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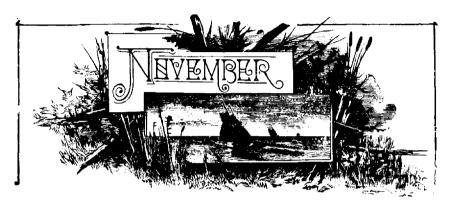
PRINCE OF WALES.

Canadian Horticulturist.

VOL XV.

1892.

No. 11.



THE PRINCE OF WALES PLUM.

NCE plum growing has become such an important industry in Ontario, our readers will be interested in a colored plate of a new variety which was commended at our last winter meeting by Mr. S. D. Willard, of Geneva, N. Y. Of course it is a novelty, not yet tested except at Geneva, yet its behavior there is sufficient to encourage growers elsewhere to give it a trial. The colored plate is one which was prepared under the direction of Mr. Willard, from fruit which he grew in his own orchard. The variety was originated by Mr. Thos. Rivers, a

celebrated horticulturist of Sawbridgeshire, England, and was imported direct from him by Mr. Willard, who writes us his opinion of this plum in the following terms: "The tree is very hardy, exceedingly productive, and the fruit is of good quality. Its appearance renders it quite a favorite in the markets which we patronize. It is one of the best out of a large number of varieties of plums which we imported from Mr. Rivers. My experience, however, leads me to be careful in recommending any varieties for general planting upon all soils and in all sections."

The fruit is round, medium size; skin reddish purple, with a thick bloom; flesh greenish yellow and of good quality; very productive, and ripens early in September.

FRUIT STORAGE CELLAR.

E building can be made any size or form desired, provided you secure protection against freezing, and perfect ventilation. In localities where the winter temperature is apt to fall to 35° below zero, such a building must be very carefully constructed, and I think the following plans would answer the purpose: The foundation should be of stone, two feet thick. Set 2x4 joists, 10 feet high for

one story, two feet apart upon the foundation walls. Line up each side of the joist with good matched boards, and paper the same with building-paper. This will leave an air chamber four inches wide in the centre of the wall. On each side of this nail 2x6, plank and cover it with siding on the outside, but with matched boards on the inside, filling the 6-inch space with sawdust slightly packed. For the roof use 2x10 plank, ceiled on both sides, and the space filled with sawdust. The outside of the roof must be covered with water-proof roofing. There should be two doors, one to open inward and the other outward, and they

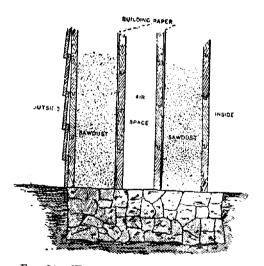


FIG. 84.—WALL OF FRUIT-STORAGE CELLAR.

must be made thick, so that the resistance to heat or cold will be about the same here as on the sides and ends. If windows are used, four sashes, about two or three inches apart and closely fitted, will be required. Now for ventilation. If the floor is high, so that water will not stay on it, I would leave a hole under the wall within a foot of the corner at each end. Build it up one foot above ground, and cover it securely in such a manner as to be easy of access to

open or close, as necessity may require. Then in the centre of the roof leave a hole, say twelve inches square, protected, as you would the ventilator in an ice-house. The hole can be fitted with a door, either to swing or slide. This system will give perfect ventilation. Unless the temperature inside should be above 35°, the outside ventilators should not be open. This plan will answer well in summer or winter. Any carpenter ought to be able to get a good idea of the building, from this description.—J. Heagerty, N. Y., in American Gardening.

CLEAR POTASH AS A FRUIT MANURE.



E have used, within the last few years, a good deal of potash in connection with the trees in my orchard, usually buying it by the cask for this purpose. We simply break the potash into small pieces, not larger than egg size, using about eight pounds to an average sized tree, scattering it upon the ground about the tree in a circle extending half way from the trunk to the extremity of the branches. When this is done in the autumn, or early spring,

the rains and snow dissolve the potash, which will be absorbed and spread through the soil, thus bringing the fertilizing properties directly to the small roots of the trees without the slightest injury to the vegetation. The future crops will show remarkable results, both in quantity and quality of fruit. In 1889 our trees bore, as did everybody's that year, a heavy crop of apples; and again, last year, we have had, what few others had, a crop nearly as large as the previous year, which proved of a remarkably fine quality, both in appearance and freedom from decay. This we attribute to the free use of potash on the soil above the trees, proving clearly that potash is a fertilizer essential to the growth of fruit. One pear tree, which for a long time had small and imperfect fruit, the spring following the application of potash produced pears of extraordinary size and singularly free from blemish. We esteem potash as admirably adapted to all kinds of fruits, large and small. Eight pounds of potash would seem to be a pretty large dose for one tree, but the results noted above do not indicate an injurious effect.—Horticultural (Eng.) Times.

Marking Grades of Fruit.—It is very important that the grower, not only should pack his fruit honestly, through and through alike, but also that he should in some way indicate to the buyer the grade, without giving him the trouble of examining each basket. Stencilling the words "Grade 1," "Grade 2," etc., on the handle of each basket, or the head of each barrel, will accomplish this end, or simply the figures 1, 2, 3, according to grade. Some peach growers, they say, indicate the grade of the peaches by the number of sprigs of peach leaves placed on the top of the baskets.

THE BROWN THRASHER.



HE Brown Thrasher, commonly known hereabout as the Brown Thrush, is not very generally known, otherwise it would not occasionally be said that we have no song birds in Canada. Although not a rare bird, he is not common throughout Ontario. Here, at the foot of Lake Ontario, seems to be a favorite locality for him. I have known him by his annual summer residence here, for over a a quarter of a century. Early one morning last June, while walking

through Cataraqui Cemetery, I had the pleasure of listening to three individuals, perched on tree tops, not more than 100 rods apart, and have no doubt the mate of each was engaged in domestic affairs, not far away.

I have often heard the "mavis" in the forest skirts of the British Isles, when it seemed as if he had been created for the very purpose of cheering the

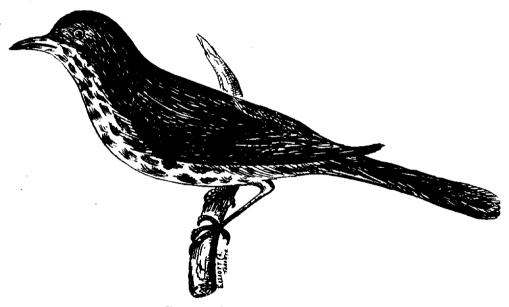


FIG. 85.—HARPORHYNCHUS RUFUS.

hearts of the human race; yet not more cheering is his music, than the melodious strains of this Canadian songster. We claim him as Canadian, because here he is born and bred, although he stays with us less than half the year, coming about the beginning of May and retiring in September.

His grandest brilliancy of expression is generally given early in the morning, and that, doubtless, is partly the reason why he is known by so few. The

dwellers in towns and cities cannot enjoy his musical charms, he loves solitude, and is too proud to sing in captivity, which shows a higher degree of intelligence than is possessed by some birds, who do not refuse to gratify the morbid curiosity of persons who cruelly confine them in cages.

The Brown Thrasher is a magnificent bird; although his plumage is not of bright colors, his form is handsome, his actions are graceful, and his habits are admirable. His great compass and power of voice, his musical composition, his artistic execution, as well as the vigorous manner in which he pours it forth, is beyond that of any bird I know of. I wonder why brown thrashers have not multiplied nearly so fast as the robins. They are probably as long-lived, and in their nests I have generally found about the same number of eggs; they exercise great care over their nests. I have seen the female alight on a man's arm, outstretched towards the nest when full of young ones; and they always make surprising demonstrations of displeasure when their nest is approached. Perhaps it is partly because the robins nest near human habitations, where they are partially protected from rapacious birds and other nest robbers, whereas the thrashers make their nests in solitary places, on or near the ground, where they are easily preyed upon by snakes, weasels, skunks, owls and crows. many of them are killed when they go to their winter residence in the Southern States, where there is no law against killing migratory birds.

The food of the Brown Thrasher is chiefly insects and their larvæ; I have seen him catching the codling moth, and on that account alone he should be Insects injurious to the interests of the horticulturist are alarmingly on the increase. This year I have seen hickory, butternut and walnut trees stripped of every leaf by the forest tent caterpillar, and some orchards not far from here are sadly destroyed by the orchard tent caterpillar, so I fear that unless our friendly birds are protected and encouraged we will, in a few years, have neither fruit nor forest trees. This bird, especially, should be guarded, even although he takes some cherries and raspberries in their season, by way of dessert. The good he does, and the pleasure he affords us, far over-balance what harm he does. It is a great mistake to condemn a bird which does so much good, merely because he does a little harm. I do not know of a more lovable bird than the Brown Thrasher. In color and markings, he very much resembles the "Hermit Thrush," but is of more slender build, and nearly as long as the Blackbilled Cuckoo-about eleven inches.

D. NICHOL.

Some Large Tomatoes are being produced at Orillia. Mr. H. Pellatt sent the *Packet* office one sample weighing a pound and two ounces; and Mr. C. L. Stephens, one weighing a pound, three ounces and a half. Both were Peter Henderson's new variety, the Ponderosa, an excellent show tomato, and withal of good quality.

HINTS FOR NOVEMBER.



BUSY MONTH.—With the fruit-grower the month of November is by no means a time of leisure, as with the farmer. The picking and packing, of apples so delays every other work, that Jack Frost has his icy hands upon us ere we are prepared for him. Much fall ploughing should be done in our orchards, in order to expose the soil to the disintegrating influences of the frost, and to rout the mice, who are so fond of nesting in the proximity of fruit trees.

Especial care should now be given to young trees to guard them against mice, which are almost sure to attack their young and tender bark under deep snows of winter. The simplest mode of protection is a mound of fine earth thrown up about the trunk. This any one can do with no expense, except for the labor, and, after twenty years of practical experience, the writer can commend it as perfectly reliable. Tin guards, wire netting, thin flats of veneering placed about the tree and simply fastened in place with wire, or string, are excellent. The only question is that of economy of time and money in deciding the preference.

CUTTINGS.—In enlarging our fruit plantations it is quite unnecessary to spend money purchasing vines and bushes of such fruits as may be easily grown from cuttings. Grapes, currants, gooseberries and quinces are all easily propagated in this way, even by the merest amateur. It costs little trouble to bury or preserve in sawdust the wood from the annual pruning, and, at the proper season, to plant it in nursery rows which can easily be cared for with a one-horse cultivator. Of several thousand currant cuttings made by the writer, and planted out last spring, in such rows, scarcely one failed to grow; and on other occasions we have had similar experience with grape and quince cuttings.

Mr. A. S. Fuller in his "Grape Culturist," gives the following as his method of preparing grape cuttings:—
"About the last of November, or the 1st of December, I select the wood for cuttings, and with a pair of garden shears cut it up into lengths of about six inches, leaving not less than two buds upon the cutting. If the wood is very short-jointed, a cutting of this length will have



Fig. 86.

two or three buds upon it; if so, they are all the better, as roots usually start from each bud, but are seldom emitted the first season, in cuttings grown in the open ground, from the stem between the buds.

With a sharp knife smooth off the wood close to the base of the lower bud, and cut off the top end about an inch above the bud, at an inclination as shown in Fig. 86, which gives the form of a two-bud cutting."

The cuttings, after being prepared, are buried in the ground, placing them at an inclination of 45°, in layers of about an inch or so deep, of grape wood and fine earth, alternately. In the spring, as soon as the ground is ready, they should be set upright in a trench, or, if more than six inches long, they will need to be somewhat inclined. They are usually planted three or four inches apart, leaving the upper bud about even with the surface of the soil. The earth should be pressed firmly about the cuttings. A simple way of planting is to make a trench along the side of a line by simply inserting a spade full depth in the ground and moving the handle back and forward until the soil remains sufficiently open to receive the cuttings. They are then put in place and the ground pressed back firmly about them by the treading of the foot. This same mode of planting will apply to all kinds of cuttings.

Grapes are sometimes propagated by joints of a single eye with an inch or two of wood attached. These should be prepared in the fall and packed in clean, damp, not wet, sand, in a cellar that is not too warm. Under such conditions a callus will soon be formed—a cur ous excrescence,



Fig. 87.

nature's mode of covering an exposed portion of wood—and from this roots will soon be sent out. The accompanying illustration, Fig. 87, from Downing's "Fruits and Fruit Trees of America," will clearly show how single eye cuttings are made.

The making of cuttings of gooseberries and currants scarcely needs any directions, even for the novice. In the pruning time we make it a rule to remove about one-third of the last year's growth, and these, averaging from three to four inches in length, are buried in the soil, as above directed, and then planted in the spring in rows about four inches apart. If the cuttings are of more account than the fruitfulness of the bush from which they are cut, it will be an advantage to remove with each cutting a small portion of the older wood along with the new, or, in the case of a side shoot, the cut may be made very close to the old wood. While this is helpful, it is by no means necessary, as these cuttings, in a favorable season, grow with the greatest ease.

Formerly writers on horticulture advised removing every bud from the cuttings with the exception of a few at the upper end, the object being to procure young plants with clean straight stems at the surface free from suckers. Were it not for the borer this plan would still be advisable, but in our experience of later years we find it important to encourage suckers from the roots, because

the older stems are so frequently destroyed by the currant borer, and need frequent renewing.

The quince also roots very easily from cuttings and it is a problem why the price of quince trees should be kept so high when they are so easily propagated. Perhaps it may be explained by considering what slow growers they are, occupying nursery rows so long before they are suitable for planting in the orchard.

The pruning of the quince tree is usually sadly neglected, and, in consequence, presents a perfect network of limbs. Such trees cannot bear fine fruit or any quantity of it. They should be thinned annually and the young wood cut back. Cuttings should be of the last season's growth. If taken off close to the old wood, at the shoulder, they will mostly grow, if planted in moderately moist soil, especially if the cuttings have first been callused. The surest method of propagation, however, is by suckers, the growth of which is easily encouraged. These may be pulled off with a portion of the root attached, and in that case can hardly fail to grow.

WINTER PROTECTION.—In Southern Ontario we pay little attention to the laying down of grapes or raspberries, but, much oftener than we think, our short crops of red and black berries and grapes are due to the severe weather of our winters when the thermometer reaches 10 or 15 below zero.

The work of protection is not so great as one might suppose. The vines are easily loosed from the wires and thrown down to the ground, where they are held in place with a shovel of earth. The snow will then cover the wood and protect it. But in some sections, as in Southern Ontario, snow falls are rare and cannot always be depended upon. In such cases a few furrows of the plow in the vineyard will bury the fruit-bearing portion of the vine with earth, and thus be a complete protection to the fruit buds.

Raspberries will easily bend if their canes have been allowed to grow long but in the case of the stiffer canes of the blackberry, a little digging may be necessary in order that they may be easily bent to the ground.

Covering strawberry plants with some light, loose material, such as leaves, evergreen boughs, straw, etc., will well repay the owner by the immensely increased yield of fruit the following season.

KEEPING THE CELLAR COOL at a temperature a little above freezing point, is the secret of preserving fruit throughout the winter. Few consider the importance of such a condition, and wonder at the early decay of fruit and vegetables which they have stored away. The temperature may easily be regulated by the opening of the windows in the night and closing them during the warm days of the autumn; and, in winter time, an occasional opening of the windows will, of course, reduce the temperature whenever it is needed.

[&]quot;See here, waiter, this pie hasn't any apples in it!" Waiter: "I know it, sah; it am made of evaporated apples."--Lampoon.

NOTES FROM THE CENTRAL EXPERIMENTAL FARM, OTTAWA.

GRAPES.

HILE the total summer heat in this locality was probably up to the average, yet the heated period, arriving as it did early in the season, was more favorable to a rampant growth of vine than the early ripening of the fruit. The fact that many of the Rogers' and other hybrids are dependent, in a measure, on cross fertilization was more clearly brought out this season than usual, owing, no doubt, to the moist and rainy weather which prevailed during

the blossoming period. Some interesting experiments were made along this line recently by Prof. Beach, of the Geneva Experiment Station, N.Y. By enclosing in paper sacks, before blossoming, a number of clusters of each variety in the vineyard, he readily determined which sorts were perfect in blossom, and which were dependent on cross fertilization. The results showed all gradations from sterility to complete fertilization. Among the Rogers' varieties impotence was more common than among those not hybrids. These results confirm the opinion of many grape growers, and point as a practical remedy for this defect to the mixing or intermingling of these varieties in the vineyard.

Among red varieties which have done weil on these grounds the past season are Vergennes and Gærtner; they have made good bunches, ripened perfectly and have been entirely free from mildew. Salem set well, but where unsprayed, mildewed considerably. Massasoit and Agawam failed to ripen thoroughly, while Lindley set poorly and was attacked by Bird's Eye Rot (espaceloma ampelinum). Eldorado (white), which has been a vigorous grower, a good bearer, and has taken the lead of all varieties in the vineyard for the past two years in regard to quality, made a very poor showing, owing to incomplete fertilization. Scarcely a perfect bunch was obtainable. Among other white varieties Duchess, Hayes, and Kensington are to be commended. They are all of good quality, ripening with, or soon after, Delaware. Kensington was produced at London some years ago by Prof. Saunders, who pollenized Clinton with Buckland's Sweet Water. In a remarkable way it combines in fruit and vine the characteristics of both parents. Vine, fairly vigorous; wood, short jointed; leaves, deeply cut; bunch, medium to large, sometimes very large; berry, medium size, oval; skin, thin; pulp, rich and juicy; a grape of first quality, ripening a week later than Delaware. Thus far it has not been propagated to any extent, but its probable value, especially for home use, should lead to more extended trial by grape growers.

Among black varieties Eaton does not deserve such high praise as is so generally accorded; bunch and berry are very large, but on these grounds its quality is much below par. Potter is much better in quality, earlier, but the berries drop almost as readily as some of the Southern Fox grapes when grown in this locality.

Moore's Early, Worden, Merrimack, and Roger's 36 were very satisfactory.

The disease, Bird's-Eye Rot, or Anthracnose, which I have already referred to, seems to be on the increase in grape growing districts. This should be very carefully watched, as I am unaware that it has thus far been successfully treated with any of the copper compounds. The results of my own experiments this season have been entirely negative. I should be pleased to get any information relating to the spread of this disease, and especially glad to know if any journal reader has treated it successfully.

In comparing Bordeaux mixture, half strength, and ammoniacal copper carbonate as remedies against grape mildew, I find a slight difference in favor of the latter, though the use of both has been highly satisfactory.

This matter of spraying should receive more attention from fruit growers than it has heretofore.

PLUMS.

A very interesting member of the Japanese family, which had been planted under the name of Botan, fruited this year. It is interesting alike from its ability to withstand this somewhat severe climate, and its extreme earliness, being ripe here on August 8th, about two weeks ahead of any other variety. The tree is a strong, upright grower. Fruit medium size, egg shaped, no suture, skin, which is thick, is yellow in color, overlaid with red markings, and a light lilac bloom. Stem fairly long set in a small cavity. Flesh yellow, firm, with a peach-like flavor. The pit, which is very small, not much larger than a cherry stone, separates readily from the flesh. Not of high quality, but on account of its season may have some market value.

A large number of varieties selected from our native plums fruited this season. They will undoubtedly be valuable in sections where finer varieties of the domesticæ class cannot be grown. In connection I may say that one of the finest examples of a perfectly laden plum tree was to be seen last month in the garden of Mr. R. B. White, an enthusiastic fruit grower of Ottawa. This was in the shape of a well grown specimen of Glass, seven or eight years of age, literally covered with fruit, each branch a perfect rope, describing an arc of a circle. This tree has borne regularly for several years. The variety can safely be considered hardy in this vicinity, but its fruit buds, Mr. White informs me, are occasionally injured by spring frosts.

Among native varieties thoroughly tested De Soto is undoubtedly the best. It is remarkably productive and desirable, both for canning and eating in its natural state. Wolf and Hawkeye, dark red, are larger and later, but retain more of the wild astringent characteristic. Cheney and Van Buren, light red and yellow, are almost free of stone and of good quality. They lack the vigor of tree of the former, but are very desirable.

These varieties should be headed low and should be annually shortened in, as their habit of growth is naturally rambling. I may say that Weaver for the past three years has borne heavily, but is not equal to De Soto in quality of fruit.

John Craig, Horticulturist.

THE CANADA BALDWIN.



URING the year 1884, our Association distributed trees of this hardy apple among its members for testing. A few days ago, Mr. T. W. Beall, of Montreal, sent us a basket of beautiful samples of this apple, for the World's Columbian Exposition, one of which we had drawn and engraved, Fig. 88, showing its form and markings, while Fig. 89 shows a section of the same. The apple,

which is of the Fameuse type, originated in the orchard of Mr. Alexis Dery, St. Hilaire, Que. It is described as handsome, of medium size, oblate in form, skin white, thickly striped with red and splashed with crimson. The flesh is white, tender, fine-grained and juicy, with a peculiar subacid flavor. Ripe for use from January to April.

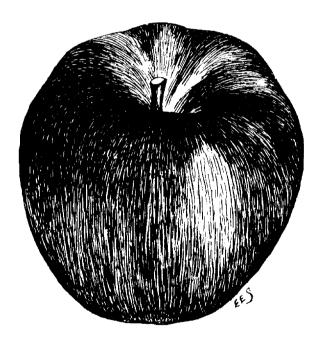


FIG. 88.—THE CANADA BALDWIN.

The particular adaptability of this apple to heavy clay soils, and its great hardiness, peculiarly adapt it for cultivation in certain sections; on light soils it is a slow grower, and the fruit less satisfactory. We shall be pleased to receive further reports concerning its merits.

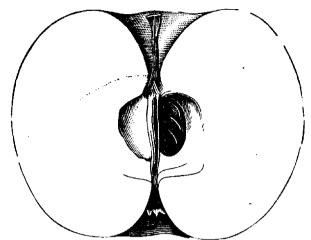


Fig. 89.—Section of Canada Baldwin Apple.

LABELS FOR TREES IN PLEASURE GROUNDS.

While a ground label may be the proper thing for a young and choice tree in parks, etc., because another kind could not be affixed to it in a satisfactory way, a much better device for large specimens, simple and cheap, is made of a piece of tin about four inches long by three inches wide. Bend down about half an inch of the upper edge at a right angle, which will form a little coping for the label; then make two little holes just beneath this and pass a strong copper wire through them, firmly nailing it to the tree. This should be about 5 or 6 feet from the ground, and in a position where it can be easily read. Such labels last a long time and are safer from displacement or loss, and hence more satisfactory then labels inserted in the grass at the foot of trees.

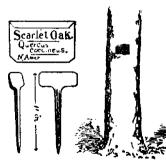


Fig. 90.

For garden plants, young trees, etc., strong but neat cast iron labels will be found serviceable. If you wish to get a stock of them for your choicer plants, make a model of wood, about 10 or 11 inches high, one inch wide at the shank, the head 4 to 5 inches across and 2 inches wide, as shown in engraving, and send it to the foundry. In writing these labels first write in the outlines of the letters, and then fill in rather thickly with finely strained paint. For ground color white is preferable to black. Write the common name first, then

the generic name, then the species, and a little to the right below, the genus. It is always desirable to put down the native country of tree or shrub, and date o planting. The writings on these labels should be occasionally renewed in winter—Popular Gardening.

EXPORT OF APPLES.

PPLE shippers to the British markets are not realizing such prices as they should so far this season. There are doubtless many reasons why this is so, but looking over some of the auction sale bills, I conclude without hesitation that one great source of loss is in shipping late varieties too early. Fancy Baldwin selling in Liverpool in Sept.! No wonder the price was 8/9 per barrel for the best, and less for some that were used as samples at the sale. Greenings, Pomme

Grise, Seeks, and even Kings, in market at very little advance for the best samples of the latter. Both at our own meetings and at Institutes, the matter of shipping at proper seasons has often been discussed. Russets are not wanted in British market, at their proper value, until after the new year. February and March are the best months to sell them. It is a mistake to ship fall and winter varieties at the same time, as I see many have done. from the fact that so many are reported as "slack and wet" it is evident that, generally speaking, there is no improvement in manner of culling and packing; too many seconds are allowed to pass into the packages with firsts, and hence the shipper has to take the price of seconds for all. I observe one sale of winter kinds as early as September 16th; no wonder the shipper lost money, as the fruit was unfit for use, not being properly matured. Besides this sort of thing is a decided injury to the country that produces such fruit, and the market becomes demoralised. At the sales on September 30th, and October 3rd, 5th and 7th, matters appear even worse, as many varieties that should have gone forward early, appear at that late date as "wasty," "slack and wet," and "rotten." It seems to me if we could get our shippers to cull out only the best fruit, pack tightly enough to carry without loosening, and ship specific kinds only in their own season, that it would be money in their pockets, much better satisfaction to the consumers, and build up a reputation for honest dealing, and catering strictly to the wants of Britishers, that would be a credit to Canada. There are shippers who work in this way, but they are the exception, and the prices they obtain are also an exception. I find also that those who ship to fill private orders or for private sale to retailers, obtain much better prices. Is this because their fruit is of superior sample, or is it an argument against the auction style of doing business? Perhaps both. We will see later on.

The Wealthy, so far as I have observed it this season, holds its reputation; and from experience up to date, would say plant more. Ontario also is clean and a good crop wherever I know it, and bids fair to supplant its parents for profit. Pewaukee requires cultivation and manure to keep it up to mark; a little neglect and you will find many miserable specimens on the tree. It is evidently not a variety for the grower who would let the tree take care of itself.

Blenheim Pippin was always good, and will remain so if it receives any sort of decent encouragement now and then. But then they all want that. Educate growers to devote half the manure and labor on the orchard that they do on any other equal portion of the cultivated farm, and generally finer samples of fruit, more of it and better prices, with a rapidly rising demand, will be the result.

MULCH.—At this season of the year, Mr. Editor, I believe it would pay to post a card containing these five letters over the front door of every fruit grower's house. Nature is busy laying down a mulch in her domains, and if we follow her example we do well. Especially is this necessary in newly-planted trees. Yes, mulch with manure now on to the time that frost comes, and when spring opens instead of taking off this extra blanket turn it into the soil.

A. McD. Allan.

Toronto, Ont.

AN ENGLISH FRUIT-GROWER'S VIEWS ON MARKETING. - As most of the fruit grown is consigned to salesmen, I would try and discover some one who bears the character of honest dealing, and trust him. Do not dodge about from one to another; this often has led to getting "out of the frying-pan into the fire." If the fruit be honestly packed, giving good measure, customers soon discover this, and inquire for the goods, with the result that full market-price is obtained with little difficulty. I find it to be a good plan, as a rule, to have a continuous supply of the same kind of fruit. In sending, say, 100 bushels of apples of one kind to market, I would not send them all at once, but begin with 15 or 20 bushels, increasing the quantity as the customers seemed to appreciate them. On the other hand, do not send a small quantity of a large number of sorts, which is very bewildering to the salesman, who finds such consignments a great nuisance Let all fruit be in a marketable condition when sent, or it will probably be left for days or weeks before finding a purchaser. and then only at a low price, alike unsatisfactory to the salesman and the grower. The great advantage of the fruit from abroad is this, "that when placed on the market it is fit for immediate use," which seems to suit the circumstances of most buyers, who say, "we do not want fruit to keep, we want it to sell." We must, therefore, try and supply not only the article, but supply it also in the condition in which they require it-G. HAMMOND, before the British Fruit-Growers' Association.

CROCUSES IN SOD.—Crocuses grow readily in ordinary sod. The bulbs should be 2 or 3 inches beneath the surface. The flowers are scarcely out of the way by the time the grass needs cutting, assuming that the sod is one that is kept closely mown. A favorite place for growing crocuses in grass is under the shade of deciduous trees, where the grass does not make a strong growth. Another good place for them is about the base of evergreen trees, and under the branches of flowering shrubs.—Am. Gardening.

RANDOM THOUGHTS ON VARIOUS TOPICS.



UST in proportion as we get liberated from self and its tyrannical sway, will we be desirous that others should profit by our experience, hence we may speak and write much that others know and have practised as well as ourselves; but then we may have found something that is new to others which may excuse an effort for the advancement of what we have profited by. The preparation of fruit exposure at the Chicago World's Fair, seems to be an interesting

topic just now, and although one may not send samples to exhibit, yet would be glad to know that a fair representation had been sent by others. The usual method of exposing fruit samples in oval jars, does not afford a fair representation. The oval surface magnifies, and the fruit seems larger than it is. Square glass jars, with one side scaled off into inches, halves and quarter inches, something like the scale on a druggist's measuring glass, would be better vessels for fruit exposition than are usually seen at fairs. It is to be hoped that Canada will be fairly represented at the Chicago World's Fair, which bids fair to prove a grand success, if the cholera does not get there to dampen the ardor of the exhibitors and visitors.

There is an increasing interest in fruit growing yearly in the Ottawa Valley, and especially in the vicinity of Ottawa City. "It pays" is one reason, and as some of the climatic obstacles are overcome, success is more prevalent than formerly. Strawberry cultivation is on the increase largely, but a great deal of inferior fruit is thrown on the market owing to a want of care in cultivation, and also a lack of variety in kinds, the Crescent and Wilson being the chief varieties grown. Raspberry culture here has a large, wild pick to contend with, yet there is a fair showing of garden produce, which is increasing.

The Early Richmond cherry is coming into favor, being hardy, and brings a good price on the fruit stands. But we are forced to forego novelties in general, as Jack Frost has too strong rule through our winters to allow an indulgence in novelties to any great extent. But one strong encouragement meets the fruit grower in this section, what fruit he does turn on the market brings a fair price, and is eagerly sought for. We find in the line of fertilizing, that to throw our wood ashes into the privy vault, and in the fall take out and mix with equal parts swamp muck and stable manure, a valuable compost is formed for filling in furrows to plant vegetables on after covering the compost back with earth. (Coal ashes may be prudently mixed in this way, but wood ashes are better kept separate till time of application to soil.—Ed.) I experimented some by plowing two ridges four times for planting strawberries on, raising a crop of corn this year. The growth was simply immense, and the ground is now in fine order to set on strawberries. I believe it will pay largely to plow all vegetable ground three or four times before planting, as the soil is

well pulverized, and draws from the air certain elements which adds to vegetable production largely. Plant food comes largely from the air, and a porous soil is far more congenial to plant growth than a close packed soil.

Manuring just enough is better than over manuring. Some people crowd in more manure than the soil can assimulate profitably, and wonder why they don't get better returns. Let the land rest from manuring a year or two and better results will appear.

Nepean, Sept. 1892.

L FOOTE.

Strawberries Tested at Geneva.—The Bessie and Michel's Early strawberries are condemned as being unproductive. The VanDeman is reported as the very best extra early variety ever tested, and, in the opinion of the horticulturist there, has a great future. The most productive of all the varieties tested was the Burt producing in matted rows at the rate of eleven thousand quarts per acre! Of course the experiment was made with small plots; still it shows us what is possible. In the station's bulletin for August, 1892, the Beeder Wood is reported as leading in productiveness; the Burt, which for three years had given the best yields, falling behind. The VanDeman is a little in advance of Michel's Early, in beginning to ripen, and matures its crop so quickly that it quite outranks the latter as a market berry. The Warfield, Eureka and Haverland are reported as standard varieties extensively grown by fruit-growers about Geneva. The strawberry blight has been severe, but Bordeaux mixture is recommended as a preventive, prepared with two pounds of lime and three pounds of copper sulphate to twenty-two gallons of water; two or three applications each season.

NOVEMBER.

TORM! storm! storm!

And the snow-flakes fall amain,
And the wintry winds moan drearily,
How unlike last evening's rain.

Storm! storm! storm!
And the winds incessantly roar,
And the long dark waves of the ocean,
Roll heavily on the shore.

Storm! storm! storm!

And the winds of memory roar,
But the joys of my joyous childhood,
Roll into my heart no more.

Brantford.

W. H. PORTER, M.A.

+ The Vineyard. ++

ABOUT GRAPES.



LARGE amount of plant food is lost in the soil near our houses. It accumulates in the shape of ashes, bones and slops. In what way can it be utilized? We cannot grow vegetables nor flowers in all out-of-the-way places. Neither can we have trees too near the house to shut out the light. In addition to its being an improper place to raise these things, the soil is often so hard and dry that but

few things will flourish; and the heat reflected from the house is too much for most crops. What is it that can send roots through hard, dry soil, down beside foundations, under buildings and walks—anywhere and everywhere, 40 or 50 feet away—and make use of all the plant food within its reach? The grape vine can do this, and its foliage is all the better for the heat and the shelter that it gets in such situations. It needs a dry, rich and hard soil, and if its foliage can be kept dry, so much the better. The sides of buildings are admirable places to train vines on. The fruit never rots when it is kept from rain and dew by the projection of the roof, or by any means. Three sides of our house have been covered with vines for ten years, and a rotten grape has never appeared, although we lost most of the crop on the trellises in the garden near by.

It makes no difference how rocky land is for grapes. I have known them to flourish where it was necessary to carry soil to cover the roots in planting. I have frequently planted vines with their roots under buildings and brought the vines out at the foundation. They never fail in such places for want of water, the natural dampness of the soil being sufficient for them. Not unfrequently such vines come through the winter uninjured, when those in the garden or vineyard are seriously damaged.

Vines trained on a building are quite ornamental, and, if judiciously managed, produce a large amount of fruit. They keep the house cool in hot weather, and do no injury in any way except to get their tendrils under the siding or occasionally overload the gutter.

I have known of vines that produced an immense amount of fruit when trained on buildings. A large vine in a city yielded nearly a hundred dollars' worth every year. A friend of mine had an Isabella vine that produced a ton of grapes in a single season. Another man of my acquaintance sold \$50 worth of fruit from a vine, and not a very large one either.

In village lots, where there seems to be no room at all, one can raise grapes if he only has a fence or building to train the vines on. I know of one person who covered the roof with a vine. If there be no soil to plant in, one can take up a little of the pavement, plant the vine and replace it. The roots seem to do better under flagging than anywhere else, especially if there be fertility to encourage root growth.

The grape is the fruit for the people. It is enjoyed by all and injures none. While there are things about it that the skilful vineyardist hardly understands, the fact remains that when a man plants a few vines, he and his family have grapes; while those who hesitate on account of possible failure, deprive their families of this fruit.—M. Crawford, in Farm and Fireside.

To KEEP GRAPES AND PEARS .- By exercising care in selecting and handling the fruit, both grapes and pears can be kept for a long time, at least until after the holidays. The most important item is to use only sound specimens. There is no advantage gained in using bruised or partially decayed fruit, for it will cause the sound to decay more quickly. Select the largest bunches of grapes and lay them out separately for a day or so, to partially cure, cutting away any berries that are in the least damaged. Use sawdust for packing, putting a layer first, then a layer of grapes, (each bunch being first wrapped with paper,) followed by another of sawdust, and so on until the box is full. Set the boxes where they will keep very cool, but not freeze. A great deal depends upon even temperature Pears will keep in a much warmer place, but like the grapes, the temperature must be uniform. Take perfectly sound pears, not too ripe, for even quite green ones will ripen nicely in this way. Spread them out one layer deep in shallow boxes or drawers. Wrapping each separately in paper will help to preserve them. Keep dark, but above all keep the temperature even. The constant changing from warm to cold and vice versa is the main cause of decaying.

Grape Juice.—The grapes should be of the best quality. Wash them thoroughly, after stripping from the stems and discarding any that are imperfect. Throw them into a granitized kettle with half a pint of water to every three quarts of fruit, skim when they begin to boil, and cook very slowly for ten minutes. While still boiling hot, strain through a jelly bag, squeezing the skins and seeds into a separate receptacle, as the juice from them will be apt to be discolored. Return the liquid to the preserving kettle, and after boiling half an hour, seal in heated glass cans like fruit. The juice from seeds and skins may be bottled separately. It can be safely kept till grapes are again ripe, if packed in a cool, dark place. The absence of light is as imperative as the absence of heat. Cooled on ice, it makes a delicious and wholesome beverage, and is supposed to have specially tonic qualities. If grape juice cannot be kept in a very cool place, add one cup of sugar to every quart of juice at the end of an hour, then boil ten minutes longer.

SHALL WE CONTINUE TO PLANT VINEYARDS?



AM by no means sure that the continued heavy planting of the grape will prove to be a safe commercial venture. It is, doubtless, true that the consumption of this fruit in a fresh condition is increasing at a rapid rate, and it may reasonably be anticipated that such consumption will continue to increase. On the other hand, public sentiment grows stronger and stronger against wine-making, and this seems likely to diminish the demand for grapes for such purposes.

The grape can be, and is, successfully and profitably grown much farther north than any of the tree-fruits, since by laying down and covering the vines they can be carried safely through the severest winter cold. With judicious selection of a vineyard site, many of even the late-ripening varieties mature with nearly or quite the same certainty as farther south. As a case in point, a fine collection of well-ripened grapes, grown in southern-central Minnesota, was shown at the New Orleans Exposition during the winter of 1875. Among them were perfectly ripe Catawbas which, even in southern Michigan and northern Ohio, ripen thoroughly only in exceptionally favorable seasons or in protected or sheltered localities. A subsequent visit to the vineyard in which these specimens were grown revealed the fact that their maturity was due to the training of the vines upon a low trellis with a southern slope and exposure. The vines were covered with earth in winter.—T. T. Lyon.

Just so long as bananas are sold in our northern towns by the wagon and car-load we say, plant grapes. The capacity of our people to consume grapes is only just beginning to be tested. What we want is to improve their quality, to cheapen and quicken transportation and to extend the season. Every northern market should be supplied with fine grapes from June until January, and in abundance. Our people have only been eating grapes for two months; they ought to be supplied for six.

Fruit-growers need to tone up on honesty. They should put up honest goods in first-class order, stop growling at commission-men, and improve the quality of their fruit. Have a perfect understanding with your commission-house. Let the house know what you have, and just when it will be shipped. Make daily reports, use the telegraph, get acquainted with a trustworthy firm, and stick to it. It is possible to have good, faithful, conscientious producers and shippers at one end of the route, and good, prompt, honest dealers at the other end; but there must be mutual and continual understanding and co-operation.—S. S. Crissey, Chautauqua Co., N. Y.

Modest bearing is very commendable in a man, but it is no recommendation to a fruit tree.—Lowell Courier.

Father: "No appetite this evening, eh? What is the matter? Late unch?" Little Boy: "No, sir; early apples."—Good News.

New and Little Known Fruits.

FOREIGN FRUITS.

SIR,—I send you by express two baskets containing six varieties of apples and nine varieties of pears. The pear named Wilmot was brought from Toronto to Newcastle about seventy years ago by the late Mr. Wilmot and was named after him. Do you know what variety it is?

J. D. Roberts, Cobourg, Ont.

The interesting packages of fruit from our successful amateur fruit grower, Mr. J. D. Roberts, includes the following varieties, *Pears*:—Beurre Chaudry, Beurre Baltet Pere, Therese, Directeur Alphaud, Wilmot, Fertility, Souvenir de la Durand, Zol and Beurre de Mortillet; *Apples*;—Queen, Peasgood's Nonsuch, Cornish Gilliflower, Lord Suffield, Lane's Prince Albert and Red Bietigheimer. The pears are mostly French varieties and are large, but scarcely showy enough to attract the Ontario fruit grower. Beurre Chaudry and Directeur are large and fine, but not sufficiently mature for us to judge of their quality.

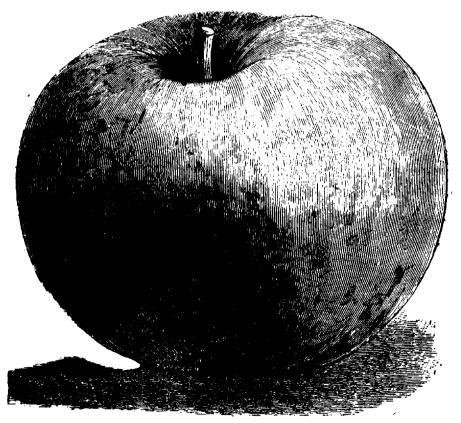


FIG. 93.—PEASGOOD'S NONSUCH APPLE.

Wilmot is a fine pear for dessert, of medium size, the skin a bright yellow, the quality good. It reminds us very much of the Ritson which was described in Vol. 14, page 387.

The apples are worthy of special notice being English varieties of high standing. Cornish Gilliflower has an ugly appearance and poor color, a true Gilliflower in shape; strange to say, it is one of the most valued of dessert apples in Great Britain. A writer in the English Garden speaks of the powerful aroma of the fruit when cut in half as being one of the characteristics of the variety, and of its rich flavor, which makes it so popular, and declares that there is no better dessert apple for the months of April and May, than this variety.

Lord Suffield is one of the leading cooking apples of Great Britain for use in the months of August and September. The fruit is large, white, soft and excellent for tarts and pies. A writer in The Garden says that it is the best of the Codling family, but the tree is a bad grower chiefly in consequence of its prolific habit.

Peasgood's Nonsuch is a very large beautiful apple. The sample before us is four and a half inches in diameter. The skin is green with a bright red cheek and streaked with the same color. The tree is a loose grower, but the fault is well made up in such beautiful specimens of enormous size. The quality of this apple is excellent for cooking. We give an engraving of this apple taken from the Garden. The Gardeners' Chronicle says that, apart from its beauty, this apple is recommended as one of the very best varieties, especially for culinary purposes.

Lane's Prince Albert is a winter cooking apple, large, clean skin, marked something like our Cayuga Red Streak. A writer in the Garden says: "Two good apples which every one should plant are the Cellini and Prince Albert. They will be useful both for home use and for market, as they are not only good, but they look good, and the latter point is as necessary as the former in anything grown for sale.

A FINE APPLE

SIR, -- I send you two or three sample apples from a tree received from the Association four years ago in place of a Yellow Transparent These apples have been off the tree about three weeks. The tree had between three and four pecks of fine large apples like the sample. It is a very thrifty grower with an open head.

Andrew Walker, Metcalfe.

It is surprising that a tree planted four years ago should produce such a crop, and this speaks well for its productive qualities. The apple is very fine in appearance, somewhat resembling the King. Size, large; color, red on greenish-yellow ground; cavity, small, deep, ribbed; calyx, closed; basin, similar to cavity; flesh yellowish-white, tender, mellow, juicy, good flavor; season, about the first of September. The apple is surely a seedling. At least we know of none like it of its season. It has a strong competitor in the Duchess, a variety which can hardly be surpassed.





E have many beautiful flowers growing in our woodlands and meadows that can be used to adorn our homes, both in town and country. They can be transplanted from their native localities at no other expense than a few hours of the children's time, and will thrive in cultivation as well as in their woodland haunts, many of them better. The expense of procuring flowering

plants deters some from planting them about their dwellings, and hence many. especially of our rural homes, are so devoid of attractiveness in their surroundings. Now, this need not be, and, in truth, should not be. The influence of the home in which the children are reared remains through life, and oftentimes. nay, usually, shapes all their after years. If the influence of the home of our children is refining, stimulating thought and observation, thus leading on to useful reading, and intercourse with thinking minds, we may reasonably expect that when they become men and women they will be persons of intelligence, and therefore of influence. Our farmers, some of them at least, complain that they are looked down upon by those in other walks of life, that they do not enjoy the consideration and influence which their position, as producers of the wealth of the country, entitles them. In some measure this may be true; for the writer has more than once heard it remarked that the farmers of Canada, as a class, were at once the most suspicious and the most gullible of men. But in whatever measure the farmers fail of enjoying the consideration and influence which they should possess, it is wholly their own fault. As a class they have been prone to confine their attention to the mere routine of the farm, content to go on in the methods of their ancestors, never enlarging their mental vision by excursions into other fields than their own, or by indulging in studies or investigations of natural science related closely to their daily pursuits. There is nothing more true than that ignorance begets conceit. The ignorant man is the man that thinks he knows it all, and those who attend the January meetings of the Farmers' Institutes will testify that those who stand most in need of information are conspicuous by their absence. When the farmers of Canada lay aside

their conceit, and avail themselves of the means, now so abundant, of increasing their knowledge, and expanding and strengthening their mental powers, and thereby make themselves the peers of any class of their fellow-citizens, they will no longer have occasion to complain that they have not the influence and consideration that belongs to them as the great producers of national wealth.

Anything that enlarges our field of thought, that calls into play our powers of observation and comparison, especially if enjoyed in early life, helps on that mental development and strengthens those faculties which are essential to success in any calling, and especially in that of the farmer. If also that to which the mind is thus directed in youth has somewhat of a refining tendency it so much the better helps to the formation of such tastes as tend to correct the condition of our human nature, and produces in us that bearing toward each other that is the charm of social life. Therefore, we plead with our farmer friends for the planting of fruits and flowers about their dwellings. What is there that will make home so pleasant to your children as to make it bright to the eye with flowers, and rich with both the varied colors and flavors of our several fruits? Not only will you thereby make home more dear to them, but you will be giving them that which has both a refining and expanding influence, and if you encourage them in the cultivation of these you will be drawing out and strengthening faculties that will be needed much in coming years.

It is with the view of removing the objection of cost, that is urged by some against the planting of flowers, that the writer proposes to devote a few papers to the cultivation of our wild flowers, and, further, because the very matter of gathering them from their places of natural growth, and cultivating them in soil and situations best suited to their needs, will call into action those powers of observation, comparison and reflection so much to be desired by every tiller of the soil. In doing this it shall be our endeavor to avoid technical terms as much as possible, to explain fully what is meant by those that it seems necessary to use, and yet so fully and minutely to describe each plant that there need be no trouble in identifying it, and distinguishing it from any other. The name by which it is known to botanists will be given, and likewise the name by which it is commonly called by others. The treatment needed for successful cultivation, so far as known to the writer, will also be given.

(To be continued.)

450 Markham St., Toronto.

D. W. BEADLE.

Carnations in the open ground should be lifted toward the end of the month, leaving a ball of earth on the roots. In potting, this ball should be reduced to fit the pot by means of a pointed stick. Try to retain all roots. Firm good soil in between the ball of earth and the pot. Water the plants well and set them in the shade for a week, sprinkling them frequently. Afterwards gradually accustom them to more light and sun.—Am. Gardening.





PROMINENT flower in the month of November is the chrysanthemum. So enduring of frost is it that when other flowers have hidden their glories, and even the giants of the forest have mostly shed their foliage, this cheery friend beams upon us in robes of brightest hues. Indeed, one writer claims for this flower that there is not a single brilliant hue decking the landscape in autumn, but is more than equalled by her gorgeous colors, in her numerous varieties.

If wanted for indoor blooming, they should be potted in September. Still, with care, ordinary success may be had by lifting them even now, if they have been fortunate enough to escape the frost.

The anemone-flowered chrysanthemum is quite distinct. It has three or four beautiful bright petals and a centre formed of small tubular star-like florets of a different color, which gives them a very pleasing appearance.



FIG. 93.—ANEMONE FLOWERED CHRYSANTHEMUM.

KEEPING AWAY FROST.—A writer in the American Agriculturist gives a good plan for preventing the freezing of plants in the cellar during the coldest nights in winter. He places a lighted central draft lamp on the cellar floor. Since he has tried this experiment he has found it unnecessary to bank up the house to keep out the cold. The heat from this lamp was very great, and could be used to protect house plants in the windows, or those stored for the winter in the cellar or cold-pit. A lamp of the same pattern may also be attached to the window box, so as to give bottom heat for starting early flowers and vegetable seeds.

RAMBLING NOTES (Continued).

HE Downing Everbearing mulberry has evidently come to stay; at least, it has proved to be perfectly hardy in this section, and for the last two seasons yielded a nice crop of fair-sized bluish-black, sprightly flavored berries. Besides its fruiting qualities it has a pretty ornamental appearance. Have re-considered my decision of cutting down the Russian variety, as stated in a previous article, and now purpose utilizing the stock by grafting or budding the former

upon it, otherwise the latter is not worth the space it occupies. Hardy Catalpa may be all that is claimed for it in its western sphere, but with us the name hardy somehow seems to read like a misnomer. The original tree received from the Fruit Growers' Association, put forth an effort to sustain its reputation, but eventually succumbed to our rigorous climate. A young shoot, however, started from the base of the parent stem, and by careful nursing may in the near future become a valuable addition to our arboreal collection. Liquid Amber with its fine rounded top, glossy green leaves, and wealth of purplish crimson foliage in autumn, make it very desirable for shade and ornamentation. Salisburia (Maiden Hair tree), though for a time looked upon as quite an acquisition, apparently lacks the essential hardiness to show off its unique fern-like garb to advantage. The Double Scarlet Thorn when in bloom, brings vividly before us the oft remembered hedge, that adorns the private grounds and public highways of Great Britian. The stately elm, "Birks of Aberfeldy," red and sugar maple,

horse chestnut, basswood, walnut, butternut, mountain ash, white and scarlet

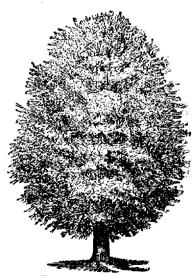


Fig. 94 —Segar Maple.

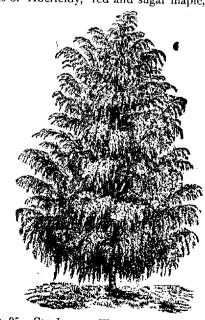


FIG. 95.—CUT-LEAVED WEEPING BIRCH.

oaks, etc., have a place in our assortment. Each have their admirers, and justly too. But above and beyond them all there is no single tree in the writer's estimation can compare with the hardy, graceful, drooping form, of the Cut Leaved Weeping Birch. As this, very general favorite, received its due mead of praise from the veteran horticulturists, Simon Roy and P. E. Bucke, in former pages

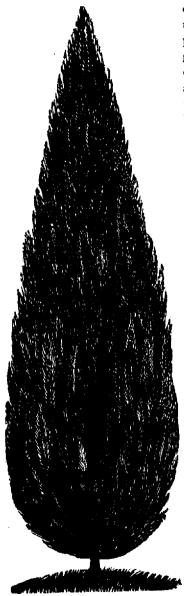


FIG. 96. -- IRISH JUNIPER.

of this journal, any further comments by me upon the same would be surperfluous, saving perhaps one, and that is, that there is surely good grounds for entertaining the hope that ere long this useful and elegant tree will find a place on every well kept lawn, seeing the first cost would rarely exceed the price of half a dozen imported Havanas. Amongst the "departed," which found our soil and rigid winter clime uncongenial to their longevity, may be mentioned the Purple Leaved Beech, Golden Chain (Laburnum), Double White Thorn, and Kilmarnock Weeping Willow. Some of these may be replaced for another trial. Nothing adds more to the comfort and beauty of our rural homes, than a select variety of evergreens. A row of Norway spruces, planted so as to form a pleasing and effective wind break along three out of the four points of a fruit enclosure, leaving the southern exposure free, to fan at will the genial health-giving rays of summer, lends enchantment to the aspect, and adds considerably to the profit side of the ledger. Balsam fir, red cedar, hemlock, Scotch and Austrian pine, dovetailed with dwarf, pyramidalis, Siberian and heath-leaved arbor vitæs, including mountain pine and Irish junipers, in all their varied hues, impart in an eminent degree a truly fascinating effect to the surroundings.

No doubt this amateur sketch would partly fail in its object if a few of the matchless gems amongst our deciduous shrubs were denied a setting in Nature's floral casket. Who that has once seen them in their beauty of bud and blossom would willingly be without Prunus Triloba, Weigela Rosea, Deutzia

Crenata, Rose of Sharon, Scarlet Quince, White Fringe, Garland Syringa, High Bush Cranberry, Golden Bell (forsythia), Hydrangea Paniculata, Florida Cornus (dogwood), Tartarian Honeysuckle, Snow Ball, Laburnum, Flowering Almond, currants, white and purple Lilac, van Houtti, callosa, and plum leaved spirea, or the equally charming variegated wrigela, Prunus Pisardii, Golden Leaved Elder, Purple Fringe and Berberry, Red Osier Dogwood, green branched globe flower, and the popular Christmas holly (mahonia), all of which are hardy here and extremely pretty during their blooming season. Carolina allspice. Daphne mezereum, and purple leaved filbert showed a feeble constitution from their first planting out, and at date of writing are numbered with some other lovely companions (all) faded and gone. Climbers are beginning to receive the attention which their grateful shade and free flowering habits deserve. Jackman's and Henry's clematis climbing on either side of a rustic archway and blending their exquisite colors of white and violet purple; clematis coccinea and Chinese blue wisteria gracefully intertwining themselves along the porch in front; Cobea Scandens and the Evening Glory (moonflower), spreading o'er a



Fig. 97.—Hydrangea.

trellised gateway into the yard; golden leaved, scarlet trumpet and monthly fragrant honeysuckles trained around the south and west windows, are each, throughout their blooming periods, a source of delight to the household, and objects of general admiration to the passing crowd. Virgin's Bower, Southern Blue Bells, Cinnamon, and Madeira vines, not tried long enough to have their vitality thoroughly tested in this locality. Baltimore Belle and Prairie Queen climbing roses show up well and full of promise for another year. The former a little tender and requires protection. The old Virginia Creeper's rampant growth, gorgeous fall tints and rapid natural covering for either new or old unsightly buildings, is finding a formidable rival in the smaller leaved Veitchii Ampelopsis. The Trumpet Flower and Dutchman's Pipe will find a spot prepared for them next season. Thus, for a trifling expense, one can have his home looking gay from early spring until "chill November's surly blasts make fields and forests bare."

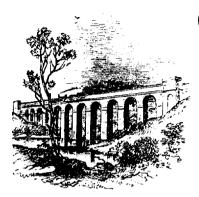
Russeldale, Ont.

(To be continued.)

J. D. STEWART.

🛪 The Kitchen Garden. ⊱

MARKETING VEGETABLES.



OMPETITION in market gardening near large centres of population makes it absolutely necessary for one engaging in it to adopt the most approved methods, and to be wide awake and progressive in all of the improvements. Enormous truck farms are now established in different parts of the country, and these supply the markets with the finest vegetables grown in the world. The profits from these farms have been large in the past, and many others have entered into the

industry. The competition has thus become more intense, and the most progressive farming and intensive cultivation of the soil are demanded.

The truck farmers probably represent the forward advance of farming in this country. Their methods are based more thoroughly upon sound, enlightened business principles; their cultivation of the soil is both practical and scientific; their idea is to get the greatest amount of the best crops from each square foot of the ground, and they feed the soil liberally, expecting great profits in return. Many general farmers in other parts of the country draw their inspiration from the market gardeners. New plants are tested and improved by these, and they are always in the line of progressiveness.

But they do not stop with good cultivation. They carry their same principles into their marketing. They watch the markets to get the best results, and they know when and where to send their produce. The packing and marketing of their vegetables are just as important to them as the sowing of the seed. They realize the importance of well-packed, nicely cleaned and freshlooking vegetables. Many farmers who send produce to the market neglect these essentials. The external appearance do not bother them, and their finest goods often find poor sale.

The marked improvement in recent years in preparing berries and vegetables for market makes it essential that one should spend time and thought on this part of the work. The farmer who still clings to the shiftless method of sending vegetables to the market unwashed and packed in any cheap thing, cannot expect to compete successfully with others. Every kind of vegetable now is washed, graded and packed carefully before leaving the truck farm. They are brought direct from the field to the packing-house, where experts handle them carefully.

Turnips, potatoes and other roots are washed and cleansed until their skins shine. The turnips are trimmed with knives and their tops cut evenly. Then they are graded and packed in their appropriate boxes or barrels. Green, crisp asparagus is evenly cut, packed, tied, and then placed in their boxes so that they will keep and always look fresh. Celery is trimmed, cut, washed and picked in nice, large bunches, so that it looks fit for the table without any further handling. Some of the vegetables are even tied in bunches with colored cord to give a better appearance to them. All of this washing, packing and care, proves profitable, and in some cases it enhances the value of the vegetables almost double. Everything sent to market from the garden must either be counted, measured, graded, sorted, trimmed, washed and polished until they have a most presentable appearance. This part of the work is generally neglected, but is a most important one.—Albany Journal.

PACKING VEGETABLES.



R. E. P. KERBY, of Massachusetts, writing in American Garden, advises packing tomatoes in boxes, the tops being nicely faced. His plan is knock off the bottom, set the box on a level surface, and then lay the fruit in the box, smooth side down. After placing two layers thus, the remainder are thrown in promiscuously and the bottom then nailed on. The red tomatoes he finds most salable. The Boston market is ten days earlier than any

other. It is not a smooth sort, and, therefore, it is not favored when the Emery, Livingston's Perfection and Dwarf Champion come into the market.

In celery the Paris Golden is selected as the best early variety, and the Boston Market as the best late variety. This latter is less liable to blight, if, allowed to perfect its growth late in the season. The celery is sold in long barrel boxes, holding three dozen bunches.

Of melons the most popular sweet variety is the Arlington Nutmeg, which has a green flesh, but of late years this variety spotted badly except on new soils. The American Gem is less liable to spot and is now grown in a limited quantity it is luscious in quality with salmon colored flesh, but is not yet widely known. The melons are sold in both bushel barrels and boxes, the former being the most popular, "eighteen to the bushel box" gives some idea of the popular size for melons in this market.

Asparagus is done up in bunches of one pound each, and exposed for sale in bushel boxes. The less white found in a bunch and the larger the individual sprouts, the better the price that can be obtained.

> The Apiary &

THE MOST IMPROVED KIND OF HIVES.

What kind of hives would you recommend for a beginner in bee-keeping?—See Question Budget.



HE subject of hives has received a great deal of attention since the advent of the movable frame hive. We all know how the straw skep and the box hive were used for many years, and in the fall the bees were smothered by brimstoning the comb cut from the hive, and eaten either in the comb or the comb was crushed and

the honey strained from the wax, hence the term strained honey.

The Rev. L. L. Langstock was one of the first who thought of putting the combs in the hive and having them attached to movable frames instead of the walls of the hive. This work led to great progress in the bee-keeping world, such as the honey extractor and extracted honey, honey in sections instead of broken, leaky pieces of comb, difficult to handle and market. It also lead to some disadvantages. It would almost appear to be treason to say that the invention of the movable frame hive led to disadvantages, but such is, nevertheless, the case.

It has led those too greedy and those without experience, those careless and those having not sufficient time, to make too much honey from the bees, and as a result the mortality in wintering has been much greater than it would have been if the old box hive were still used. In other words, what has proved to be a great blessing and benefit to the careful and advanced bee-keeper, has been a detriment to the careless and badly informed. To impress this matter still more upon our minds, let us put the case in this way: If we advance in the direction of using better hives we must advance in the direction of being better informed and taking more care of our bees. The two must go hand in hand.

As to what is the best hive to use, the question has not the importance that many a beginner would imagine, and not the importance that inventors and supply dealers would often lead us to believe. Nearly every bee-keeper of any extent has invented a hive. I am no exception. But the longer we stick to the bee business the more likely we are to disregard our own ideas and fall back upon some standard already in use. Locality, management, experience, and personal adaptation has much more to do with success in bee-keeping than the hive—as long as it is a hive within reason.

Perhaps the latest invention in the direction of a hive is the one in which the brood chamber can be divided in two, horizontally; that is, it consists of two stories, half the depth of the Langstock frame, and the brood chamber can, therefore, be manipulated to a greater extent than formerly. The hive, although for some years on the market, is meeting with but poor headway. True, it has its warm advocates, but they are few. The advantages to men of experience are

fewer than the disadvantages. To those not having experience, no one need hesitate to condemn such a hive; the chances for blundering are too great, and the box hive would be far better. The eight-frame Langstock hive—which is not patented—is used more generally throughout America than any other; in fact, it would be safe to estimate that eighty out of one hundred are of this design. Other hives of about the same capacity are probably just as good, as far as results in honey production go, but supplies for this hive are more easily purchased, and when the time comes that these hives are to be sold (that time, however distant, is almost sure to come) they can be sold more readily in this hive than any other.

An old and successful bee-keeper, who has tried many hives, and who has a hive of his own design in the majority, stated to me, "After all my experimentation, I confess with regret that Father Langstock struck it just about right when he made the first movable frame hive." Above all, do not get up an odd sized frame of your own if you continue in the business. You will surely regret it. Take, at least, some hive that is somewhat generally used. The chaff hive may be sufficient protection for winter; but a severe winter may come when it is not. A single-walled hive is cheaper, and if outside wintering is desired they can be put in large boxes and packing placed between.

Brantford, Ont.

R. F. HOLTERMAN.

Fertilizers for Orchards.—The Michigan Experiment Station strongly recommends unleached ashes for apple orchards, to be for several years the exclusive application; and in addition to this on light soils twenty loads of rotted stable manure, and in other cases fifty pounds of nitrate of soda and two hundred pounds of fine ground bone. In most instances ashes have proved highly beneficial to orchards, but discrimination should be made with varying soils, as in some cases it has greatly increased growth, while in others it has produced no sensible effect. The above authority, in recommending 50 or 100 pounds of nitrate of soda, and 100 or 200 pounds of muriate of potash and 400 pounds of ground bone, regarded 50 to 100 bushels of wood ashes as better to take their place, and would supply at least one-half the phosphoric acid. The only objection we would make to this prescription would be in strongly modifying the substances and their quantities, according to variations in the nature or composition of the soil, to be determined by careful measured trials.

PACKING APPLES FOR MARKET.—I use a table eight feet long with side boards six inches high, that will hold two barrels of apples. Sort them into two grades at least. For the first grade set two tiers of smooth, good-colored, medium-sized apples, and fill up the barrel with apples that will run as good or better. Shake them well, level off the end, press the head in so tight that there is no chance for an apple to move, and after the head is nailed turn the barrel upside down and put your name on it as guarantee of a No. 1 apple, to be sold for what the buyer is willing to give.—Nelson Cox, at Farmers' Institute in Ohio.



SUBSCRIPTION PRICE, \$1.00 per year, entitling the subscriber to membership of the Fruit Growers' Association of Ontario and all its privileges, including a copy of its valuable Annual Report, and a share in its annual distribution of plants and trees.

REMITTANCES by Registered Letter are at our risk. Receipts will be acknowledged upon the address label.

NOTES AND COMMENTS.

THE EATON GRAPE.—According to a writer in the Rural New Yorker, the Eaton grape has little to recommend it except its size. In quality it could scarcely be distinguished from the Concord.

THE CROSBY PEACH.—We are in receipt of a letter from Mr. H. E. Van-Deman, Chief of the Division of Pomology of the United States, criticising the colored plate of the Crosby peach, which appeared in our October number, as being overdrawn with respect to the size of the peach. He says that Mr. Hale had a lot of the Crosby peaches at Washington at the time of the last meeting of American Pomological Society there, and that none of them were over 2½ inches, in diameter.

We are particularly desirous of giving our readers a correct description of fruits through this journal, for our work is purely disinterested, having no connection whatever with any nursery concern, either in Canada or the United States. Our only object is to work for the benefit of fruit growers in Ontario. We are, therefore, glad to receive this criticism from Mr. VanDeman, and shall welcome similar criticisms from any of our readers, should anything appear in our pages which seems to over-estimate the value of any fruit, new or old.

THE FINER VARIETIES OF GRAPES.—The public is slow to appreciate the higher classes of grapes. The experience of a writer in the Rural New Yorker is largely verified in our own experience in Canada. Here is the clipping referred to:

[&]quot;'Have you any Agawam, Lindley or Wilder grapes on hand?' I said to a New York commission man a few days ago. 'None to-day,' said he, 'and I am heartily glad of it. The general grape-buying public and especially the dealers who buy of us, don't know anything about these fine grapes and it is very hard work to sell them. They look them over, shake their heads and then buy Concords, because they know what they are.

Once in a while I find a man who knows what these fine grapes are worth and who has a trade for them and he buys them readily, but, as a rule, they are a drag on trade and it is hard to get more for them than for the Concords."

Still we are confident that a trade can be worked up in these high-class grapes, and that, in the near future, these varieties will bring the grower more money per acre than such heavy bearers as the Concord. This year Concords are only bringing from 1, 1½ c. to 2 c. As soon as the general public begins to appreciate the difference between the Concord and the Rogers' grapes, there is no doubt that these will be in great demand and that the difference in their selling price will far more than counterbalance their lack in productiveness. There is a certain amount of satisfaction in catering for the trade of that class of people who appreciate first-class stock, and are willing to pay for it.

Possibilities of Apple Culture.—A writer in the Rural New Yorker has been much encouraged over apple culture by a visit to an orchard on the Hudson River, belonging to Mr. W. H. Hart. The varieties grown are Baldwin, Ben Davis, Spy, Peck's Pleasant, Jonathan, Russets, Greening, etc. trees were loaded to the ground, many of the Baldwins, 25 years planted, are carrying eight or ten barrels apiece. In places the apples hang in ropes, and on a space of two feet, he counted 17 apples. Some beautiful Ben Davis trees, not over ten feet high, with trunk only six inches in diameter, are literally covered with bright red fruit, three barrels to a tree. This is not due to wonderfully The land would not grow corn enough to pay for the labor, being mostly rough broken hillside, not worth \$25 an acre for farming purposes. secret is in a liberal feeding of the trees year after year. They are annually fed with muriate of potash, ground bone and stable manure. The owner attributes the high color and firm texture of his apples to the use of potash and bone, believing that farm manure tends to produce growth of wood and loose texture, and inferior color in the fruit.

THE STANDARD APPLE BARREL.—The standard apple barrel of Ontario, is said to measure 17 inches diameter of head, and 27 inches from croe to croe of staves. In Michigan the standard is, staves 27 inches long and head 16½ inches in diameter, and this is the same as the standard flour barrel of Michigan. The Fruit and Produce Trade Association, of New York City, have held a meeting and have adopted the Michigan standard barrel, or American flour barrel size. Some Western apple buyers have been resolving not to purchase apples unless packed in barrels measuring as follows: staves 28 inches long, head 17 inches in diameter, circumference at bilge 65 inches, which is really the same as the Canadian standard. It is unfortunate that a uniform size has not been adopted by all the States, and the Provinces of Ontario. There is, however, one advantage to us in Ontario, in choosing the larger barrel. Our apples bring in the foreign markets 25 to 50 cents more, partly on this

very account, and find more ready sale than those in the smaller barrels. The importance of keeping to some standard is evident, when we try to make contracts with buyers at a distance. This is almost impossible unless there is a standard size which is known to both parties.

THE LATE P. C. DEMPSEY.—In reply to a letter of condolence, in behalf of our Association, to the family of the deceased, we have received the following letter from his son, Mr. Walter Dempsey:

"My Dear Sir,—In your letter of the 2nd of September, you ask for some notes concerning my father's death. This is a hard task for me, the loss is so great, and often seems more than I can endure. He was more than a father to me, leading me on in the study of horticulture. He was always a great student of that subject himself, always spending his leisure hours in studying either books upon it, or his Bible. There are five hybrid pears and four hybrid apples fruiting for the first time this year. These he was watching very closely, as long as he was able to go to see them, and then he had me bring samples that he might examine them, often remarking that he would like to live to see them come to maturity.

"He complained a good deal all winter. Last March his feet began to fail him. In June the trouble settled in his right foot, and, in the latter part of July, gangrene set in, causing death. He bore his intense pain cheerfully, quoting favorite promises of the Master. The day before he died he seemed more cheerful than usual and he walked out, with the aid of his crutches, to admire some flowers, and went to see one of his hybrid pear trees. He had a good night's rest, and rose between five and six the next morning; but, a few minutes after six o'clock, he was gone. I am very grateful to the Directors, and to yourself, for the sympathy expressed to me and mine.

"Yours truly, WALTER H. DEMPSEY."

Tuberous Begonias.—Mary Frost, a Canadian writer in the Rural New Yorker talks of flowering begonias. Sandy soil, she says, is best suited to them. Although the tuberous kinds have large flowers and are very showy, the older flowering kinds are still much grown and are very useful for variety. Begonias are charming in foliage, colors and flowers, and they are as easily cultivated as geraniums. Those bedded out during the summer should be potted and brought in before the frost comes, or, if they have been in pots during the summer, they need to be re-potted in fresh soil and well cut back. They will then soon start into bloom. Begonia rubra is one of the most desirable. Argentea, metallica, Saundersoni, and others, are free flowering, and have very fine foliage. The earth in the pots should not be left to get dry, for, if the soil dries out, the plants will not look well again. With good drainage in the bottom of the pots, they cannot have too much water. Liquid manure will help their bloom.

🛪 Question Drawer. ⊱

CLARIFIED CIDER.

495. SIR,—Would you please tell me through the CANADIAN HORTICULTURIST how cider is prepared to remain sweet. It is called clarified cider and comes here from Ontario,

I. N. Burt, Keswick Ridge, N. B.

Had our correspondent given us the name of the manufacturer of the article referred to, we might answer him more fully. Cider is often kept sweet by the addition of salicylic acid, which substance, however, is injurious to the health. It is also sometimes bottled in the same way that fruit is canned and thus kept from fermentation. Clarified cider, as usually sold in our markets, is not perfectly sweet. It has undergone partial fermentation until about one-third or one-half of the natural sugar in the cider is converted into alcohol, as shown by the use of a hydrometer. It should then be clarified either by fermentation or by the use of isinglass. In the latter case it is carefully racked from the sediment into clean casks and isinglass added to clarify The solid matter in the solution adheres to the latter substance. When it is clear, it is again racked from the precipitated isinglass into clean casks and tightly bunged. Some advise bottling the cider the following spring; others say that it should be kept a couple of years before bottling. Half barrels for holding cider suit the grocery trade, and, where bottles are used, the best sizes are pints and quarts.

THE MOON SEED CLIMBER.

496. Sir.—I enclose you a portion of a climbing plant, quite common on my farm. What is its name, and is it poisonous? Two or three cases of poisoning, similar to that from poison ivy, have apparently resulted from handling and cutting it in harvest time.

W., Grimsby.

Reply by Prof. Fletcher.

The pretty climber enclosed in your letter is the Moon-seed (Menispermum Canadense). The flowers of the male plants are sometimes freely produced, and, together with the elegant foliage, render this climber well worthy of cultivation. I do not know that it is actually poisonous, but the family contains climbing shrubs which are common in the woods of tropical Asia and America, which are noted for their bitter and narcotic qualities.

Jateorhiza palmata, a plant with the habit of Bryony, supplies the well-known drug called "columba-root." Cissampelos Pareira gives "Pareira brava." The celebrated berries called "Cocculus Indicus" are the produce of Anamirta paniculata.

PLANTING APPLE TREES.

497. Sir,—Please tell me if 20 x 20 feet would be far enough apart to plant apple trees in a small orchard, in this locality, where cold winds prevail in winter.

W. C. C., Ottawa.

. Unless for very small growing varieties the distance named is too small. Dwarf apples would do well at this distance, but for most of the vigorous growing standards, thirty-five feet each way is none too much. We have some old trees at Grimsby whose branches are interlocking at a distance of forty feet each way.

PRUNING THE BLACK WALNUT.

498. SIR,—When is the best season to prune black walnut trees, three or four years old?

O. T. B., Kings Court.

The best time for pruning all deciduous trees for the encouragement of wood growth is between the fall of the leaf and the beginning of the growth in the spring. Pruning during the summer season is a check to the wood growth.

NEW BLACK CURRANT.

499. Sir.—I send you sample of new seedling black current. Do you think it worth propagation? Thos. Conolly, Lindsay.

Could not answer without watching habit of plant. Better send a plant to Experimental Farm, Ottawa, for testing. The quality is very ordinary, and taste bitter.

Question Budget

Containing questions for our readers to answer.

- 7. Can you suggest points, rules and regulations to be observed by the jurors in judging fruits at Chicago? The ordinary methods of judging will not be sufficient where the fruit of all climates appear, and especially where so much will be in competition of the same variety, grown under so many varying circumstances, differing climates, etc. Have you particulars for a scale of points for judging, and what point would you advise to observe specially, and how would you divide the points in the scale?
 - 8. Is the Bangor Blackberry of any value where Snyder will not succeed?
 - 9. Is the one judge system at fairs an advantage of three judges?
 - 10. What package is best for shipping onions?



And, laden with spicy odors,
The Autumn breezes come
From the nooks and corners brightened
By the brave Chrysanthemum.

"Hail to thee! beautiful flower,
With royal and dauntless mien
Facing the frosts of Winter—
I crown thee Autumn's queen.
With your gleam of late sweet sunshine
You brighten the closing year,
And keep us thinking of Summer
Till the Winter we dread is here."

-E. E. REXFORD.

OUR APPLE MARKET.

There has been little during the past month to encourage the export trade in apples. Such quantities of fall apples and immature, uncolored winter fruit have been flooding the English market that prices there have declined almost below precedent. In one week, ending October 15th, about 45,000 barrels arrived in Liverpool, and the total to all points, up to October 21st was over 349,000 barrels. The result has been a very accute depression in prices, some varieties bringing very little beyond the freight. Kings hold almost the first place reaching up to \$4 and \$5 per barrel, even during the greatest depression, when even Baldwins were selling away down at \$2.50 and \$3.00. Since October 21st the cables indicate an advance and a sharp demand for our best winter fruit. The quantity likely to go forward is very small, so that much better prices may be looked for. A cable received on the 24th ult. from James Adams, Son & Co., Liverpool, reads as follows, Market better; more inquiry. Greenings \$3.25 to \$3.50; Kings \$5.25 to \$6; Colverts \$1.25 to \$2.25. The prospects are favorable for good winters.

In Montreal first-class winter apples are now commanding \$2.75 per barrel, and in Toronto \$2.50. It is just possible that our own markets may so advance as to yield better

returns to the shipper than foreign ones.

PUBLIC MEETING

OF THE

Ontario Fruit Growers at Brantford.

THE ANNUAL WINTER MEETING

of Brantford, beginning on Tuesday evening, Dec. 6th, at 8 o'clock, and

continuing the two following days.

The first meeting will be a public gathering of Ladies and Gentlemen in the Music Hali of the Institute for the Blind, when the Mayor of the City will give an address of welcome, the President of our Association will deliver his Annual Address, to be followed with addresses by Rev. A. H. Porter, A. McDAllan, Principal Dymond and others. The evening will be enlivened by an interesting programme of music by the Students and Teachers of the Institute.

The day Meetings will be held in the Court room, beginning at 10 a.m. and 2 p.m., and will be given to papers and discussions on topics connected with

fruit growing.

On Wednesday evening the 7th of Dec., the meeting will be held in the Temperance Hall, when Prof. J. H. Panton of the O.A.C. Guelph, will give a most profitable lecture on "Our Insect Foes," illustrated by the stereopticon; questions and discussion if the audience so desire.

Mr. Fred Mitchell of Inuerkip, will also give a paper on the Tuberous

Begonia.

The election of officers will take place at 9.30 a.m. on Thursday, the 8th, after which the discussion of Horticultural topics will be continued.

A list of papers and subjects is now being prepared by the secretary, and any one may contribute to the same.

All the meetings are free, and should bring together a large number of townspeople, as well as of farmers, interested in the garden or the orchard.

Interesting samples of fruits, or implements useful to the fruit grower will, be received for exhibition at the Court room. The headquarters of the Directors will be at the Kirby House.

L. WOOLVERTON, Secretary.