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The
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ORTICULTURIST.

THE JOURNAL OF
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THE
MOYER

NEW, EXTRA EARLY,
BEST QUALITY,
HEALTHY & HARDY.

This new grape origin-

ated in Canada, and seems to

be a cross between the Delaware

and some purely native variety.

It ripens with the very earliest

and it ripens around it mid-
leaved. It has good, unpro-

protected, 35 below zero without injury. Very

free from foxiness. Imagine a Dela-
ware

free from rot and mildew and nearly as free from foxiness. Imagine a Dela-
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THE
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THE MOYER GRAPE.

ALTHOUGH we had prepared a colored plate of greater excellence from an artistic point of view for this number, yet we readily give place to this one of the Moyer grape because it represents a Canadian hybrid. We believe it is the duty of our Association to encourage originators of seedling or hybrid fruits in Canada, with the hope of discovering those best fitted for our climate, just as much as it is our duty to protect our membership against humbugs.

The year 1887 brought under our notice two new varieties of grapes of Canadian origin, one white and one red, and both apparently of fair promise. The white one originated on the banks of the Ottawa, and is fully described by Mr. P. E. Bucke in his

article in this number, from which it is evident that he is fully convinced of its excellence. Some sample bunches were received at this office a few weeks ago, and impressed us favorably both with regard to size of bunch and excellence of flavor. Beyond this we can say nothing definitely until the grape has been generally tested.

The other one referred to is the subject of this article, the Moyer, concerning which also we can say but little, either in the way of recommendation or disparagement, until we have tested it on our own grounds, and it has been tried in various parts of our Province. Mr. Allen Moyer, of St. Catharines, after whom the grape is named, claims for it many points of excellence, which are now being retailed in the American horticultural journals. We hope soon

to secure enough plants for distribution and thus have it properly tested.

The grape was produced about eight years ago by Mr. W. N. Read, of Port Dalhousie, Lincoln Co., Ontario, by fertilizing the Delaware with Miller's Burgundy. The quality is very good, the flavor being sweeter than the Delaware, though not quite as sprightly. The bunch is about the size of the Delaware, though not always shouldered; while the berry is a little larger, and the color a good deal darker red. The skin is thin, but tough enough to

make it a good shipper. When over-ripe the grape gradually shrivels up and dries into raisins. The vine is said to be vigorous, though a rather short jointed and compact grower, so it may be planted much nearer than such strong growers as the Concord. It is also claimed that it is very hardy, and entirely free from mildew.

As with the Northern Light, one great point made in favor of this grape is its earliness, ripening in Lincoln county about August 15th, and a couple of weeks in advance of the Delaware.

DISPOSING OF THE APPLE CROP.

THE month of October, usually one of the brightest of the whole year in Ontario, was this year one of the most dismal. It seemed as if October and November had changed places to try the patience of the anxious fruit-grower. As a result the apples in many orchards are still ungathered in the first week of November, excepting those which have been blown down by the winds. There are few apple buyers about, and freezing weather may soon be expected, so the question, "What is best to do with my apples?" is not easily answered.

One of our neighbors who has just received a cable quoting prices in London, Liverpool and Glasgow, says: "Unless I receive more encouraging news by the time I have my apples gathered and packed, I will roll them into my cellar." Another says: "I had an offer from a shipper of \$1 to \$1.15

per barrel for my fruit as it lay in piles in my orchard, so I sold at once." Many have accepted an offer from the Canning Factory Co., who buy at 25 cents per bushel every kind and quality, and ship the choicest and evaporate the rest.

Well, if it will pay a company to do this, surely it will pay our larger orchardists to do it for themselves. A writer in the *Farm and Home* who lives in Maine, speaking of evaporating apples, says:

"If orchardists want the greatest returns from their trees, they must be prepared to dispose of their products in the most economical and profitable way. I have found that to evaporate second quality apples is a good plan, but the fruit must be taken before it is dead ripe, the expense depending greatly on the condition of the fruit, whether it be badly bruised and soft or not. The fruit I evaporate is nearly all from grafted trees and averages 6 lbs. per bu.

The average natural fruit will make 4 lbs. per bu. ; Baldwins and Greenings, 6 to 7 ; Russets, 8.

My average expense for evaporating and boxing has been $3\frac{1}{2}$ c. per lb., or at the rate of 20c. per bu. About 10c. is the average price at wholesale for evaporated apples. I use an American evaporator that is intended for bleaching apples, but it is not desirable. The dry fruit should be bleached from five to eight minutes in a separate place, and as soon as it is cut and spread on the trays it should go thence directly to the evaporator. There will thus be no complaint of smell or taste of sulphur in the apple. Another fault I found with my evaporator was that it was built to take the apples into the top and deliver them next the furnace. In this way it is impossible to keep the desired amount of heat without scorching the apples. I improved this by entering the apples over the furnace and by taking them out dry at the upper end. Steam heat in pipes would be much more economical than furnace heat.

"Expenses for making this crop saleable doubtless vary in different localities. My apples are cut and placed on trays by women at 60c. per day. A man is employed to attend the evaporator and he is paid \$1. Six hands dry, on the average, 150 lbs. per day. One must not expect to get rich drying apples. The fuel costs me \$3 per cord. When one has a quantity of apples hardly fit for market, he can get a fair profit by drying them. I consider it safe to dry all that are not worth \$1 per bbl. at the door without the barrels. The fruit is sometimes quite scabby, and when it is so afflicted it seldom pays to pack it for market. I put such fruit through my evaporator and think it pays."

The same difficulty in getting the apple crop properly harvested and packed in time for shipment is evidently experienced by our neighbors in New York State, as will be seen from

the following extract from the *Country Gentleman* of Nov. 1, written by a resident of Wayne county :

"All through this section from Oswego to Rochester, a distance of seventy-five miles along the lake, the apple crop is very large and of fine quality, and not more than one-half gathered. A great many have sold their orchards in a lump to the evaporators. Others shake and sell to the evaporators by the one hundred pounds, they paying from 30c. to 32c. per hundred delivered. This makes a rapid way to handle them, as a large crop can be gathered in one-quarter the time it would take to pick them, and with labor high and scarce as it is this fall, I think it pays as well as to pick and barrel them at present prices. Kings brought \$1.75 to \$2. Dealers are now paying \$1.25 per barrel for winter fruit, but as most large orchards are not yet gathered there is very little shipping being done."

"Why don't you ship to a British market?" we asked a neighboring orchardist. "Ah!" said he, "I have tried that once too often already." The trouble is very few people will take the trouble to grade apples as they should be when they must have so much expense put on them as exportation involves. How many separate their first-class apples into large and small sizes ; or pack the large high colored ones separately as extras? Are these not more often used to face up the inferior grades? And as a result the whole lot sells, not for superior fruit, but for the price of the inferior quality, of which the bulk of the barrel is found to consist.

Unless one is prepared to undertake all this trouble, it is no doubt better to sell at home for any certain price, rather than risk a dead loss by shipping to a very distant market.

THE SEASON AND THE CROPS.

BY JOHN COOIL, AULTSVILLE, ONT.

THAT often talked-of individual, the oldest inhabitant, can't tell us of a season like the past one. At the time of our summer meeting in July, the country through which I passed from Brockville to Picton, and all the surrounding district, was suffering from long continued drought; no rain, I am told, had they had since their seed time. I saw the mowing machine at work, but very little to gather after it. Barley and other grain was ripening prematurely. I was told of one farmer, owner of a good hundred-acre farm, who expected to take in his whole crop to the barn in one wagon load, and many farmers would hardly get their seed back. Here in Stormont we were more favored. Although we had a short time of hot weather in July, it was not of so long continuance as to injure our crops. About the middle of August a wet time set in, and since then a fine day has been the exception. Doubtless many who read these pages have seen the seaport town of Greenock in Scotland, notable for rain. Thirteen months in the year, the sailors say, it rains there. Remember, too, they may, the wee laddie's answer to the traveller's inquiry, "Does it always rain here?" "No, it whiles snaws." Well, besides the drenching rains of these months we have had hard frost and snow too; everything tender is nipped. Grapes, corn, melons and such things as require our full summer, have ripened but imperfectly. Yet on the whole, we have reason to be thankful for the year's

production; enough we have for man and for beast. The vegetable garden did well. Of the varieties we tried in

Beets.—Edmond's Early Turnip is deserving of all the praise given it in the catalogue. Exceedingly sweet and tender in quality, very deep blood red in color, and of good marketable size, we find them preferable to all others.

Carrots.—Danver's Half Long Orange, although not a novelty, is worthy of notice as one of the best kinds for family use.

Cauliflower—Vick's Ideal. The best kind we ever raised; quite early; large handsome heads, often weighing 10 to 12 lbs.

Corn.—Early Corn, for earliness takes the lead; the ears are of good size, and fair quality. For late use, Stowell's Evergreen still stands unrivalled.

Cucumber.—Burpee's Giant Peru, of large size, perfectly smooth and straight, we value more as a novelty than from any extra excellence in quality; the same may be said of a kind growing bright yellow, the seed of which Mr. Goldie, of Guelph, picked up in his travels in Holland.

Celery.—Nelles' Self-Blanching surpasses in quality all the self-blanching kinds we have tried. Solid, crisp and of delicious flavor.

Cabbage.—Extra Early Express.—The earliest, solid, good-sized heads, just the thing for market gardeners. We had some enormous heads of Burpee's Sure-head (late variety).

Peas.—American Wonder we sowed as late as 18th of August, too late for the blackbirds, as they had migrated. Quite as much of a treat as the early sowed ones, and more of a rarity.

Passing on to the small fruits:—

Raspberries, Currants and Gooseberries were a good crop, but the birds claimed the lion share.

Strawberries did well. Twelve rows, each 300 feet long, of mixed kinds, yielded about 1000 quarts; this was the third crop. The previous year we had a rather smaller return from 26 rows of the same length. And that year the Wilson turned out so badly, I ploughed them all under except two rows; these two were as good as any I had this year. We must hold on to the old Wilson yet.

I planted three-quarters of an acre of strawberries, Oct., 1887, and three-quarters of an acre this spring. They both did well, but the spring planted ones gave the least work. The wet season has prevented us hoeing or cultivating for the last month, and the weeds have so much got the mastery, I fear there will be no third crop this time.

The orchard, which for many years has given us more trouble than profit,

has been a success. The Black Spot, which ruined our fruit and nearly ruined us, too, has nearly disappeared, and our crop was enormous. The fruit was rather small in size, but fairly marketable. We have just finished hand-picking 500 barrels. If any readers think that's all fun, let them try it, but I would recommend before beginning to have a bottle of St. Jacob's Oil on hand; they'll quickly find out what it's wanted for. Neighbors tell us we will surely make our fortune this year from the orchard. Strange that few of them, during these many years of dire calamity, didn't feel as much disposed to condole with us when we were losing one (if we ever had one to lose). We can boast nothing of years here, but I can of our good Secretary's crop, he being too modest to do it himself. I have it from his own pen that his extra selected apples have been selling in London, England, as high as \$6 00 per barrel. As he has an immense orchard he must surely be making his fortune, and lest he be exalted over much, I think we will have to vote down his salary. Now, he'll bid me shut up, so, admiring the patience of all who have so far read, I close.

AMONG THE STRAWBERRIES.

By JOHN LITTLE, GRANION.

SIR,—Will you kindly give me a little space in your excellent monthly to say a few words about the strawberry. All my out-door time is spent among them, and my dreams at night are often about them.

Allow me first to say something about my visit to a few enthusiasts, who are also in the small fruit business, during the raspberry gathering.

My first visit was to J. Whitston St. Marys; he is a careful cultivator

and grows large crops both of the strawberry and raspberry; he does not ship, but disposes of all his crops in the thriving town of St. Marys. I found one plot of strawberries badly infested with the strawberry root-worm.

My next visit was to F. Mayer, Bridgeport. He was in the midst of his red raspberry picking. It would be hard to find such Clarkes as those were. Although they were staked and wired, they were so thrifty in cane it was difficult for the pickers (women) to get through them; his land is well adapted for fruit; it is a rich sandy loam. Also he has a promising young nursery of budded plums, cherries, pears and hardy apples—budded from stock had from Mr. J. L. Budd, of Iowa Agricultural College. I spent one night and two days with him, and was hospitably entertained, he giving me a drive in his carriage to Waterloo and Berlin.

My next visit was to the noted strawberry grower of Ohio, Mr. Crawford. I expected to be with him at the horticultural meeting at Euclid, Ohio, on the 7th of September, but did not get to Cleveland till the 8th. I spent 14 days with him and his excellent wife, going with him here and there among the fruit men in the neighbourhood in which he lives.

It would occupy too much space in the *HORTICULTURIST*, and might not please many of the readers, to tell what I saw and heard and learned about the strawberry whilst at friend Crawford's.

It has always been a treat to me to visit Mr. Crawford's strawberry home; his grounds are kept in such good order, and his beds are so clean, and

rows so far apart, that the different varieties cannot get mixed. I was surprised at his fall plant trade; mostly every day during my stay his sons were busy filling orders. One day they expressed eight half bushel baskets of potted plants at once. Mr. Crawford attends to his correspondence and also to his books; his varieties are up in the hundred, and the seedlings sent to him for testing are about forty. His experience with new varieties, and what he says about them, can be relied on, and is of much value to all engaged in strawberry growing.

I have all the varieties in his report, and I send it to you. It will save me a good deal of trouble in writing about them, as my experience is about the same as his.

This last strawberry season I had the largest berries, and the best return I have had in some years. I had the list with Jessie, Bubach, Summit, Ontario, Pineapple, Manchester, Cumberland, Triumph, Mt. Vernon, and some of the old varieties of seedlings sent for testing. Eureka (Logan-Itasca), several of Mr. Louden's seedlings also gave very large berries and are productive.

If your correspondent "G. J. R." will do as I did—go to the home of the Jessie in the fruiting season—he will see where the productiveness comes in; or to many places in Canada where they know how to grow the strawberry. Some men when they get a few plants of a new variety, expect too much from it and kill them with kindness; others don't know how to plant and care for him, and so to them they are worthless.

THE NORTHERN LIGHT.

BY P. E. BUCKR, OTTAWA.

THIS new claimant for public favor is a white, or rather, green grape, with a slight green bloom. It originated on the banks of the Ottawa some nine years ago, and has produced five crops of fruit. In 1887 it was exhibited for the first time at the United States Pomological Societies' Exhibition at Boston, where it received marked attention from several leading grape cultivators. Some first class offers have been made for the vine, but none have yet been accepted, as it was thought best to have a limited number of plants propagated and tested in the States and Canada.

Although the present position of the vine is not favorable for early ripening, being shaded for several hours by a stone building from the morning sun, it has invariably ripened its bunches under very adverse circumstances every year, when Concords and several of the leading varieties, such as Niagara, Pocklington and many of Rogers' hybrids, have failed to mature. It is confidently expected that when the vine is placed in a favorable position and carefully pruned and attended to, the fruit will ripen shortly after the Champion.

The vine is a vigorous grower; it has a thick, leathery leaf, of the Concord type; The bunches are well formed, sometimes shouldered, compact; berries round and large; bunch rather long; berry not pulpy; seeds separating freely; skin rather thick; fruit melting, juicy, no foxiness in taste or smell perceptible; fruit stalks and tendrils—especially the latter—red to pink in color.

Already many enquiries have been received from leading nurserymen for vines, and good offers for its purchase have been made. It is hoped by the end of 1889 the owners will have some eight hundred or a thousand vines to dispose of, as they have placed it in the hands of an experienced cultivator to propagate. By the end of next year it is hoped a test on a small scale will be made in several localities at wide distances apart, on varied varieties of soil. When this has been done, and if the test proves successful, the entire stock will either be sold out, or a strong company formed for its propagation and sale. The enormous crops the vine has yielded for the past four years is something almost incredible, and would not have been permitted had it been in the hands of an experienced vineyardist; the effort to ripen the fruit has retarded the ripening of the wood. Its northern home will give it an advantage over its more southern brethren: it grew up without care or protection, but for the last few years it has been covered with soil lest some fatality might overtake it, and the life of this magnificent child of nature quenched; it was, therefore, thought best to guard it from every source of danger, especially as the mercury along the Upper Ottawa has several times become solid. The glass in this region sinks below zero on an average from forty to forty-five nights during each winter. The extreme cold appears to have given the plant and foliage their great robustness.

USES OF FRUITS.

Apple Butter.

ABOUT a year ago, you asked whether the making of the above was among the "lost arts," and, to judge by the recipe for making it which a writer gave you, I don't wonder. I will give you the old Pennsylvania plan that we used to make by, and which we still follow here fifty years later.

If people will follow this, and they then say the art is lost, I will quit giving instructions. To forty gallons of good sweet cider made from sound, ripe apples, use three bushels of selected apples. The cider should be boiled down to one-third or a little less before putting in the apples, which should be pared clean, all specks, bruises, seeds and seed cavities removed. They may be quartered, or cut into eighths, if very large. If in a hurry, the apples can be boiled in a little water before putting into the cider. Stirring should commence as soon as the fruit gets soft, and be kept up carefully until done. At all times prevent the flames of fire striking the kettle above the line of contents.

When boiled down to ten gallons it will be done, and it will be an article fit for a king. Put in earthen vessels, and, when cold, dip clean, white paper into good whiskey or brandy, and lay it over the tops. In four months from making, if kept in a garret (the best place), the jars can be inverted on a floor or shelf without running out. Will keep for years, and if made with the right kind of apples, such as Rambo and Smokehouse, or Bellflower, will become as smooth as cheese.

There are establishments out west here where they make what they call apple butter, but which the knowing ones call "sass," that sells for twenty-five cents per gallon. I would not take it bestowed, as it invariably ferments, and is a poor article at best.

Such as we make would command at least double as much, but even that won't pay unless one is fixed to make it on a large scale. But there are many things that can be afforded for one's own family use that cannot be made to sell at the market price.—*Vick's Magazine for November.*

Liquid for Preserving Delicate Tissues.

Water saturated with camphor	100 grams.
Chrystallizable acetic acid	0 " 25
Chloride of copper	0 " 25
Nitrate of copper	0 " 25

The above is the formula of the French for preserving specimens of fresh fruit for purposes of exhibition. It is claimed that fruits of all kinds are kept perfectly fresh in appearance in this preparation for six months or a year.

Apple Pomace and its Use.

THERE is no better way to preserve pomace that contains no straw, than to store it in a silo similar to what is used for making ensilage of green corn fodder. Be sure to have the air excluded from the pomace. Pack the pomace in tightly, and on each layer, which ought not to be over one foot thick, sprinkle a little salt, which I think adds to its palatability. If the pomace is kept from the air, it will remain sweet and retain its bright color the entire winter. There is no secret in doing this, and any one can succeed who tries the experiment.

Where straw is used in making cider, I always take the pomace from the crib in square cakes, and pack it up closely, as you would anything else of a similar nature, to exclude the air as much as possible. I have made it in a square body about ten feet high, that kept sweet until used. Pomace certainly goes far toward feeding stock, if fed properly. Some advocate letting

the pomace ferment before using, but I find the reverse of this to be the better way. It would be a good deal like letting bread get too light or very sour before baking, and, at the same time, expect to have good, palatable bread. This is my experience, and I have fed a great deal of pomace. Do not feed it to your horses, as it is liable to give them pain, and does not appear to agree with them in any way.

Preparation of Fruit Syrups.

EVERYBODY knows, says M. Manche, in the *Archives de Pharmacie*, that syrups prepared from the fresh fruit juices are far preferable to any others: but that these syrups, in their fresh state, contain a large amount of carbonic acid is usually forgotten. When the process usually in vogue is followed, and sugar is added to the juices in the cold, a liquid is obtained which soon becomes so dense that the acid finds it difficult to make its escape when heat is subsequently applied, and the consequence is foaming, and sometimes a partial caramelizing of the sugar, from the fact that the syrup makes a denser layer at the bottom while the lighter juice is forming on top. To avoid all this, M. Manche recommends that the juice be boiled before any sugar is added, replacing loss from evaporation by distilled water. The result is said to be better in every way.

Grape Juice for Use.

PURE grape juice, unfermented, is one of the most health-giving of things. The most strict temperance person can have no more cause to oppose it than the eating of fresh grapes, *i.e.*, pulp and juice together. Since we mentioned the subject last year, we learn of a greatly increased interest in it, and that large quantities of the juice are being prepared this year for preservation. We condense some statements on the subject:

The large and increasing grape product of Western New York is forcing a search for new markets, which is now finding vent somewhat in the making of unfermented wine for home use.

The great Frenchman, Pasteur, destroys the germs of fermentation by heating to 140° to 150° Fabr., without access of air. This is accomplished by running the liquid through a crooked pipe or "worm," something like the worm of a still. The apparatus in use at the Viticultural Station in California consists of a coil of one-quarter inch block tin pipe, 30 feet long, inserted in a 15 gallon boiler. A 20 foot coil of the same pipe forms the cooler. The capacity of this single pipe is 8 to 10 gallons per hour, when the tank water is kept at about 160°. To insure the success of the operation, of course, it is necessary to insure against the Pasteurized wines being again infected with germs by putting it into unclean casks, etc., after this treatment.

Another way: Pick the grapes from the stem, and wash. Cook with a little water, as for jelly, until soft; strain through a flannel bag. To a quart of juice add three-quarters of a pound of granulated sugar. Let the juice boil, and skim it; then put in the sugar, and cook until dissolved. Put, boiling hot, in self sealing jars or bottles, corked and sealed.

Sweetened juice: Mash the grapes and press out the juice. Before boiling, sweeten, as desired, with best white sugar; strain carefully; fill the bottles and seat them upon a wooden foundation, in a boiler; surround them with water up to the necks; bring to a boil and boil ten minutes; then, from one of the bottles, fill all the rest, to make up loss by evaporation, and cork them while hot; after corking, seal the corks; the sulphurous acid gas impregnating the juices, will be volatilized and driven off by the heat. This can be kept several years. —*Am. Garden.*

The Value of Apples.

THERE is scarcely any article of vegetable food more widely useful and more universally liked than the apple, says Prof. Faraday. Let every family, in autumn, lay in from two to ten, or more, barrels, and it will be to them the most economical investment in the whole range of culinary supplies. A raw, mellow apple is digested in an hour and a half, while boiled cabbage requires five hours. The most healthful dessert that can be placed on the table is baked apple. If taken freely at breakfast, with coarse bread, and

without meat or flesh of any kind, it has an admirable effect on the general system, often removing constipation, correcting acidities, and cooling off febrile conditions more effectually than the most approved medicines. If families could be induced to substitute the apple—sound, ripe and luscious—for the pies, cakes, candies and other sweetmeats with which children are too often stuffed, there would be a diminution of doctors' bills sufficient, in a single year, to lay up a stock of this delicious fruit for a season's use.

MARKETING FRUIT.

Pears from a Marketman's Standpoint.

THE varieties of pears are so numerous, and the quality of each so peculiar to itself, that it necessarily requires study on the part of the cultivator to know just how to manage his crop. The early sorts need more care and management than the later, for they ripen early and are more exposed to the heat. Growers living near a market might with safety permit the Bartletts to color on the tree, but it would not answer to delay marketing after the fruit colors. If intended for the refrigerator, the taking on of the slightest color should be a hint to pick at once, as further delay might be fatal to its keeping. Should it be picked too green it will fail to color when taken out and placed under the influence of warm air. Most late varieties keep well in the refrigerator if picked at the proper time and carefully handled. The Seckel, Bosc, Shelden and Clairgeau are all considered first-class varieties, and are preferred according to the order in which they are named. If the last variety is put on ice it should be watched closely for fear it may spot.

Should that symptom of decay make its appearance, the sooner the fruit is disposed of, the better. The Anjou becomes popular late in the season, being a good keeper and possessing a fine flavor. The extra large ones sell for a high price to fancy dealers, while those of medium size are used largely on the tables of hotels and steamships. While picking the fruit, one should be careful not to bruise it or to separate the stem, which is considered an ornamental feature. If picking for the refrigerator, cull out all imperfect fruit and sell it, for there is little demand for it after September.

There are several good packages used for shipping and among them is a bushel box. Some growers pack from the top, and when the box is full, lay strong, coarse paper over, then nail on old barrel staves for a cover. Others have a tight lid, then open the bottom and lay the fruit in regular rows until two rows are formed, then pack irregularly until full. Should the pressure injure a few, the fruit will carry without shaking, and on opening make a better appearance. Half barrels are good packages and sell well, but barrels

are generally objected to on account of the quantity they contain unless the fruit is very firm. Do not hold early varieties too long. They lose their flavor and the later ones coming in fresh and nice are preferred.—*American Garden.*

Handling Fruit for Market.

COLD storage will not make good fruit out of poor, Seckel pears into Bartletts nor bruised fruit solid. Much depends on the picking. If the fruit be left on the tree until fully ripe it will not keep; nor fallen fruit nor that whipped off the tree. The fruit should go to the cooler before any sound specimen shows ripeness, and a single pear, apple or grape that is imperfect may and probably will entirely spoil all that are put with it in the same package. The nearer to the cooler the orchard is and the sooner the fruit is stored after picking, the better it will keep. Where late winter pears and apples are stored they are often after late picking put in bushel boxes and stacked on the north side of some building to remain

until quite severe weather before going into the cooler. These same boxes are then removed to their places in the retiring house and piled one on another with thin pieces of lumber between them to admit the air. Summer pears should be picked before they ripen and put in the cooler if the best prices are expected. To know whether the fruit is ready, raise a specimen carefully by putting the hand under it, and if it part readily from the tree, although it be "as green as grass" it is ready to artificially ripen. Pears that become mealy on the tree, often rotting at the core, are juicy and delicious if ripened in the low, steady temperature of the cooling room.

A great point regarding profits is in properly selling what is handled. A good reputation and neat packing are as necessary as good fruit. Attractive packages and surroundings often sell the fruit at once. So important is this that very choice cases of fruit often "go begging" for a buyer while handsomely arranged lots of inferior varieties in poor condition sell rapidly.—*F & H.*

HORTICULTURAL.

Northern Spy Apple.

THE diversity of opinion on the value of this apple is owing to difference of soil and treatment. The remark was frequently made when half a century ago this fruit was first introduced and disseminated, that it was smaller and more scabby on old trees standing in grass, with crowded and stunted branches, than on vigorous younger trees; and the difference was so distinct that it was pronounced absolutely essential to fair success, to cultivate the ground and to prune in the crowded branches. As a fair average, the apples on the vigorous, young, and well-pruned trees were at

least twice as large as those from the old and crowded heads. Cultivators of this variety, who wish handsome and fine specimens, should bear this distinction in mind.—*Country Gentleman.*

Sheep in the Apple Orchard.

The advantage of pasturing sheep in the orchard has been frequently spoken of in these columns, but a letter from Mr. J. M. Drew, in the *RURAL NEW YORKER*, emphasizes it still more in the following terms:—

A few days since I had the pleasure of seeing and learning of a successful

method of eradicating weeds. A large, mature orchard, overrun with wild carrots, Canada thistles, and a score of other weeds, was turned into a sheep pasture; or possibly it might better be called a sheep-yard, as about four times as many sheep were put into the orchard as could be pastured without extra feed. They were given a liberal allowance of bran and oil meal, with a little corn daily. This method was continued for four summers, at the end of which time the orchard had more than doubled in the quantity of fruit produced, while the quality had been much improved. The ground was then plowed and planted, but no thistles or carrots, and but few other weeds, appeared.

Mr. J. S. Woodward has about thirty acres in apples, which have been treated in like manner, with the exception of the plowing. He found that he could keep his sheep cheaper by this method than by hiring pasture. And now the result: Last year he sold nearly \$7,000

worth of apples. And this is not all; the sheep kept in the orchard were bred early, and the lambs sold at an average of \$9 per head; and these are not isolated cases. I met Mr. B. from Virginia, a few hours since, and he gave \$8 per head as his average for early lambs last year.

As I came home from the State Fair, two days since, I saw a dozen starved and weedy orchards, and a hundred fields that seemed to cry from very hunger. Yesterday I purchased five sheep and two hogs, and how can I tell you how thin they were! True, they were just what I was looking for, for experimental purposes; but what reasons can these men give, in the world to come, for half starving their animals in this land of 19,000,000,000 bushels of corn and hundreds of thousands of tons of bran, oil-meal, and cotton-seed meal, and millions and millions of acres of land that would laugh with a hundred-fold crop if only a little more brains and manure were used.



CLIMATIC RANGE OF TREES (Continued).

BY FORESTER.

BESIDES the scientific interest we may take in the growth of foreign trees in our climate, there is a very material interest likely to be affected by the ultimate result or profit to be expected in a large plantation.

Knowing that the English Walnut, Pecan-nut, Filbert, Ailanthus, Catalpa and Locust are natives of a warmer land than Canada, and that some of them at times have been induced to grow here, and may be called hardy to

some extent, I would hesitate very much to set out a large plantation here for the sake of the timber. In that part of Ontario called the Lake Erie counties in the Ontario Bureau of Industries, and probably from Hamilton to the River St. Clair, the following valuable trees seem to be at home: Black Walnut, Chestnut, Tulip Tree, Hickory, Buttonwood, and yet a very little to the north they are no longer found wild, and the limit within which they

can be considered reliable is uncertain.

I am studying the probable state of a plantation of such trees, or a long avenue set with them, and what condition will they be in at the end of twenty, thirty or a hundred years.

Very many of these trees in favorable ground, and with the timely assistance of man, are growing and doing well in this country quite to the north of the proper latitude and in a harsher climate, and some of them I think perfectly hardy, but if a thousand of each of them are planted now in the region where they grow wild and unaided, and another thousand of each are set in the northern or central parts of Ontario, how will they compare at the respective periods suggested?

If not cut off and sold to American lumbermen, such a plantation would be just getting grand in a hundred years, and would be a fine grove in twenty in its native land, and would probably renew itself indefinitely.

In the more inhospitable north, even of the trees we thought hardy, and which so generally do well and yield fruit in perfection, is it not likely that we will find an increasing proportion failing at each recount—giving evidence that it is only a question of time how long trees in exile will endure a severe climate without artificial aid?

At the end of twenty years the whole number of any of these varieties of timber may be living and doing well, and may be as valuable as any of its kind, or one half or any other part may be, and the rest may be missing; and although when so well established we generally think the trial over, it may be found that at thirty years the

same trees are all, or nearly all, dead—cut off by their hard life, or matured before their time. At a longer interval none may be left to tell how they suffered.

I do not infer that it is useless to lay out a plantation of any but native trees—far from it. I think more valuable timbers may be introduced and so many reach a size fitted for commercial purposes that it may be a most desirable speculation. I can find no actual cases in America to test the facts, and it may well be that some of the most doubtful will really and finally be acclimatized, and that the forests of the future will keep some of the settlers we bring to it.

Some scientific writers tell us that the human race cannot be removed from one climate to another and endure forever—will gradually run out and give place to other types more lately removed; that the Caucasians have managed to drag out a miserable existence in America only by regular additions of new blood, and when no more emigrants wish to cross the water the time of those who have come will be short.

I cannot get evidence to settle this case any more than any other problem of the trees, but every century adds to our experience, and we are all interested in the argument, even if posterity only is in the result.

Humorous.

Editor visits a new plantation; says to his friend—"You are making a fine place of this with all your timber."

"Oh, yes, and I hope the trees will be grown to a good size before you come again!"

Editor looks a little curious.

EXPERIENCE WITH FOREST TREES.

BY A. D. FERRIER, FERGUS, ONT.

I WILL give you a few lines relating my experience regarding Forest Trees. In the year 1835, when I fixed on a site for my house close to Fergus, I determined to save some of the trees around the said site. As I was present daily, I got my choppers to leave such middle-sized trees as I fancied, and a few young ones, and I took care that no burning or logging was done to injure them. All the trees so preserved did well except the Beeches, which died out; and the rest, except two or three blown down by gales of wind, consisting of Elms, Maples, Basswoods, and a few Iron-woods, can be seen at this day. I did not plant any trees till about twenty years after, and since then, now and again, I have planted out a good many. For shelter I planted Norway spruce and Canadian spruce, which seems almost identical with the Norway spruce, and Balsam Fir and white Pine, and these almost never failed. For beauty I have planted out Elms, Maples, Basswoods, British Limes, Tamarac or Larch, and Scarlet Cherry; besides the various kinds of Poplar. I generally planted in April or May or October, and when I planted I gave each tree some water in the hole, and a watering on the surface, and then a mulch of straw, and left them to their chance. I kept the ground close to the tree clear of grass and weeds for three or four years, and then they are safe, as a rule. One thing, however, is absolutely neces-

sary; the ground must be well fenced, as cattle take delight in destroying the young trees. Of course, I got most of my trees from the woods for the trouble of digging and carrying them, but I raised a good many elms in my garden from seed dropped from the old trees adjoining. I got Norway spruces and Lime trees from various nurserymen, and I raised some Austrian pines from seed. The Poplars are all hardy, but greedy of land, and throw out long roots, which send up young trees far and near, so I don't care much for them. The Hemlock is very pretty, but tender, and so is the Butternut, although both grew in the bush when clearing first began. The common Cedar is pretty, and hardy too, and both it and the Larch can be trimmed with the shears into handsome shapes. The common purple Lilac will grow in any soil, and makes a nice hedge, but is very greedy, and spreads fast. The Cedar makes a nice garden hedge and shelter. I never raised trees for sale, but I pruned a small round clump as high as I could reach with my saw, and when they were about fifteen years old I thinned them out, and got a lot of good larch, cedar, and fir posts. I always prune off the lower branches of the young fir trees and larches for about three years, and the hardwood trees I prune close for about seven feet above the ground. The borer attacks Maples, Basswoods, and Limes, but does not touch the elm.



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.

THE ANNUAL AND THE WINTER MEETINGS of our Association are henceforth to be united into one, and to extend over three days time. The result will be, no doubt, an unusually large and interesting gathering. The meeting will be held in the city of Hamilton in February next, a city situated in the heart of the fruit growing districts of Ontario. Several gentlemen have already promised papers for this meeting, and in order that it may be as varied in programme as possible, we invite members of the Association to send in questions and subjects for discussion, a full programme of which will appear in January No.

NEW GRAPES.—We call the especial attention of our readers to the valuable letter from Ampelograph, upon "*New Grapes.*" This letter deserves a more prominent place in our journal than the one it occupies.

AUTUMN WORK AMONG TREES.—This is the title of a recent editorial in *The*

Garden and Forest, which takes the ground which we have often advocated for Canada, that for our climate spring planting of trees is safer than fall planting. Although, with care, the hardier trees may not be winter killed when planted at this season, yet there is more or less danger of their upheaval by frost, or blown about by the wind. All this has come within our own experience, both with standard apples and dwarf pears. Stone fruits, particularly peaches, should never be planted in the fall in Canada. We give emphasis to this precaution, because so many articles written by nurserymen who are interested in fall sales, have found their way into the public prints, advocating fall planting as the most advisable. No doubt this is the best season for selecting the stock from the nursery, before the best is culled out for spring sales, and if one has a dry sandy loam in which to dig a pit and partially bury the trees

until spring, it would be wise to purchase the stock in the fall. In such a case, the bundles should be untied, and the earth carefully packed among the roots.

THE PARIS EXPOSITION, 1889.—This Universal Exposition at Paris will open the 5th of May, and close the 31st of Oct., 1889. The U. S. Government is making special arrangements for a good exhibition of American industries, having appointed special Commissioners who give all information to intending exhibitors, and arrange to forward *free of freight between New York and the Exposition* all articles received for exhibit. The U. S. Commissioner of Agriculture is also appointing special agents to assist in the display. For instance, Mr. B. F. Clayton, editor *Wine and Fruit Grower*, has been appointed special agent to collect an exhibit of the viticultural products, and in this he proposes to include the following interesting sections:—

1st. The grape is to be illustrated in its fresh state, and so far as practicable, in all its phases of development, including planting, cultivation, training, methods of harvesting, and preparing for market. These processes will be necessarily illustrated by photographs or drawings, accompanied with brief, concise explanatory notes. This may consist of (a) photographs or drawings of vines and vineyards, illustrating every stage of growth, cultivation, training, and harvesting; (b) of photographs or drawings of tools and appliances used in grafting, budding, planting, cultivating, training, and harvesting; (c) of photographs or drawings of crushing mills, wine presses, vats, vaults, cellars, distilling machinery (and models of

same when obtainable), tools, fixtures, and appliances used in and about the cellars and vaults; also tools and appliances used in curing and packing raisins, with explanations of uses, &c.

2d. Illustrations by sample of the finished products of the grape, in wine, brandy, raisins, or other preparation as a food product. In this phase it is desirable to have each variety of the grape and its product illustrated by itself as an individual, combinations and blending being left to private parties.

3d. Statistics relating to products per acre in localities, showing difference in varieties of grapes: cost of planting, cultivating, and harvesting; cost of buildings, tresses, vats, machinery, tools, etc., etc. This should be so arranged as to show approximately the possible profit in the business, and afford a guide to those seeking business or opportunity to invest capital.

4th. Illustrations of diseases of the vine and insect pests. This may be by photographs or drawings, accompanied with descriptions of courses pursued and methods employed in fighting them, and statistics as to results.

Lastly, statistics should show quantity of wines, &c., produced from year to year since 1876 to date; the average in pounds of grapes, fresh or dried as raisins, &c.

Is Canada, we ask, to be left behind in this matter by her enterprising neighbor, and to have no exhibit at this great Exposition?

THE WORDEN GRAPE receives further commendation in *The Country Gentleman* from Mr. S. D. Willard. He says of it: "Another year's experience has confirmed me in the opinion long entertained that this is the best dark-colored, early ripening grape that has been introduced, and when more universally known, I believe it will supersede the Concord in every locality where the latter has been planted."

SPRING WAGON FOR CARTING APPLES.

—Mr. Brodie, of Montreal, in the last report of the M. H. Soc., condemns the very common practice of carrying apples in lumber wagons without springs:—"Always use a spring wagon for carting them. I know a farmer who made a loss of \$20 on a load of Duchess of Oldenberg apples; he had sold them a couple of days previously for \$4 per barrel and brought them to the city in an old lumber wagon without springs, the barrels standing on end. When they were opened, what a sight! all bruised and sunk about a foot down in the barrel. Of course the purchaser would not accept them, so he had to peddle them round for what they would bring."

PRUNING OUT THE BLACKBERRY CANES.—Among other work that may engage the attention of the practical gardener at this season is the cutting out of the dead canes in the blackberry and raspberry plantation. Some advocate leaving them until spring for the use they would be in gathering snow for winter protection, but if this is all the precaution taken, we judge the purpose would be poorly served. The advantage is in the ease with which the work can be done after the ground is frozen, and the saving of more valuable time in the spring. We have tried various tools for this



FIG. 83.

purpose. An instrument like fig. 83 is very useful, being a hook made of steel flattened out and made sharp, the whole being about 20 inches in length.

We have also found ordinary tree pruners with handles about the same length very useful; with these one man first cuts off the dead bushes and another removes them to the brush boat with a long-handled fork.

FALL PRUNING GRAPE VINES.—The advantage of this season of the year over the spring for pruning the vine has often been emphasized in these columns. The experience of a writer in *Vick's Magazine* well agrees with our own, and will be seasonable just now.

He says:—"I advise the practice of fall pruning for grape vines over that of spring pruning, I do this because in the fall the ground is hard and firm, and as grape vines are often a part of the garden fruitage, it is more desirable to stand upon a dry, firm soil while pruning than upon a wet one, as is often the case in spring. Then, too, the weather is more propitious. In the spring the weather is frequently so unfavorable, even until quite late, that out door work is almost always delayed. The cutting winds of March are far more severe than the temperature of November, and one not accustomed to great exposure frequently dreads to perform this labor at a season as early as necessary. The weather, however, would furnish but a shallow reason, were it the only one, but it is not. My vines have done better the next season after fall pruning, and have borne more grapes than when pruned in the spring, and this fact is worth more than a thousand theories and opinions. I am not aware that any exact experiments have been made to test this point; in my own practice the difference is sufficiently marked to warrant my adhesion to fall pruning, but if the product of the vines is no greater the advantages are still with fall pruning.

THE ELBERTA PEACH is a new and very promising variety, that is again

inspiring peach growers with hopefulness. It is said to succeed both at the north and at the south, and to bring nearly twice as much in New York city as ordinary varieties. It is a yellow peach ripening just before Crawford's Late; it is large, productive and an excellent shipper. The trees are also hardy and begin bearing when quite young.

THE LUCRETIA DEWBERRY receives very high commendation from Mr. A. J. Caywood, of Ulster Co., N.Y. He says they ripen a week ahead of the Early Harvest blackberry, and bring him as high as 24c. per qt., retail. It serves to keep up steady picking, beginning with strawberries, then red raspberries, Lucretia dewberries, blackberries. It is a great bearer with him, and the berries exceed the size of his Kittatinnies, and are sweeter. They are also firmer than blackberries. With regard to planting and training, he says in *Popular Gardening*:—"I plant them as I do red raspberries, four feet apart each way, cultivate both ways until the fore part of June, when the renewals get too long to do so. We then direct the renewals of each row along the bottoms of the hills, and cultivate the other way as long as required, and one man has done the directing of our patch in a day. The old canes are taken from the stakes any time after the fruit is off, before tying up in the spring. The renewals are left on the ground all winter, which is sufficient protection here, but if it is necessary to protect them in colder regions, their prostrate position facilitates the work. In the spring, one draws the entire hill from under the other hills in the row, and holds them to the stake, while a boy ties them tightly; this can be done as rapidly as tying red raspberries. I think my

patch was the first managed on this plan; we have tried the winrow system, but like staking the plants better."

PROTECTING BLACKBERRY BUSHES.—A writer in the *Prairie Farmer* writes as follows on this subject, which may just now be interesting to some of our readers:—

"I have never found any variety more hardy than Snyder, and when the thermometer gets down 20 or 30 below a few times, your blackberries are so feeble that they don't give you a half crop of fruit. It takes but five minutes to cover a bush that will bear a peck of fruit. Covering should be done after the falling of the leaf.

"In covering, use a fork, either a potato or manure-fork; remove a forkful of earth on two sides of the cane at the base; place your foot at the base of the cane, with the fork on the top, and bend it with the row; hold it in place, and put on a few forkfuls of earth, and proceed with the next hill, laying it on the last, putting on just earth enough to hold it down, till the whole row is down. Now, go over the row, and add earth so as to cover the main canes, but it is not necessary to cover all the branches; the first holding down is usually sufficient. The more you put on, the more of a job you will have to remove the earth from and under the row in spring."

BLACK WALNUT TREE GROWING.—

A correspondent in London makes some inquiries upon this subject. Others beside him may be interested in the following remarks in the *Iowa Homestead*:—

"Mr. George Van Houten, who is regarded as good authority in such matters, says if the husks are removed, it is safe to count that about 1,000 nuts will make a bushel. With the husks on, from 500 to 600 per bushel would be a reasonable estimate. Some years many of the nuts are abortive,

while other years nearly all will grow. A fair estimate of their germinating qualities can be made by cracking a few, as nearly all plump, natural-appearing kernels will grow under favorable circumstances. It is best to plant rather more nuts than trees are wanted for, like most nut bearing trees, the walnut does not transplant easily. After being gathered, the seed should not be allowed to dry; if shipped a distance, the nuts will keep from drying out with damp moss about them. In the fall they can be planted at once, and covered three or four inches deep in well-prepared ground. If planted in the spring, over winter spread the nuts two or three layers deep, mixed with earth or leaves, and covered lightly; if the ground is moist, at least part of the rains should be kept off, planting as soon as the frost is out of the ground. Good cultivation should be given for the first few years, after which but little further care."

FRUIT INSPECTION.—This subject, referred to on page 211, was carefully gone into by the fruit growers of Nova Scotia two years ago, and it was argued by one member that inspectors should be appointed in every ward throughout the fruit-growing sections of the country by the municipal councils; and, further, that the Local Legislature be petitioned to enact a law prohibiting the shipment of apples to either local or foreign markets until they have received the inspector's brand. After a full discussion it was referred to a committee, whose report was that the object sought would be best attained by amending the law in such a way as to compel each grower to stencil upon each barrel his own name, the variety and grade of the fruit.

RED RUSSET.—The *Garden and Forest* speaks of the Red Russet as gaining in favor for the vigor and productiveness of the tree, and the beauty and long-keeping quality of the fruit.

The tree is as sturdy as the Baldwin, and the fruit keeps as long as the Roxbury Russet.

This does not quite accord with our experience with this apple. For beauty of fruit and excellence of quality, certainly, it stands very high, and deserves the highest commendation, but at Maplehurst the tree is not as vigorous as the Baldwin, and in keeping qualities it is not equal to the Roxbury Russet. The latter keeps till June, and the former only until April.

A Remedy for Parasites of Plants.

WE now have some foreign journals among our exchanges, both English and French, and among them the *Bulletin d'Arboriculture, de Floriculture et de Culture Potagère*, edited by four gentlemen who are professors in the State School of Horticulture, Ghent, Belgium.

We translate an extract which may prove useful to many of our readers:—

"The use of sulphate of iron has been recommended very often for contending with the enemies which attack certain plants. There does not exist a universal panacea, but it is proved that the action of that substance is undeniable in certain cases, providing that the application has been properly made.

The *Revue Horticole*, in asserting the excellency of that remedy, in its issue of July 16th, 1888, enumerates a series of experiments showing that sulphate of iron can be usefully employed for destroying mosses; the peronospora of the potato, for fighting cankers of trees, spots of pears, gum, brown-rust, dodder, the grubs on rose bushes, and the anthracnose of vines.

For small plants the salt should be dissolved in the proportion of one kilogramme to one hectolitre of water, and the solution sprayed in proportion of one-tenth of a litre to each plant; for rose-bushes the quantity of sulphate should be doubled, and the sprinkling repeated two or three times."

QUESTION DRAWER.

Grape Must.

IN connection with question No. 15, referred to also on p. 140, the following from *The Wine and Fruit Grower* will be of interest to grape-growers:—

“Dr. F. Springmuhl’s first work for the concentration of grape must, situated about one mile north of Clairville, Sonoma county, is nearly completed.

a tract of land around Springmuhl station, and a number of houses and cottages will be built for the employés of the firm.

“Baron von Schilling intends to build a splendid hotel in the valley near the Russian River.

“The whole land bought by Drs. Shorb and Springmuhl, except the part

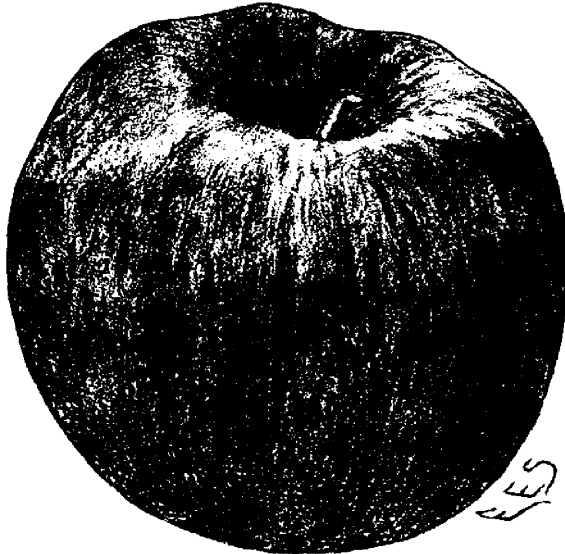


FIG. 54.—KEANE'S SEEDLING APPLE.

“The huge machinery is adapted to concentrate more than 200,000 pounds of grapes in ten hours, and more than 10,000,000 pounds will be exported this year.

“A new town has been laid out, and a railway station, called Springmuhl, has just been erected.

“The stockholders of the American Concentrated Must Company have decided to largely extend the new industry, and to concentrate extract of tanbark and similar products during the other part of the year.

“Dr. De Barth Shorb, of Los Angeles, and Dr. Springmuhl have bought

reserved for the town, will be planted with vines, and will be cultivated by employés of the Must Company.”—*Merchant.*

Wire Field-Mice Protector.

114. WE send you, per sample post, a sample of our Woven Wire Field-Mice Protector for trees. We were showing it to Mr. Binn, of this city; he was very much pleased with it, and suggested our sending you a sample. You will see they form a perfect protection, and are the cheapest thing that could be used.—B. GREENING & CO., *Hamilton.*

We are inclined to think favorably of this woven wire for the purpose mentioned, providing it can be had at

low enough a price. So many fine young trees are destroyed by field-mice every winter, when the snow is deep, that we welcome any device which will protect and save this loss. Our own custom is to bank up all young trees throughout our orchards with fine earth, first, of course, clearing away all rubbish, grass, and suckers from the trees. This we do immediately after the apple harvest is over, setting the gang of pickers at the job with good sharp spades. It can be done quickly, and if properly done, is quite effectual.

Keane's Seedling Apple.

115. You will find come to you two apples mailed with this. They are seedlings. The tree is now, perhaps, near twenty, or about twenty years old. It has borne a crop of such apples for about nine years—*every year*. Last year was the *off year*, and it bore about two bushels, one-third, or I might say *twice* as large as these I send you. This year it bore twice as many as it should have been permitted to carry—the branch s bending to the ground all round, which has greatly lessened the size of the apple. I send it to you so you may judge of the quality, which I think is first-class. A few words in the December No. of the HORTICULTURIST will be enough. The tree grows about four miles north of Orillia town, on the farm of Mr. James Keane, being lot No. 3 in the 8th concession of the township of North Orillia, county of Simcoe. It is a chance seedling.—T. WILLIAMS, *Orillia, Ont., Oct. 17th.*

At first sight this apple has much the general appearance of Gravenstein, but is below average size, and strikes us favorably as a commendable autumn de sert apple. It is below medium size, of even form, roundish oblate, with closed calyx in a corrugated basin. The skin is shaded, splashed and striped with bright crimson, which is deepest on the sunny side. The flesh is white, crisp, fine grained, juicy, and of a rich, aromatic flavor. Since writing the above we have had a sketch of this apple prepared especially for this journal by Miss Evy Smith, of St. Catharines, and which we now present in this number. It gives a very truthful representation of the apple.

Quince Culture.

116. WILL you tell me all about the soil, climate, culture and profits of quinces? Which variety pays best?—THEOPHILUS TYEHURST.

QUINCES are easily grown, and when planted upon suitable soil and properly cultivated are fairly profitable. Like most other fruits, however, the market price of late has considerably declined. Some years ago the writer received an average price of 75c. to \$1.00 per twelve qt. basket, but now-a-days the usual price is from 40 to 60c. per basket. Yet even these prices pay the grower.

The soil best suited for the quince is a rich, mellow, deep soil, well enriched. A good deal of difference of opinion exists regarding the best mode of cultivation, some advising ploughing and working up the soil, and others not. Certainly deep ploughing would be injurious, as the roots grow very near the surface; but having tried the effect of growing quince trees in grass, with heavy mulching of coal ashes, straw and manure, and also of cultivation with manure and wood ashes, we must give the result as favorable to the latter, both as regards size and quality of the fruit.

Our soil at Maplehurst is a sandy loam, inclining to moist, but well drained; perhaps in other soil the mulching might have the best results. Mr. Chas. Jones, of Newark, N. J., writes in the *Rural New Yorker* that he leaves the ground undisturbed, except to keep down weeds, and mulches heavily with salt hay in early summer, and gives a dressing of barnyard manure in the autumn. He states that he gathers an average of over 400 quinces, but he does not say anything to indicate their size.

For field cultivation two ways, 12 ft. would be the proper distance, but if the mulching system is to be adopted they may be planted 8 or 10 ft. apart.

The usual mode of pruning is simply to thin out crowded or decaying branches, but we would advise a yearly heading back of one half the new growth in the spring. Mr. Jones leaves only four or five buds on each thrifty young shoot, and says that as a result "the entire outer surface of the tree is literally covered with fruit of good size and quality."

Regarding climate, we can only speak for the country south of the G. W. R. division of the G. T. R. We shall be glad to hear from members of our Association respecting their success with the quince farther north.

The variety of the quince which has given us the best satisfaction is the Orange. The Angus is too small; the Champion is larger, and more regular in form, but rather late, while the Orange colors up early in the autumn and sells when the price is best.

OPEN LETTERS.

Proposed Bill to Regulate Fruit Packages.

SIR,—I did not intend you to publish that "bill" of mine, or I should have taken more care to have been exact. My idea was that you would take the subject up and have it discussed, but as the deed is done I must make the best of it, even though some think the proposition worse than it is.

I have to ask space to make these explanations, and also to answer an objection or two. In mentioning quantities, my object was to fill out the sentence so you could readily see my intention. To me it makes no difference what the size of the package is, so long as it is uniform. I had no idea of changing the size. The proposition grew out of this: Passing a fruit store, I bought some plums, but when they were delivered the baskets did not seem as large as those I bought. Upon investigation I found the dealer had one sized basket for exhibition and another for delivery. That was a downright fraud and should not be allowed.

As to packing two kinds of apples in one barrel, there is no objection so long as the fact is made apparent and quantities are stated.

Your objection to having both a "standard" and quantities stated would be good if every person knew the standard. How many do you think know the size of a standard quart measure, or even that there is such a thing?

I would not object to any sized package were the quantity it contained legibly stamped on it.

The objection to natural decay is all right so far as it applies to the goods after they are shipped, as natural laws and man's perverseness are factors too strong for any parliament. Could a packer prove his fruit in good condition when it was shipped, the effects of the proposition would cease. The difficulty is to reach the

packer over the middleman, who ought not to be responsible for the packer's frauds.—G. H. FAWCETT.—Ottawa, 15th Oct., 1888.

Grapes Tested in Essex County.

In looking over the Annual Report, which came to hand extremely late (why cannot it be brought out earlier—say, at least, February or March), among much that was interesting, I noticed one defect. It lacked that which in past years has given much interest to its pages, I mean the report of the "Committee on New Fruits." Our present President, as Chairman of that committee, in previous years gave us admirable sketches of the novelties in pomology, which did much to guide many in their purchase of new fruits for trial. It is to be wished that the present gap may not mean a permanent hiatus in this line of the Association's tasks. Meanwhile, may I forward a short communication to assist in supplying in part the lack. After a turn amid the vineyards and gardens of South Essex, a few words about some of the new grapes may be of some interest to your readers.

First, as to the Blacks:—

August Giant—Is early, very large, flattish round berry, small bunch, excellent flavor, poor bearer.

Bacchus—Is a true child of its parent, Clinton, rather smaller in berry, perhaps a shade better in quality, good only for wine.

Marion—Is first cousin, if not full brother to Bacchus; needs a long season to bring out its excellencies, extremely acid, otherwise a wine grape only.

Cottage—Very early (as early as Morris or Champion), hardy, healthy, good grower and bearer; cluster and berries average rather smaller than its parent, the Concord; the berries

extremely foxy, very solid, little juice, nearly all a gelatinous pulp—not desirable here.

Early Victor—The best in quality of the early, hardy blacks, ripens with Worden or a little earlier, small in bunch, medium in berry, productive, good grower, juicy, good flavor, free from fox, inclined to shrivel and lose flavor if left on long after ripening.

Hosford's Seedling—Good grower, hardy, pretty free of fox, early as Worden, good cluster, enormous berry (larger than Wilder), flavor better than Concord, its supposed parent.

Among the Early Reds, the

Brighton retains its general pre-eminence for exquisite beauty and fine flavor, large in cluster and berry, good grower and bearer, perfectly free from foxiness, tender and juicy, with little or no pulp; it is difficult to surpass; its only fault is a tendency to mildew in unfavorable seasons, and loss of quality when left to hang too long on the vine.

Amber Queen—Excellent in quality, but vine not very healthy and bearing qualities defective.

Jefferson—A good grower and fine bearer, hardy here; as juicy and free of pulps as Brighton and Iona; close large cluster, berry large, varying from pink to a prettily veined red, semi-transparent; thin skin and delicious pure flavor, not as high, vinous and spicy as Iona, but second only to it; late, however, in maturing; ripens between Isabella and Catawba, or perhaps as late as the latter; useless, therefore, in Canada outside of Essex, Kent and the Niagara district, unless in exceptional seasons like that of 1887. Inclined to overbear; needs close pruning. Throughout Lake Erie counties would probably ripen in favorable exposures, on south side of house or brick wall; worth taking a little trouble to get.

As to the Whites, which have been the rage of late:

Elvira is very hardy, vigorous and productive; large, compact, close, handsome cluster; late as Catawba; quality abominable; good for white wine, nothing more.

Empire State—Fine grower, hardy, good bearer, though not as productive as Niagara; cluster good, though not largest; berry large medium, very sweet, a little fox, not much pulp; but the cluster, at least when fully ripe, is extremely fragile and berries shell off on the slightest provocation.

Etta—Decided improvement on its mother, Elvira; hardy, productive, cluster not quite as large or close as Elvira, but berry larger, more juicy and really fine flavored, subacid; ripens little if any before Catawba.

Jessica—Good grower, hardy, healthy, early as Delaware; bunch medium, very loose, very small, free of fox, juicy, sweet, not high flavored.

Niagara—Great grower, hardy, heavy bearer of large, handsome bunches; berry large, juicy, little pulp, very foxy—the "Concord" of the whites.

Pocklington—Very hardy, fine grower; moderate bearer of smaller bunches than the Niagara; berry larger, yellower, better quality than its rival.

Prentiss—Succeeds in South Essex; hardy, fair grower; mildews some in unfavorable seasons, but good bearer of excellent clusters, quite free of fox, juicy, good flavor.

Naomi—Like former, mildews some; strong grower, sufficiently hardy here; small bearer of moderate cluster; berry medium, oval; in texture and flavor resembling the foreign grape, of course free of fox.

Duchess—Good grower; hardy here, although farther north the better of laying down; bears good crops of moderate sized, properly compact bunches, green tinged with a little golden tint and brown; berries medium, inclined to oval; adhering to peduncle as if glued; texture and flavor exceedingly like the white Malaga (Spanish) grape, but not quite so hard and more juicy; splendid shipper and keeper, and admirably pure and high flavored; ripens between Concord and Isabella; altogether the finest white grape for the private grower.

In conclusion I would add that among the blacks, Early Victor, Wilder and Roger's 43 and 44; in reds, Delaware, Brighton, Agawam, Lindley, Iona, Jefferson and Catawba; and among whites, Prentiss, Etta, and especially Duchess, are well worthy the attention of amateurs in Southern Ontario. Should be glad to learn the experience and opinion of other growers as to these grapes.—AMPELOGRAPH.

—Kingsville.

Fruit Tested in Muskoka.

The Russian Apple received from the Association in 1885, has stood two winters well without losing an inch of wood; the Vladimir Cherry also, but I protected it the first year.

I had a very good crop of grapes this season, about one third ripe and picked when the frost of October 3rd and 4th compelled me to make the rest into wine. The first to ripen were the Moore's Early, Jessica (a delicious, sweet grape,) Concord, Worden, Lindley (the most hardy, vigorous grower and best bearer I have,) Agawam (later and more delicate); Niagara, Lady, Martha were not ripe enough to tell their flavor. I think I allowed too many bunches to grow on the Niagara.—F. W. COATE.
—Cape Elizabeth, Rosseau, October 15th, 1888.

Winnipeg.

SIR,—I feel grieved to see the quality of apples from Ontario coming here; they are mere culls, with usually a few good apples on the top of the barrel. The market is flooded with such and the general impression prevails that we have no better. Prices are down low and shippers are losing heavily. There is a prospect of prices being lower still, but no chance that I can see of improvement. If British prices are anything near the mark, it would be

better to send all there that is really good, as freights there are, in any case, much in favor of the shipper compared with freights here. It is easily seen, also, that there is a great lack of despatch in the C.P.R. in forwarding freight here—and as for carriage, the fruit has the appearance of having had a more than usually rough handling in passage here. I never saw such imperfect, badly bruised fruit. We certainly cannot congratulate the C.P.R. on anything they are doing for Ontario fruit growers.

California grapes, which are very fine, will practically shut ours out of this market this

season, I fear.—ALEX. McD. ALLAN.—*Winnipeg, Oct. 22nd, 1888.*

G. T. R. Denies Favoritism.

SIR,—Yours of 26th received to day. There has been no such rate as 48 cents per barrel from any point in Ontario to Liverpool; \$1.00 is the best figure that can be obtained, and even this is only good for present shipments.—ROBT. QUINN, District General Freight Agent.—*Hamilton, 29th Oct., 1888.*

OUR FRUIT MARKETS.

Shipping Direct to London.

Regarding shipments direct to this port, I will not agree that it is cheaper. The freight may look lower, but the expenses of dock dues, carting, &c., will cost you from 9d. to 1s. 1d. per barrel, which, by way of Liverpool, is inclusive, and above all, the fruit gets much more knocked about than coming via Liverpool.

You may commence making shipments of Russets and Spies about the middle of November. With Spies you must be assured that they are really *sound*, hard fruit, otherwise the condition at the time of arrival is bad. Good choice Russets ought to do well.—J. B. THOMAS.—*London, 27th Oct., 1888.*

Covent Garden, London, England.

Our market has been very good for fair fruit, Greenings making from 12s. to 15s.; Baldwins, 12s. 6d. to 17s.; Fancies from 17s. to 25s., but as regards Canadian fruit the arrivals appear to be worse this season than in the past; the packing is very faulty, as well as the want of discrimination as to the class of fruit that will stand the voyage.

Your American contemporaries have taken the lesson from past years, and with the result that they take care to pack and ship the proper fruit, with the result that is knocking Canadian fruit entirely out. We know, of course, that later on when you commence to ship the harder fruit, better results will follow, but it is as well to commence well and finish better, than to commence bad and finish better.—J. B. THOMAS.—*London, 20th Oct., 1888.*

Liverpool.

MESSRS. WILLIAMS, THOMAS & Co., writes under date of 8th November as follows:—

Sir,—Supplies of Apples during the week have been plentiful, but more moderate, consequently prices have improved, we quote: Kings, 18s. 3p. to 18s. 6p.; Baldwins, 12s. to 14s.; Greenings, 12s. 6p. to 15s. 9p.; Russets, 14s. 3p. to 15s. 6p.; 20 Ozs. and Ribston Pippins, 14s to 17s. 3p.; Various, 11s. to 16s. 9p. Good green fruit is scarce and wanted.

Advices from New York are to effect that shipments from that State will be light for some time, so can recommend your shipping.

REVIEW.

Transactions Iowa Horticultural Society, 1887.—Geo. Van Houten, Lenox, Iowa, Secretary. A volume of 437 pages, bound in cloth, and containing many interesting papers, from which we hope to find room for some selections.

Proceedings of the Fourth Annual Convention of the Society of American Florists, held at New York City, August 21st, 22nd and 23rd, 1888. W. J. STEWART, Boston, Mass., Secretary.

Illustrated and Descriptive Catalogue, Simmers' Flowering Bulbs.—J. A. SIMMERS, 147 King St. East, Toronto.

Lovell's Illustrated Catalogue of Trees and Plants.—J. T. LOVETT, Little Silver, N. J.

The American Agriculturist, 751 Broadway, N. Y. The American aloes, our native palms, and the glacier pink, a beautiful flower of the higher Alpine regions, are described and illustrated in the November number.

American Grape Vines—Semi-Annual Price List, Fall, 1888.—BUSH & SON & MEISSNER, Bushberg, Jefferson County, Mo.

Wholesale Trade List of the Cayuga Lake Nurseries, also of Foreign Fruit Tree Stock, &c.—H. S. ANDERSON, Union Springs, N. Y.

Circular to Nurserymen, concerning next Meeting of the American Association of Nurserymen at Chicago in June, 1889, at which a nurserymen's institute is to be held.—CHAS. GREEN, Secretary, Rochester, N. Y.

Catalogue D'Oignons a Fleurs, &c.—H. SCHMITZ, 20 Rue d'Erabrant Gand, Belgium.

Wholesale Catalogue American Grape Vines, Small Fruit Plants, &c.—GEO S. JOSSELYN, Fredonia, N. Y.

Rust (Puccinia graminis)—Bulletin 36, by PROF. J. HOYER PANTON, M. A.; issued by Ont. Dept. of Agriculture.

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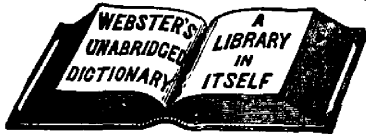
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This Journal is published wholly in the interests of **Fruit Growers and Farmers**, and contains the fullest information upon this subject, both for professionals and amateurs.

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PLANT DISTRIBUTION.

In addition to the above, every Subscriber may make one selection from the following list of Plants, etc. to be distributed in the spring of 1889:

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WHAT OUR FRIENDS SAY OF US :

A knowledge of the habits, care, etc., of the different fruit trees, plants, shrubs, flowers, etc., is not possessed by most of garden managers, and as a consequence great losses and failures in many different ways occur. Now to help this the "Canadian Horticulturist," a monthly magazine at \$1.00 a year is considered invaluable. In it, just at the right time of the year, appear remedies for the many new garden pests, descriptions of choice and new fruits, with colored plates, and in fact we couldn't begin to enumerate its varying and always interesting contents.—*Bradford Witness.*

The "Canadian Horticulturist" for January is just to hand, in a new and beautifully designed cover. It contains a colored plate of the lovely Iris that is a treasure of art. It is now recognized as the leading Canadian journal of Horticulture.—*Canadian Agriculturist.*

No. 7 of Vol. 11 of the "Canadian Horticulturist" is before us, and a very nice number it is, on fine paper, fine print, and filled with interesting matter, with a fine tinted lithograph of the winter St. Lawrence apple for a frontispiece. It also has, among other cuts, one of a wheelbarrow ladder, which strikes us as a very good idea.—*Ex.*

We are in receipt of the "Canadian Horticulturist" for July, published by the Fruit Growers' Association of Ontario, Grimsby, and it is, as usual, brim full of matter on Horticulture. Its visits every month are looked forward to with pleasure. It is worth double the money that is paid for it, and is invaluable to those devoted to Fruits, Flowers and Forestry.—*The Advance, Stouffville.*

The "Canadian Horticulturist" for May is one of the best numbers of that really excellent journal yet published. The colored plate represents a life picture of the German Prune, a plum that has gained great favor with fruit growers, and was highly spoken of at the Association meeting at Collingwood last year. The "Horticulturist" is worth more than the subscription price to any person engaged in fruit culture or in gardening.—*Meaford Mirror.*

There is scarcely anything relative to the flower garden, the vegetable garden, the small fruit garden or the fruit orchard that the "Horticulturist" does not deal with, either by its competent editor, L. Woolverton, M.A., or by some of its staff of able contributors.—*Ex.*

The "Canadian Horticulturist" appears to improve with each number, and is winning for itself a place long filled by American publications, which it is superior to in every way for the Canadian fruit grower, as it deals largely with Canadian subjects, and the fruits most suitable to our climate.—*Flesherton Advance.*

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