

## Technical and Bibliographic Notes / Notes techniques et bibliographiques

Canadiana.org has attempted to obtain the best copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

- Coloured covers /  
Couverture de couleur
- Covers damaged /  
Couverture endommagée
- Covers restored and/or laminated /  
Couverture restaurée et/ou pelliculée
- Cover title missing /  
Le titre de couverture manque
- Coloured maps /  
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /  
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /  
Planches et/ou illustrations en couleur
- Bound with other material /  
Relié avec d'autres documents
- Only edition available /  
Seule édition disponible
- Tight binding may cause shadows or distortion  
along interior margin / La reliure serrée peut  
causer de l'ombre ou de la distorsion le long de la  
marge intérieure.

Additional comments /  
Commentaires supplémentaires:

Continuous pagination.

Canadiana.org a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /  
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /  
Qualité inégale de l'impression
- Includes supplementary materials /  
Comprend du matériel supplémentaire
- Blank leaves added during restorations may  
appear within the text. Whenever possible, these  
have been omitted from scanning / Il se peut que  
certaines pages blanches ajoutées lors d'une  
restauration apparaissent dans le texte, mais,  
lorsque cela était possible, ces pages n'ont pas  
été numérisées.



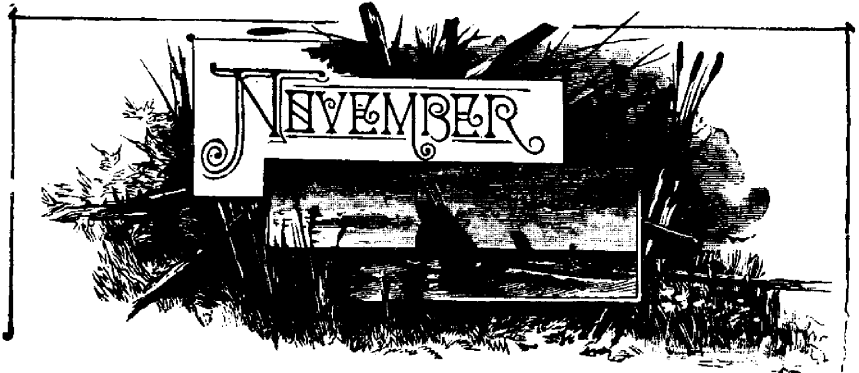
PEAR, *Pyrus communis* L.

THE  
Canadian Horticulturist.

VOL. XIV.

1891.

No. 11



THE LAWRENCE PEAR.



OUR frontispiece this month represents a well ripened sample of the Lawrence pear, one of the very best winter pears and one that should be in every collection, whether for home use or market. It succeeds well either on the pear or the quince. Though not large nor showy, its excellent quality and productiveness place it very high in the estimation of all pear growers.

We have grown it at Maplehurst for twenty years, and it is always the favorite dessert pear for the home during the month of December. The Howell, Sheldon, Duchess and Anjou are excellent varieties for October and November, but nothing surpasses the Lawrence for December and January.

The variety originated at Flushing, Long Island. The tree is a moderate grower, but although classed as hardy in most nurserymen's catalogues, it is not sufficiently hardy for any but the more favored portions of Ontario.

Mr. P. C. Dempsey, of Trenton, Ont., says of it: "With me the Lawrence is one of the best, if not the best, December pear. The tree is a good grower and very productive, but not hardy. It is nearly as tender as the Bartlett. It does better top-grafted upon some hardy variety."

Mr. George E. Fisher, of Freeman, President of the Burlington Fruit Growers' Association, says: "Ten years ago I planted twenty Lawrence pear trees. They

have made a fairly good growth and been fairly productive. The fruit is medium sized, somewhat coarse grained, pleasant in flavor, and when well ripened, is excellent for eating. One of the most striking characteristics of this pear is the beautiful golden color it takes on in the barrel, which makes it very attractive. The fruit is still on the tree at this date, October 8th, and is yet very green."

Mr. W. Holton, of Hamilton, also in reply to an inquiry with regard to his experience with this pear, says: "I have had the Lawrence pear in bearing for several years and think highly of it. It ripens in November and December, and is sweet, juicy and pleasant. It is a hardy stocky grower in the nursery, and, in the orchard, makes a broad spreading tree. It bears moderately while young, but improves with age. The fruit is of moderate size, and *will ripen anywhere as perfectly as any apple, and is never astringent*. It becomes yellow at maturity, with rarely a brown cheek. It is the best early winter pear I know of, coming in after the Beurre D'Anjou. Although not large, it sells readily in the market, and is just the right size for a dessert pear."

The variety is thus described by Charles Downing: "Fruit medium size, obovate obtuse pyriform, lemon yellow with traces and occasional patches of russet, thickly dotted with minute brown dots. Stalk of medium length and rather stout, set in an irregular russeted cavity. Calyx open. Segments short, persistent. Basin broad, shallow, uneven, or slightly corrugated, and thinly russeted. Flesh whitish, juicy, melting, sweet and aromatic. Very good to best. December."

---

UNFERMENTED GRAPE JUICE.—The grapes are picked when they are fully ripened and the juice extracted and bottled as soon as possible afterwards. The bottles are filled brimful and placed up to their necks in vats of hot water, within ten degrees of the boiling point. When the must is as hot as the water, the cork is forced into the bottle, expelling a portion of the liquid. No fermentation will ensue. As the liquid cools, it contracts, leaving a vacancy between the cork and the liquid; but the vacancy must not be an atmospheric chamber. The cork must, of course, be thoroughly air-tight. If fermentation does set in, it may be driven off by reheating the wine. The bottles are then laid on their sides in a cool place and the organic foreign substances must be allowed to settle, so that the liquid may become clear. The wine can lie six months or a year without damage. At the end of the settling period, it should again be filled into bottles, the sediment being left behind. These bottles must be brimful, and should again be set in vats of hot water, heated up to the same degree and corked in precisely the same manner as at first, using sealing wax to exclude the air. The wine is then left to cool in the ordinary way and must be put away where the temperature is even and cool. It is now ready for use and will keep just as long as it is kept free from contact with the atmosphere. This makes a very delightful beverage entirely free from alcohol.—E. HULSE, *before the Victoria Vegetable Commission, Australia.*

## NEW VARIETIES.



HE fruit grower is ever on the alert for the appearance of new varieties, possessing points of merit sufficient to warrant cultivation. Too often the planter is cruelly sold by some unprincipled agent, or, possibly, by the nurseryman introducing the so-called new variety, for even nurserymen do sometimes swindle the unsuspecting as well as the suspicious planter. But I will not go further in the way of scourging either nurserymen or tree agents, as we cannot do without them, and their few evil deeds are more than atoned for by the good they do.

There was a time when there was abundant room for all the new varieties offered. But now that this province is fairly well supplied, we can profitably exercise more caution in accepting new kinds of fruits. On every hand we meet aspirants for immortality with some "chance seedling," and many bear such points of merit that it often seems harsh to discourage their introduction. At the fall exhibitions we meet with many new seedlings, and while a few possess more or less merit, the large majority are actually worthless. I examined a plum grown by Mr. F. Jordan, of Goderich, said to be a seedling from Yellow Egg. It resembles Huling's Superb in size, color and flavor closely, indeed, so much so, that I at first pronounced it to be that variety, and still have an inclination to hold to that opinion, although the foliage is much darker and the tree older and larger than I have known that variety to attain generally. Although a very large, healthy tree, there is no sign of black knot, and Mr. Jordan says he never observed any on it. Being situated where it receives abundance of nourishment, keeping the tree strong and vigorous, will, to a great extent, account for freedom from black knot. But what I desire particularly to claim is this: that, altogether, we cannot say there is in this seedling (if it be such) *enough* merit to warrant introduction in preference to Huling's Superb.

I saw what is claimed to be a seedling of Pond's, which so closely resembles that variety that I would and did discourage its introduction. There are a number of seedlings of Yellow Egg now in the country, but I have not seen any better than the parent, though some were larger, which might be accounted for in many ways, especially in young trees.

I have been watching with high hopes a seedling of Prince of Wales, and the first two bearings were so fine that I believed it was sure to come to the front, but the past season's crop proves how we may often be deceived in young trees. The seedling fell in my esteem sufficiently far to advise the grower not to attempt to introduce it; although probably as good as the Prince in all points, yet not excelling in important points sufficiently to warrant its taking the place of that variety.

While we should, as an Association, offer every encouragement for the production of seedlings, it is necessary to be particularly guarded in advising

planters, and it is not safe to come to hasty conclusions in passing our judgment upon new varieties.

In apples, most of those possessing merit are fall kinds, whereas there is more room in the long-keeping class for the introduction of new kinds. An apple about the size and shape of a good sized Baldwin, brighter in color and better in flavor, that would hold flavor as late as Swazie Pomme Grise, would possess merit, and, if hardy, would be entitled to general cultivation.

We would all welcome a winter pear as large as Duchess or Clairgeau with flavor as good as Josephine. In a late-keeping pear we require size as well as flavor to get commercial value. Indeed, size has a great deal to do with market value in the fruits of all seasons, and even the delicious Seckel, although holding the proud position of highest flavor in the pear, is languishing for the want of an appreciative market, simply because it cannot boast of size.

I would like to follow a large russet apple shown at the Western Fair by a Mr. Jarvis. Looking at a single specimen I considered it Roxbury, although well covered with a finer russet, but after seeing several specimens together and examining more closely, it is clearly not that variety. To me it is new, and if it is as long a keeper as I would judge from what I saw of it, and is a good cropper and hardy, it would be a decided acquisition. It would not be safe to judge by specimens seen at a fair, however, as generally the finest are taken for that purpose; but I would like to follow the apple into a closer acquaintance, as it has flavor, size and color as well as form to commend it as a russet.

I hope to see specimens of many new seedlings at our next winter meeting of the F.G.A.

*Goderich, Ont.*

A. MCD. ALLAN.

PROFITABLE CHERRY GROWING.—Mr. Powell is a large grower of cherries, having about 300 trees, 100 of which are in full bearing. The varieties are Black Tartarian, Black Eagle, Yellow Spanish, Napoleon, Bigarreau, Windsor, Elkhorn, Early Richmond, English Morello, and Montmorency. The Elkhorn, which has been in the past one of the most profitable cherries, will have to be abandoned as the trees are all dying. Why this is thus no one can tell.

“Were your cherries a profitable crop?” queried I.

“They did very well indeed. The crop was large; the quality good and prices averaged high.”

“How did you manage to secure high prices, when others received very low ones?”

“It is simply a question of good taste and care in packing and arranging for market. All my cherries were shipped in the Armstrong & Atwater crate, which is supplied with springs. They hold six boxes of nine pounds each. The fruit was all faced in the same style as the California cherries, a labor which cost me about \$7 per day during the season, but it paid me very well. It was mainly sold in Boston.”—*Green's Fruit Grower.*

## JOTTINGS ABOUT FRUIT.



**S**IR,—As the fruit season is now nearing its close for this year, I herewith send you a few jottings about fruit in this district. We are going to have a larger crop of apples than was anticipated a few months ago, and the sample is very fine. There is no fungus scab this year, and the Snow apples are as bright and clean as they used to be before the fungus appeared. There are very few culls, owing to the fruit having attained such a large and even size. The only culls of any account will be the wormy ones. Spraying has not been practised to any extent here as yet; but as the codling moth and curculio are getting in their work to a great extent, spraying will have to be done to save the fruit.

The *Wealthy* apple is becoming very popular here and seems to find its natural climate, as, like the *Duchess*, it attains to great perfection here. The same may be said of the *Pewaukee*; as a winter apple of fairly good quality, it has come to stay.

The *La Rue*, *alias* *Baxter*, *alias* *Red Pound*, is a very fine sample this year. This is the very best market apple we have and sells "like hot cakes" as a fall and winter cooking apple; for pies and puddings especially it has few if any equals, while its large size and bright red color make it a very attractive variety. I am sending you samples of those varieties, together with samples of a new seedling winter apple, which I believe will keep as long as the *Ben Davis*, while it is three times as large and, when thoroughly ripe, of good quality.

Plums were a very plentiful crop this year, especially the common blue ones; and wherever the trees were sprayed, the larger and finer varieties were very fine. Grapes have ripened well, owing to the fine warm weather of September. The yield is not large, owing to the May frosts having injured the blossom buds; but the samples are fine. Those exhibited at our fall fairs would compare favorably with those grown farther south. But, as a rule, our seasons here are too short for late ripening varieties.

*Raspberries* were a good crop, the best we have had for several years, but hard to sell as the market was glutted with wild ones, which were sold very cheap.

*Strawberries* have made a fine growth and, from present appearance, we would expect a good yield next year. Speaking of strawberries, reminds me of an article in the July number of the *HORTICULTURIST*, copied from *Popular Gardening*. It was written by one E. P. Powell, in which he compares a *Wilson* strawberry to a *Champion* grape. Perhaps he is a high authority on such matters, over there; but one cannot help feeling curious as to what E. P. Powell had for dinner the day he wrote that article.

He says, "The *Wilson* will never educate the taste for berries." I believe it has played a larger part in educating the taste for strawberries than all the

other varieties combined ; and among all the new varieties, if there is any all-round berry to beat it, will somebody rise and tell. My customers always ask for the Wilson for canning, and also for using fresh, and I grow a great many varieties. I try almost every new variety that comes out, and sometimes pay as high as \$3 per dozen for plants that prove on trial to be humbugs, boomed by parties who are financially interested in their sale. I have only one fault with the Wilson, that is, the rust on the leaves ; if it were not for that, I would not discard it for any of the new varieties. For hardiness, for productiveness, for shipping qualities, aye, and for "eating," when well ripened, the old reliable Wilson has few equals in my estimation.

*Craighurst, Ont.*

G. C. CASTON.

### THE SIZE OF PACKAGES

The statement (page 295 of the October number) that "a great deal of fruit is put up in small packages which would be much better sold in larger bulk," is true, if it is meant that the consumer gets more value for his money, but is not in accordance with my experience in selling grapes this season, if it is meant that fruit sells more readily in large packages. We sell almost altogether on orders, and arrange our price list so that it is a matter of indifference to us whether fruit is ordered in five, ten or fifteen pound baskets. I have taken three groups of orders, of ten each, nearly all from customers who had ordered several times before, and who must have known what suited their trade and were free to choose the size of the package. The result is that the number of fives, tens and fifteens ordered were in the ratio of 9, 5, 1. It may be well to add that we sell very little in the cities. What little we placed on commission was in the city of Detroit, only ten minutes from our Windsor office. I dropped in sometimes and listened to the comments and criticisms as our own fruit was being sold. The following points were strongly emphasized :

1. Customers will pay from  $\frac{1}{4}$  to  $\frac{1}{2}$  cent per pound more for a full looking basket (which you cannot get with the Walkerville, or with a board cover), with the appropriate shade of leno over it.
2. The favorite package for the commission man's Saturday morning's "women's trade" is the ten pound basket.
3. The fruit stands and grocers, who break bulk, take fifteen or twenty pound baskets. All others take small baskets, except those who make a small quantity of wine for their own use.
4. The "Diamond" basket sells slightly better than the "Climax" in Detroit market.

*Windsor, Ont.*

ALEX. MCNEILL.

NOTE.—Undoubtedly the ten pound package is better for grapes than a larger size. The statement referred more particularly to putting up apples and pears in small baskets.—ED.



## NOTES FROM MAPLEHURST—IV.



## FALL PLANTING.

WITH farmers generally the autumn is the most convenient time for planting trees, because of the more abundant leisure which that season affords; but with fruit growers it is the very busiest season of the whole year. We find that the gathering and shipping of winter apples, and the gathering and marketing of the later varieties of grapes, keeps us busy until the middle of November, when very often Jack Frost closes up all such operations as planting trees. All our experience in fall planting of peaches, apricots, and cherries has been unfavorable. They certainly do not succeed as well as when planted in the spring; but hardy fruits, such as the apple and pear, will succeed, if planted early in soil that is well drained and not subject to heaving with the frost. A very important precaution in fall planting, indeed in planting at any time, is to fill in fine soil among the rootlets and to tramp it down firmly. Blackberries, raspberries, currants and gooseberries also do well by fall planting. The sooner this is done after the fall of the leaf the better.

**CUTTINGS.**—This month will be a very good time for making cuttings of currant and grape wood. No better season for the pruning of plants and vines can be chosen, because if left till spring it is very often neglected altogether. The wood that is desired for cuttings should be of this season's growth, well-matured, and cut into lengths of from six to eight inches long. Some advise planting these cuttings in nursery rows, two or three inches apart, where they are to grow a year or two, until they are fit to be transplanted. But in our climate we would advise rather tying them in bundles of convenient size and burying them in some dry sandy spot until the early spring, when they will be found perfectly fresh and the cuts will be well callused over. Treated in this way scarcely any of them will fail to grow if planted in suitable soil, partially shaded. It matters little, however, whether the cuttings be made in fall or spring; they will do equally well, in our opinion, if made while the plants are still dormant in spring, say in the month of March, and buried either in the ground, or in fresh saw dust, until planting time.

**APPLES FOR EXPORT.**—The quality of the apples which are this year being harvested at Maplehurst, and, according to reports, from all parts of Ontario, is such as to encourage us considerably in the matter of export. Greenings are exceptionally large and fine, with bright colored cheeks and unusually firm flesh, promising to carry well any distance, and keep longer than usual. The Cranberry Pippin is this year one of the most productive varieties. In the orchard

our trees are literally breaking down with their load of magnificently colored apples. They are free from those blemishes which sometimes disfigure them, here are no worm holes, and, indeed, scarcely any second-class fruit. Out of fifty barrels just packed, there are scarcely two barrels of second-class apples, a notable contrast to some years preceding when we had one-third to cull out for that grade. The evaporator this year is not of much use, for nearly all the fruit is fitted to pack in a fresh state and bring the top price. As far as quality is concerned, the same remarks may be made of most varieties, but, unfortunately, there are scarcely any Baldwins or Spys in bearing this year. Surely such apples as Ontario is producing this season will gain for her a name that will long be remembered in the foreign market; and if fruit of such quality does not bring us remunerative prices this year, how can we expect that it ever will?

**THE YIELD.**—Although only a few varieties are bearing a crop this season, and perhaps three-quarters of the trees in most orchards are entirely bare of fruit, yet the yield, from those trees which are in bearing, is astonishing. One tree of Greenings, that did not appear to be unusually loaded, turned out sixteen barrels of beautiful apples. This is nothing extraordinary for this variety: some years ago we picked twenty barrels off a tree that adjoined this one. Of late, however, owing to the feeble state of the trees, such a yield has been scarcely known. This year, the trees, are comparatively free from that fungus, and seem to be recovering their old vigor and consequent productiveness. The Cranberry Pippin, above mentioned, in an orchard about twelve years planted, is yielding about four barrels to the tree. The picking was inspiring; our men tried a picking race and two of them succeeded in filling a barrel each in four minutes, and another man in five minutes. Sometimes it is difficult to average a barrel an hour, where the fruit is scattered.

**HARRIS' STEP LADDER.**—We always feel inclined to encourage every new appliance which is invented for the benefit of the fruit grower. Anything new in the way of packages, ladders, packing benches, etc., is always welcome to a notice in these columns, whether the result is pecuniarily beneficial to the inventor or not. Mr. Thomas Harris, of Meaford, has recently invented a folding fruit ladder; a cut of which is here given. It is strongly built and very ingeniously arranged, so that it can be folded into a portable condition and easily set up. The price seems rather high, but when the amount of work upon it is considered, it is, no doubt, worth all that is asked for it. It is well adapted to the home garden, and particularly suitable for use in an orchard on rolling ground, because its three props can be so adjusted as to be perfectly safe upon any surface. This, in our opinion, is its great commendation; and the iron hook, for pulling down all limbs until they are within reach of the hand and the support for the basket, are all great conveniences for the home garden.

But with commercial orchardists, who are pushed with a crop of ripening fruit that must be hurried off, and whose orchards are situated on perfectly level ground, this ladder is rather too heavy and requires too much adjusting, to become really popular. Such men need light ladders that can be set up in a jiffy and with one movement of the arms, while this requires two or three.

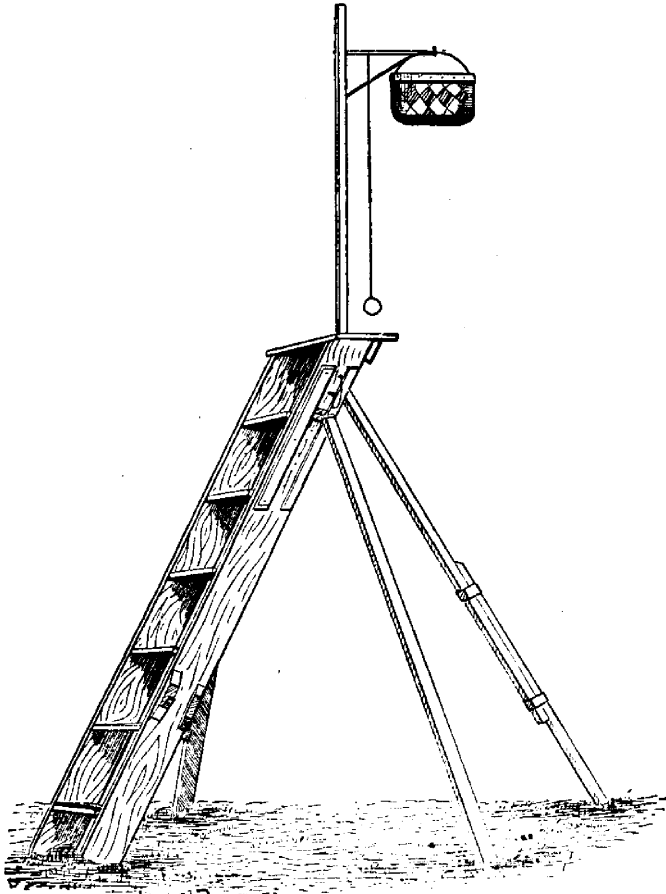


FIG. 59.—HARRIS' STEP LADDER.

PRUNING TREES can be done in October and November, to excellent advantage. If this operation could be performed before the fall of the leaves, there is no doubt that the wounds would begin to callus in the fall, and would heal better than when done in the cold winter. Shrubs and hedges could also be pruned at this season with propriety, the object being to give them the desired shape; for, just before the foliage falls, one can more easily see what limbs

require removing than later. There is no better time in the year than the month of November for pruning the grape, and this season is a favorable one for most growers. It is a time of leisure, for the fruit crops are nearly all shipped; and one can take time to attend to these matters. Certainly, in Ontario, our growers need to pay more attention to the pruning of their grape vines than they have done. Otherwise, their vineyards will become, in time, an inextricable tangle, unsightly, and unsuited to bring about the best results. :

BURNING TRASH is a highly desirable work at this season of the year. Old brush, loose sticks and weeds harbor mice, and give a place an untidy appearance, unless they are collected and burned. Old leaves or decayed fruit should always be made away with in some way, for upon them many fungi, such as mildew, scab, rot, etc., live through the winter and are ready to attack the new growths of another season. Troublesome weeds, which scatter their seeds, are now already mature. Were these carefully pulled and burned, much future trouble and expense would be saved. Could we only do each piece of work in its proper time, how much additional labor and toil might be saved to men who are already overburdened with work, in trying to keep their orchards and gardens in a tidy and creditable condition ?

---

### THE WORLD'S FAIR.

It will soon be time for the fruit growers of Canada to stir themselves with regard to a creditable exhibit in their department at the approaching exposition at Chicago, in 1893. No doubt British Columbia and Nova Scotia will vie with Ontario for the best exhibit for the purpose of drawing attention to their provinces. Let us not be behind.

In reply to a letter of inquiry, we have received the following letter from Mr. J. M. Samuels, the Director of the Horticultural Department of the World's Fair :

DEAR SIR,—I am glad to notice that you are taking an interest in the Horticultural Department of the World's Columbian Exposition, and will be very much pleased to have Canada make as large an exhibit from the different provinces as possible. I am quite familiar with the pomological resources of Canada, having spent considerable time in the Dominion, and am aware that you can make one of the finest displays of any of the countries in the world, and have no doubt a large and creditable exhibition of your horticultural resources will do your country more good in the way of inducing immigration than the one at the late Colonial and Indian Exhibition in England.

The classification in our Department is the most elaborate and perfect of any exhibition yet held, and will provide for a display for your whole country, for each province, local societies, and for individuals, and your different provinces will be placed on an equal footing with our own States.

I will be glad to receive copies of your journal of horticulture, and will take pleasure in keeping you supplied with World's Fair literature.

Very respectfully,

J. M. SAMUELS,

Chief, Department of Horticulture.

Office of the Director-General,  
World's Columbian Exposition, Chicago, Ill.

## SECOND-GROWTH GRAPES.



HAVE had this year an experience which, though perhaps not unique, I believe to be very unusual. I will briefly record it and will be glad to know whether any of your viticulturist members have had a similar experience.

On the morning of 23rd May last my vines, sixteen in number, presented a most gratifying appearance; there were an average of thirteen upright canes on each vine, and on each cane about eight good strong healthy laterals, and on each lateral from three to five clusters of flowers; some, indeed, had the young grapes partly set. The total number of clusters, then, were over six thousand! Of course not more than one-tenth of these should or could be ripened. I was naturally jubilant at the prospect of such a crop.

But as you know, "The best laid schemes o' mice and men gang aft aglee," and certainly in my case I realized that, for that night a pretty heavy frost swept over the greater part of our fair province, causing terrible destruction among farms, orchards, gardens, etc., and my vines, which the day before had been "things of beauty," were now a scene of utter desolation, and my grapes, flower and berry, were entirely destroyed, and nearly every young shoot met the same fate; only where the friendly shelter of a neighboring tree had screened the vine from the killing effects of the frost, had a few of the shoots escaped, but of the grapes not one was left, a few of those on the sheltered branches appeared to be unharmed, but very soon they, too, withered and died. I, of course, concluded that my chances for a crop of grapes were *nil* for this year; but, the weather being favorable in a few days, the eyes that would, under ordinary conditions, have remained dormant until next year, began to move and soon two, three and even four shoots shewed themselves. In process of time these were reduced to one each and a profusion of flowers appeared; these were attended to more as a matter of course, than in the expectation of their reaching maturity, but as time wore on, these young grapes grew so rapidly and showed such vigor, that I began to hope that, if favored with a fine fall, there was a possibility—remote, perhaps—of some of the earlier kinds ripening. But, Sir, you will doubtless be surprised when I tell you that, with the exception of one vine, of whose name I am not sure, but think it is the "Agawam," which has not ripened its fruit, all the others have matured theirs well! and not only that, but the fruit has been of exceptional excellence both for size and quality, and taking into consideration the loss of, at least, a month of the most active growing season and other circumstances, it is a very remarkable, and as it has ended, gratifying occurrence.

I have gathered from fifteen of the vines, about 200 lbs. weight of grapes, three of them having very little fruit of the second growth.

86 Howard St., Toronto.

J. L. THOMPSON.

## ORIGINATING BETTER FRUITS.



ON the night of October 12 our first hard frost occurred, and killed the leaves of dahlias, zinnias, maize, grape vines, etc.

It is generally considered necessary to take down and protect grape vines in the fall, but in this district last winter very many remained on the trellises or other supports, and yet bore fruit abundantly.

Will the Central Experimental Station at Ottawa give us an opportunity to try the Chinese herbaceous vine, which every summer runs up from the root like a clematis, and bears fruit? Though not best for wine, it might be useful for other purposes.

It is also to be hoped that the same station will find or breed better garden gooseberries than those we now have, that all seem descended from the swamp berry which, though smooth, has few other good qualities, being poor in flavor and low growing, with a sprawling habit, and a tendency to layer or root in all directions. Our other sort should make a far better parent, being upright and tall, sometimes seven or eight feet, little liable to injury from snow, renews itself indefinitely, is so good for preserving as to be called in U. S. the jam-berry, is of finer or higher flavor, and often of good size. Some are very prickly or spiny, but others almost or quite smooth. Seedlings from the best do not bear fruit of equal quality.

The same is true of our native crabs or haws. I sowed seed of a very beautiful golden-yellow one, and all the young plants bore red fruit.

It is generally believed that grafted apples cannot be grown from seed, but I have in bearing two St. Lawrence seedling trees perfectly true.

Propos of apples, some standard sorts are hardly worth keeping on the list, and many seedlings are well worthy of propagation and general introduction. While most revert more or less to the crab, in every district there are seedlings middling or good in quality, and a few really valuable, and means should be taken to save and multiply such. Unfortunately their owners are seldom competent to judge or select, being inclined to put appearance before reality, and are naturally disposed to think their own geese swans.

Few will incur the trouble or expense of having seedling apples, etc., tested by qualified men, and valuable trees are allowed to die or be destroyed, when they should be a public benefit. But for the possible expense, the most feasible plan might be to appoint some intelligent orchardist in each township, whose duty it would be to find and try all likely seedlings, and a reward should be given for each considered actually valuable according to a given scale of points.

*Orillia, Oct., 1890.*

J. CUPPAGE.

It takes a pretty smart phrenologist to tell what is in a barrel of apples by examining its head.

NOTES FROM THE TWENTY-THIRD BIENNIAL SESSION OF  
THE AMERICAN POMOLOGICAL SOCIETY.—I.



O a northern grower the exhibit of fruit was one of much interest, owing to the great variety embraced, and the variations noted in the same fruit when grown under different conditions. Apples from Minnesota, peaches from Delaware and Connecticut, persimmons from Georgia, oranges, lemons and pineapples from California and Florida met the apples of Maine and the pears of New England. Minnesota fruit resembles, in high color and smooth skin, our Canadian apples, presenting a strong contrast to the green and cloudy looking specimens from Virginia and other southern States. One could not help wishing for a collection of our brilliant colored varieties with which to give tone and brilliancy to the general exhibit by way of contrast.

Among the newer varieties of apples exhibited, McMahon's White from Minnesota and Wisconsin (it having originated in the latter State) attracted much attention and favorable comment, owing to its very large size and golden waxy color with bright blush on the sunny side. In quality it ranks with Duchess, and in season with Wealthy. The tree is strictly hardy at Ottawa, and exceptionally vigorous. The fruit may not be suitable for distant shipment, but the planting of this variety should certainly be encouraged in the north. Ostrekoff's Glass, a Russian apple grown in Minnesota, is also worthy of notice, valuable on account of its hardiness; season early winter. Maine exhibited a number of seedlings of great promise, and it will be my endeavor to obtain these for trial here as soon as practicable. Hibernial received good words from Minnesota growers as an iron-clad stock for top working.

Among the newer grapes, Munson's Brilliant was the most striking, and from size of bunch, berry, and also judging from its fine quality, it will undoubtedly receive attention in grape growing districts; in color and form of bunch, it resembles Brighton. August Giant, Secretary, Jewel, and Empire State are not likely to be widely planted. Green Mountain or Winchell and Ulster Prolific are much more promising.

Pears. Magnificent specimens of Keiffer pears were shown from Georgia, two of which I have laid on the scales and find that they weigh  $16\frac{1}{2}$  and 17 ounces respectively. The Lincoln pear was exhibited, an attractive looking variety about the size of Flemish Beauty, but evidently later, and of fine quality.

Mr. J. H. Hale, South Glastonbury, Conn., exhibited a considerable quantity of Excelsior peach, claimed by him to have fruited heavily and annually when the buds of all others had been killed by late frosts; fruit medium in size, quality equal to Crawford.

Interesting collections of citrus fruits were exhibited by Rev. Lyman Phelps,

of Florida, showing the immediate effects of cross-fertilization. There seems to be no doubt that in citrus fruits at least, the effect of foreign pollen—pollen from other varieties—is plainly shown on the product of the same year.

The collection of Japanese persimmons (kaki), shown by President Berckmans, of Georgia, demonstrated the rapidity with which these celestials are becoming naturalized. The fruit, thoroughly ripened, is delicious and palatable; but the taste for them in many cases will have to be cultivated.

The programme contained papers from the best horticultural workers on the continent, discussing questions practical and theoretical, the most important of which will be noticed in the next number of the HORTICULTURIST.

JOHN CRAIG.

*Horticulturist, Central Experimental Farm, Ottawa.*

---

### GRAPE JUICE AS A BEVERAGE.

The strong objection to the use of fermented grape juice, even when the proportion of alcohol is very small, render the "fruit of the vine" a forbidden article, even for invalids, in many households. But pure grape juice, in an unfermented state, is both wholesome and refreshing, and those whose temperance principles will not suffer them to indulge in even the lightest wine may still enjoy the luxury of drinking grape juice without a twinge of conscience.

In that excellent book, "Diet for the Sick," by Mrs. Mary F. Henderson, a method of preserving grape juice is given, for which she acknowledges her indebtedness to Dr. Dodds, of St. Louis. This being the time for preparing this beverage, we give her directions for making it. As will be seen, they are essentially the same as for canning ordinary fruits, but we quote the whole for the benefit of those who may not have had experience in canning:

"Take grapes thoroughly ripe, and fresh from the vine. The Concord and Isabella are especially good, but any fresh, ripe and juicy grape may be used. Allow one quart of water to three quarts of grapes, freed from the stems. Use no sugar. Let it come slowly to a boil, and when the whole mass is boiling hot, strain the juice through a cheese-cloth, flour-sack or other strong cloth. Then return the liquor to the fire, and as soon as it is at the boiling point again, can it.

"The less the fruit or juice is cooked, the brighter will be its color and the better the natural flavor of the grape will be retained. This, like all other articles to be canned, must be at the boiling point when it is sealed. If the juice is to be used at once, it should not be brought to the boiling point a second time. Use wooden spoons in its preparation, and only glass jars for keeping it. The action of any acid substance on tin is to corrode it and poison the fruit.

"Before heating the grapes, see that all the necessary preparations are complete; namely, that the jars and covers are clean, the covers fitted, etc."



## THE WINDOW GARDEN.

If you have a bay window rip up the carpet or oil cloth and have the floor covered with galvanized iron or zinc with a rim an inch high all round ; then you can give your flowers a semi-weekly shower bath without much trouble. If you have no bay window, a wash-tub will answer ; set the plants into it and give them a good showering with the sprinkler with water that does not feel cold to the hand. This washes off the dust, and if enough tobacco tea is added to give the water a plain odor of tobacco it will keep down the aphis or green fly. These shower baths should be given weekly.

The air is, in most cases, far too dry for plants or people. This can be easily remembered by keeping a dish of some sort filled with water upon a hot part of the stove where it will almost boil. Stoves differ, but you can have a dish fitted to yours by the tinsmiths, and by all means don't fail to have it, especially if you have roses. Speaking of roses reminds one of two of three reasons why most people fail with roses in the house. In the first place they fail to keep the air moist and thus give a standing invitation to that deadly enemy, the red spider. Next, the temperature of most living rooms in winter is kept about 80°, which is 10° too high for the people, and 15° to 20° too high for the plants, another invitation to the red spider.

Don't keep your rooms so hot, and if your plants must, from the size or shape of your room, stand very near the stove, make a light frame of wood with legs that will hold it up edgewise and cover it with some neat pattern of wall paper, putting a border around the edge. This will make a light, neat fire screen which will keep your plants from cooking, and, if well made, be an ornament besides.

If you can give your roses a window in some room that has no stove in it, yet which does not freeze, they will do far better, and an occasional slight frost will do them far less injury than continual dry heat. If you are forced to keep your plants where they are likely to freeze, keep dishes of water among the pots. These will help to moisten the air and lessen the chance of freezing, and do not forget that the nearer the floor your plants are the more likely they are to freeze.

This is a good time to carefully note all plants as need repotting, and do it now, while the plants can be left outside for a few days after the operation, to recover, and while soil for the purpose is readily obtained. It would not be a bad idea, if you have many plants, to stow a barrel of well prepared soil in the cellar where it will be handy for early spring seed pans or for any repotting during the winter.

There is a little knack about repotting plants. If you wish to shift to a pot of larger size, especially if is a plant that does not take kindly to disturbance at the roots, fill the new pot with soil far enough up to make the difference in depth between it and the old one, allowing for any drainage material there may

be in the old pot, which will, of course, not go in, also, for half an inch at the top for watering. Now place your left hand, palm down, over the old pot, letting the stem of the plant come between the first and second finger. Turn the hand palm upward, firmly grasping the pot, and give the bottom of the pot one or two sharp blows with the palm of the right hand, which will loosen it, when it may be lifted off by the right hand and the plant deftly turned upright in the centre of the new pot with the left hand, and steadied in that position while the space between the ball of earth and the pot is sifted full of fresh soil.—*Ex.*

---

### DANGER OF COPPER.

In the article on page 307 in the October issue of the *CANADIAN HORTICULTURIST* bearing the above heading, the danger arising from the use of copper is, I believe, much exaggerated. In the first place, Professor McCarthy presupposes, that sulphate itself is used. In this province, however, it is usual to use the carbonate dissolved in ammonia. After use, the ammonia gradually vaporizes, as carbonate or hydrate, leaving copper carbonate on the leaves. This will eventually reach the ground, either as carbonate or oxide, both of which are insoluble and incapable of robbing the soil of its plant food as mentioned in the article referred to. Last spring I used in my small garden a solution made by mixing the copper sulphate and soda carbonate solutions, and without drawing off any liquid, or in any way separating the precipitate, adding the ammonia to dissolve the precipitate. This answered perfectly and saved much of the usual labor of manufacture. In this case, also, the copper eventually became insoluble, thus avoiding all the evil effects of which Professor McCarthy refers.

*London.*

W. E. SAUNDERS.

---

ANNE DE DIESBACH is one of the finest of two dozen roses growing in the rose walk at Maplehurst. In size it almost equals the Paul Neyron; samples plucked on the 4th of July measuring five inches in diameter; in grace of form it far excels that famous rose. Then, it has a graceful habit of half concealing its superb flowers amidst a wealth of vigorous foliage, reminding one of some shy maiden scarce willing to be courted.

The plant is a vigorous grower, but is not a very free bloomer. Yet, since every bud counts and none of them are malformed, like many of those of the General Washington and of some other varieties, it is quite satisfactory even in this respect. In color this rose is a lovely shade of carmine, and, in every way, a most desirable rose for the amateur's garden.

## THE APPLE CROP.

There are so many contradictory reports afloat both with respect to the apple crop in Ontario and to the condition of the foreign markets, that buyers are very slow in making engagements. Indeed, in some sections of Ontario we find growers so totally discouraged that they have about decided to leave their apples ungathered in the orchards, because they fear they will not be worth enough to pay the expenses of handling. We believe this to be a mistaken notion, because, first, the quality of our fruit this year is exceptionally good secondly, the amount of apples that will be exported from Ontario this season will certainly be below the average of other years. This is not the bearing year with the orchards generally, and three-fourths of the trees are entirely devoid of fruit. From all present indications the year of 1892 will witness the greatest apple crop upon record. But, in our opinion, the outlook for the apple growers this season is, on the whole, rather encouraging.

The following are a few of the latest reports upon which we base our opinion concerning the state of the apple crop in Ontario :

**STORMONT.**—*Sir*,—Fall and winter apples are a good crop on high lands where the late spring frosts were not destructive, but on low lands not over a half crop. The quality, however, is very good.—W. S. TURNER, *Cornwall, Ont.*

**CARLETON.**—*Sir*,—Winter apples are probably an average crop about Ottawa and eastward. Fameuse generally a fair crop, of higher quality than has been harvested for the last three or four years.—JOHN CRAIG, *Ottawa*

**FRONTENAC.**—*Sir*,—Regarding the crop of winter apples, I can assure you that although the markets are glutted with fall fruit, the winter apples are much less than half a crop in this district.—D. NICOL, *Cataraqui.*

**PRINCE EDWARD.**—*Sir*,—The crop of winter apples in this county is a full average, but as we proceed northward the crop gradually diminishes until there are none. On the whole, there is not more than one-quarter of a crop, but we have never had such fine samples.—P. C. DEMPSEY, *Trenton, Ont.*

**YORK.**—*Sir*,—As far as I can ascertain, the crop of winter apples in my agricultural district will be limited to nearly one-third, and, perhaps, even less than that. Fall apples have been a drug.—W. E. WELLINGTON, *Toronto, Ont.*

**WENTWORTH.**—*Sir*,—I think the apple crops below the average, although the quantity appears to surpass the expectations as the harvesting progresses.—M. PERTIT, *Winona, Ont.*

**PERTH.**—*Sir*,—From present observations and from information gleaned from buyers and packers, I would put the crop in this county at one-half. In some parts of Middlesex it is two-thirds, but, in other sections it is only one-half. The quality is uncommonly good, and the unusual size fills up fast in barreling.—T. H. RACE, *Mitchell, Ont.*

**HURON.**—*Sir*,—The apple crop of this section cannot be estimated at over one-half. All kinds are very clean and well colored and fairly free from moth.—A. McD. ALLAN, *Goderich, Ont.*

**ESSEX.**—*Sir*,—Winter apples will be a light crop in Essex county this year. I will estimate the yield at one-quarter of what it was in 1889, but the sample will be very good.—N. J. CLINTON, *Windsor.*

**NORFOLK.**—*Sir*,—The crop of winter apples has improved beyond most sanguine hopes. The canning and evaporating factories of Waterford have bought up over twenty thousand bushels of apples for use in their factories within the radius of a few miles I think on account of their fine size the crop of winter apples in my agricultural district will exceed the average.—J. K. McMICHAEL, *Waterford, Ont.*

LINCOLN.—*Sir*,—I do not think that the crop of winter apples will exceed one-half a crop. Some orchards in favored localities are full, but there are plenty with no fruit worth speaking of, especially where they have not been manured or cultivated.—A. M. SMITH, *St. Catharines, Ont.*

SIR,—I would venture to say that one-quarter of a full average crop would fully cover the whole quantity of winter apples in this district. Many of the trees that are bearing are only loaded on one side, and, in many cases, on only one limb. The fruit is remarkably fine in size and free from blemish, and beautifully colored, which conditions may result in a larger export than was at one time expected. The warm weather in the latter part of September caused the fall apples to ripen rapidly, and, consequently, they were hurried into the markets. This circumstance led many to suppose that the crop was immense, but time will prove the contrary. Could the system of inspection of fruit have been established this year, as was urged by the fruit growers upon the Government, I would venture to assert that dealers would be found buying apples by cable and wire all over Canada to-day, and that better prices would result. As our late Grand Old Chieftain said, "It is a subject well worthy our serious consideration, and ought to be carried out," but in this case legislation, like apple ripening, seems to require time.—A. H. PERRIN, *Grimsby.*

TO PRUNE BEARING TREES.—A question asked by many is, "What is the proper way to prune bearing trees?" In old trees we not only prune to secure symmetry and quality, but to remove all dead and diseased branches and to induce fruitfulness. If the orchards had been properly and frequently pruned during the earlier stages of growth, trimming at this time will simply consist of rubbing off the succulent shoots as fast as they appear, but such a case as this is rare. Trees may be seen all over the country which have never been cut with shears or saw, and if the work had been done it was accomplished with a common axe with probably very little care. Large branches should be cut away only when absolutely necessary, but the compact heads found in some old neglected orchards necessitate the removal of a few large limbs. It is sometimes difficult to select the proper ones to remove, but in such cases the tree should be carefully studied before beginning operations. An ordinary pruning saw may be used, but the limbs should not be cut so a large proportion of their base remains which will require a second pruning, nor so close to the main stem as to injure its wood. A little practice in trimming will soon enable one to make judicious selection of large branches and to effect their removal in a proper manner. When large branches are cut off the surface of the cuts should be pared smooth with a knife to facilitate healing and to prevent water from soaking in, which is liable to cause decay and serious injury.—R. I. WATTS, *Tennessee Experiment Station, in Farm and Home.*

HIS LIMIT.—A disappointed fruit pedlar was belaboring his slow but patient horse in a street in Plymouth the other day, and calling out his wares at intervals, as :

"Apples, apples, fresh apples." A tender-hearted lady, seeing the act of cruelty to the horse, called out sternly from an upper window :

"Have you no mercy?"

"No, mum," was the reply, "nothin' but apples."

**PACKING GRAPES FOR MARKET.**—The packing of grapes for market is a delicate operation and one in which both care and judgment should be exercised if the best results are desired. In the preparation of the fruit before it is matured and ready for clipping, much attention is necessary. It will not do to allow the grape-vines to fruit to their full capacity, any more than it will do to permit peaches, plums, and apricots to set at will. Thinning is the first requisite in the growing of perfect fruit, and especially is this true of grape growing.

Having thinned your fruit bunches, bear in mind that when the grapes ripen only perfect bunches should be picked for packing. Provide your pickers with crates or trays holding about 25 pounds each. As fast as these trays are filled have them carefully placed in the packing house in racks so that the bottoms of one tier of crates will not rest on the fruit of the tray below it. In this packing house the grapes should remain for from thirty to forty-eight hours before being packed in the baskets. This is for the purpose of permitting the stems to wilt and thus admit of close and easy packing.

This wilting process is one of the most essential points in successful packing. Baskets can be filled without the danger of sweating, molding or crushing the fruit, and will "hold out" in weight without settling. Unless this wilting process is practised, grapes will go to market in second-class condition and bring second-class prices. Pack solidly, selecting bunches that will "mate" well in layering. Many grapes sent to market last year were poorly packed. Let the error be avoided this year.—*Field and Farm.*

**SNIDE PACKAGES.**—The practice so prevalent of sending fruits to market in short measure packages is nothing more or less than a device to deceive buyers, and make them pay for what they do not get, and, in an occasional instance, when goods are very scarce, is a success; but the trade has become so accustomed to such schemes that they usually examine the dimensions of the packages carefully and avoid the "snide" stock, except at a greatly reduced price, and the sooner shippers realize this fact the better for all concerned. The cost of package, picking and freight, the labor of packing, nailing and handling a wine-measure case of berries is just the same as an honest dry measure case, and the small amount of berries saved to the grower is largely counterbalanced by the much lower price the dealer is forced to accept when they reach the market, and is aptly illustrated by the ancient bung and spiggot story. The sooner the shippers realize the fact that buyers who are on the market every day are not such idiots as not to know the difference between a peck and a third bushel box, or between a full or short measure case of berries, that they have a great many different lots to select from, that they are usually shrewd business men and close buyers, that they buy with a view to the profit there is in the article, that they are almost universally people that cannot be imposed upon, the sooner they will realize the fact that it does not pay to use "snide" packages, and the sooner the fruit trade will cease to be a "scalping," and become a legitimate business.—E. P. HOLLISTER in *Fruit Growers' Journal.*

## \* Forestry. \*

## TREES FOR AUTUMNAL EFFECT.



THE Kentucky coffee-tree is one of the most attractive of deciduous trees, with its peculiar trunk and branches and its light, feathery, graceful foliage. The broad rounded contours of that loveliest of deciduous trees, the *Cladrastis tinctoria*, *Virgilea lutea*, or yellow wood, increases the variety with curious branching and beauty of yellow, fading foliage.

All kinds of beeches are fine in the fall. The cut-leaved, the purple, and the common American and European beeches are all most effective and green until winter; but the noblest of all is the celebrated weeping beech. Its great gleaming masses of foliage assume all kinds of fantastic shapes and reveal bowers and recesses until the leaves of almost every other tree have taken their departure. The foliage of the American beech (*Fagus ferruginea*) is delicate in finish and it lies in an arrangement of layers that is peculiarly attractive.

Scarlet is a color almost unknown to the normal foliage of hardy plants. The most familiar example of this rich chord of color is found in the autumns of the swamp, or falsely named scarlet maple (*Acer rubrum*), and in the common sugar maple. Of all the forms of maples, except the shrubby *Polymorphum* from Japan, these are the only species remarkable for their red color in fall. How beautiful they are, thousands can testify, who have stood entranced before the sugar maples of the hills of Vermont, or the scarlet maples on the banks of the Delaware. Sugar maples sometimes color grandly, especially on hillsides. The scarlet or red maple is the richest in autumnal color of all maples, if not of all trees. It seldom fails during any autumn to change more or less splendidly, and therefore deserves to stand out a single flaming monument in the van of all autumnal color. There is something quite indescribable in the glow and intensity of tint often displayed by this maple. Is it ignorance, or the want of seeing eyes, that causes its lack of employment on the lawn? It is true, the scarlet maple is slower growing than the sugar maple, of less regular and pleasing outline, and certainly less beautiful and satisfactory at other seasons of the year. But in fall, it simply reigns supreme.

Scarcely less beautiful than the scarlet maple are some of the oaks. Many of them, like the Turkey, English, and pyramidal oaks, are grandly effective with their solid dark green tints. But the white, red, and scarlet oaks, American species, all take on the most distinguished and glowing autumnal colors. All oaks are too much neglected in lawn-planting. Whether for form, color or rugged longevity, they are invaluable for ornamental purposes. The golden oak (*Quercus Concordia*), although too apt to lose its beauty somewhat before the Indian summer, another color than red becomes, by its intensity, almost the

brilliant feature of the scene. Its special peculiarity appears in the fact that it becomes more and more golden all summer, until, in mid-autumn, it stands a bright yellow flame of health and vigor amid the dull and fading tints of fall. It is one of the choicest of recent introductions and holds its foliage late. The Liquid Amber presents the deepest, darkest crimson on its more or less star-shaped leaves. This tree is of smaller size than maples, tulips or oaks, but is one of half a dozen thoroughly excellent autumn trees. It is round headed, has a straight rough stem, and is altogether a very characteristic American tree.—S. Parsons, in *Landscape Gardening*.

### GOOD WORDS FOR THE CHESTNUT TREE.

Having for the last ten years been looking after forest-tree growing with a considerable degree of interest, I am now convinced that the chestnut ought to be more extensively planted in the future by our great American people than it has been in the past. An erroneous notion has gone out that the American chestnut is not hardy in the North-West. This is a mistake, as a rule. There are trees here in Marshall county, Ill., that are fifty years old, and seem to be as hardy as the ordinary forest trees of our country. They are bearing heavy crops of nuts annually.

The chestnut belongs to the oak family. It is a beautiful growing tree, with a smooth bark and a long, smooth, beech-shaped foliage that is free from the insect pests. The timber grows very rapidly. It is valuable for fences, railroad ties, fuel, and many other purposes. The stump when cut off throws up suckers that in a few years make trees again.

The nuts are an article of commerce. They usually bring from \$5 to \$10 per bushel.

The chestnut makes a very valuable food for hogs. It can be ground and made a very valuable food for all other animals and poultry. The chestnut meal can be baked into a good, wholesome, nutritive bread for the human family to subsist on, and thus become a substitute for wheat, corn and buckwheat.

I hope that the nurserymen of our great nation will procure nuts and grow chestnut seedlings on a large scale, so that they can be sold cheap, and planted for lawn, park, street and roadside trees.

Our railroads can plant them on each side of their tracks. As soon as they are old or large enough they can be cut for ties. The stumps will sprout and produce another lot of ties. The tops can be used for fuel to keep up steam, and thus create an era of cheap railroading in time. These trees will also have great quantities of nuts for the market, annually giving employment to a great many laborers in gathering them.—A. H. GASTON in *Prairie Farmer*.

## ✦ The Garden and Lawn. ✦

### HARDY ROSES.

If the roses are planted in the fall the operation should not be performed until the foliage has almost fallen from the plants. When planted, a few inches of the points of the shoots may be trimmed off and the very weak shoots cut clean out leaving only two or three of the strongest. Then give the bed a good mulching of short manure, and as soon as cold weather approaches a thick covering of leaves—if they are to be had—should be applied, securing them with brush or otherwise. If no leaves can be had branches of evergreen stuck thickly among the plants will prove of great benefit. The ensuing spring, say end of March or beginning of April, the leaves or other protection should be removed, the bed spaded lightly over and the plants pruned back to five or six eyes.

After the first year the pruning may be managed as follows :—Cut away all the old wood in the fall, just before making the plants snug for the winter, and thin out the new growth if necessary, leaving from three to four or more shoots according to the strength of the plants. In the spring after uncovering—and do not be in too much of a hurry about the latter—the shoots may be pruned back to from six to twelve eyes, according to the strength of the shoot—the rule being, the stronger the shoot the more eyes may be left. For it should be always borne in mind that the more wood you leave the more work you assign the plant for the coming season, and the work should be in every case in proportion to the strength of the plant. This is the only general rule that can be given as regards pruning, though there are some other features connected with it that can only be learned by experience.

The Rev. S. Reynolds Hole, in his incomparable work on roses, says:—“He who would have beautiful roses in his garden must have beautiful roses in his heart. He must love them well and always. He must have not only the glowing admiration, the enthusiasm and the passion, but the tenderness, the thoughtfulness, the reverence and the watchfulness of love. He is loyal and devoted even in storm-fraught or sunny days. Not only the first on summer mornings to gaze admiringly on glowing charms, but the first when leaves fall and leaves are chill to protect against cruel frost. To others when its flowers are faded it may be worthless as a hedgerow thorn ; to him in every phase it is precious.”

It is a great blessing for any busy man to have some recreation—something to break in on the monotonous treadmill of everyday cares and troubles, and those whose tastes lie in the right direction will find the culture of roses admirably adapted to this purpose.—*Western Stockman.*



## HOW TO FORM A PERFECT HEDGE.

To have a hedge do its best, whether deciduous or evergreen, it should be pruned twice a season. The first pruning should be done before the growth is stopped, the second about the close of summer, after the length of growth has been completed for the season. On the method Joseph Meehan writes as follows in *Practical Farmer*: A hedge to be perfect must be broader at the base than at any other part. Summer pruning, that is, the first one, is mainly to thicken the hedge and strengthen the base. To do this, the top and most of the upper branches are clipped off, then while the lower ones are touched but little in an old hedge and not at all in a young one in which the shape has not been well formed. As soon as the tops are cut away the sap flows to those remaining, greatly invigorating them. In old hedges where shape and bushiness have already been attained, the whole of the hedge may be trimmed back to thicken it, but let the severest cutting be at the top. For every branch cut off a half a dozen new ones form, so that in time a hedge becomes so dense that a bird can hardly fly through it. After the first cutting there will be more growth made, and this is allowed to grow on as long as it will. When all growth has stopped, which will be in September in the Middle States, the hedge is gone over again, and cut clean into a good shape, which should neither be too round nor too pointed. In connection with this it may be said here that single trees should be pruned in the same way that the hedge is. Bushiness comes from stopping the leading shoots before they are done growing. Pruning in winter acts the other way, encouraging an extra strong top growth.

---

SOME FINE SAMPLES of grapes have been sent us by Mr. A. M. Smith, of St. Catharines. The following are the varieties, viz.: Eaton, Moore's Diamond, Ulster Prolific, Poughkeepsie Red, and Geneva.

The Eaton is a very fine large grape, of the same type as the Concord. It seems to us to be a remarkable grape and one that must commend itself to every vineyardist, as the finest black grape, at least so far as size, appearance and productiveness are concerned. Unfortunately, however, it does not equal the Concord in quality.

Moore's Diamond is a very promising white grape, and a competitor with the Niagara; it is sweet and spritely and the pulp is very tender.

*Poughkeepsie Red* also commends itself as a most delicious little grape, after the style of the Delaware, larger in bunch and berry, but not as good in quality.

## ✧ New or Little Known Fruits. ✧

### BURBANK JAPAN PLUM.

SIR,—Among the very promising new fruits, and one that seems to have come to stay, is the Burbank Japan plum. Here, in Western New York, it is hardy, of fine quality, very beautiful in appearance, and productive beyond anything I have seen, and, withal, has a foliage that seems perfect. Mr. H. E. VanDeman, Department of Agriculture of the United States, commended it highly to me a few years since, and expressed his opinion at that time, that I would find it especially adapted to this climate.

S. D. WILLARD, Geneva, N. Y.

---

### OWEN SOUND BEAUTY PLUM.

SIR,—I send you by express samples of the Owen Sound Beauty plum. I sent you some of these plums in 1888 and since that date the tree has been bearing fruit, and seems to improve with age. It is a seedling of No. 1 plum, of which you gave a description in the October number of your journal for 1889. The tree is a strong, healthy grower, a heavy bearer, and this year I had a very large crop from it. The fruit hangs well to the tree and is a freestone. The flesh resembles that of a peach more than a plum, and makes an excellent preserve, equal to the peach to my taste.

R. TROTTER, Owen Sound, Ont.

This plum was described on page 259, Vol. II, and we have little to say farther, except that it bears out all that was then said of its quality. In form, however, these samples incline more to the oblong than to the globular. Its free stone, excellent quality, and lateness of ripening, the samples coming to hand in good order on the 10th of October, seem to commend it to planters.

---

### A BEAUTIFUL SEEDLING APPLE.

SIR,—I send you three beautiful apples, grown in this locality, which I believe are seedlings.

R. LEWIS, The Rectory, Maitland, Ont.

Truly this apple well deserves the title of *Beautiful*, for we never saw any apple that surpassed it in richness of coloring. Even the Red Astrachan, which is so much admired, is its inferior in tints of color. Then it possesses excellence of quality as well, and these characteristics unite in making it deserve the very highest place as a dessert apple.

*Description.*—Fruit, medium to large, roundish oblate, with one quarter considerably enlarged. Skin, pale cream, splashed and shaded with pink, turning to crimson on sunny side, which in some samples completely covers it; obscurely blotched with markings of dark carmine. Stalk about  $\frac{5}{8}$ ths of an inch in length, inserted in a deep, evenly formed cavity. Calyx closed, set in a basin of moderate size and depth. Flesh white, streaked with red, tender, juicy, aromatic. Quality best. Ripe October and November.

## TWO HARDY APPLES.

Two samples of apples, which are seedlings grown in the Province of Quebec, have come to hand from Mr. Dery, of Mont. St. Hilaire. Both are grown from the seed of American Baldwins, and resemble each other so much that only a connoisseur could distinguish between them. The one called Dery's Seedling is, however, more highly colored. It is said to be a good bearer, and the fruit keeps until June in good condition. The other is called Alexis Baldwin, and also keeps until June, but with dry spots at the core.

The trees from which these two apples were gathered are each of them seventy years of age, and still produce heavy crops; all this speaks very highly concerning the hardiness of the tree, and the keeping qualities of the fruit. The apples are not sufficiently mature yet for us to speak of their quality.

## THE BESSEMIANKA PEAR.

Dr. Hoskins writes in the *Orchard and Garden* that at last a Russian pear, worthy of cultivation, has been found. These Russians have been in cultivation for nine years in America and, so far, no one has been heard of who can bite into a ripe specimen of any one of them. But it now appears to be a well established fact that the Bessemianka is an exception. Mr. A. Jack, of Chateauquay Basin, Que., has fruited it, as well as Prof. Budd, of Iowa, and both report that the fruit was of such good quality that it was all stolen and eaten even before maturity. This year the Doctor has fruited this variety in his own garden. It ripened by the 5th of September, and he classes it as the only one of the iron-clad pears with which he is acquainted, which possesses a very good dessert quality. The flesh is buttery, something like the Bartlett in flavor; in size, small to medium; color, green, ripening to a yellowish, without any redness or russet. The flesh is white and very juicy; unmistakably it is a fine dessert pear, and one which bids fair to be a very useful fruit for the cold north.

## HOSKIN'S SEEDLING WINE GRAPE.

SIR,—I send you three bunches of a seedling grape which came up between an Alvey and a Delaware, and is five years old. It bore a few last year, and this year has fifty bunches on twenty-five feet of wood. It is rather late, and only suitable for wine. Its chief fault is having a few green berries scattered on every bunch, after the others are colored. Probably it would ripen earlier and more evenly in a warmer climate. The bunches I send you are the largest and medium size. The wood ripens well.

A. HOSKINS, *Toronto, Ont.*

This grape might prove valuable for wine making, but the quality is not good enough to make it desirable for any other purpose. The largest bunch weighed ten ounces, and the berries upon it were remarkably close. In size and color it resembles the Clinton, but does not equal it in quality.



## The Canadian Horticulturist

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 WINTER MEETING of the Ontario Fruit Growers' Association is to be held in the City Hall, Hamilton, on the 15th, 16th and 17th of December next. The meetings in this place have always been full of interest, because the place is accessible to a larger number of fruit growers than any other in Ontario. There will be many interesting subjects discussed, and we, therefore, urge upon all members and readers of this journal, who possibly can do so, to make it a point to be in attendance. Everyone is at liberty to propose questions for consideration and these will be answered, as far as possible at the meetings, by persons who are the most capable. Questions sent in for that purpose to the Secretary, in the meantime, will be entered on the printed programme. There will also be an exhibit of new and interesting fruits, and we ask all fruit growers to lay aside anything interesting and bring it with them to the meeting. The programme will be given in our December number, and copies, in circular form, will be sent to all who may apply for them.

GROWING ROSES.—Mr. E. Sunmey says in the *American Agriculturist* that the autumn or very early spring is the best time to plant dormant, hardy roses, as no plant suffers so much from late spring planting as the rose. Good strong two-year old plants, of the hardy class, are the best for out-door culture. A great many have been discouraged from growing roses in their gardens through buying from florists small pot plants which need more tender care than amateurs are able to give them. Roses should be planted two feet apart in open ground. Heavy loam or clay soil is preferable, but, with special fertilizing, they may succeed on sandy soil.

Roses, for the most part, succeed best on their own roots, but there are some desirable varieties which do better on other stock. In case of such plants, great

care must be taken that suckers from the roots do not grow up and take the place of the variety which has been budded. Among some particularly good sorts are mentioned, Baron Prevost, Comtesse, Cecile de Chabrillant, General Jacqueminot, Mrs. John Laing, M. P. Wilder, Xavier Olibo, Captain Christy, Paul Neyron, Gabriel Luizet, Achille Gounod, Mabel Morrison, Madame Plantier, White Crested Moss, Gem of the Prairie, and the Japanese roses, *rugosa-rubra* and *alba*.

Winter protection is wise, even with hardy varieties, and this may be accomplished by covering with strawy manure or evergreen boughs.

The best time for pruning roses is in March. Strong growers like General Jacqueminot, Magna Charta, and Mrs. John Laing, need the least pruning simply cutting the last season's growth about one-third to one half an inch together with a little thinning, being all that is necessary. Weak growing kinds, such as Baroness Rothschild, Captain Christy, and Xavier Olibo, which are usually budded on other stocks than their own, should be cut back more severely removing as much as two-thirds of the previous year's growth, together with the weaker canes.

---

NITRATE OF SODA.—A writer in *Garden Work*, an English publication, speaks of the strikingly stimulating effects of the use of nitrate of soda on garden crops. The crops which had been dressed were extremely luxuriant, and the observer could tell to an inch how far the dressing had gone. Peas, potatoes and other crops to which the nitrate was applied were in remarkable health and color. The amount applied to the farm and garden crops was at the rate of 175 pounds to an acre.

---

MOSS ROSES are highly commended in the same journal. These are coming into fashion now, and everyone, in making up an order for roses, ought to include a half dozen mosses. Many people are ignorant of the fact that there are several varieties of moss roses and among them the most commendable are ; Old Moss, blush pink and well mossed ; Little Gem, a diminutive moss rose, and one that should be grown by all ; it forms thick bushes which are covered with beautiful crimson flowers ; White Bath, no collection would be complete without a white variety and this is the best ; Crested Moss, pink, with exquisitely crested buds, a fine grower.



## ❖ Question Drawer. ❖

### FLEMISH BEAUTY IN VICTORIA COUNTY.

SIR,—I send you two samples of Flemish Beauty pear as grown in my garden in the ordinary way, the tree bearing a medium crop of fruit, all large and clean. How do these samples compare in size with Flemish Beauty as generally grown? The two weigh respectively 12 and 13 ounces.

My Glass Seedling plum trees have immense crops this season. The trees were literally broken down with fruit. We sold over 100 pails off it at from 40 to 60 cents per pail. I mention this to show prices and the productiveness of this plum in our section.

W. H. ROBSON, *Lindsay, Ont.*

The samples of Flemish Beauty sent by our correspondent are larger and finer than the average samples of this variety, as generally grown. Under exceptional circumstances, we often get pears of this variety equal to the samples of Mr. Robson's, but it is not a common thing, as a rule. Indeed, the Flemish Beauty, in the Niagara district, has, of late, been so troubled with the scab and with cracking, that it has been utterly worthless; and this pear has been entirely discarded by planters. Farther north, however, it appears to be one of the best varieties to plant, being hardy, productive and clean.

---

### FORESTRY IN BRITISH COLUMBIA.

SIR,—Professor Mills of the Ontario Agricultural College to whom I had written for information on the subject of the growing of hardwoods, has referred me to you as one who is likely to put me in the way of obtaining the desired information.

This province is destitute of such trees as hickory, walnut, ash rock maple, etc., and what I wish to know is embraced under the heads which follow.

J. R. A. *Victoria, B. C.*

We have referred the questions to Mr. T. M. Grover, of Norwood, Ont., who has had more experience in forestry in Ontario than any one with whom we are acquainted. We give his replies under each head:

#### *A.—How long do they take to attain marketable value?*

It will be eight or ten years for any of these trees to become valuable for factory work. Ash and rock elm would be the earliest in the market as second growth hardwood; maple as fuel at ten years; hickory, as a sapling, is very valuable at from ten to fifteen years; walnut comes in at a later age, twenty or forty years being needed to furnish good wide boards for cabinet work; white ash and elm are the first choice, and will likely grow more rapidly in British Columbia than in the east.

#### *B.—Value at different ages?*

Ash and elm, also hickory, ought to be five inches in diameter in ten years and are worth two cents a foot of the length, for waggon stocks. As hoop staff

they would sell much sooner. The value is not certain, but very nearly as much.

*C.—Cultivation?*

Plant in old, tilled, clean land. For amateurs it is safer to buy two year-old seedlings, as the difference in cost will not be so great as the extra cost of the cultivation of small seedlings. Plant them four feet apart each way, and keep the weeds down thoroughly for three years.

*D.—Soils best suited?*

Sandy loam is the best soil, where easily worked with a cultivator.

*E.—How many trees to the acre?*

At four feet apart there would be about 2,700 trees to the acre.

Except for experienced planters, the seedlings, which can be got from wholesale nurseries in the United State at from \$1.00 to \$8.00 per thousand, are much more satisfactory than planting tree seeds, and the cost of handling and transplanting in the small way, as well as the trouble of keeping the very small trees from the pressure of the weeds, will be more than the nursery prices.

---

#### PEAR LEAF BLISTER MITE.

SIR,—You will find enclosed some pear leaves which I sprayed with Paris green twice this season. Did this cause their turning brown, or is it a leaf blight?

GEORGE H. NIXON, *Hyde Park, Ont.*

*Reply by Prof. James Fletcher, Entomologist, Experimental Farm, Ottawa.*

The leaves of pear are, as you suggest, badly infested by the pear leaf blister mite (*Phytoptus pyri*), which is an extremely small, elongated mite, that forms blisters like galls on the leaves. In each of these galls there are several of the mites. There is a small hole in the centre of each gall, through which the little creatures make their exit. The eggs are laid by the females inside the galls, and hatch there. The young mites remain there for some time and then come out and work their way into the tissue of the leaf at some uninjured spot. They increase rapidly, and eventually do much injury to the tree. The mites live within the galls until the time the leaves fall in the autumn, when most of them migrate to the leaf-buds at the ends of the twigs, where they pass the winter.

This insect is one of the most troublesome to combat. Prof. J. H. Comstock (Cornell University Bulletin, No. 23) has written the most extensive article on this continent, and in Australia it has been treated of by Mr. C. French, in his "Handbook of Destructive Insects of Victoria."

Probably the best remedies are close pruning in winter or early spring, followed by a thorough syringing with kerosene emulsion. An effort should also be made to burn all the leaves which fall in autumn. I may mention that the

figure engraved on page 253, from a *very rough* outline drawn from memory and given in a letter of mine to Mr. J. K. Michael, bears very little resemblance to the real insect. The four horn-like objects in the front portion of the body are meant for four legs and should all come from beneath the body. Where an eye-like spot has been put was meant for the middle of the back.

---

### EVAPORATORS.

SIR,—Where can I visit an evaporating establishment, the more modest in its dimensions the better?

G. M. AYLESWORTH, *Collingwood, Ont.*

*Reply by L. B. Rice, Port Huron, Mich.*

I know of no place where a person can see the whole work of the evaporating business as well as in Wayne Co., N.Y., just at this season; and I know of no place in Wayne county that contains a greater variety of evaporators than at my old home in Sodus. Here one will find the small one with the capacity of ten bushels a day, up to one with a capacity of five hundred. Here, also, one will find employed every conceivable method of heating, and in the large ones the hot air tower and steam pumps, so the comparative merits will be observed.

I do not think the one illustrated in the October number, as practical as the Mason, and not nearly as cheap. Besides this, the Mason has no brick work to keep it in one place, but it is portable. I can give you the plans for building it if you wish.

[We will gladly publish Mr. Rice's description the Mason Evaporator.—ED.]

---

### SUBSTITUTING VARIETIES.

SIR,—I have enclosed samples of pears and apples for names. The trees were to be true to name and there was to be no substituting, but I find that a tree planted for Urbaniste is bearing Keiffer's Hybrid, one planted for Josephine de Malines is bearing Howell, and so on. Of the samples sent you, 1 and 4 were sent to me for Doyenne Boussock, and 2 and 3 for Beurre Bosc. The apples were introduced here from Rochester about thirty years ago and no one knows the name. The quality is first class for cooking, with a faint blush in the sun, and white in the shade with small black specks. They are falling off now (August 31st).

GEORGE H. NIXON, *Hyde Park, Ont.*

It is very disappointing to buy a certain number of varieties of fruit and, after waiting years for them to bear, find that other nameless varieties have been substituted. This kind of thing no doubt accounts for so large a number of misnamed varieties of fruits throughout the country. The apple is probably the Hawley, a first class variety, but with one fault, that it keeps so short a time after gathering. The pears are scarcely matured enough for determination, but No. 1 resembles Winter Nelis; No. 2, Beurre Diel; No. 3, Belle Lucrative; and No. 4, Doyenne Boussock.



## WOVEN WIRE NETTING.

Where can the woven wire netting be bought the cheapest in Ontario? I see some get it for less than one cent per square foot. A.

*Reply by B. Greening, Wire Co., Hamilton.*

We sell a two-inch mesh woven wire netting, made of 19 galvanized wire, at the price of one cent per square foot. Our goods can be purchased through the hardware trade of Canada, but, if not stocked by any local dealer, we will supply direct at that figure.

## BONE MEAL AND NITRATE OF SODA.

1. Where can bone flour be bought, and at what price? 2. Where can nitrate of soda be bought, and at what price?

G. E. BALLARD, Listowel.

*Reply by T. H. Carpenter, Winona.*

We have never purchased bone meal alone, always a complete fertilizer containing ammonia, phosphate and potash as principal ingredients, and what nitrate of soda we have gotten has also been bought from the Smith's Falls Standard Fertilizer and Chemical Co.

## \* Open Letters. \*

## FALL FERTILIZERS.

*Potash—Phosphoric Acid—Nitrogen.*

*Potash* and *Phosphoric Acid* should be first on this fall; these two things are slow to dissolve; and are not liable to be lost or washed away like certain forms of *nitrogen*, which easily evaporate and waste.

*Potash* in the form of potash salts or wood-ashes.

*Phosphoric Acid* in the form of ground bone or plain phosphate, both these should be given liberally now in the fall, and wherever possible harrowed and worked in, so that with the snows and rains of winter and spring they may become dissolved and mixed well with the soil, and driven down to the roots of the trees and vines, so that the roots may find the necessary potash and phosphoric acid, immediately after the winter rest. The trees and vines do not have half a chance if the potash and phosphoric acid is put on in the spring, for it has not had time to dissolve and become available for the first growth.

There are certain forms of nitrogen, like *nitro-bone-phos.*, which could be given with great advantage in the fall along with potash salts. But as a rule, it is a waste to put quick acting nitrogen on in the fall, such as nitrate of soda, etc.

Nitrogen should therefore be put on *in the spring* and also, if at all possible, *during growth*, so that the nitrogen may get down to the roots with the very first moisture that reaches them.

Stable and all available manures should be carted on before the snow goes, so as to get the benefit of spring rain and melting snow, so that as the nitrogen is washed out it may be carried at once to the roots and be available for the very first growth.

Fruit growers who doubt the necessity of feeding their orchards and vineyards take great risk. They should at least pick out a few trees and vines and experiment with them,

cultivating well, and putting on a generous dressing of potash salts or wood-ashes now, with ground bone, or bone meal, working them well in, and then in the spring give sundry doses of nitrogen in the shape of liquid manure, or dissolved nitrate of soda or sulphate of ammonia.

Toronto, Oct. 21st, 1891.

ALFRED BOYD.

## TOMATOES.

In reference to tomato rot, in October number, mention is made of Mikado as subject to rot. In my garden the rot commenced with Mikado plants that were lying down, and on the poorest ground—wet clay. It spread through the several varieties that I had—not so bad on those on wire trellises, though they had most manure under them. I would not plant Mikado with other varieties again, without further experiment.

L. B. RICE.

## ↔ Our Markets. ↔

### MONTHLY MARKET REVIEW.

The reports received up to the 1st of November appear to be encouraging with regard to the prices which we may expect for our winter apples. The fact is, that the crop is much shorter than it is supposed to be by shippers in our central markets, who have been led astray by the enormous amount of summer and fall apples which have been pushed into the market.

The prices seem to be advancing in Great Britain for our best fall apples. American apples have been going forward in considerable quantities to Liverpool, larger than in any corresponding week since October, 1888, in which year there was an enormous crop. But these are inferior to our Canadian apples, and, as the supply of Canadians is so limited, the prospect is they will be much in demand for storing for winter use, both in this country and in Britain.

The apple which is bringing the highest price is the King. This variety has been bringing all the way from 18/ to 28/ in Liverpool, and will no doubt be more and more sought for as its excellent qualities become known.

Baldwins are bringing, in Liverpool, according to a cable received October 26th, 15/ to 18/; Greenings, 13/ to 16/; Golden Russets, 17/ to 20/; Spys, 12/ to 15/; Ribstons, 17/ to 20/.

A cable from Glasgow on October 25th, quotes Canadian apples as follows: Kings, 21/ to 25/; Blush, 17/ to 20/; Greenings, 15/ to 18/; Snows, 16/ to 19/.

In our home markets apples are beginning to be in more active demand, and are selling from \$2.00 to \$2.25 for good winter fruit, but there is no doubt that the foreign demand will soon cause the prices to advance considerably both in Toronto and Montreal. Even in Buffalo apples are quoted as worth in the orchard from \$1.50 to \$1.75, and fancy apples at \$2 a barrel.

The time for export by Montreal will soon be past, as the steamers cease to run from that port after the middle of November, and any shipments after that date will need to go by New York or Boston. The freights from Montreal are 3s. 3d. a barrel to Liverpool, and 3s. 6d. to London, Glasgow, Aberdeen and Bristol.

The first Nova Scotian apples reached London, England, in the week ending October 10th. The Gravensteins were very fine quality, being bright, clear and well colored. No. 1 grade realized 18s. to 21s. a barrel, and a few fine Ribstons brought as high as 30s.

A letter from a Liverpool firm, dated October 10th, quotes Ribstons and Kings 24s. to 25s., and various kinds 14s. to 20s., adding, "There is strong demand for large fruit, especially if colored, but with heavier arrivals we anticipate easier prices."