ventilation

*Extract from an address delivered at the provincial horticultural convention held in Toronto, November 15 and 16, in connection with the Provincial Fruit, Flower and Honey Show.

on sunny, calm, and not excessively cold days. Draw the top sash of the window down an inch or two, or, if possible, induce ventilation from an adjoining room. Plants like fresh air but object strongly to being in a cold draught. A thick paper window blind, or sheets of newspaper between the window and plants, will protect them on extra cold nights.

POTTING SOIL.

Every one who attempts to grow window plants should have a small pile of prepared potting soil made from well rotted sod and thoroughly rotted stable or cow manure. The too common practice of using earth from the garden, or black soil from the bush, is oftentimes the cause of failure and disappointment in plant growing. The earth from the garden is too often lacking in fertility and, what is of still more importance, is too often deficient in the fibry matter found in partially rotted sod. Good potting soil may be obtained from some tough sod from an old, well fed down, pasture field where the soil is of a loamy nature. This sod, before being used, should be stacked in the open, mixed with well rotted stable manure or cow manure and the pile be left to rot. Where this trouble is too great to be undertaken prepared potting soil may be obtained from a florist.

POTS AND POTTING.

Use unglazed plain flower pots for growing plants. For potting rooted cuttings or slips use small pots, a two and a half or three-inch pot being usually quite large enough for potting rooted slips. When the plants are fairly well rooted repot into a pot two sizes, or two inches larger. A change into a pot two sizes larger is usually sufficient. Over-potting, or repotting the plant into a pot four or five times larger, is a too common mistake with amateur flower growers, often resulting fatally to the plant.

Use a mixture of one part of fine sharp sand, and three parts of the potting soil for



W. G. ROOK.

Much of the success of the Provincial Fruit, Flower and Honey Show was due to the excellent work of the printing and advertising committee, of which Mr. W. G. Rook, of Toronto, was the chairman. As a vice-president of the Toronto Horticultural Society and a florist, Mr. Rook is in close touch with horticultural matters.

rooted cuttings. For re-potting larger plants one part of sand to six or seven parts of potting soil is about the proper proportion of most window plants. Even if common garden soil is used for potting soil, the sand will be beneficial. In potting or re-potting plants be sure that the hole in the bottom of the pot is open to allow of free drainage. About half an inch of coarse gravel, or coal cinders, etc., should be placed in the bottom of four or five inch pots to secure good drainage. In six or seven-inch pots, an inch in depth of this drainage would not be too much. Very small pots seldom require drainage.

WATERING, SPRAYING, FERTILIZERS.

All freshly potted plants should be watered once as soon as potted. Give sufficient water to moisten all the soil in the pot. Do not give more water until the soil shows signs of dryness. If the plant wilts a little, do not saturate the soil with water, but remove the plant to a shaded position for a few days. Too much water often kills

newly potted plants, as there is no root action to absorb the excess of moisture.

Water growing plants when they require it. To find out when growing plants need water, watch the surface of the soil closely. When the rough uneven portions of the surface of the soil begin to have a light, greyish color, or when the top of the soil will crumble between the thumb and finger, the plant requires water. Give sufficient water to moisten the soil to the bottom. Plants should only be watered when the soil requires the moisture, which condition can only be learned by experience and observa-

tion. The dairy or calendar is of no use as a guide in the watering of plants. One rule should always be borne in mind, viz: That sufficient water should always be given growing plants to moisten, not saturate, all the soil in the pot. Light sprinklings of water that only penetrate through an inch or so of the soil are useless.

In winter use tepid or rain water at a temperature of about 65 degrees. In spite of assertions to the contrary I am satisfied that water of a temperature at or near freezing point is injurious to plant life in greenhouses, to say nothing of window plants.

GROWING RHUBARB IN THE CELLAR IN WINTER

PROF. H. L. HUTT, ONT AGRI. COLLEGE, GUELPH.

MOST farmers who have a garden usually have a good supply of the old fashioned pie plant or rhubarb. This vigorous growing plant provides a wholesome substitute for fruit early in the spring before strawberries come in. It is not generally known, however, that it can be made to produce its crop in an ordinary cellar during the winter, when it would probably be more appreciated than when grown in the usual way in the garden in the spring.

The rhubarb plant makes its most vigorous growth under natural conditions early in the spring, when its large leaves store up in the thick fleshy roots a large amount of nutriment for the protection of seed during the summer and growth early next season. To get the best roots for winter forcing it is well to allow the plants to make their full growth with little or no cropping of the leaves the previous season, and above all not to allow them to exhaust themselves by throwing up seed stalks. The more liberally the plants are manured and the better they are cultivated, the stronger the roots become and the better the crop they will give when forced in the cellar.

In preparing the roots for the cellar, they

should be dug up late in the fall, just before the ground freezes hard. They should then be left where they will be exposed to severe freezing for three or four weeks. If placed under cover in an open shed, or where they will not be buried in snow, it will be all the easier to get at them when it is time to take them to the cellar. About Christmas time they may be put in the cellar and should be banked with earth to keep the roots moist. Care should be taken that the plants are set right side up, as at that season it is sometimes difficult to tell which side of the ball of earth the crowns are on. In the course of a few days the roots will thaw out, and usually enough moisture is thus accumulated to keep them fresh for some time. They should be watched, however, as they may need watering once or twice during the winter to keep the soil moist.

The warmer the cellar, the more quickly growth will start, but for the best results a rather low temperature, about the same as that in which potatoes are kept, is best. In a partially lighted cellar the leaf blades will expand very little, and all the strength of the roots will go to the development of the stalks. If the cellar is light, it is well to

darken the part where the plants are kept. If the roots are strong and vigorous, stalks one and a half to two feet in length and two inches in diameter will be produced with little or no expansion of the leaf blade at the top.

When grown thus in the dark, none of the green coloring matter of the leaf develops, and the stalks are bleached to a pinky white. When cooked and made into

sauce and pies, they turn a beautiful pink color and are much finer in appearance and flavor than stalks which are grown in the ordinary way in the garden. Cropping may begin as soon as the stalks are well developed, and may be continued for several weeks, until the roots have exhausted themselves, after which they should be thrown out, as they are of little use for growing again.

Growing Onions from Seed or Sets

PROF. H. L. HUTT, ONT. AGRI. COLLEGE,
GUELPH.

CONSIDERABLE attention has been given at the college to the growing of onions. The results obtained indicate that it is more profitable to grow onions from seed. The ground in which they are grown should be thoroughly cleared of weeds by a hoed crop grown on the ground the previous year. It should be worked as fine as possible in the spring and rolled firm to make a solid seed bed, leaving a half inch or so of the surface soil as fine as possible.

Seed should be sown with the drill, carefully regulated to give a good distribution of seed without sowing too much. If just the right quantity of seed is used the bulbs will be thick enough to form a good size without thinning.

Onion bulbs naturally form on top of the ground and will stand considerable crowding without much injury; in fact, unless extra large bulbs are required, which are not always the most desirable, they are better to grow so thickly that they will form in large bunches. The cultivation during the season should be shallow, and the cultivator teeth should be set so as not to throw any earth over the bulbs.

As soon as the tops begin to die down in the fall, showing that the bulbs are well ma-

tured, the bulbs should be pulled and left lying on the ground until they are thoroughly dried. When well dried, the tops should be twisted off and the bulbs prepared for market or storage. The best way to store them is in shallow layers on slatted racks in a dry, cool room.

Two Varieties of Gooseberries

STANLEY SPILLET, NANTYR, ONT.

THE Red Jacket gooseberry, though not as large as the Whitesmith, is, when ripe or nearly ripe, the most beautiful gooseberry in my collection. In my opinion, this gooseberry has no peer. After ten years' experience with this variety, I am digging out everything else, except for experimental purposes, and putting in Red Jacket.

Pearl and Red Jacket gooseberries in my opinion are superior to any of the foreign varieties or their seedlings for the following reasons: They are more vigorous and grow lots of wood for renewing and to stand winters, they are not affected by mildew fungous, they are great croppers, they are thin skinned and can, therefore, be allowed to get ripe, and the skin is not disagreeable when cooked. They are, also, large enough for all practical purposes and of the very best quality. The Pearl will be liked by those who prefer a sweet fruit. The Red Jacket is quite tart when ripe and larger, and looks better in the baskets than the green berry.

Picking Pears

SOME interesting information regarding his method of picking pears was given *The Horticulturist* recently by Mr. E. C. Beman, of Newcastle, who has an orchard of 2,000 pear trees. "I generally start picking Clapp's Favorite," said Mr. Beman, "from the 15th to the 20th of August, and the Bartlett about the end of the month.

"My practice is to obtain as good pickers as possible, and not too many of them. Picking is started early that they may get through in good time. Fruit keeps better when picked before it is too ripe. Clapp's Favorite must be picked as soon as it is full grown or even a little before, as otherwise they start to rot at the core. Bartlett pears also require to be picked as soon, or a little before, they are full grown, as the quality of the pears is better than if they were allowed to mature on the trees.

"Care is taken to see that the early varieties of pears are out of the road before the late varieties are ready to pick. It pays to obtain good pickers, as they use greater care in handling the pears, which, owing to their tender nature, require careful treatment. I find that I can make a little more on all kinds of fruit by shipping direct to commission men than by selling my fruit from the trees. Small growers, of course, can hardly do this. Many growers apparently do not understand how to pack, as they do not use sufficient care."

Top Grafting.—We have a number of King Baldwins and other trees that have been top-grafted from 15 to 30 years, and we have them on the original stock in the same orchard. I am sure there is double the amount on the top-grafted. I have counted six or seven Kings on a branch no thicker than a pipe stem. They have to be propped up. I think the government should do work of this kind. I consider top-grafting the greatest need in this section.—(J. I. Graham, Vandeleur, Ont.

Questions About Apples

Are Wismer's dessert apple, the Rivers Early and Graham's Royal Jubilee as good as recommended in the nursery catalogues? Are they good keepers and shippers? Are they marketable? Are they good dessert apples? Are the trees hardy, and where can I obtain one or two year old trees from nurseries who do not employ agents?—(J. B. Bruce, Kanagan Landing, B. C.

It is surprising how fond we all are of trying things new and untried, even although we know full well that nine-tenths of all new things put out before a gullible public prove worthless and pass out of sight after a few years. Were it not for this failing in us many a business would come to grief.

These fruits have not yet been introduced long enough for us to know their faults, or to answer your questions. We have eaten the Wismer apple and found it a very agreeable dessert apple, and of fair size. So far these apples have not been tested; they are comparatively new, and may or may not bear out the laudations of their introducers.

Self Sterility in Cherries.—I do not know that any systematic investigation has been made regarding the sterility of cherry blossoms. Here is room for important investigation which we would like to have followed up this year had it not been that in most of the varieties the fruit buds were more or less destroyed by winter killing. I have seen it stated somewhere that Belle de Choisy and Reine Hortense are self-sterile varieties, but I cannot say for certain if this is always the case, as varieties self-sterile in some sections often prove self-fertile in others. On general principles, however, it is well to avoid planting large plots of any one variety, as better results are obtained even with self-fertile varieties of cross fertilization.—(R. Cameron, Niagara Falls South.

I only use barnyard manure in my orchard. I grow no crops in the orchard, but cultivate and keep down weeds.—(A. Shaw, Walkerton, Ont.

INTERESTING FRUIT EXHIBITS

(Continued from page 516)

given in regard to the Fruit Marks Act. This work was in charge of Mr. P. J. Carey, of Toronto, and Mr. A. Gifford, of Meaford, Dominion fruit inspectors, assisted by two expert packers, Messrs. R. Wilson and G. H. Boone, of Thornbury. The Fruit Division also made an exhibit of fruit from the different provinces, including 19 plates from Nova Scotia, 14 from Prince Edward Island, 27 from Quebec and 7 plates and 2 pyramids from British Columbia. The Quebec exhibit showed the class of apples that can be grown in the colder sections of Ontario, Quebec and the Northwest Territories. These included some Russian varieties and seedlings that have been tested.

The Nova Scotia fruit closely resembled that of Ontario and included such varieties as the Stark, Greening, Baldwin and Gravenstein. The fruit from Prince Edward Island was not as large as that from the other provinces, but was fairly well colored and included some Wealthy, Baxter, Ontario, Fall Water and Baldwin apples, all of which showed good keeping qualities. Some of the finest commercial Spys in the rink were included in the British Columbia exhibit. They were of fair size and very even in quality and color. The other varieties, such as Ontario, Stark, Canada Red and Spitzenberg, were hardly up to the standard of the Ontario fruit.

AN EXCELLENT EXHIBIT.

A small exhibit, but one of excellent quality, was made by Mr. Richard Veale, of Mount Brydges, who showed five plates of Kings, Russets, Baldwins, Greenings and Spys. These apples were all of large size and excellent quality, the Spys and Russets being particularly fine.

A large table was occupied with an exhibit of fruit from the orchards of Morris & Wellington, of the Fonthill Nurseries. This exhibit included some excellent fruit.

One of the best exhibits at the show was

that made by the Chatham Fruit Growers' Association. This exhibit attracted general attention and proved a splendid advertisement for that association, as the fruit was all of excellent quality, it was neatly packed and showed to excellent advantage. The exhibit included fruit in boxes and barrels as well as on plates.

THE FRUIT GROWERS' ENEMIES.

A most valuable section, from an educational standpoint, was that occupied by a display from the Ontario Agricultural College. A large number of the most common insects which plague fruit and vegetable growers were shown in bottles. These included the peach borer, the celery caterpillar, spruce gall louse, round headed borer, cabbage borer, canker worm, squash bug, and many others. Branches of trees and leaves, showing how these various insects attack the trees and the damage they do, were shown. These included leaves attacked by shot hole fungus, currant leaf spot, asparagus rust and others, as well as exhibits showing the apple scab, bitter rot, plum rot, sun scald, San Jose scale, etc.

Printed slips of paper describing the various pests and how they can best be prevented and remedied were attached to the various exhibits. There was also an exhibit of a section of a tree showing how trees can be protected from mice, as well as branches of trees showing how grafting is done. One of the best features of the college display was two cases of waxed fruits which were wonderfully natural. The college received a great deal of praise for making such an excellent and instructive exhibit.

COMMERCIAL EXHIBITS.

A number of well known firms made exhibits of fruit boxes, orchard machinery, etc. These exhibits were among the most instructive of the exhibition although the number was not as large as had been hoped

for. Next year it is probable this class of exhibits will be much larger. Two extremely interesting exhibits were made by the Robert Simpson Co. and the Adams Furniture Co., of Toronto. These took the form of model dining rooms and showed tables set ready for a meal and loaded with fruit. The rooms were richly furnished and proved most entertaining.

The Biggs Fruit & Produce Co., Limited, of Burlington, although a new concern, made a very creditable display in the fruit department, capturing 13 prizes in all. The manager, Mr. A. C. Biggs, was extremely well pleased with the exhibition, which he said gave him an excellent opportunity to meet the users of fruit packages and to give practical demonstrations of his firm's specialties. These are a fruit box for the export and western trade, a crate for storage purposes, and a box press which practical fruit growers who examined it at the show unanimously agreed to be the best they had seen. The special advantages of the Biggs box for the trade include its simple construction, the strength and protection it affords, and the economy it makes possible in the packing and material. Some of its other strong points are the ease with which it can be handled without injury to the fruit, its adaptability to different sizes of fruit, which always ensures a tight package, and its cost.

The fruit press shown by Mr. Biggs had an excellent feature in that it was adjustable to any ordinary sized fruit box, while it was easily operated and strong. These good qualities were appreciated by the fruit growers who examined it. The ventilated package for storage, shown by the Biggs company also seemed to be all that could be desired for the profitable keeping of fruit.

THE LITTLE GIANT SPRAYER.

Only two spraying outfits were shown including that of the Spramotor Company, of London, and the Little Giant Sprayer shown by the Perkins & Payne Manufacturing

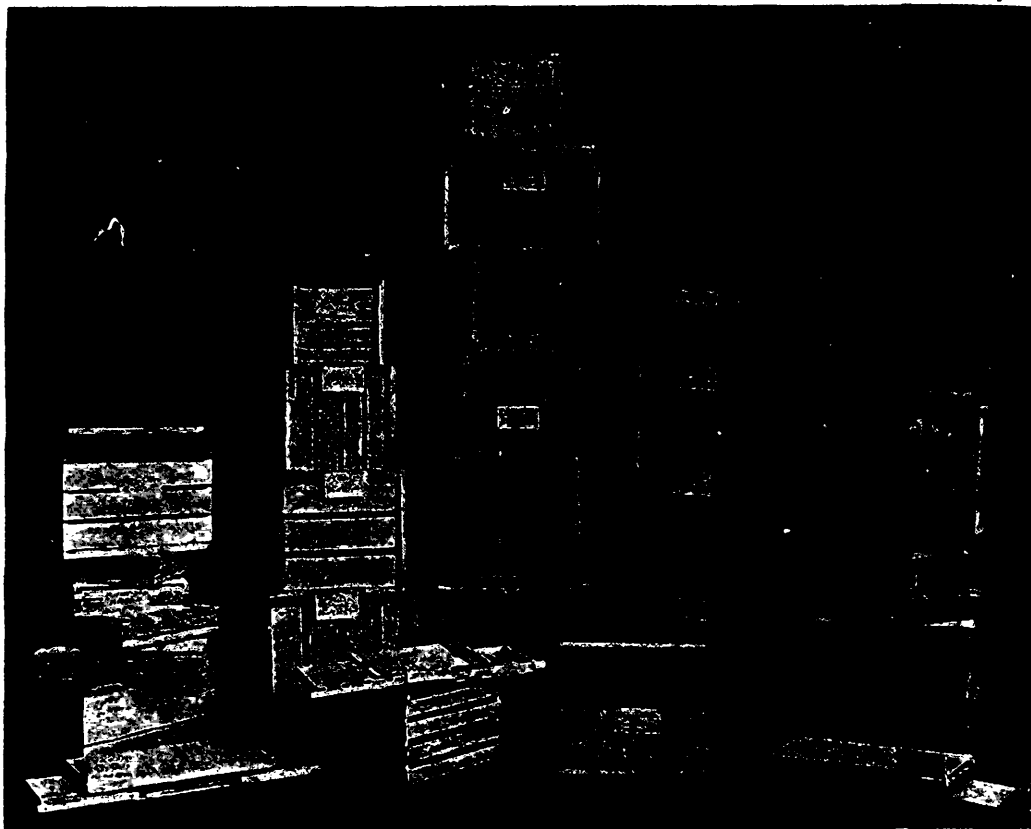
Company, of Port Dover. This latter machine is cheap and is simply and easily operated. The machine at the show attracted a great deal of attention. It was constructed with a tank of 100 gallons capacity, although a larger or smaller sized tank can be used when desired. The tank was mounted on two wheels, although four wheels can be used if necessary. The spray was generated from the wheel, the sprayer having a large sprocket wheel 30 inches in diameter and a smaller one 12 inches in diameter. Two lines of hose were said to be enough to spray the largest tree, with one man on the ground spraying the lower branches and a man on the tank spraying the upper parts. The operation of this machine at the show demonstrated that it is possible to spray the largest apple tree after the machine stops which proved that the power is well maintained. The general impression seemed to be that owing to its cheapness and effectiveness this sprayer will become very popular in the near future.

GREENHOUSE CONSTRUCTION.

The only exhibit of a commercial nature made in the floral section was that of the King Construction Company, of Toronto, which showed the framework of a greenhouse, with improved ventilating shutter and shutter opening devices, showing also their skeleton purlin or rafter central support in position. They also exhibited some improvements in their iron gutters, and means for securing the sash bars thereto.

Though this exhibit was placed in the floral building it was of interest to fruit growers. Some growers are already successfully raising not only vegetables of various kinds but also fruit such as strawberries under glass in mid-winter and are increasing their business by the erection of improved structures, giving as much care and consideration to sunlight and permanency as the florists themselves.

In reference to the prospects of this class



An Exhibition of Commercial Fruit Packages.

Fruit growers who attended the Provincial Fruit, Flower and Honey Show evinced great interest in the commercial exhibits, more particularly fruit packages and spraying machinery. This feature of the exhibition will be largely developed next year. The illustration shows the exhibit of fruit packages, etc., made by the Meyer-Thomas Co., of Montreal and Granby, Quebec, mentioned in this issue.

of horticulture growers at the show stated it is being discovered that the same people who can afford to spend their money freely in floral decorations can afford also to place on their table fruit or vegetables out of season, provided they can be procured, rather than be satisfied with the canned article. This exhibit had some interesting features for the fruit growers from Essex county who are raising vegetables for the early markets.

THE AVERILL, KNOCK DOWN AND FOLDING PACKAGES.

One of the most interesting exhibits of fruit packages was that of The Meyer-Thomas Co., of Montreal and Granby, Que.,

which made a large exhibit as shown by the illustration. This firm has recently acquired the Canadian manufacturing rights for the Averill patents and, while they only manufacturing these packages in Quebec, will soon establish a large plant for their manufacture in Ontario.

The Averill Patents cover a large line of both knock down and folding fruit packages, berry crates, egg cases and shipping crates and boxes for various manufactured commodities.

The Averill packages are manufactured in half-barrel, bushel and half-bushel sizes, ventilated for early fruit shipment and tight for late shipments, cold storage and

export, and in either the round or cube form. The half-barrel and the one bushel sizes are specially recommended for the apple trade. They are strong, light, easily set up, packed, sealed and handled; opened again and resealed in a moment with as simple a tool as a hatchet, and when sealed may be placed any side up and opened top or bottom and refilled until worn out. Demonstrations on these points were given.

A simple fruit evaporator, with many commendable features, was shown by Mr. Geo. McKay, of Kilsyth. This evapora-

tor was hung over one of the furnaces in the fruit rink. These evaporators can be used over kitchen stoves without interfering with any of the regular cooking operations. According to Mr. McKay he is able to handle one-half bushel of apples per day by means of his evaporator. Some evaporated apples Mr. McKay had with him were of excellent quality and indicated that the evaporator was a good one. One of its best features is that the heat can be regulated by raising or lowering the evaporator while the cost of the evaporator is trifling.

CO-OPERATION AMONG ONTARIO FRUIT GROWERS

(Continued from page 512.)

At this point Mr. D. Johnson, of Forest, president of the Forest Fruit Growers and Forwarding Association, was called to the front and asked to explain the methods that have been followed by his association.

"Our association," said Mr. Johnson, "was only formed last spring. Its organization was the result of two interesting meetings held in our section by Mr. Sherrington. My father and I had been shipping apples to Great Britain for years and had won a name for our fruit. We thought, at first, that cooperation might be desirable for small growers, but that it was not necessary for large growers like ourselves. At my request Mr. Sherrington visited our neighborhood and held two very successful meetings. After hearing him 12 of us finally agreed to ship together and we sent a salesman to the Northwest to introduce our fruit. We thought there were a number of other growers in the section who would like to join us and we invited them to do so but insisted that they must submit to our rules, as we had too much at stake to care to risk loss through any selfish action on the part of a few growers.

"When it was first decided to cooperate each man was allowed to pack his own apples and to send his fruit to a central

packing house but we soon found that this would not do. The growers all had their own ideas as to how their fruit should be packed, so it was finally decided to establish two central packing places, one on my own farm and one at Forest, which was done. Many growers were afraid their fruit would be bruised by being handled in this way and refused to send their apples to these packing houses. A number, however, sent their fruit, and it was not long before more fruit was received than we could well attend to. We followed Mr. Sherrington's plan of placing hay in the bottom of the wagons and found it worked very satisfactorily."

Question: "What did you realize for your fruit?"

Mr. Johnson: "At first we were offered \$2.75 per barrel for No. 1 F. O. B. These prices, however, were soon forced down through competition. The average price realized during the season was \$1.90 F. O. B. for No. 1 fruit and \$1.55 for No. 2. As high as \$2.25 was paid for some. We have shipped large quantities and have not received a single complaint from the buyers in regard to the quality of our fruit."

Question: "What did other growers in your district, who did not belong to your association, obtain for their fruit?"

The Canadian Horticulturist

The Only Horticultural Magazine in
the Dominion.

H. BROXNIX COWAN, Editor and Business Manager.

1. **The Canadian Horticulturist** is published the first of each month.

2. **Subscription Price** \$1.00 per year, strictly in advance, entitling the subscriber to membership in the Fruit Growers' Association of Ontario and all its privileges, including a copy of its report. For all countries except Canada, United States and Great Britain add 50c for postage.

3. **Remittances** should be made by Post Office or Money Express Order, or Registered Letter. Postage stamps accepted for amounts less than \$1.00. Receipts will be acknowledged on the address label, which shows the date to which subscription is paid.

4. **Discontinuance**—Responsible subscribers will continue to receive *The Horticulturist* until the publishers are notified by letter to discontinue, when all arrearages must be paid. Societies should send in their revised lists in January; otherwise it will be taken for granted all will continue members.

5. **Change of Address**—When a change of address is ordered, both the old and the new addresses must be given.

6. **Advertising Rates** quoted on application. Circulation 5,300. Copy received up to the 25th. Responsible representatives wanted in towns and cities.

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

8. **All Communications** should be addressed:

THE CANADIAN HORTICULTURIST,
TORONTO, CANADA

SEVENTEEN YEARS' FAITHFUL SERVICE.

At the recent annual convention of the Ontario Fruit Growers' Association Mr. Linus Woolverton, B.A., of Grimsby, took advantage of the occasion to tender the directors his formal resignation as editor of *The Canadian Horticulturist*. For years Mr. Woolverton has been undertaking work beyond the powers of the ordinary man. Although the owner of one of the finest fruit farms in Canada he has not only found or rather made time, during the past seventeen years, to act as editor of *The Horticulturist* but has, for a considerable portion of this time, acted as secretary of the Ontario Fruit Growers' Association, secretary of the Board of Fruit Experiment Stations and worked on a valuable description he is preparing of the fruits of Ontario.

Realizing that this work was too great for one man Mr. Woolverton, a few years ago, asked to be released of his duties as secretary of the Fruit Growers' Association and last month asked for a further lightening of his responsibilities. In accepting Mr. Woolverton's resignation the directors of the association, one and all, paid tribute to the great value of the services he has rendered. It was pointed out that when Mr. Woolverton accepted the secretaryship of the Fruit Growers' Association and the editorship of *The Horticulturist* both the Association and *The Horticulturist* were in a critical condition. Through his active efforts the association and *The Horticulturist* have since be-

come known throughout the Dominion. An expression of the value in which his services have always been held was unanimously tendered Mr. Woolverton. Special attention will be devoted by Mr. Woolverton in the future to his duties as superintendent of the fruit experiment stations and to completing his description of the Fruits of Ontario. The editorship of *The Horticulturist* has been assumed by the associate editor, Mr. H. B. Cowan.

IT WAS A SUCCESS.

The First Provincial Fruit, Flower and Honey Show was a decided success. The gain to the horticultural interests of Ontario will be immense. There is an impression in the minds of the general public that anything pertaining to horticulture is of but slight importance. The magnificent display of fruit, flowers and honey, at the recent show, did much to dispel this illusion.

The success of the first venture warrants a determined effort being put forth to make the show an annual affair and to extend its usefulness and scope. Too much credit cannot be given the officers of the show and the various organizations interested. The Ontario Department of Agriculture, the Ontario Fruit Growers and Bee Keepers' Associations, the Toronto Horticultural and Electoral District Societies and the Toronto Gardeners' and Florists' Association are all deserving of the warmest praise for their active assistance and cooperation. The fact that the representatives of all these bodies were able to work together harmoniously shows them to be broad minded men. It is no wonder the exhibition was a success.

A NARROW MINDED POLICY.

The Canadian manufacturers of orchard and garden implements are deserving of the severest censure for the stand they took in regard to the recent provincial horticultural exhibition. Although earnestly urged, and in spite of the fact that liberal inducements were offered, they absolutely refused to make exhibits at the show.

It was felt by the management that an exhibit of implements and tools for orchard and garden culture, showing the latest improvements that have been made, would be of great educational value to the fruit growers and gardeners who attended the exhibition. Although this object was pointed out the Canadian manufacturers refused to give their assistance. If the manufacturers dream they have entrenched themselves in a position where they are independent of the fruit growers and florists it is time they should be rudely awakened. This point should be borne in mind when preparations are being made for the next exhibition.

The delegates to the provincial horticultural convention acted wisely last month when they appointed a committee to suggest changes in the Agricultural and Arts Act and to consider the advisability of forming a provincial horticultural

tural association. There is a big work for this committee to do and the results of its deliberations will be awaited with interest. The members of the committee, fortunately, have had wide experience in horticultural work.

This month The Horticulturist makes its blushing appearance in a new cover. Many improvements are planned for the near future and will be put into effect as soon as fruit growers and florists subscribe for the magazine in greater numbers. Tell your friends about The Horticulturist and induce them to become regular readers. A larger and better paper will result.

The Nova Scotia and Prince Edward Island Fruit Growers' Associations will this month hold their annual conventions. That they will both be most successful is the earnest wish of their brother fruit growers in the other provinces of the Dominion.

Horticultural societies when deciding this month what papers they will subscribe for during the coming year should bear in mind that The Canadian Horticulturist is the only paper that is "Made in Canada." By subscribing for The Horticulturist they will assist a paper that is endeavoring to assist them.

An evidence of the excellent service rendered by the railway companies was furnished in connection with the recent horticultural exhibition. Exhibits shipped to the show the week before it opened arrived the week after it was over.

A Pointer for Ontario Growers

W. J. BRANDRITH, SEC. TREAS. BRITISH COLUMBIA
FRUIT GROWERS' ASSOCIATION.

British Columbia fruit growers felt gratified last winter when the Ontario Fruit Growers' Association saw fit to endorse the same sized box we had adopted in 1900. It is one in which any sized apple can be packed, but growers need to be taught to do the work.

We had three expert packers in as many years, go all over British Columbia and give practical demonstrations in packing fruit. It costs the British Columbia Association about \$500 each year for only two months' work, but we consider the money well spent. Ontario fruit growers will have to do something of that kind if they wish to succeed.

We have adopted a standard size for a pear box, as well as for apples, viz., $8\frac{1}{2} \times 11\frac{3}{4} \times 15\frac{1}{2}$ inside measurements. This is the result of very extensive experiments with different sized boxes.

I have read The Horticulturist for the last 25 or 30 years and consider it a first-class journal. Would not want to be without it.—(Geo. Smith) Manilla, Ont.

Will Hold Another Show

A meeting of the general committee of the Provincial Fruit, Flower and Honey Show was held November 28 to wind up the business connected with the recent exhibition. Those in attendance were the tyrrman, Mr. R. J. Score, and Messrs. Edward Tyrrell, H. G. Rook, H. R. Frankland, P. W. Hodgetts, Bernard Saunders, J. H. Dunlop, Herman Simmers, Thomas Manton, E. F. Collins, and the secretary H. B. Cowan.

The financial statements presented showed that the estimate of expenses connected with the show had not been exceeded. All expenses of management had been paid in full, including the prize lists for the fruit growers and bee keepers and that there was \$800 on hand with which to pay the floral prize list amounting to \$1,150. It was announced that a special donation may be received which will make it possible to pay prize list in full. The representatives of the various organizations that assisted with the show were unanimously in favor of holding another joint exhibition next year. The opinion was freely expressed that for a first attempt the recent exhibition had been a remarkable success and that it will be possible to add many new features next year.

Fruit Growers Who Won Prizes

The following is a list of the prize winning exhibitors of fruit at the recent Provincial Fruit, Flower and Honey Show:

Apples, commercial division, export varieties, Barrels ready for shipment. Baldwin, 1, Chatham Fruit Growers' Association; 2, Harry Dempsey, Rednerville; 3, Biggs Fruit Co., Burlington.

Ben Davis, 1, Chatham F. G. A.; 2, Harry Dempsey; 3, Frank Dempsey, Albany.

Greening, 1, Chatham F. G. A.

King, 1, Biggs Fruit Co.; 2, Elmer Lick, Oshawa; 3, H. J. Scripture, Brighton.

Russet, 1, Harry Dempsey; 2, Frank Dempsey; 3, Chatham F. G. A.

Spy, 1, A. E. Sherrington, Walkerton; 2, Biggs Fruit Co.; 3, D. T. Elderkin, Toronto.

BOXES READY FOR SHIPMENT.

Baldwin, 1, Elmer Lick; 2, Robert Thompson, St. Catharines; 3, W. H. Bunting, St. Catharines. Greening, 1, Chatham F. G. A.; 2, W. H. Bunting; 3, Ernest Woolverton, Grimsby.

King, 1, Chatham F. G. A.; 2, Biggs Fruit Co.; 3, Elmer Lick.

Russet, 1, Harry Dempsey; 2, Elmer Lick; 3, Chatham F. G. A.

Spy, 1, C. W. Challand, Marburg; 2, Biggs Fruit Co.; 3, Robert Thompson.

BOXES (FRUIT WRAPPED).

Snow, 1, Chatham F. G. A.; 2, A. D. Harkness, Irena; 3, Harold Jones, Maitland.

King, 1, Chatham F. G. A.; 2, Elmer Lick; 3, Biggs Fruit Co.

McIntosh, 1, A. D. Harkness; 2, Elmer Lick.

Spy, 1, Biggs Fruit Co.; 2, A. E. Sherrington; 3, Elmer Lick.

(Continued on page 544.)

CONDITIONS SURROUNDING CANADIAN CANNED GOODS*

W. P. GAMBLE, ONT. AGRI. COLLEGE, GUELPH.

At the suggestion of the Hon. John Dryden and President Creelman, of the Agricultural College, I visited the Old Country last summer and made a study of the standing of Canadian canned goods on the English market. My attention was directed chiefly to comparisons between the different Canadian canned pears, peaches, apricots, raspberries, corn, tomatoes, and similar food stuffs of United States manufacture.

A number of the British wholesale houses did not handle any Canadian canned goods. In other houses, where our canned goods are to be found, the general complaint was that our peaches, pears and apricots are pulpy in appearance. When our cans were opened and compared with those sent from the United States, the difference was very marked. The fruit from the other side of the line retained its perfect form and was certainly more attractive than ours, half of which was in pulp and had more of the appearance of boiled turnips than of fruit.

The general impression among the merchants was that our manufacturers purchased the fruit after it had become too ripe, or else that a very inferior variety of fruit, such as windfalls, etc., was used. Notwithstanding this fact, the flavor of our canned peaches was excellent, in fact much superior to that of the California fruit. The general opinion, however, was that Canadian manufacturers must look more closely after the raw material if we are to have a leading place in this very important industry.

One very fine display of canned raspberries, drawn to my attention, was put up in glass sealers, which were neatly labelled. This particular kind of fruit presented a very attractive appearance, and sold readily at good prices. In speaking of this fruit, Mr. Robinson, of the firm of Hanson, Son & Barter, said: "We cannot get enough of your canned raspberries to supply the demand. We have had to cancel a large number of orders for this brand this season. Our customers say the fruit is excellent. If more of your fruit could be put up in glass, the prices paid would certainly be much higher than they are."

There is a steadily growing demand in England for tomatoes and corn. Some few years ago there was a decided prejudice against canned goods of any kind, the reason being that a few cases of poisoning supposedly resulted from eating such foods. This prejudice is gradually dying out. There is, however, a complaint that our manufacturers are not sustaining their record in the matter of quality.

One defect pointed out was a blackening of the corn at the top of the can. This was probably caused by the soldering iron scorching the corn during the process of sealing the cans. In contrast with the black surface exposed, when a can of Canadian corn was opened, several merchants showed me how the United States manufacturers over come this difficulty. They

place a clean piece of parchment paper over the corn and in this way are able to obviate any blackening of the canned goods.

One dealer told me that he did not so much object to a little of the corn being blackened, but it gave the customers a bad impression of the goods. The customers often mistake the blackening of corn for foreign matter and object to it strongly. A little care in sealing the cans and a small piece of parchment paper placed underneath the lid prevents any such false impression.

There is a limited demand for Canadian canned peas on the English market. This is mainly for the reason that most of our peas are white. Most of the peas sold in England come from France, and are colored by the use of a dilute solution of copper sulphate. The canned pea trade in Great Britain is in an unsatisfactory state because of a law prohibiting the use of copper sulphate in any process of manufacture.

The merchants say that it is absolutely impossible for them to sell canned peas unless they are colored and it is practically impossible for them to obtain sufficient peas to supply the demand of their customers unless they are permitted to sell peas which have been colored by copper sulphate solution. Several merchants have been fined for selling such goods and a number of cases are now before the courts pending the decision as to whether or not a small percentage of copper sulphate may be used in the process of manufacture of this particular article of food. There is an excellent market for canned goods in England, and it is possible for Canadian manufacturers to develop a very profitable business along this line. In order to achieve the highest degree of success we must, however, pay special attention to the following points: Our goods must be put up in the most attractive style; the cans must be neatly made and the labels must be placed properly on the cans (appearance counts for a great deal in England); the goods exported must be of the very best quality if we are to compete successfully with our American neighbors, and the goods should be packed so as to prevent injury to the cans. A final point, which of course is demanded in all lines of business, is that all orders should be promptly filled.

Just a word to the manufacturers regarding the sale of their merchandise: I have already stated that there is a great future in England for Canadian canned goods. Let me repeat the assertion, but let me add that regularity in quality is, however, essential to the establishment of a mark or brand of canned goods. It is self evident that a buyer of a lot of goods does not open every parcel and, therefore, if a brand is to be established in Great Britain it is essential the buyer's confidence should be obtained, which necessarily takes time. The most economical method of procedure in order to obtain such confidence is for the packer to send along a few sample cases, containing a dozen

* A paper read at the convention of the Ontario Fruit Growers' Association held in Toronto, November 17-18, in connection with the Provincial Fruit, Flower and Honey Show.

tins or so of each variety and grade and have these reported on by some reliable English house as to suitability and value. In this way it is possible to obtain bulk orders for tins. It must be remembered, however, that all canned

goods sent to Great Britain are subject to examination on arrival for blown, burst or pierced goods, and, therefore, the manufacturer should be extremely careful regarding the quality of the goods exported.

HORTICULTURAL SOCIETIES WANT THE ACT CHANGED

The representatives of the horticultural societies of Ontario are not satisfied with the Agricultural and Arts Act. They would like to see the act so changed that horticultural societies will be placed on a footing of their own, separate and distinct from agricultural societies.

This was shown at the convention of delegates from the provincial horticultural societies held in Toronto November 15-16 in connection with the Provincial Fruit, Flower and Honey Show when a deputation was appointed to wait on the Hon. John Dryden, Minister of Agriculture, to draw attention to the necessity for a change in the act.



H. R. FRANKLAND.

The first vice president of the Toronto Horticultural Society, Mr. H. R. Frankland, presided at the session of the recent horticultural convention held in Toronto, at which the advisability of having the agricultural and arts act changed was discussed. The convention appointed Mr. Frankland on the committee which was to wait on the Minister of Agriculture, and which is to meet to consider what changes should be made in the act. As a director of the Fruit, Flower and Honey Show, Mr. Frankland was a faithful, efficient worker, to whom much of the credit for the success of the exhibition is due.

The matter was brought up for consideration by the address of Mr. H. R. Cowan, of Toronto, the provincial superintendent of agricultural and horticultural societies, who spoke on "The Agricultural and Arts Act, How it Affects Horticultural Societies." In his remarks Supt. Cowan showed that under the act grants are made to the agricultural and horticultural societies of the province according to hard and fast regulations which do not take into account

the work the societies are doing. The grants made by the Department of Agriculture to societies amount each year to about \$80,000. Supt. Cowan stated that if the agricultural societies were spending their funds to as good advantage as the horticultural societies are theirs there would be little need for a change in the act. The yearly grants to horticultural societies amount to about \$6,000.

Three serious defects in the act were pointed out. One is that district societies, by the act, receive much larger grants than township societies, although there are a considerable number of township societies which hold better agricultural exhibitions than many district societies. A second defect is that some societies, which receive large grants, do not expend nearly as much for the cause of agriculture as other societies receiving much smaller grants. Many societies are doing almost more harm than good as they conduct horse races, which are strictly against the law; allow gambling devices to be operated on the fair grounds (which is also against the law) and in some cases even permit liquor to be sold.

A third defect lies in the fact that where a horticultural society is established its grant is deducted from the grants of the agricultural societies in that district. The result is that agricultural societies oppose the organization of horticultural societies in their districts. There are a number of sections in the province where horticultural societies are needed but where it has been found impossible to organize them on account of the opposition of the agricultural societies.

The suggestion was made, by Supt. Cowan, that the horticultural societies should form a provincial horticultural association similar to the Ontario Association of Fairs and Exhibitions which represents the agricultural societies. Such an association could hold an annual meeting for the discussion of horticultural matters, issue an annual report, arrange for the sending of speakers to the meetings of local societies and in other ways increase the enthusiasm of horticultural workers and add to the value of horticultural societies.

VIEWES OF THE DELEGATES.

An animated discussion took place on the conclusion of Supt. Cowan's remarks. The views expressed were in part as follows:

Mr. Gilchrist, Toronto Junction: "I think that Mr. Cowan's suggestion to form a provincial association is in the right direction. There is ample scope for such an organization. Many of our horticultural societies are not working on any definite plan and might do much better work. In many of the smaller towns and villages no horticultural societies exist. It is in such places that they are most needed. The

requirement of the act that the membership shall be at least 50 precludes their formation. Some change should be made in the act in this respect and horticultural societies should be made distinct from agricultural societies as regards their grant."

Alex. McNeill, Chief Fruit Division, Ottawa: "There is no doubt we are all agreed that the funds for agricultural society purposes are in many cases scandalously wasted, and something must be done if we are to avoid a great scandal in the administration of the agricultural affairs of this province. Instead of being schools of virtue, many of our fairs are schools of vice."

"I agree with Mr. Cowan that we need to make a very strong move in favor of better horticultural instruction. As to how that is to be brought about, we may perhaps differ. It seems to me that simply to form another society does not solve the problem. Horticulture is just as much the object of the Fruit Growers' Association as the growing of fruit. The trouble is that the horticulturists have not forced themselves on the attention of the public to the extent necessary to get their due share of interest and attention. I believe that the best way to secure the ends we have in view is to retain the present organization rather than to form another society, involving a new set of officers. Let us have a fruit section, a horticultural section, a forestry section, with the same set of officers, office expenses, etc. There is no reason why the one society should not cover all this work."

FAVORED AN ASSOCIATION.

Major H. J. Snelgrove, Cobourg: "I desire to express the satisfaction of our society at the very excellent service which our superintendent is rendering us in his oversight of our work. We have received new inspiration from him since he occupied the office. I am glad that a move is being made to establish a Provincial Horticultural Society which will form an alliance with the local horticultural societies. The act under which we work has been on the Statute book for 30 years and it is high time that it should be made to represent the present day requirements of horticultural societies. We are performing a work which is entirely distinct from the professional side of horticulture. The fruit growers look at the commercial side, and while they are indirectly serving the community, they are first and foremost serving themselves and filling their own pockets. We are working for the good of the public, for municipal betterment and for the beautifying of our homes and surroundings."

"There is one strong reason why the Act should be amended: The clause providing for the organization of horticultural societies stipulates that the money a society receives as a government grant shall be expended only on lectures, exhibitions and the distribution of plants, etc. This is altogether too narrow a limitation. It prevents a society from doing anything for municipal betterment—towards the improvement of the parks and public playgrounds of the towns."

"I should like to take issue with Mr. McNeill who claims that we should retain the present organization. I had the honor to be a director of the Fruit Growers' Association and know something of its workings. While fully 80 per cent. of its members are members of horticultural societies, the fact remains that only one or two of its directors are interested in horticulture out of some 15 or 16 officers and directors. I am prepared to move that we proceed to organize a Provincial Horticultural Association."

The secretary of the Grimshy Horticultural Society was born in Wentworth county, and after a collegiate and business college education, embarked in the general store business with his father. Eight years ago they purchased a fine orchard and residence near the village of Grimshy. Last summer the secretary made a tour of the deciduous sections of California and devoted a great deal of time to studying the methods of growing and packing fruit practiced in that great fruit state and derived gratifying results from his trip. The Grimshy Horticultural Society is one of the most energetic in the province. Interesting meetings are held every year, often in the homes of the members, when excellent exhibits of fruit are frequently made and instructive discussions held. Last month the society appointed Mr. Brennan to act as delegate at the horticultural convention held in Toronto.



J. W. BRENNAN.

Mr. R. B. Whyte, Ottawa: "I agree with Mr. McNeill as to the undesirability of multiplying organizations. I have always thought that the horticultural element was fairly well represented on the directorate of the Fruit Growers' Association. They have always had four to six directors. I agree that horticultural societies should be entirely divorced from agricultural societies. They have very little in common, and I think it tends to prevent their formation in some districts, as Mr. Cowan pointed out. Our grants should be made independent of the agricultural societies and should be divided partly according to membership, but more in proportion to the work done."

"For the last three years the Fruit Growers' association has held separate meetings in the interest of horticulture. I think there might be a special committee appointed by the horticultural societies to look after that department and send delegates to the annual convention. I think that the department should pay the expense of one delegate from each hundred members. In that way you would get all the advantage of a separate organization."

Mr. Rutherford, Hamilton: "It appears to me that all that is necessary is for us to remain as we are and have the Act amended. If it is any object, let the horticultural societies have a meeting like this every year and exchange views. If there is any idea of forming such an association as has been suggested, I think that the better way to go about it would be ap-

A WORD TO HORTICULTURAL SOCIETIES

Many improvements have been made in *The Canadian Horticulturist* during the past eight months. An earnest effort has been made to make the magazine of greater interest and value to members of horticultural societies. The space devoted to floral matters has been increased and a special department has been created for reports of the work being done by horticultural societies. During 1905 still further improvements will be made. About half the horticultural societies in Ontario subscribe for *The Horticulturist*. These societies report that they find *The Horticulturist* is of great value to them in their work.

There are a number of societies which do not subscribe for *The Horticulturist* but which take United States publications instead. *The Horticulturist* is the only horticultural paper published in Canada. Although the competition of the United States papers is keen an effort is being made to publish a horticultural paper that will be a credit to Canada. An earnest attempt is also being made to advance the interests of our horticultural societies. Will not the horticultural societies of Ontario, when planning their work for 1905, kindly bear *The Horticulturist* in mind and arrange to subscribe for the magazine for all their members. If there are any improvements you would like to see made write and let us know what they are. Do you not think *The Horticulturist* is a sufficiently good publication to be deserving of your support quite aside from the fact that it is purely Canadian.

A LOW SUBSCRIPTION RATE WILL BE GIVEN SOCIETIES.

point a committee of representative men to outline the duties and objects and to state in what way it would be superior to our present organization."

Mr. McClew: "I have pleasure in seconding Mr. Snelgrove's motion that we form a horticultural association. While we have no ill-feeling towards agricultural societies or towards the Fruit Growers' Association, yet our objects are entirely different from either of them. We have no commercial interests. Our object is purely the advancement of the knowledge of plants for beautifying the homes. By forming a provincial association we should be in a much better position to help both the agriculturists and the fruit growers. There always seems to be a feeling of jealousy between them, that the one society is taking from the other, which should not be. I do not think that a provincial association would cost the province a great deal. I am pleased to see that *The Canadian Horticulturist* is improving as regards horticultural matters, and no doubt still more space will be devoted to them in the future."

W. L. Stevens, Orillia: "As to the formation of a provincial association, there is a good deal to be said on both sides. There is a great deal of opposition among horticulturists in different parts of the country to the Fruit Growers' Association."

J. G. Jackson, Port Hope: "I called a meeting of our directors recently and obtained their views on this matter. In the first place there seems to be some dissatisfaction existing in our membership in regard to the affiliation of the Horticultural Societies with the Fruit Growers' Association. They have thought for some time past that the fruit growers were getting the best end of the horn in *The Horticulturist*. I

assume it was established for their special benefit. However, I frankly admit that it has improved very much recently in this respect."

A COMMITTEE APPOINTED.

After considerable discussion Major Snelgrove withdrew his motion and moved, instead, that a committee composed of Messrs. H. R. Frankland, R. B. Whyte, H. B. Cowan, J. G. Jackson, Alex. McNeill, D. McClew and the mover be appointed to consider the advisability of forming a provincial horticultural association and also the proposal to amend the Agricultural and Arts Act as it relates to horticultural societies, the committee to report as soon as possible.

An amendment was moved by Mr. McNeill that the Agricultural and Arts Act be so amended as to make horticultural societies independent of agricultural societies, that grants to societies be distributed in proportion to the work done and that a distinct horticultural committee be appointed to direct the executive of the Fruit Growers' Association in connection with horticultural matters. The amendment was put to the meeting and was lost after which the main motion was carried.

AN IMPORTANT RESOLUTION.

At the afternoon session of the convention Major Snelgrove, as chairman of the special committee, presented the following report which was carried unanimously:

"That your committee is of the opinion that the Agricultural and Arts act should be amended because it permits of an unjust distribution of the government grant and that it in many districts works to the disadvantage of horticultural societies. We would, therefore, recommend that this committee be deputed to wait on the Hon. John Dryden, Minister of Agriculture, to urge that the Agricultural and Arts Act be com-

pletely revised and that the horticultural societies be placed on a footing of their own, separate and distinct in every way from township and district agricultural societies. We feel that such a step will greatly increase the usefulness of our horticultural societies, more especially along the line of civic improvement.

"In this connection we would further recommend that the superintendent of agricultural societies be instructed to arrange for a special meeting of this committee to consider a basis on which future grants to horticultural societies should be made, and that this committee have power to add to its numbers.

"We are further of the opinion that the formation of a Provincial Horticultural Association is desirable in the best interests of our horticultural societies, but as any change in the Agricultural and Arts Act may affect a move of

this kind we would recommend that this matter be left over for further consideration by the special committee already named and that the committee be instructed to report definitely at the next annual meeting of the Ontario Fruit Growers' Association."

WAITED ON THE MINISTER.

On the following day all the members of the committee waited on the Hon. John Dryden, Minister of Agriculture, and, on behalf of the horticultural societies, laid the matter fully before him. The committee received a favorable reception, sympathy being expressed with the objects of the deputation. The minister approved of the proposal that the committee should meet to consider amendments to the act and announced that he would be pleased to consider any further suggestions the committee might decide to make.

Fruit Growers Who Won Prizes

(Continued from page 539)

DOMESTIC VARIETIES—BARRELS READY FOR SHIPMENT.

Wealthy, 1, Biggs Fruit Co.; 2, Harry Dempsey; 3, Frank Dempsey.

Blenheim, 1, A. E. Sherrington.

Gravenstein, 1, Elmer Lick.

Hubbardston, 1, Harry Dempsey.

Bellefleur, 1, Frank Dempsey.

Any other variety, 1, Harry Dempsey (Ontario); 2, A. M. Smith (Princess Louise).

BOXES READY FOR SHIPMENT.

Blenheim, 1, Biggs Fruit Co.; 2, A. E. Sherrington.

Gravenstein, 1, Elmer Lick.

Bellefleur, 1, W. H. Bunting; 2, G. B. McCalla, St. Catharines.

Any other variety, 1, Elmer Lick (Wagener); 2, Harry Dempsey (Hubbardston); 3, Frank Dempsey (Ontario).

AMATEUR DIVISION—DESSERT VARIETIES.

Any three varieties, 1, C. W. Challand; 2, A. D. Harkness; 3, Biggs Fruit Co.; 4, Harry Dempsey; 5, A. M. Smith.

Any seedling, 1, J. T. Graham, Vandeleur; 2, Robt. Thompson.

COOKING VARIETIES.

Any three varieties, 1, Biggs Fruit Co.; 2, W. H. Bunting; 3, J. L. Hilborn, Leamington; 4, Geo. Ott, Arkona; 5, G. W. Hodgetts, St. Catharines.

Any new varieties, 1, A. E. Sherrington (Bismarck); 2, A. M. Smith (Sutton Beauty).

Any seedling, 1, G. B. McCalla; 2, Robert Thompson.

SPECIAL.

Collection 6 winter varieties, 1, C. W. Challand.

Collection 3 varieties pears, 1, W. H. Bunting; 2, A. M. Smith; 3, Biggs Fruit Co.

PEARS—EXPORT VARIETIES.

Halfcases Ready for Shipment (Fruit Wrapped).

Anjou, 1, W. H. Bunting; 2, A. M. Smith.

Bosc, 1, G. B. McCalla; 2, Robt. Thompson.

Clairgeau, 1, G. B. McCalla; 2, Robt. Thompson; 3, W. H. Bunting.

Duchess, 1, W. H. Bunting; 2, A. M. Smith.

Keiffer, 1, Biggs Fruit Co.; 2, W. H. Bunting; 3, A. M. Smith.

Lawrence, 1, Robt. Thompson; 2, G. B. McCalla; 3, A. M. Smith.

Louise, 1, W. H. Bunting.

DOMESTIC VARIETIES—11-QUART BASKETS.

Flemish, 1, Thos. Beall, Lindsay.

Seckel, 1, G. B. McCalla; 2, W. H. Bunting.

Sheldon, 1, G. B. McCalla; 2, W. H. Bunting.

Any other variety, 1, W. M. Robson, Lindsay; 2, A. M. Smith; 3, W. H. Bunting.

GRAPES.

Agawam, 1, W. H. Bunting; 2, Robt. Thompson.

Concord, 1, Robt. Thompson; 2, F. G. Stewart, Homer; 3, W. H. Bunting.

Lindley, 1, F. G. Stewart; 2, Robt. Thompson; 3, W. H. Bunting.

Niagara, 1, W. H. Bunting; 2, Robt. Thompson; 3, F. G. Stewart.

Vergennes, 1, F. G. Stewart; 2, W. H. Bunting; 3, Robt. Thompson.

Wilder, 1, F. G. Stewart; 2, Robt. Thompson. Black grapes, 9-pound basket, 1, F. G. Stewart; 2, Robt. Thompson; 3, W. H. Bunting.

Red grapes, 9-pound basket, 1, W. H. Bunting; 2, F. G. Stewart; 3, Robt. Thompson.

White, 1, W. H. Bunting; 2, Robt. Thompson; 3, F. G. Stewart.

Black grapes, best crate, 1, W. H. Bunting; 2, Robt. Thompson; 3, G. B. McCalla.

Red grapes, best crate, 1, Robt. Thompson; 2, W. H. Bunting; 3, G. B. McCalla.

White grapes, best crate, 1, W. H. Bunting.

Hothouse grapes, collection, 1, John Chambers, Toronto.

Hothouse grapes, 2 bunches, black, 1, John Chambers, Toronto.

Hothouse grapes, 2 bunches, white, 1, John Chambers, Toronto.

General collection by Association, 1, Chat'au P. G. A.; 2, Leamington Horticultural Society.

PRESERVED FRUIT.

Cherries, 1, Mrs. P. W. Hodgetts, Toronto; 2, A. M. Smith.
 Peaches, 1, Mrs. P. W. Hodgetts; 2, A. M. Smith.

Pears, 1, Mrs. P. W. Hodgetts; 2, A. M. Smith.
 Plums, 1, Mrs. P. W. Hodgetts; 2, A. M. Smith.
 Raspberries, 1, Mrs. P. W. Hodgetts; 2, A. M. Smith.

THE PROSPECTS FOR EARLY VEGETABLES

Commission dealers in leading Canadian cities do not all agree in regard to the advisability of increasing the production of vegetables for the early summer markets. Desiring to gain some information on this point, *The Horticulturist*, during September, wrote to a number of leading commission dealers and asked them if they considered our Canadian markets could absorb larger quantities of early vegetables grown as they are in south Essex. The replies received are here published.

It will be seen a decided majority of the dealers heard from believe there is room for a considerable increase in the production of these vegetables. Our markets, they consider, can handle at remunerative prices all the early vegetables likely to be offered for some time. The Winnipeg market does not seem promising.

OUR VEGETABLES THE BEST.

Prospects for sale of early vegetables in Canada are excellent. Gardeners can sell at good prices all they can raise. In competition with the vegetables from the United States the home grown have the preference every time.—(Dixon Bros., Hamilton, Ont.)

Growers are perfectly justified in producing a larger quantity of early vegetables for the simple reason that they will arrive at destination, if properly handled, in better condition than those imported from the States, and retail dealers in Toronto will be willing to pay a better price. If larger and regular quantities were produced, there would not be much fear of competition from foreign goods. Canadian markets can stand a very material increase in the amount of vegetables raised for early market, and more especially if we can secure bet-

ter transportation and arrange for better distribution.—(The Dawson Commission Co., Limited, Toronto, Ont., H. W. Dawson, manager.)

So little of the early vegetables from Essex county are marketed in Toronto it is difficult to give an answer concerning them. I have no doubt a greater quantity could be handled to advantage.—(McWilliam & Everist, Toronto, Ont.)

EARLY VEGETABLES IN GREAT DEMAND.

There is a very great demand in Montreal for early vegetables. Canadian gardeners could largely increase their income if they would devote more time to this crop. Thousands of dollars' worth are imported regularly from New York and Boston, and if our government would only take up the matter in a business-like way it would be greatly to the advantage of the Canadian growers.—(John T. McBride, Montreal, Que.)

There is a great demand for early vegetables in our market, as we have to import these goods from New York and other United States markets, until our own stock is on the market. It can be readily seen by the government books the great quantity of these goods brought to Canada from United States points before our local vegetables are ready to market.—(Hart & Tuckwell, Montreal, Que.)

If by early vegetables is meant those that can be put on our markets say in March, April, May and perhaps the first part of June, I would say there would be a good market here for such, but by the end of June our own market gardeners supply splendid vegetables of all kinds.—(Walter Paul, Montreal, Que.)

CANADIAN FRUIT AND THE IRISH MARKET

In the September issue of *The Canadian Horticulturist* attention was drawn to the advisability of shipping fruit to Ireland. Trial shipments were made during August at the request of Mr. J. H. Sheridan, of Columbus Road, Drumcondra, Dublin, Ireland.

In a letter to *The Horticulturist* Mr. Sheridan gives some interesting information concerning conditions on the Irish markets. He writes: "While I do not wish to in any way injure the trade of the English fruit merchants, it may be of interest to Canadian growers to know that there are in Dublin wholesale fruit buyers, ostensibly trading on their own account, who are in reality the paid representatives of English firms handling Canadian and American consignments. If the Liverpool price for say, Spys, is 10 shillings a barrel, and the Dublin

price 16 shillings, it is open to question if the shippers have the benefit of the higher figure at which the consignment would be sold by such firms in Dublin. I could, of course, give the names of such firms, but no good purpose would be served by so doing.

"I note that you are making small experimental shipments to Belfast via Liverpool. There is no cold storage coming direct to Ireland, for although Canadian and American boats so fitted up stop at various Irish ports they do not discharge cargo, but with fair cargoes of fruit coming here arrangements could be made with the different companies to discharge at Dublin, Belfast and Cork. The Canadian Pacific Company, subsidized by the Canadian Government, ought to do this, and should I succeed in making arrangements with the growers I shall do

my best to arrange for such accommodation at this side. Following up your shipment to Belfast, might I ask if you would be disposed to try the Dublin market with some trial consignments? If you could see your way to do this I will undertake to do my utmost to get you a good return, and convince you that Dublin offers a good and profitable market.

"The first consignment of the season of American apples arrived this week in Dublin. They were sold as Baldwins and realized 21 shillings a barrel; and Liverpool price being 14 to 15 shillings. I examined several of the barrels, and although sold as Baldwins, found they were made up of different varieties, all of a very poor quality and badly bruised. The fact of these barrels being made up of different varieties still further bears out the statements which I have repeatedly made to Canadian growers, viz., that a proportion of good quality Canadian apples on arrival in England is mixed with a lot of inferior American stuff and the whole parcel sent over here and sold as first grade. This form of tampering would be impossible were growers to send consignments to this market, and Canadian fruit would be thought more of than at present."

"There is nothing to prevent an English or continental firm receiving consignments from Canada having a branch house in Ireland, under an assumed name, and working this market to their own advantage. I merely mention the matter to show one of the disadvantages which growers have to contend with under the present system. If for no other reason, I think this ought to be sufficient to induce growers to pack their own fruit and ship it to an agent here to sell for them. I am anxious to get shipments from growers for this market, and as it is likely that some readers of my letter in The Horticulturist may ask if you can give them any information concerning me I might say I am prepared to furnish any references that may be desired. I am also prepared to give them any guarantee they may wish that their interests will be mine, and the more I get for them the better it will be for myself."

Advertisements in The Canadian Horticulturist give good results.—(Dawson Commission Co., Limited, Toronto, Ont.)

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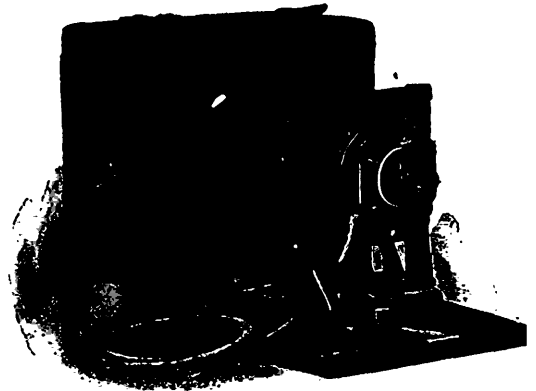
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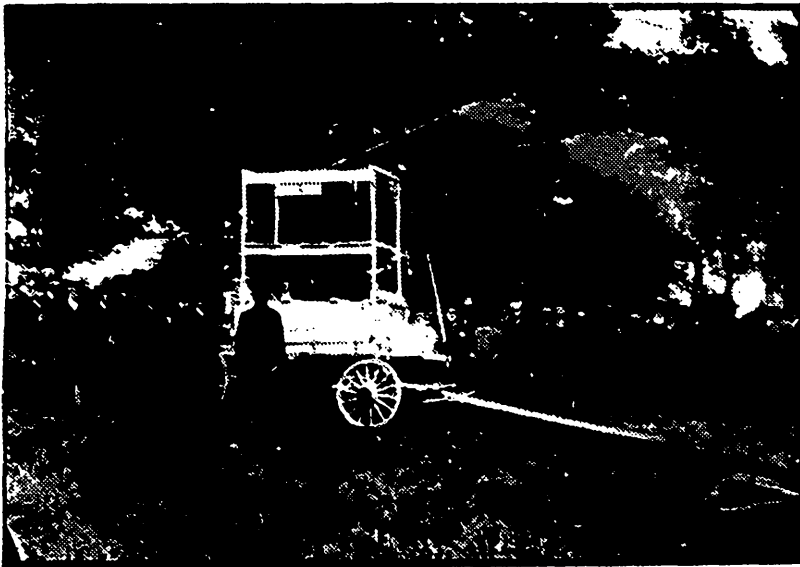
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