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SEPTEMBER, 1893.



**HORTICULTURIST.**

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An old Scotch lady, on receiving her doctor's bill, said she would pay for his drugs and return his calls.

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Clerk—What flavor? Bridget (aside to Pat)—Phat do he mean, Pat? Pat—Whist, Biddy; don't show yer ignorance; they has fruit flavors in the soda. I'll be havin' strawberry in mine. Bridget—Oh, yis, I see; fruit flavors. Oi'll have onions in mine.



*HARVESTING THE RED ASTRACHAN*

THE  
Canadian Horticulturist

VOL. XVIII.

1895.

No. 8.



OUR ASTRACHAN HARVEST.

**M**ORE than twenty years ago the writer planted an orchard of about one hundred and twenty-five trees of the Red Astrachan, a variety then but little grown in Canada. The Early Harvest was then the great summer apple of this Province, an apple of fine quality, but small in size, and gradually becoming subject to the ruinous apple scab. We have never regretted the venture, for since the Red Astrachan trees have come into bearing, the Early Harvest has taken quite a second place. Fortunately, however, the latter precedes the former by about a week, so there is room for both varieties.

The Astrachan is very productive. This season one large tree has yielded over ten barrels. Surely no one could wish for greater productiveness than this. Our frontispiece is a snap shot in our Astrachan orchard, showing a couple of trees laden down with richly colored apples, a couple of the pickers, and a wagon load of the fruit. Fig. 820 also shows a branch laden with apples taken from one of these trees.

We never throw down our apples in piles in the orchard, because it is inconvenient for packing, on account of the trouble of moving barrels and baskets, hammers and other tools, from place to place. Far the best plan we find this one to be of bringing all to the packing house in baskets, from time to time through the day, and there assorting in a careful manner. The packing table is an almost indispensable convenience. On this the packer dumps out the fruit,

which rolls down toward the opening. All apples which are well colored, well formed and of good size, are selected out and packed in new, twelve quart handle baskets. These are stamped choice fruit from ———, with xxx's to indicate the grade, while the No. 2 grade are run out into barrels. Fig. 823 gives us a view in the packing house, showing a number of baskets packed and

ready for shipment, and some of the barrels of second grade fruit. The third grade is thrown out for feeding or for making cider.

One packer is needed for every two pickers, that is if careful grading is to be done, and the whole crop must be handled before the variety becomes over ripe and mealy. Our plan is to go over the trees once or twice a week gathering the apples just as they attain full color. In this way the harvesting of the crop may be made to extend over a period of about two weeks, or more.

This method of handling such fruit pays, because when a buyer purchases a package of extras and finds it turn out through and through to his satisfaction, he will come back again and buy more freely.

The plate of Astrachans given in Fig. 822, will give a correct idea of the form and beauty of the apple,



FIG. 820.—BOUGH OF ASTRACHAN,  
FROM PHOTOGRAPH.

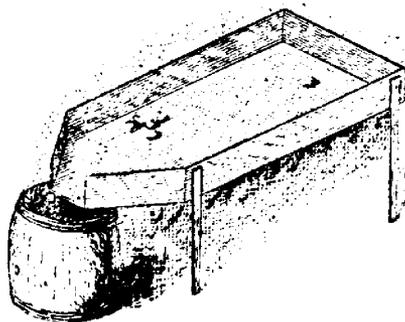


FIG. 821.—PACKING TABLE.

providing the reader can imagine the color of the skin to be a rich crimson. When thus highly colored, what apple could be prettier for the dessert table than the Astrachan, even though the quality is inferior to some other varieties.

This season this apple has sold well in Canadian markets, owing to the shortage caused by the late frosts.

The basket used is a very neat one, with board ends, on which is stamped the name of the grower and the grade of the fruit. The quantity contained is about a peck and a half, and when only the most fancy fruit is thus packed, they will always sell. The ventilated barrel is used for ordinary grades of summer apples, and two or three of these are shown in the back ground in Fig. 823.



FIG. 822.—PLATE OF ASTRACHANS.

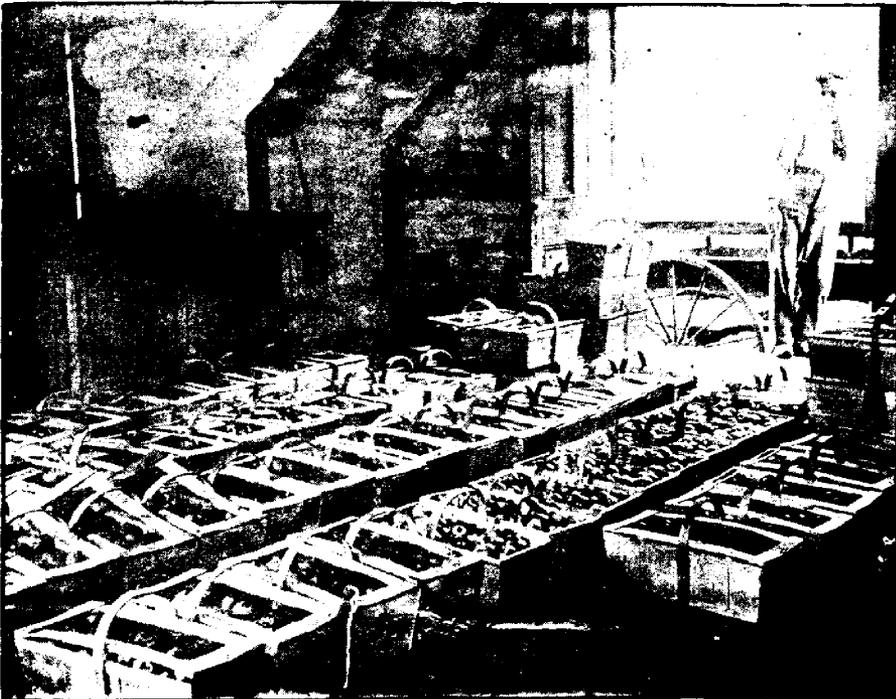


FIG. 823.—PACKAGES OF ASTRACHANS FOR SHIPMENT.

## POSSIBILITIES OF GRAPES.



**GRAPES CANNED WHOLE.**—Heat cans very hot, fill them with stemmed grapes, cover with boiling water, seal and let stand ten minutes. Pour off the water, cover with thin boiling syrup and seal.

*Grapes Canned Cold.*—Boil water and hermetically seal till cold. Make ready a quantity of grapes cut from whole bunches in clusters of three or four. Let no grape be loosened from its stem,

also remove all stems from which the fruit has fallen. Fill cans with these clusters, then cover to the brim with water immediately after the can containing it is opened; seal at once. Another method is to fill cans with grapes prepared in the same way, under water. Drop them in carefully till the grapes have displaced the water and filled the can, then screw on the cover under water. One or two clusters as large as will go in the can without bruising may be put up in this way, and look beautiful. The success of this method depends upon the certainty that no individual grape is loosened from its stem.

*Ripe Grape Jelly*—Heat stemmed grapes slowly, breaking a small quantity to start the juice. Put a few at a time in cheesecloth and express the juice with lard squeezers if you have them. Quarter and core, but do not pare, juicy tart apples. Cook and press out the juice. Add one-third apple juice (or less) to the grape juice. If part apple juice is used grape jelly will not form crystals and there is no perceptible change in flavor. Boil two quarts only of this mixture at a time. Twenty minutes from the time it begins to boil add gradually eight teacupfuls of granulated sugar which was heating in a very hot oven while the juice was boiling. Boil five minutes, then pour into jelly cups set on a towel wrung from cold or warm water. Cover when cold with butter paper.

*Grape Butter.*—For nine pounds of grape pulp, after taking out the seeds and stems by pressing through a colander, use six pounds of sweet apples and three pounds of sugar. Steam the pared and cored apples till sufficiently soft to press easily through a colander, then cook with the grapes twenty minutes, add the sugar and boil fifteen minutes, or until of the consistency of fruit butters.

*Pickled Grapes.*—Fill a stone jar with alternate layers of white sugar and clusters of ripe, freshly-picked grapes, using sugar freely. Fill the jar one-third full of cold cider vinegar. As the grapes settle put on a plate and weight, but do not press sufficiently to bruise the grapes or loosen them from the stems. In a week or two add sweetened vinegar if necessary to cover. Keep tightly covered and let stand two months before using.

*Grape Jam.*—Stew the grapes until they are tender, then rub them through a colander. For every four teacupfuls of pulp use three teacupfuls of good brown sugar. Boil till when a little is poured on a plate, no moisture gathers about the edge and it looks dry and glistening. All jam and fruit butter must be stirred very often, as they scorch easily.

*Grape Preserves.*—Place the skins and pulp of grapes (after removing the seeds) in a kettle, and cook with a little water till tender, then add sugar pound for pound and keep just at scalding heat for fifteen minutes. If allowed to boil the skins will become tough. Seal hot in pint or quart cans. The kettle should be covered while the skins and pulp are cooking.

*Grape Sauce.*—Ripe, freshly gathered grapes make a very delicate table sauce by removing the skins and sprinkling the pulp liberally with powdered sugar.

*Sacramental Wine.*—Cook stemmed grapes with a very little water till the seeds separate. Press through a thick cloth, then for every ten pounds add three pounds of granulated sugar. Heat till it boils, bottle and seal. This quantity makes one gallon.

Grapes for long keeping should not be over-ripe. Let them lie in baskets undisturbed two or three days. Remove with a pair of scissors all green or imperfect grapes and any that are in the least loosened from the stems. Line the bottom and sides of paper and shallow wooden boxes with any paper except newspaper; put in loosely a layer of grapes, cover with paper, then a layer of grapes, till the box is full. Cover and keep in a moderately dry place till there is no danger of frost.

Most cellars are too damp to store grapes. If kept too dry the grapes will shrivel. Examine occasionally and remove all imperfect or decayed grapes. I have kept them in this way till April, placing them in a cold room and covering with blankets in freezing weather.—American Agriculturist.

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**Fruits in New York in early June.**—Large and bright purple-black cherries, from California, cost at retail twenty-five cents a pound, while immense cherries known as Centennial, almost equal in size to the apricots now coming from that State, cost forty cents. This showy variety is a California seedling fruited for the first time in 1876. It is of an amber color, freely splashed with dark crimson. Its meaty flesh is remarkably sweet, and of excellent flavor, and while the fruit is juicy it has the good market qualities of keeping well, and of carrying in good order. The best of several small lots of cherries from North Carolina compare unfavorably with those from California, the highest price for these being twenty cents a pound. California peaches have already been seen here in small advance lots, a box containing eighty fruits selling for \$4 at wholesale. Huckleberries from North Carolina are quite plentiful, and of fair quality for the time of the year; the best bring twenty-five cents a quart. A few native plums and some peaches came from Georgia last week, but were not sufficiently ripe to bring good prices. Musk melons are coming from Florida, but very few of them are of the best quality. Except occasional lots of Russets from the interior of New York State, no more apples are likely to arrive. The barrel stock on hand is being divided into baskets holding something more than half a bushel. Ben Davis is the latest red apple offered.—Garden and Forest.

## PACKING AND SHIPPING FRUIT.



**RAPES** should be picked carefully, and then allowed to stand three or four days to wilt before shipping. When packing, handle the bunches by the stem, and do not touch the grapes themselves, as that injures the bloom, which every care should be taken to preserve. All green, imperfect, or bruised fruit should be removed with the sharp pointed grape scissors. Lay the clusters in so as to

fill the baskets just level; then weigh and mark the weight on the handle of each basket. A uniform weight should be maintained for similar sized baskets. The two best kinds of baskets for shipping grapes are the ten pound and the twenty pound, or sixteen quart. Use the large size for the general crop and common variety, the small for choice and early varieties, or for local market. Some basket factories turn out still smaller sizes, with wire handles, holding from two to five pounds; these will be found excellent for those selling on an open market, as they are no great weight for purchasers to carry, and look attractive when filled with choice grapes. Never ship unripe grapes; it is, alas! a far too common practice; but nothing injures the grape market so much and so permanently.

*Pears.*—In picking, avoid bruises, and do not separate from the stem, which is considered an ornamental feature. Do not let them hang too long upon the tree. All early kinds will sell much better if picked after they have attained their full size, and yet before they are ripe, and allowed to ripen gradually in a cool place. If intended to be placed in an artificial cooler, they should be picked as soon as they will readily come off the tree. Cull out small and imperfect fruit at once, pack in barrels and sell as such; if sold early they will generally fetch enough to give a profit, but usually there is little demand for such after September. The choicest specimens should be shipped in twelve quart baskets, or in bushel boxes; the rest of the crop, especially if pears be plentiful, is best marketed in barrels or half-barrels.

*Apples.*—The packing and shipping of apples, more especially if intended for the Old Country, demands a great deal of care and trouble, and involves some considerable amount of risk. Those who do not wish to take the proper amount of care, etc., had better sell at home for a certain fixed price. Summer apples are usually sold at home in the local markets; the choicest specimens can be sent in twelve quart baskets, the rest in barrels and half-barrels. The same applies to most of the early fall varieties, which are usually too soft to stand the voyage across the ocean. The late fall varieties should be shipped early, then follow with early winter, then medium, and then late keeping, finishing up with the longest keepers in the spring. As a rule, winter apples are allowed to hang too long upon the trees. About the 20th of September is quite

late enough to begin picking the earlier winter varieties, such as Kings, Cranberry Pippins, Greenings, etc. Pick very carefully, handling the fruit as though they were eggs; there is far too much rough tumble work done amongst apples. There are two ways of packing the crop—either pick and pack right in the orchard, or pick, place in barrels or bushel crates, draw into a store-house and pack at leisure. The writer prefers the latter system, unless the apples are to be sold immediately, or are all hard, late keeping varieties. In either case, to pack properly, a movable sorting table is required. It should be about the following dimensions, viz., seven to nine feet long, three and a-half to four feet wide, with a rim all round it five to six inches high; the legs at one end should be three or four inches longer than at the other, so as to allow the apples to roll down towards the sorter: wheels can be attached to the legs if used in the orchard. Three ordinary grades of apples should be made: No. 1, all first-class perfect apples; No. 2, good cooking apples, but imperfect; No. 3, apples for cider or stock. Besides this, a fourth grade should be made of choice varieties, such as Blenheim Pippins, Kings, Spys, etc., containing the choicest highly-colored specimens; these, if carefully packed in half-barrels, will usually command a high price in the Old Country. Grade very carefully and honestly, and let each brand be exactly what it professes to be. In packing, use a lever or screw press; the former will, I think, give more satisfaction and is more generally used. Stand the barrel on a block or plank, so that the ends of the press can get easily under it; lay the first layer in by hand, afterwards empty gently from a basket, and as each basket is emptied in give the barrel a shake; heap the barrel slightly and press down till it is perfectly tight; then nail the hoops, fasten in the head securely, and brand the variety, quality, shipper's name, and the address of the consignee upon the head distinctly. Ship as soon as possible after packing, unless intended for storing. As a rule, in shipping to the Old Country it is a mistake to ship on consignment, except to one of the large distributing centres, such as London, Liverpool or Glasgow; and when shipping to London it is advisable to ship *via* Liverpool, as, if sent direct, the fruit is apt to be tampered with on its way up the Thames and at the London docks. The commission houses on the other side are not very satisfactory, but some are better than others, and it is advisable for beginners before shipping to obtain advice from an experienced hand, as to whom to send their fruit to, as otherwise the result may be disappointment. In conclusion, the writer would say, that if sufficient care and trouble be taken, the results of sending apples to the Old Country are fairly remunerative, taking good and bad seasons together.—F. S. H. PATTISON, Grimsby, in *Farmers' Advocate*.

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**Mills' Peach.**—According to the *Leamington Post*, Mr. George H. Mills, of that town, has raised three seedling peaches of great promise, all ripening the first week in August.

## PEAR CULTURE.



S the pear is a very profitable and delicious fruit, when it is profitably grown, it should give most desirable results.

*The Soil.*—Pears may be grown profitably both on light and heavy soils. A rich soil and good culture is essential to success in pear growing. The best fertilizers for the pear are ashes, bone dust, potash, etc. Stable manure may be used moderately, but excess tends to produce black-heart in the wood.

*Pruning.*—The dwarf varieties should be pruned more severely than the standards. To attain the pyramidal form in the dwarf, after the first season's growth shorten the main stem or leader, so as to encourage a stronger growth in the lower branches. After the second season shorten the leader again, and also cut back the lower or side shoots to give the tree the proper form. The young growth should be nipped off from the side shoots in order to form fruit spurs for the next season. One of the new shoots should be left as a leader to each parent shoot. Standards will require some pruning to develop symmetrically, and if they are tardy bearers they should be freely pruned. Feeble growers in poor soils need little pruning. All *ingrowing* branches should be entirely removed.

*Varieties.*—About three thousand sorts are known, yet not more than twenty-five or thirty are valuable for general cultivation. An American fruit-grower after testing three hundred sorts, recommends the following for general culture:—Bloodgood, Clapp's Favorite, Julienne, Bartlett, Seckel, Shelden, Lawrence, Buffum, Beurre Bosc, Belle Lucrative, St. Michael's Archangel, Beurre Clairgeau, Rutter, Beurre D'Anjou, Doyenne Boussock, Duchess, Urbaniste.

*Grafting.*—Early in the spring is the best time, when the buds begin to swell. The scions should be cut a few weeks before being used, and placed in cool, moist sand. Cleft grafting is more suitable for large stock, and whip grafting for small. In cleft grafting the stalk should be cut off square and smooth, and then divided in the centre by a sharp steel wedge. The graft should be cut in the shape of a wedge, and inserted till it fills the cleft made by the wedge. The line of division between the bark and wood of the graft should coincide exactly with that of the stock. Whip grafting is done by cutting both scion and stock diagonally, so that the parts coming together shall fit exactly.

Three parts of resin, two parts of tallow, and three parts of beeswax make a good grafting wax.

*Tiverton.*

A. H. CAMERON.

## THE ENGLISH AND AMERICAN APPLE MARKETS.



PERHAPS it is fortunate that the full apple crop in Great Britain should come just when our American crop is light. From all appearances it will be late in the season before Canadian apples will be wanted in England at all, and in the meantime we will be finding other markets nearer home. Chicago wants our Canadian apples. The Americans saw our fine exhibit at the World's Fair, then they opened their eyes, and now they will open their purses, for our best fruit. Fine Canadian Spys are the favorite apples in Chicago, and buyers from that city compete strongly with English buyers for our apples. No doubt the former will bid strongly for Canadian apples this year, because many of the States west of us have a very short crop.

Another point in our favor this season, is the exceptionally fine appearance of our fruit. There is always room in every market for high grades of fruit at paying prices, and no doubt Great Britain will want our fancy grades, even if there is a good home crop there.

Mr. J. Thomas, of London, England, writes as follows: Being now in possession of ample information regarding the condition and prospects of our own apple crop, as well as that on the Continent, I have pleasure in submitting the following summary for the perusal of intending shippers from American and Canadian ports.

Our home growers are almost unanimous in reporting exceptionally fine weather during time of blossoming of fruit trees, which commenced early in the season; but during the period of setting, some injury has occurred from frosts and east winds. Subsequent bright summer weather has, however, tended to strengthen the growth of all fruit.

In some districts there has been a continuous drought for several weeks, with the result that a great portion of the fruit has fallen off; this condition is, however, mainly confined to the immediate vicinity around London.

Taking the whole of the principal apple-growing districts, the result may be summarized as follows:—

- (1) That the estimated yield of apples will be nearly double that of last year.
- (2) That the condition of the fruit is very good in size and color.
- (3) That there will be a fair average yield of late sorts, showing a healthy appearance, and likely to ripen well.

Advices from France, Belgium, Holland and Germany, are almost unanimous in reporting a large yield of apples. Pears, however (I may add for those interested in this fruit), are reported as exceptionally light, both on the Continent and in Great Britain.

From the above reports it is evident that, provided the weather continues favorable, our markets will be fairly well supplied with apples; and arrivals from your side may only be expected to meet with some demand from November

month, that is for choice large kinds of apples. Inferior sorts and small kinds will not be required for the London markets.

Messrs. L. H. Williams & Co., of Liverpool, write : On reliable reports from all parts of the United Kingdom, and from orchard districts on the Continent, we learn the apple crop on this side of the Atlantic is heavy ; hence, until well on into the season, only moderate supplies will be required from your side, and those must be of fine quality, as the Home stocks will supply our markets liberally with fruit equal to your second grades.

We strongly recommend your closest attention to the quality of fruit shipped.

Messrs. Woodall & Co., of Liverpool, write : The past season, as shown below, was one of large imports from both America and Canada, and during the month of November arrivals into Liverpool were 290,000 barrels, which exceeded any previous import ; the next largest being in November, 1891, when 250,000 barrels were landed in this port. On both these occasions it was feared the large quantity would cause a collapse in prices, but the exact reverse was experienced, especially during last November, when there was a brisk demand throughout, at what must have been satisfactory prices to shippers. The quality of the fruit varied : from New York and Boston it was undoubtedly good ; from Canada generally medium to poor, with occasional bright exceptions ; while Main fruit was nearly all small and disappointing. Altogether the season may be considered to have been satisfactory, although towards the close there were some disappointing results, caused entirely by the inferior quality and poor condition.

The position for the coming season is not so promising as last, and in all probability there will be sufficient home-grown fruit to supply requirements until the middle of October. This decidedly means that none of the early varieties of American and Canadian apples can be shipped to advantage. After this there is a fair prospect for good winter stock, especially Baldwins and other red varieties, as it must be remembered that American and Canadian are superior to any other.

Messrs. Frank Rand & Co., Liverpool write : Throughout the different fruit growing districts of this country, up to the present the reports are to the same effect, and that is, that we shall have a very large crop of every variety of apples. From the Continent the news is to the same effect—Holland, Belgium, Germany, and France, all having good crops this year. It is too early at present to say whether we shall require any of your apples for some months to come, but our impression is, that American, Canadian and Nova Scotian apples will not be wanted here in any quantity before December next, when no doubt some good colored fruit would sell at remunerative prices. Respecting winter apples we think these as usual will do well, as the English crop is finished, or nearly so, before your winter apples arrive.

Consignments of the autumn or early winter fruit must be of the very best quality, and only best colored apples will be wanted ; and any quantity of ordinary fruit would be sure to meet a bad market for some months to come.

## APPLE GATHERERS.



NOTICE the apple gatherer illustrated in the Rural New Yorker of September 1st, with "patent applied for." In 1876, we had a large lot of apples to gather on our fruit farm near Cynthiana, Ky. The apples were fine, the price low and the help scarce. So we, from necessity, had to draw on our wits for help. On the place was a low-wheeled feed wagon with a bed 18 feet long, very wide, with sides flaring out. On this we constructed a light, strong frame with top rails 18 feet long, nine feet wide, and when on the wagon, about five feet high. We made a strong canvas cover and tucked it securely all around on the top rail, cut a slit in the centre the long way, except about two feet at each end, bound a twine on this edge, and about every three feet tied the two edges together with a bit of twine. One man at each end could set the frame, canvas and all, on the wagon or off on a set of trestles.

With this equipage, one man drove a strong, gentle team along the rows on one side, stopping as close as possible to the tree; a boy in the tree shook half the apples into the canvas, and of course they ran to the centre and through the slits into the wagon bed. The man meanwhile picked a few from the lower limbs, picked up some good ones that fell overboard, while another boy stretched out his limbs, helped a little, and scrambled into the next tree in time for the on-coming wagon. The wagon was driven up one side of the row and back on the other side, with the result that one man and two boys gathered four loads of 50 bushels each per day, hauling them a quarter of a mile, sorted them and put them away, part for keeping and part for the cider mill. I never saw apples come in in better condition, or keep better. We used that device for a number of years, and hundred of persons saw us at work with it.

About ten years ago we let our wagon go down, but bought at Cincinnati for \$18 a circus tent about thirty feet in diameter. We used the body of the tent to patch a tarred roof on a tobacco barn, but inverted the top, cut it from the center to the circumference on one side, fixed a twine on each side at the centre and circumference, and tied the centre around the tree. We cut poles about eight feet long, and sharpened them at one end, so that the point would hold in the eyelet holes around the circumference, tied a small rope in the same eyelet, drew it back in a direct line over the pole from the tree and fastened it by a large spike driven in the ground. We cut a few slits two feet from the tree but outside of the circling rope, shook the apples, and found them in a pile ready for assorting and in fine condition.—J. A. MCKEE, in Rural New Yorker.

## SEEDLING PLUM.

Messrs. Allan Bros., of Winona, Ont., sent us, on the 8th of August, a new seedling plum, just about in season for use. The color is green, and the quality excellent. Should the plum prove valuable, it will be more fully described.

## COMPOSITION OF THE APPLE.



PROF. F. T. Shutt, Chemist of the Central Experimental Farm, Ottawa, has issued his report for 1894. In addition to other interesting points, he has given the chemical constituents of the apple. Taking an average of four varieties, viz.: Duchess, Wealthy, Fameuse and Spy, he gives the following result:—Water 86+, organic matter 12+, ash .28, nitrogen .0428.

In the same varieties, the average percentage of important constituents of the ash was:—Phosphoric acid 8+, potash 55+, soda 2+, oxide of iron 1+, lime 4+, magnesia 4+.

It is noticeable that potash is the chief component of the ash, being over half, and about six times the phosphoric acid; but in the apple leaves it is only double. The ash of the fruit is chiefly found in the seeds and walls of the ovary, comparatively little being found in the flesh. Evidently, therefore, the small apples extract as much fertility from the soil, and draw upon the strength of the tree about as much as the large ones.

For the supply of nitrogen, Prof. Shutt recommends barnyard manure, or the turning over of some leguminous crop, for in addition they furnish humus, which is of great mechanical benefit. Besides this, he considers that as the period of growth and fruit development in the apple is comparatively long, organic manures in most instances will probable give better returns than those containing more soluble forms of nitrogen, such as nitrate of soda, or sulphate of ammonia. For the potash, he commends wood ashes, which, in most parts of Canada, afford the cheapest form in which to purchase this constituent, besides being in a condition rendering it easily available. If wood ashes are not easily obtainable, kainit and muriate of potash may be substituted. For the phosphoric acid, bone meal and superphosphate may be used. Bone meal contains 2 or 3 per cent. of nitrogen, in addition to the phosphoric acid, but requires a great length of time in the ground to give up its constituents; its effects last longer. For this reason it is often advocated for orchard fertilization.

**Chrysanthemum Culture.**—It should be borne in mind, that though plants have to be pinched back a time or two to render the plants bushy, every successive crop of shoots will be weaker than their predecessors. If the pinching back is done after mid summer, only weak shoots are produced, and this means weak flowers. Another point to be cared for is to preserve the old leaves as long as possible. When the plant loses its leaves early, the flowers are liable to be particularly small.—Meehans' Monthly for June.

## AUSTRALIA AS AN APPLE MARKET FOR ONTARIO.



WE are in receipt of a very kind letter from Mr. J. S. Larke, Canadian Commissioner, who has oversight of the Commercial Agency of Canada at Sydney, N. S. W. Mr. Larke, as our readers will remember, was Executive Commissioner for Canada at the World's Fair in Chicago in 1893. His letter is in reply to an inquiry concerning the probable advantage to Canadian fruit growers of shipping their apples to Australia at that season of the year when the Australian markets are bare of native apples, namely, during the months of Octo-

ber, November and December.

On page 144 of the CANADIAN HORTICULTURIST for 1894, will be found some information given us by Mr. Olds, the General Traffic Manager of the C. P. R., in which he offered to forward Canadian apples from Toronto to Sydney at \$1.50 per 100 lbs. At that time the steamers were leaving Vancouver on the 16th of each month. The time required for the sail to Sydney was about twenty days, and Vancouver is about sixteen days from Toronto, so that we might count that our fruit would reach Sydney in a little over the month from the time it leaves Ontario. Winter apples wrapped in tissue paper and carefully packed in boxes should carry in good condition for that length of time.

Mr. Larke's letter is full of useful information, and we need make no apology for giving a large extract from it, as follows :—

“In regard to the shipment of fruit here, the result would be very problematical. They do not use apples in this country as we do in Canada, mainly because of the expense, and on account of the cheapness of meat, leading to a much larger use of it than with us. This is the apple season of this country, the fruit being brought from Tasmania. I yesterday bought a case of cooking apples, hard and green. These cases contain, nominally, 40 lbs. of apples, generally less. Yesterday, the case I bought cost six shillings and sixpence, delivered at the house, and these were bought from a wholesale house. This is nearly \$2.50 per bushel. The market prices, I observe, are somewhat less than the above, but I have never succeeded in buying at the market prices, and presume that they are the prices paid by the wholesale dealer.

“The cost of handling fruit and most other things is very high. A gentleman told me that he has hundreds of cases of oranges rotting under the trees. He says he cannot realize one shilling a case in Sydney, while the consumer has to pay five shillings or more, for the same fruit, if his statement is correct. As a consequence, the fruit growers complain a good deal. The grower of the Tasmanian fruit sometimes realizes fair prices and counts himself well off when he secures three shillings and sixpence per case at Hobart. He expends out of this the cost of making the case, which is an item, as lumber is costly; teaming it to his nearest river port and freight to Hobart, and usually threepence as

cash commission. He cannot always get that, and I am told that there will be thousands of cases of apples that will be left to rot in the orchards through failure to get a profitable market. These apples will soon be out of season, and apples shipped from Ontario in November would reach here when the market would be bare of Australian fruit. They would, however, have to meet the competition from California. Last year nearly three thousand cases were sold from that country. The prices realized would run from eleven to fifteen shillings per bushel. This price is too high for a large consumption. There is at present a duty of one shilling per bushel, which will, perhaps, be removed upon the first of January next, although this is exceedingly doubtful. I cannot tell you what you would be able to lay down a car of apples from Grimsby to Sydney. You will be able to ascertain this from a C. P. R. agent, who would perhaps give you a low rate on a trial shipment. In competing with California, you would be competing with apples with no overland freight of any extent to pay; but I think a shipment of such apples as the Northern Spy would bring a higher price than the California product. There is little doubt that they would stand the journey and reach here in good condition. I think, however, I would ship them in cases containing a bushel each. Barrels are expensive for shipping by water, as six of them make a ton of forty cubic feet. If you care to make a shipment in October, to catch the steamer leaving Vancouver November 16, I shall do the best that can be done with them as an experiment. I would recommend that they should be put into the auction room, unless I could get remunerative offers beforehand. This sale would attract attention and ascertain whether a high price could be obtained on account of the quality. Should you do this, I would recommend that a small lot be sent to me as samples by the October ship, and in this way I would submit them to fruit dealers, so that they would get a knowledge of the fruit that would come, and perhaps they could be sold before the shipment arrived. They should be insured, to cover value to the shipper and costs of freight. This insurance should cover risks of freezing overland and spoiling on route. I rather expect it would be difficult to get the Government to pay the expense of a shipment of this kind, as they do not appear to have too overflowing a treasury just now. My services will of course cost nothing.

"In addition to what I have stated, there would be some charges for cartage, dock charges, handling, etc.; but I think that if put up in bushel cases, as before mentioned, I might estimate the expense to be something like this: duty, 1/; handling, cartage, commission, etc., 1/; freight, 6/. If they could be sold at 12/ a bushel, this would leave a very narrow margin; if they could bring 15/, that would be very much better. If you could arrange for a portion of a cargo, I think it would be better than for a whole carload. It would also be advisable, if the experiment is decided upon, that I should be advised as early as possible, to prevent a larger quantity of California apples being ordered than might otherwise be the case. As a quantity of apples is pretty sure to be sent to British Columbia, a few cases might be sent here, as the steamer would take, I think, 100 cases at a very little higher rate than 1000."

## PREPARING PLUMS FOR MARKET.

In most cases experience has proven that plums, if shipped to market in ten-pound grape baskets, provided with handles, and put up in neat, presentable shape, will bring the producer a greater per cent. of profit than if shipped in half-bushel, or bushel crates, or packages. A careful picker can fill the basket direct from the tree; but the usual plan is to pick into large receptacles, then, carefully sorting the plums, to place them in packages ready for the market. This frequent handling removes a great deal of the bloom from the fruit, which removal should be avoided as much as possible. By the use of a single table, similar to the one shown in the engraving, from the American Agriculturist, plums and other similar fruits are easily sorted. The top of the table should not be over three feet long and two and one-half feet wide. The sides and back, r, r, r, may be eight inches wide at the back, tapering to three inches in front: the front guards, c, c, should be less than three inches high, leaving a

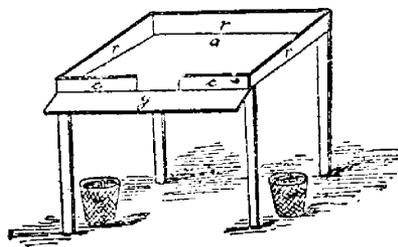


FIG. 824.—TABLE FOR ASSORTING PLUMS.

six-inch space between the inner ends; the slanting board, g, is six inches wide. To operate it, place the fruit carefully upon the table, the sorter occupying a chair in front of the table, with a basket on his lap. Both hands can then be used in removing the leaves, limbs, damaged or imperfect fruit, throwing the refuse into baskets, m, m, located upon the floor, at a convenient point upon each side. The perfect fruit or that

intended for shipping, is rolled in front, and passes over the incline, g, into the basket. This table need cost but little, and may be made in as crude or elaborate a form as wished. In working, the elbows can rest upon the guards, c, c, which will make the operation much easier. An ordinary table can be fitted with these simple appliances, and quickly removed after the shipping season is passed.

**The Apple as Medicine.**—Dr. G. R. Searles, of Brooklyn, N. Y., thus discourses on the apple as medicine: "The apple is such a common fruit that very few persons are familiar with its remarkably efficacious medicinal properties. Everybody ought to know that the very best thing they can do is to eat apples just before retiring for the night. Persons uninitiated in the mysteries of the fruit are liable to throw up their hands in horror at the visions of dyspepsia which such a suggestion may summon up; but no harm can come to even a delicate system by the eating of ripe and juicy apples just before going to bed. The apple is an excellent brain-food, because it has more phosphoric acid in easily-digestible shape than other fruits. It excites the action of the liver, promotes sound and healthy sleep, and thoroughly disinfects the mouth. This is not all. The apple helps the kidney secretions and prevents calculus growths while it obviates indigestion, and is one of the best preventives known of diseases of the throat. Everybody should be familiar with such knowledge."

## EXPERIMENTAL FRUIT SHIPMENTS.

Probably there is no department of our experimental work so important as are experiments in finding new foreign markets for our Ontario fruits. Year by year it is becoming more evident that, unless new outlets are found, the fruit-growing industry will gradually become less profitable to growers, and the prosperity of our province will therefore be less marked.

In response to a delegation from the Fruit Growers' Association who visited Ottawa asking for cold storage accommodation on steamers bound for Great Britain, the Department of Agriculture has sent us the following message:— "Government will provide cold storage chamber on steamers for two trial shipments of fruit on the date which shippers may select." A letter from Mr. H. B. Small, the Secretary, further explains that there must be not less than one carload in each shipment, nor more than two carloads, and that the temperature on board the steamers can be held at from 32° to 40° Fahr. Shippers will be charged the usual freight charges of 20/ per ton of seventy-five cubic feet actually occupied from Montreal to the port in Great Britain. The steamers which are fitted up with cold storage accommodation go to Bristol, Liverpool and Glasgow. Shipments to London can be made via Bristol at the rate of 35 per ton of seventy-five cubic feet from Montreal. Railway cars go alongside of steamers at Avonmouth, so that no cartage is required, as is the case at Liverpool on goods for London.

Mr. John Craig, horticulturist at the Central Experimental Farm, Ottawa, is to act in conjunction with the Fruit Growers' Association to arrange for the preparation of the lots to be shipped. The fruits are to be sent forward at the risk of the shippers and sold on their account by such persons as they may direct. The Fruit Growers' Association is asked to appoint a committee to collect or arrange for the preparation of the shipments, to be made up of such sorts and varieties of fruits as would likely meet a good market and lead to the development of trade in them. Any shippers in Ontario who desire to join in this experiment will please correspond with Mr. A. H. Pettit or with Mr. John Craig.

It is probable that the Board of Control of the experiment stations of Ontario will send forward a trial shipment made up of the various fruits grown in Ontario, more especially the tender fruits which are likely to do well in the British markets. Tomatoes, peaches, grapes and pears are among the fruits with which it will be well to experiment. These fruits need to be wrapped in tissue paper and firmly packed in small packages. Any fruits which are to be shipped through by our Board of experiment stations will be consigned to Mr. Byrne, the Ontario Government agent at Liverpool.

WINTER FLOWERING BULBS.



THE time is at hand for arranging winter and spring gardens. Nothing is more pleasing than a few choice plants in the window, and among all the many beautiful flowers none are easier of culture than the winter flowering bulbs. Before saying more about winter flowers let us notice those that require immediate attention for next spring and summer bloom. Lilies are extremely pleasing. One variety in particular should have attention at once if it is to flower in the garden next June—*Lilium candidum*. This lily makes its

growth in early fall and should not be planted out later than October 1. Earlier planting is better. It must get its growth in the fall in order to flower the following spring.

The best lily bed I ever had was made by throwing out all of the soil to a depth of 18 inches. The bottom of this bed was a little higher in the centre. The first eight inches was extra rich soil made by mixing good loam and old cow manure thoroughly rotted. Then came a layer of two inches of sand. On this were set the bulbs about nine inches apart each way. Sharp sand was used to cover these bulbs, and above this I put more good rich loam. This left the crown of the bulbs about six inches or a little more under the surface. This distance apart would be a little close for the large growing sorts, but for the smaller kinds it will be about the thing. All lilies are better if a foot of leaves or rubbish is raked over them about December, as hard freezing will injure some varieties.

Crocuses also should be planted in September. Dealers will tell you they can be planted at any time. So they can, but they may never flower if planted too late. They must get a root-hold before the ground freezes, so get them in before October. A few crocuses in the lawn look very pretty in early spring. With a sharp knife cut the turf in the form of a triangle, making a hole large enough to put the crocus bulb into. Loosen the soil a little, then place the little bulb in, so it will be about two inches under the surface. Now place the turf back, pounding it firmly in place. The sod will not know it was ever disturbed, and the little plant will find its way through at the proper time.

Snowdrops may be planted the same way. The lawn mower will not be wanted in the spring until after these early messengers are through blooming. A few other bulbs that are in the market early should be started in pots for the house. Roman hyacinths, freesias, narcissus (polyanthus type and Van Sion), allium (not of much account), jonquils, anemones and oxalis, all should be pot-

ted in good garden soil and allowed to remain in the dark for six weeks or until the pots are well filled with roots. If convenient there is no better way than to set the pots on boards and cover all with sand deep enough to have the sand six inches over the pots. A good potting soil is composed of five parts turfy loam, two parts good rotted cow manure or sheep manure, two parts rotted leafy soil and one part sand. This makes an ideal potting soil for bulbs

Put three Roman hyacinths in a five inch pot or five bulbs in a 7 inch pot. Fill the pot full of soil, press the bulbs down so the soil just covers them, then shake the pot so as to settle the soil enough to leave room for watering—about half an inch. Freesias may be planted in the same way; six or eight bulbs can be set in a five inch pot, while a seven inch pot will hold a dozen. Narcissus being a larger bulb and having more top requires more space. For N. Van Sion, one bulb to a four inch pot or three to a five inch pot. Paper White about the same. Jonquils can be set thicker; a six inch pot will hold a dozen. This covers the bulbs that requires prompt attention to have early blooms. Many of them can be had in flower at Christmas.—W. F. GALE, in *Farm and Home*.

### A FRUIT BARROW.

The ordinary wheelbarrow is unsuited for wheeling baskets and boxes of fruit, such as plums, grapes, strawberries, etc., because of the slope of the bed. The accompanying illustration shows a fruit barrow that is free from

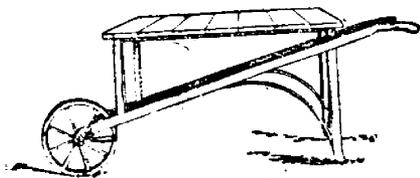


FIG 827.—A FRUIT BARROW.

this objection, and one that will be found equally convenient in wheeling other articles that must be kept quite horizontal to avoid spilling. It can easily be made if one buys one of the light iron wheels that are now sold at hardware stores for just such uses as this.—*American Gardening*.

**Our Freesias** had been kept dust dry in their pots all summer, and on a wet day some weeks ago we had them all turned out and the bulbs picked up into boxes. We are now potting off a lot of them for early blooming. We will keep over about two-thirds of the biggest bulbs to be potted up later on. The small and medium sized bulbs if required should all be potted or boxed up at once, and allowed to start into growth early and have a long season, this is conducive to a considerable increase in their size. The pots now filled are set out on a bed of ashes beside the callas, and we shall let them stay there longer, for a few degrees of frost, if their pots are plunged in ashes, etc., won't hurt the tops.—*Gardening*.

## FALL WORK AMONG THE FLOWERS.



**GERANIUMS** intended for winter blooming may now be started. The shoots used for this purpose should have bloomed once to be sufficiently matured to insure freedom of growth and flowers immediately. Six inches or thereabouts is the best length for a cutting of this plant. No buds should be allowed to remain on cuttings when set, nor should they be allowed to bloom before November. By being thus kept back the plant will have acquired the needed strength for perfect and profuse blooming. Geraniums require very little water, and their tendencies to bloom are increased by excessively hot, dry weather; but little moisture should be allowed them, even when starting the cuttings, the least excess causing the black rot to destroy them.

Verbenas required for winter and early spring bloom must be potted now while the days are warm, so as to be thoroughly rooted before cool weather. Old stock verbenas should never be used for this purpose. It will be observed that this plant throws out many long runners which, during a damp season, take root at every joint touching the ground. The proper part for potting is the plant that is obtained by cutting off a runner just back of where it has taken root. The other or top end should be cut down to three or four inches. These plants may be set in separate pots or several in a large pot. Fuchsias may now be started with better success than during the warm months. Rose cuttings may be set, and roses that have ripened their wood should, if they require repotting or being removed from the open ground to pots, be changed before fall rains induce new growth and buds. All plants requiring removal will be found to endure the change much better if they are allowed to become very dry before they are disturbed; after potting, water thoroughly and shade for a few days. We frequently remove plants from pots where they have become very dry to the open ground or boxes, in the most sunny situations in mid-summer, without their showing the least sign of having been disturbed.

Chrysanthemums of the late blooming and tender varieties should now be potted and pruned to a neat form. The tall growing sorts should be topped down to about two and one-half feet. This will cause side branches to be thrown out, and give the plant a stocky, tree-like appearance. If when the buds begin to show two-thirds of them are pinched out, those remaining will make much finer flowers than if all are allowed to grow.

Dahlias should be pruned closely, and where more than one bud appears on the end of a shoot they should be taken off, as also all seed vessels except those required to be saved. The stalks of all gladioli and lilies that have done blooming should be broken off, as the production of seed impoverishes the bulbs, thus doing injury to future flowers. Balsams having the tip of each branch and the main stem broken out will continue to bloom till frost.—Mrs. J. T. P., in American Cultivator.

## FLOWERS AWAY FROM HOME.



WE are apt, as we wander along our roads and over our fields, to imagine that what we see, as representatives of plant life, are much the same wherever we go. It only requires a trip such as the writer lately made to learn how erroneous this idea is. While attending a summer school at Colorado College, located at the base of the Rocky Mountains, in the vicinity of the famous Manitou Springs and Pike's Peak, an excellent opportunity was afforded to study the marvellously varied and attractive flora of the district. We shall not attempt to write an extended article upon the flowers of Colorado, but simply direct attention to some of the most common and attractive, readily observed by any one, as he wanders in the vicinity of this beautiful place. You are 6,000 feet above sea level, in a region where rain is comparatively scarce; the air is very rarefied, but clear, dry and invigorating; your lungs will require to respire 700 times more in a day and your heart beat 8,500 times oftener daily than it does in the east. Places seven miles distant do not appear farther than a tenth of the distance.

With such conditions as an environment it is not a matter of surprise that the nature of the flowers should be so modified as to result in forms widely different from what we see in Ontario. One of the first plants to arrest your attention upon vacant lots is the "Soap Plant" or "Spanish Bayonet" (*Yucca*), a flower cultivated in Ontario with great care. It grows from 2 to 4 feet high, and bears beautiful blossoms all the way down the stalk. These are nearly as large as tulips, and much the same shape. Thus, here we find one of our most beautiful flowers a weed. The leaves are sword-shaped, sharp and stiff, and twelve to twenty inches long. The root is used by the Indians instead of soap, and hence the name soap plant.

Not common on the plains, but readily found on the mountains, is the beautiful Columbine (*Aquilegia Cerulea*), now regarded as the "State flower." No where does the Columbine grow so large and beautiful as here; the colors are so rich, lilac and pure white, while the flowers are four times as large as ours will form. In the "Garden of the gods" at the base of Pike's Peak we found the much sought for Mariposa lily (*Calochortus*). This is another choice flower of Colorado, with its delicate lavender color, touched with yellow or orange, brown and white. No more attractive object could be seen than these beautiful blossoms adorning some shady spot.

The Primrose is found in great variety, and decks the plains in every direction. The blossoms vary in size from a penny to three inches across. Many are white, but some are a beautiful pink. Wild roses grow in profusion, some of the most beautiful were found not far from where the Mariposa lily grew in the "Garden of the gods."

On every side is seen the White Mexican Poppy (*Argemone*). It covers the prairie, as you approach the mountains, and presents a beautiful appearance with its large white with yellow centre flowers.

All along the base of the mountains the Clematis decorates many a spot, at the side of paths along which you tread your way.

In some places the Prickly Pear cactus (*Opuntia*) is readily found, and in some the "Dwarf, or Cup cactus." Both bear beautiful flowers which from their low position present an attractive appearance to the patches of dry prairie where they are found.

Gilias of scarlet (sometimes forty blossoms on a stem), can be selected before you reach the spot where they grow, and beautiful gentians, in their rich purple hues, add their quota to the beauties of a natural flower bed, as it borders some mountain stream. A geranium much like our wild form but more highly colored is quite common. A near relative of our burrs and forget-me-nots, lungwort *Martensia*, occurs in several places. Near the mountains, especially at Denver, a very beautiful foliage plant is very common. Its leaves of green bordered with white, presents a peculiar appearance, on account of which it no doubt has been termed "Snow on the Mountain" (*Euphorbia marginata*).

The vacant lots in Denver are covered with a very beautiful flower common throughout Colorado, the Cleome. In bloom from August to September, and even later, its dense masses of purplish flowers are very pretty. Some claim that it is a good honey plant, supplying nectar at an opportune time. The reader will be inclined to ask "Are there no flowers in this El dorado described, akin to those in Canada?" We find a few, but as a general thing, they are of different species. Some vacant lots in Colorado Springs are covered with a sunflower about three feet high, the flowers of which is about three inches in diameter. Colorado College campus abounds with these. Other forms of yellow composites related to our ox-eye daisy are also common. In fact, travel where you will in the vicinity referred to in this article and you find yourself in a veritable flower garden. I should have mentioned among other forms the beautiful Prairie clover, white and purple varieties, *petalostemon*, and the spiderwort *Tradescantia Virginia* blooming in abundance, and adorning the wayside with its rich purple flowers.

If you climb Pike's Peak for nine miles up a grade of one foot in every five and a half feet, and in some places one in four, on the railway track which leads to the summit, as you leisurely tread your way, a new flora will pass in review before you; plants of Alpine variety appearing as you ascend, such as miniature campanulas, thistles, saxifrages, gentians and primroses. Even at the summit, 14,147 feet above sea level, far beyond the tree line and in regions of eternal snow, upon the fragments of granite, you find minute plants, blooming throughout the summer. At this altitude, the barometer rarely rises higher than 17 inches, and water boils at 186° F. All plant life is dwarfed, and forms of fair size at the base, are represented by exceedingly small types.

We have thus two distinct floras : the *Mountain*, Alpine in nature ; diminutive in size, rich in perfume and color ; the *Plain*, more varied in character and larger in size. Thus you find colors and flowers almost entirely different in species from those in Ontario, presenting great variety in size, form and beauty, and thoroughly impressing upon the mind of a visitor the wonderful influence environment has on plant life.

J. HOYES PANTON, M.A., F.G.S.

**Flowers for Invalids.**—In our endeavors to make our sick rooms as cheery and attractive as possible, we surely must not leave out the growing plants. The old erroneous idea that they were unhealthful in a sleeping-room appears to have faded into the background, much to the good fortune of the sick folks, whose eyes weary for the sight of something green and growing and alive. It is pleasant to watch the new leaves coming out, and the pleasure partakes of

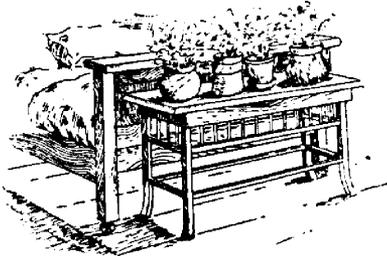


FIG. 826.

gentle excitement when a flower bud is discovered and watched to maturity. The whole room, too, is so much cosier and more home-like for the presence of a few plants in it. They may be scattered about the room, at the windows or on brackets, but a few, at least, should be close to the bed—real *neighbors* to the sick one. The illustration given here suggests a simple, oblong table to hold four or five pots of them. It is very easily manufactured at the home work-bench, and when filled with plants and set at the bed's foot, it cannot fail to give great pleasure and comfort. There should be no ugly pots and jars upon it, but a few choice flowers in choice dishes. Artistic pots are as much a part of the kindly little scheme as the dainty posies themselves.—American Gardening.

**Bulbs.**—If you haven't already ordered your bulbs, do so at once. Don't wait for the new fall catalogues, bulbs are the same year after year, with a few insignificant changes for variety's sake. Order from the old catalogues. It is time you had the Bermuda *Harrisii* lilies you want in bloom before Christmas potted ; for later they will do any time before September, and for Easter any time before the end of October. But there is nothing gained by keeping lily bulbs out of the ground a long time. Roman hyacinths and paper white narcissus for early flowers should also be potted at once. Pot or box up some early trumpet narcissi too. All bulbs should be started cool and slowly, so as to induce them to make good roots before their leaves appear above ground ; hurrying them up is apt to throw them blind.—Gardening.

## BEGIN ON THE LAWN NOW.

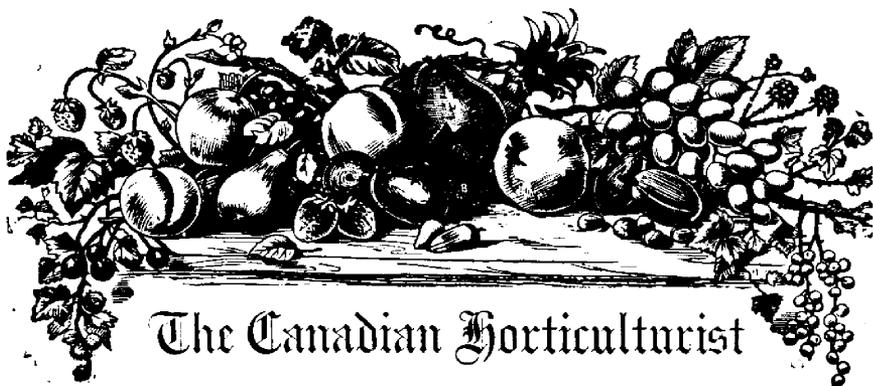


HE month of September is the best time for seeding new grounds, and all preparatory work on them should be completed this month. It ought to be kept in mind in making this preparation that it can be done but once, and it is for a long time; therefore it should be thorough. Deep plowing or spading is a necessity for a good growth of grass. If the ground is wet or springy it must first be underdrained.

The final work is to pulverize the surface soil to the last degree; it is not possible to make it too fine and mellow for the reception of the seed. If stable manure is ploughed in, it must be old and well rotted, otherwise the crop of weeds will be too great. In place of stable manure use at the rate of 300, 400, or 500 pounds to the acre of some good commercial fertilizer. When the grass starts, whatever manure or fertilizer may have been used, there will also appear more or less weeds; many of these will be killed by frost later, but others will come again in the spring, for the seeds are in the ground and must germinate. Do not be surprised, therefore, to see them, but one need not be alarmed, for most of them will soon perish after cutting commences, or at latest by next autumn. Some kinds, however, should be removed in the early spring if they appear, especially dandelion and plantain.

In dragging and fining the surface soil see that all little depressions are worked out and the whole left as it is desired to appear when in grass. Use plenty of seed. It is poor economy to be stingy in seeding grass. The thicker it comes up the better the lawn, while if the seeding is sparse it often takes two or three years to remedy it. Choose a still day for seeding, when there is little or no wind, and scatter the seed as evenly as possible, and at the rate of at least four bushels to the acre. Afterwards rake over lightly, or if the surface is a large one, drag it with a light harrow or brush.—Landscape Architect.

**Begonias** love to be outside in summer providing they are shaded from sunshine, and are kept moist at the root and rather dry overhead, and by this time of year they are generally big, fat and flourishing. But very soon we are likely to have cool nights and occasional cold wet rains; begonias under such conditions are apt to lose their working roots by rot, then no matter how good looking the foliage may be it soon will suffer, and the plants assume a sorry plight. This teaches us that they should be brought indoors early, say before the middle of September, and before any of these unfavorable conditions arrive. Window plants may be kept on the piazza over night and in stormy weather. Begonias that are planted out should be lifted and potted, kept sheltered in frames or a house, and shaded from sunshine, but not coddled at all. As a rule hereabout tuberous begonias have been less satisfactory out of doors than usual, but nothing is brighter as pot plants or planted out in frames, and covered with shaded sash tilted up day and night. Save seeds from the best varieties.—Gardening.



## 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 NOVA SCOTIA APPLE crop is a full one, according to the July Provincial Crops Report.

THE ROSE AND STRAWBERRY meeting of the Ottawa Horticultural Society, on the 27th of June, was a great success. Mr. McGrady, of Gatineau Point, Que., showed 170 varieties; and the Experimental Farm, 150 varieties. Prof. Saunders gave a very instructive address upon the rose. A silver cup was offered by Mr. Scrim for the best twelve gladioli, shown in August.

CHOICE GLADIOLI—A half bushel basket full of magnificent gladioli spikes came to hand on the 22nd instant from Mr. John Little, of Granton. What choice colors and what superb blooms! Mr. Little deserves a good name for his gladioli as well as for his strawberries. Grimsby Horticultural Society will hold their gladioli show on Sept. 17th. We want to hear from each Society after their flower meeting, with full particulars of the success of the new undertaking.

APPLES EXPORTED FROM CANADA TO GREAT BRITAIN.—The Report of the Department of Trade and Commerce for 1894 gives a comparative statement of exports to Great Britain during years 1890 to 1894, inclusive. The number of barrels of apples exported are given, and we quote them in round numbers, referring our readers to page 197 of the Report, for the more exact figures:—1890, 835,000 bbls.; 1891, 1,235,000 bbls.; 1892, 1,405,000 bbls.; 1893, 2,247,000 bbls.; 1894, 569,000 bbls.

CULTIVATION VS. MOISTURE.—Horticulturist Card, of Nebraska Station, urges frequent shallow cultivation as more effectual in conserving moisture in

the orchard and garden, during seasons of drouth, than irrigation as usually practicable. By such cultivation a mulch of loose mellow soil is provided. This is in accord with results this year secured at Maplehurst with the raspberry plantation. Our Cuthberts were never finer, both in size and quantity, and yet, until after the middle of July, scarce any rain had fallen all the spring. Others complain that their berries have dried up, but the constant cultivation ours have received, has yielded us a rich harvest.

FIGS FROM GODERICH.—We have just received from Mr. W. Warnock, a gardener at Goderich, samples of figs which he says he has grown and ripened in the open air. The bushes are kept in tubs and wintered in the cellar. He says he has ripened them perfectly for two seasons. When he brings them out in the spring, he sets them on the south side of a building and on cold nights covers them to protect them from the frost. The fruit ripens about the middle of August. Our seasons are of course too short to ripen a second crop.

CANADIAN BALDWINs.—It is an interesting point to notice that Canadian Baldwins hold the highest place of any of the same variety shipped to the Liverpool market. Messrs. Woodall & Co. have just sent us a diagram showing us the market prices of these apples from Maine, New York and Canada, for five years past, and those from Canada kept a constant average above the others. In March of last year they averaged 30 shillings a barrel, while the New York State ones only two averaged 26 shillings in the same month. The best prices during the past five years, were obtained for apples sold in Liverpool after January 1st, and the poorest prices in the months of October, November and December.

POINTS FOR APPLE EXPORTERS.—Sir Charles Tupper, whose report appears in connection with that of Trade and Commerce, gives some good hints for apple shippers, gathered from letters written him by English dealers. First, there is an unlimited demand and sale for good Canadian apples, during six months of the year. Consignments should be spread over six months, so as not to glut the markets during the few weeks following the apple harvest. Much of the fruit packed for export is not worth paying freight upon, and should be evaporated or otherwise used near home. The importance of the use of the standard size apple barrel, by all packers, is emphasized.

THE OPENING OF A CENTRAL FRUIT MARKET took place in Hamilton on Thursday afternoon, the 22nd instant. This is a most excellent movement, for what is needed is better distribution to make fruit growing a success. Toronto has long monopolized this work, but later, some enterprising shippers at Winona and Grimsby have entered into this business, and very much encouraged the fruit shipping business. Such names as E. D. Smith, and Thos. Carpenter, and Chas. Vanduzer, Grimsby, are well-known fruit buyers and shippers. Then the Niagara District Fruit Growers' Stock Co. has opened agencies in about two

dozen towns, and helped still farther the interests of fruit growing. Now comes this fruit market, so well situated at the terminus of the H. G. & B. electric road, receiving hourly consignments of freshly picked fruits from the Grimsby and Winona districts. We say success to every such enterprise which aids in the development of our chosen industry.

---

EXPERIMENTAL COLD STORAGE.—To make fruit growing yield the best returns, two conditions of handling the crop are needed, viz.: 1st, better distribution of it throughout all parts of our country, and, 2nd, some method of cold storage, in order to prolong the season of handling it. In the Report of the Horticulturist, Central Experimental Farm, 1894, Mr. Craig gives the results of some experimental work in this direction, as follows:—

1. Fruit for storage should be picked when fully grown, but before it has thoroughly matured.
2. Early pears, peaches and the larger varieties of plums should be wrapped separately in tissue paper.
3. Tight wooden boxes are the most satisfactory packages for storing and handling. When baskets are used, they should be provided with strong "veneer" covers.
4. Stone fruits, such as peaches and plums, under ordinary circumstances should not be held for a longer period than two or three weeks.
5. The marketing season for early pears and apples may be extended from thirty to sixty days, and under favorable circumstances, for a longer period.
6. The outcome of experiments with fall and early winter varieties of apples and pears, including samples of grapes, yet remains to be developed.

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PHYLLOCACTUS LATIFRONS.—(See p. 178.)—On Sunday evening, the 18th inst., Mrs. Adolphus Pettit, one of the directors of the Local Society, called us in to see one of these plants with three magnificent blossoms just out. They were from seven to nine inches in diameter, and as feathery as flakes of snow. We tried to get a good photograph, but failed for want of flash light. A writer in the Cactus Journal writes of this variety as follows:—This finest of all Phyllos., commonly known as "Queen Cactus," is one that even the person who professes to despise cacti, will at once fall in love with. It is the largest flowering of its species. One which my mother owns (and it is the only one, except *M. minima*, that she will have anything to do with), is grand. In spite of the fact that she has been pulling it to pieces in order to give "plant beggars" only one cutting, this plant in five years has attained the height of four feet, and is about forty inches broad. It wants a rich, porous soil, as it is a great feeder. In winter give as even a temperature as possible, and very little water. In spring before growing begins, give a top-dressing of fresh soil, put it in a light place, and water regularly when fresh growth begins. Cuttings of one year will

oftimes bloom the next. We have it to bloom as often as three times in a summer. And such blooms! They are much like the flower of the *Cereus grandiflorus*; it is also a night bloomer, and often called by mistake the "night-blooming" *Cereus*. It is one of the best plants for beginners, being of as easy culture as a geranium, and there is no reason why one should not succeed with it.

In Meehan's Monthly for August we read:—A great difference has to be made between "the night blooming *Cereus*" and the *night blooming Cactus*, as it is often called. The night blooming *Cereus* is *Cereus grandiflorus*, while the night blooming *Cactus* is *Phyllocactus latifrons*. The former has rope-like stems, covered with lines of small spines,—the latter has flat, frond-like stems. The latter is an interesting flower, but not nearly as interesting or rare as the former. We learn from a list published by Mrs. Theodosia B. Shepherd, of California, that the common name of the leafy form, or *Phyllocactus*, is "Queen *Cactus*," and if the botanical names are considered too difficult, and a common name desired, it would be much better to distinguish the two by adopting the California name.

## ❧ Question Drawer. ❧

### Swedish Box Thorn.

**751.** SIR,—Can you tell me through the columns of the CANADIAN HORTICULTURIST where the Swedish Box Thorn can be obtained in Canada or Britain?

CHAS. P. MORGAN, *Truro, N.S.*

(*Reply by Prof. Craig, of the Central Experimental Farm, Ottawa*)

Write to our Canadian nurseryman; also Wm. Fell & Son, Hexham, Northumberland, England.

### Destroying Ants.

**752.** SIR,—Can you give me any directions how ants may be quickly destroyed where they infest a lawn and cause the grass to have a withered appearance. If you know of any effectual remedy, I would be glad to learn what it is.

E. A. ARNAUD, *Annapolis, N.S.*

(*Reply by Prof. Craig.*)

Mr. Ellwanger, of Ellwanger & Barry, says, "Perforate the hills and pour in a solution of crude carbolic acid, composed of one pound of acid to two quarts of water; a gill of the liquid will suffice for an ant-hill." Tobacco insecticide soap is also efficacious. It is, moreover, excellent, when sufficiently diluted, for destroying ants where they have formed their hills in or about plants.

### Currants Dropping.

**753.** SIR,—Can you tell what makes the fruit of currant bushes drop off the strings, leaving only three or four berries to a string? CHAS. P. MORGAN, *Truro, N.S.*

(*Reply by Prof. Craig.*)

Try a dressing of an artificial fertilizer containing potash and phosphates

### Grafting Plums and Pears.

**754.** SIR,—Please explain how I can get stumps for grafting with plums and pears, and what is the best kind. When should the grafts be cut, and how should they be saved? How do you make grafting wax? R. C., *Orangeville.*

Seedling stocks for grafting on are either purchased at about one year old, or raised by sowing either plum pits or pear seeds, as the case may be. For whip grafting these are brought in-doors in the autumn, and kept in green sawdust in a cellar not too dry. For top grafting the young trees are usually allowed to grow up until they have a trunk one or two inches in diameter. The following, by Josiah Hoopes, is well to the point:

There is no mystery about this operation. The principal point to bear in mind is that all cions must be cut before the sap has commenced flowing. The stock of almost all trees is better for being in a growing state, that is, at a season when evidences of growth may be observed by the enlargement of the buds and a slight effusion of sap when a cut is made through the bark. Although sometimes successful, the operation ought never to be delayed until the stock is in full leaf. Experienced grafters will insert cions even if the bark should be somewhat shriveled, for, to use a popular saying, "they are hungry," but the fact is, that the circulation of the sap induces a granulation at once, and the union of the stock and graft is the quick result.

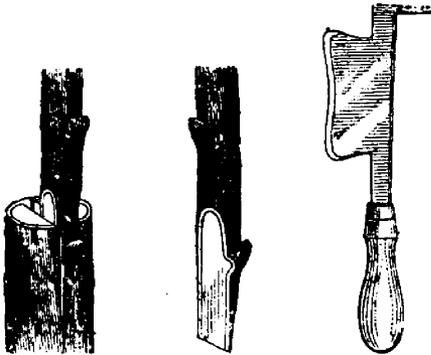


FIG. 827.—CLEFT GRAFTING.

Cleft or wedge grafting is useful on large subjects, as growing trees, say, from one-half to one and a half inches in diameter. This is one of the oldest and best methods, and consists in merely sawing off the stock, splitting it down a short distance and inserting a wedge-shaped cion in the cleft. Of course, this should be tied tightly and securely waxed to prevent the entrance of air and water. The cleft should not be too long or the sides will not clasp the graft tightly. It is desirable to have the bark of both stock and cion exactly corres-

pond to facilitate the union. On large limbs, after sawing off, the slitting process may be omitted, and in its place the bark is cut down, say from one to two inches. The cions should then be prepared with one sloping cut, making, in fact, a one-sided wedge, which should be inserted under the bark of the stock and then securely tied. Wax it carefully and rub off all suckers on the stock as soon as they appear. In the case of old trees it is best not to undertake the entire top in one season, but to let the change extend over two or three years. Should the grafts fail, a few strong shoots may be allowed to grow and budding be resorted to during the ensuing summer.

### A Fumigator.

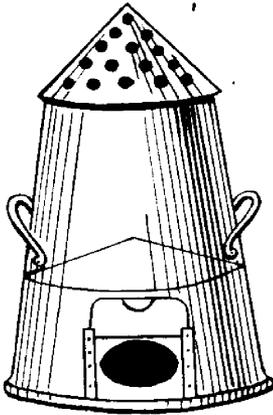


FIG. 823.—SMALL FUMIGATOR. the base.

**755.** SIR,—I wish to get directions for making a small fumigator, which some of your readers might be able to supply.

E. A. ARNAUD, *Annapolis, N. B.*

(Reply by Prof. Craig.)

I herewith enclose a rough sketch of the fumigator we are using in our greenhouse here. It is made of galvanized iron and is of the following dimensions: Height, 20 in.; diameter at top, 7 in. diameter at base, 10 in. The opening at the base is 4x2 in., and is closed by a sliding door. A cone-shaped lid, perforated with one-quarter inch holes, is attached by a hinge. A grating shaped and perforated like the lid is fixed inside the fumigator 9 inches from

### Apples for Southern Ontario.

**756.** SIR,—In planting an apple orchard of fifteen acres on good wheat clay for market and profit, about thirty miles south of Grimsby, near Lake Erie, what variety would you recommend as best, growth of tree, hardiness, productiveness and quality for market considered? What do you think of King, Northern Spy, Rhode Island Greening and American Russet for my situation? I intend planting peaches between rows. What do you think of Elberta? It is an early peach in the States; is it early, medium or late in my soil and situation? Please state other kinds you could recommend on my soil, including early, medium and late.

A. J. HAIST, *South Cayuga.*

The soil mentioned above is excellent for apples if well cultivated. The Spy and Greening are two excellent varieties, but the former will not yield much fruit until about fifteen years planted; the latter is an early bearer. The King is a poor bearer at any age, and scarcely pays for growing on this account. The American Golden Russet yields poorly, though much better than King. We would recommend Ontario instead of Spy, for it is as good and a much earlier

bearer, and add Cranberry Pippin to the list, a fine fancy winter apple. A few Wealthy would also add to the value of the collection. The Elberta is a fine yellow peach, coming in about the season of the E. Crawford, according to some of our southern peach growers. We have not any fruit from it yet at Maplehurst. Clay soil is not well adapted to the peach, so that the success of our correspondent with peach growing is quite doubtful.

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### Apples for Dufferin County.

**757.** SIR,—What are the best winter apples for the County of Dufferin; varieties that will come early into bearing?  
R. C., *Orangeville*.

Probably the following list of varieties would be among the most desirable, viz., Blenheim, Cranberry and Ontario.

---

### The Agawam Blackberry.

**758.** SIR,—Is the Agawam Blackberry subject to rust more than other varieties?  
R. C., *Orangeville*.

So far as our own experience goes at Maplehurst, the Agawam is not subject to rust. The Kittatinny, on the other hand, is very badly affected with the orange rust, and we are in danger of soon losing our whole plantation through it.

---

## \* Open Letters. \*

### The Strawberry-Raspberry.

SIR,—This magnificent fruit is one not generally known; it is a native of Japan, and is known, botanically, as *Rubus Sarbifolius*.

In manner of growth, it is somewhat similar to our common raspberries. The young plants commence bearing when only about two inches high, and full grown bushes yield heavy crops of fruit. The leaves of this plant are somewhat like a rose bush. The fruit is of large size, a brilliant red color, and very deliciously flavored; it resembles a huge strawberry very much, and hence the name, Strawberry-Raspberry.

Being such a fine fruit and so different from all other kinds, it will be widely cultivated when better known. It can no doubt be used for every purpose that our strawberries and raspberries are put to.

In regard to hardiness, I believe it will succeed over a wide range of country.

S. L. WATKINS, *Grizzly Flats, California*.

## HARVESTING AND MARKETING THE GRAPE CROP.

Picking, packing and marketing should be done systematically; careless pickers or packers cannot be tolerated. In western New York a bushel tray or box is used almost exclusively for picking. This is too cumbersome and requires both hands in moving it. We use a shallow half bushel box, or basket, which is readily handled with one hand. A good picker will gather from 1200 to 1500 lbs. per day without dropping or crushing any, and a good packer will pack 100 to 125 baskets and get them full enough so they will open up smooth and level on top with no stems in sight, but not so full as to crush the fruit in putting on the cover. Pick grapes at least 24 hours before they are packed. If picked and packed at once, they settle so the basket is only two thirds full when it reaches the consumer.

Plan the harvest work so that full loads can be hauled to the depot each day. If the roads are good, as they should be, 400 or 500 baskets can be as readily drawn as half that number. Have the packing house cool and airy, with room and conveniences for the packers to work to the best advantage. If you ship to a commission house, don't listen to every drummer that comes along, but select two or three reliable firms and give them your fruit exclusively. The plan of forming all growers into a co-operative union has not proved a success here. A better plan is for several growers who can work harmoniously to load their own cars and ship or sell in carlots.—American Agriculturist.

## WAGON SPRINGS FOR THE FRUIT WAGON.

In large commercial orchards it is well understood that the jolting of fruit when carried in the solid, springless box wagon causes injury, entailing great loss to the selling value of the fruit. The cut illustrates a simple method of arranging springs with a wagon body sufficiently sensitive for the carrying of the most delicate fruit. The springs may be made of vertical coiled wire, securely fastened to the cross piece which is attached to the under side of the body of the wagon and held in place by uprights at the ends. Fruit may easily be drawn for miles and but little bruising occurs thus supported and carried.

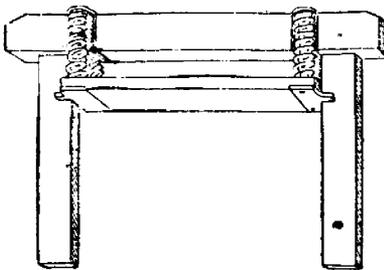
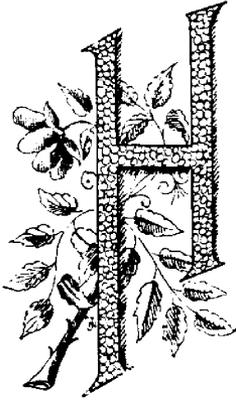


FIG. 829.—CARRYING FRUIT WITHOUT BRUISING.

## THE MERRY MAPLE.



ALL to the merry maple,  
 And the hills where the maple grows !  
 The hills that hold no tyrants,  
 And the hills that fear no foes !  
 Where the green grain grows, and the sun foretells  
 The harvest soon to be ;  
 O, I would not give that maple land,  
 For all the lands I see !

Hail to the merry maple,  
 And the feast and the fireside chair !  
 Where hearts were warm as embers,  
 And the stranger welcomed there !  
 Where the white-winged waft of the feathery snow  
 Made all seem bright within ;  
 O, I would not give that maple fire,  
 For all cold wealth could win !

Hail to the merry maple,  
 And the flag where the maple flies !  
 And still unstained and glorious,  
 May it bless Canadian eyes !  
 And the march men make, with that flag above,  
 Be such as heroes show ;  
 O, I would not give that maple flag,  
 For all the flags I know !

—From Poems by W. WYE SMITH, St Catharines, Ont.

# Niagara Falls Horticultural Exhibition

The Greatest Floral Exhibit ever seen on the Niagara Peninsula, will be at the Town Hall, Niagara Falls South, on Tuesday, Sept. 17th, 1895, from 10 a.m. until 10 p.m.

The 100 members of the Horticultural Society will exhibit Flowers, Fruit and Vegetables. On competing in the classified award they will be required to show a previous ownership of the articles for a period of three months. A large table of specialities in Plants and Flowers, will, without membership or other fee, be open to the world. Bring your odd things. The Secretary, E. Morden, will be at the Town Hall, on the afternoon and evening of Sept. 16th, to receive entries and exhibits and to give labels and instructions. All exhibits should be correctly labeled. Cut Flowers should be placed in bottles of water which should be placed regularly in shallow boxes. These may reach the Hall on the morning of the 17th. By giving notice to the secretary, free transport of near exhibits will be secured.

A Novelty Orchestra will be in attendance. To assist in paying expenses, an admission fee of 10 cents will be charged to members and others. The Hotels will make a strong effort to accommodate the throngs of visitors.

**If you wish to see any one, go to Niagara Falls South,  
on September 17th, 1895.**

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Please send samples of seedling fruits and of new fruits, accompanied by a letter giving all possible information regarding origin, age, productiveness, hardiness, and present conditions and surroundings of tree or plant, to Mr. John Craig, Horticulturist, Experimental Farm, Ottawa. These can all go by MAIL, postage free.

D. W. BEADLE,  
Chairman Committee on New Fruits.

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ALLAN BROS.

"THE PINE."

Winona.



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FRUIT & PRODUCE.

58 & 60 WEST MARKET ST.

119 & 123 MICHIGAN ST.

BUFFALO, N. Y.

CAR LOTS A SPECIALTY.

Refer to Bank of Commerce, Buffalo, N. Y. Dean & Co. Bradstreet, McPherson, Glassere & Co., Hamilton Ont., Fugley, Dingman & Co., Toronto, Ont. Dickinson, Nicholson & Co. London, Ont.

EDINBURGH, SCOTLAND.

## Wood, Ormerod & Co. FRUIT MERCHANTS

AND

COMMISSION SALESMEN.

Solicit consignments of choice apples, via Glasgow or Leith. Personal attention given to each shipment, choice produce a specialty.

REFERENCE—The National Bank of Scotland, High St., Edinburgh.

Oct. 95. Telegraphic Address—Wood, Edinburgh

## J. J. VIPOND & CO.

### Commission

AND

### WHOLESALE

### FRUIT

### MERCHANTS

## 259 Commissioners St,

AND 2, 4 AND 6 ST. FRANCOIS XAVIER STREET,

## Montreal.

Consignments Solicited.

The Old Reliable Commission House

## W. H. SMITH,

186 and 188 King Street East,  
Toronto, Ont.

Established 21 Years at the above Address.

Consignments of Fruits and Eggs, Butter, Poultry, Cheese, Lard, Pork, etc., solicited. Satisfaction Guaranteed. Advice of Sales Daily. Remittance made Weekly.

REFERENCE by permission Dominion Bank Market Branch, and the Trade generally.

Send for Shipping Labels before the rush commences.

## JACOB E. LEWIS

Member of Produce Exchange

### Wholesale Commission Merchant

Handles everything in Produce line, also  
Shipper of all kinds of Fruits,

165 Scott Street, Elk Street Market

### BUFFALO, N. Y.

References:—Bradstreet, Dun & Co., Bank of Buffalo