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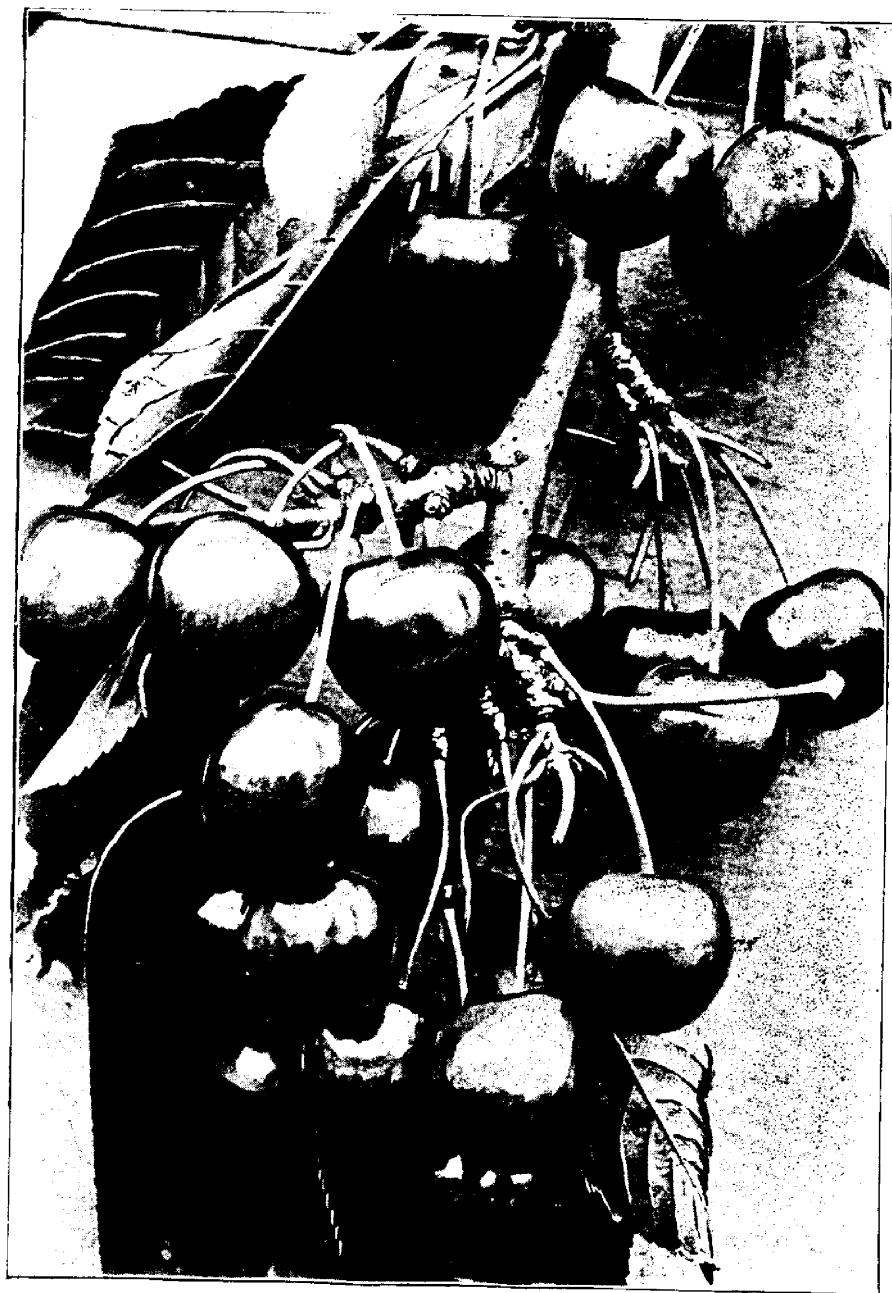
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YELLOW SPANISH FRUITING BRANCH EXACT SIZE, FROM PHOTOGRAPH.

THE
Canadian Horticulturist

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THREE BIGARREAU CHERRIES.



THE cherry season in the Niagara District, which began about the 10th of June with the Early Purple (Fig. 970) and closed about the 10th of July with Windsor and Montmorency, has been one of the best seasons on record. Frequently the cherry rot sets in, and favored by occasional showers almost ruins the whole crop, giving much work on the assorting tables, and little satisfaction to the grower. The very finest looking varieties, such as Napoleon and Yellow Spanish are most subject to this fungus; they

grow in close bunches and this habit of fruiting favors the rapid spread of the rot from cherry to cherry. Then again the aphid appears at times in numbers innumerable, and renders the leaves and fruit sticky and disgusting in appearance. This year, however, the dry weather has been a disguised blessing in preventing fungus growth of every kind, while other conditions have destroyed the aphid. Nothing, therefore, interfered with the perfect maturity of a magnificent crop, which has probably surpassed any previous record.

The three largest cherries of the season, grown at Maplehurst, are Yellow Spanish, Napoleon, and Monstreuse de Mezel.

One immense tree of the first named, thirty years planted, yielded this season three hundred and sixty quarts, while an instance is reported of a Napoleon yielding four-hundred and fifty quarts! The Monstreuse de Mezel is

also a productive variety ; a fine tree, thirty years planted, gave us one hundred and eighty quarts, not quite so many as the others but so enormous in size, and so rich in flavor, that they brought the highest price in the markets.

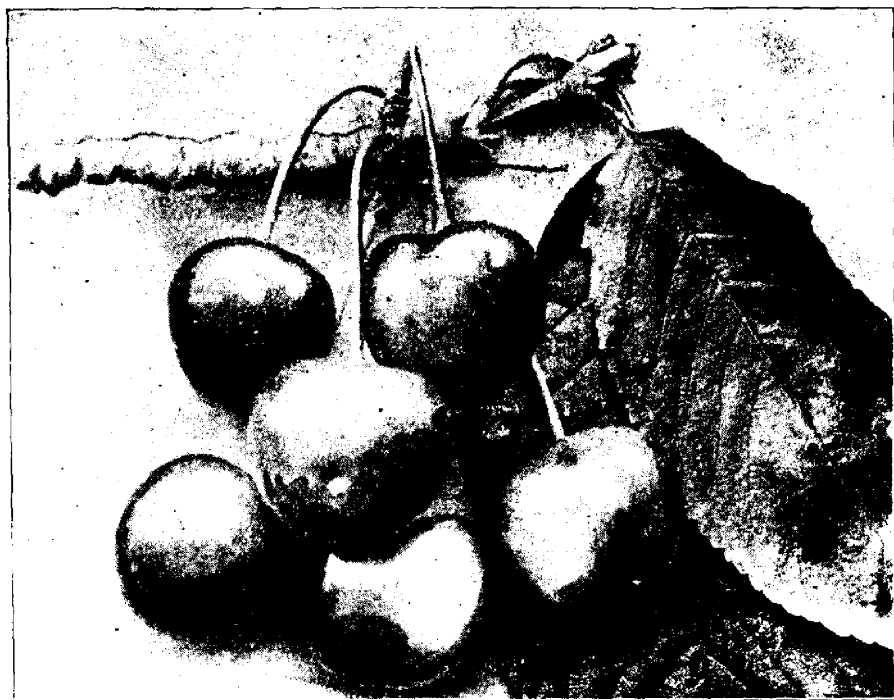


FIG. 975.—YELLOW SPANISH.

All three cherries above mentioned are of the Bigarreau, or firm fleshed class of *Prunus avium*. The Yellow Spanish (Fig. 975) is a type of the Bigarreau division, and, while firm it is juicy and possesses an excellent flavor. This cherry was introduced into America in the year 1800, and is a most valuable variety, fully maturing with us about the first of July or later, according to the season.

The Napoleon is a fully larger cherry than the Spanish, which becomes richly shaded with deep red in the sun. It ripens a little later than the last mentioned variety and the tree is usually much more productive ; the fruit is, however, not so highly flavored, and therefore not so much esteemed as a dessert cherry.

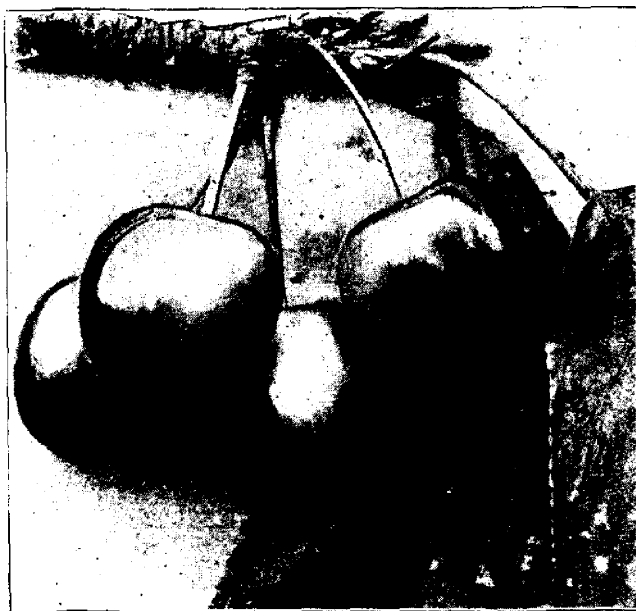


FIG. 976.—NAPOLEON.

The great drawback to both these varieties of cherries is their great tendency to rot on the trees before or at maturity, and for that reason we Canadian growers too often harvest them while still immature, and lacking both color and flavor.

The Monstreuse de Mezel, (Fig. 977) or Mezel for short, as we prefer to call it, surpasses any cherry we know for beauty, size and flavor combined. It very much resembles the Tartarian in appearance, but is larger, later, and firmer in flesh, while the tree is a more vigorous grower, according to our experience at Maplehurst. It is fully mature the first week in July.

In this connection it may be interesting to our readers to have a view of a corner of the packing house showing a shipment of Mezel cherries just ready for covering. We use a special basket for fancy cherries like these, with name of shipper on each end. The fruit is first turned out on a packing table

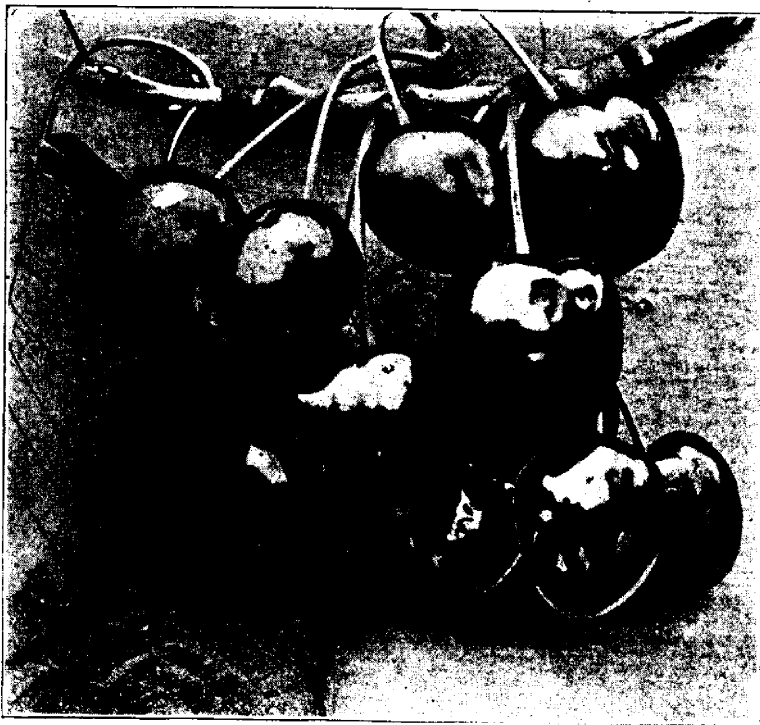


FIG. 977.—MEZEL.

the inferior cherries thrown out, and the fancy grade carefully placed in the basket which holds about six quarts. The stems of the top layer are all turned down which much improves the appearance of the package.

We have much yet to learn about fancy packing, but the grower who can successfully accomplish it will be amply repaid.

We may caution Canadian growers not to plant largely of these finer varieties of foreign cherries outside the peach belt, for their fruit buds are little hardier than those of that fruit ; but there are varieties which they may plant with profit, to which we will refer at some future time.

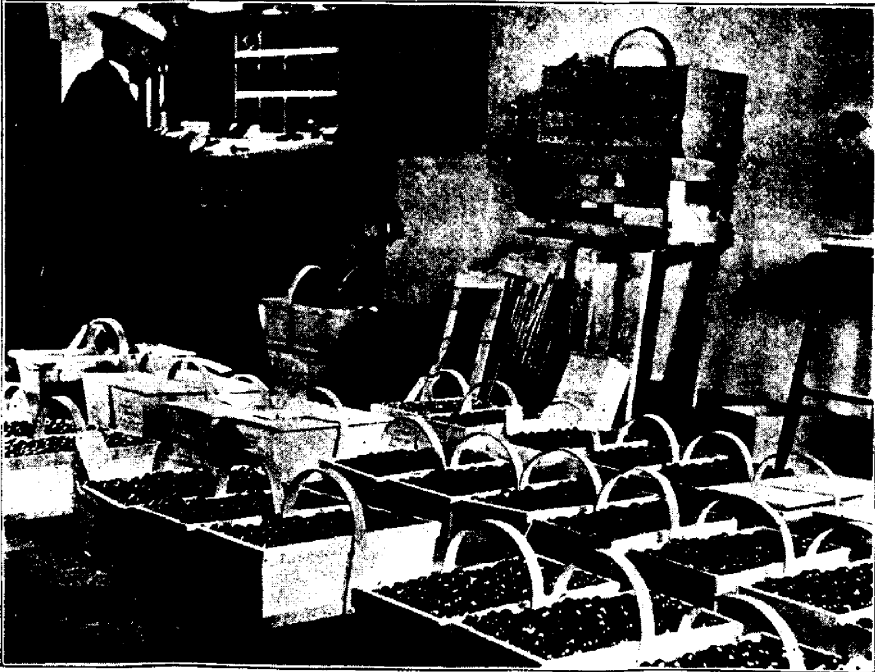


FIG. 978.—MEZEL CHERRIES PACKED FOR SHIPMENT.

Mahaleb Cherry Seedlings are the favorite for cherry propagation with American nurserymen. They are a small, wild tree found on sand knolls and dry rocks, over Western Europe, with white bark, hard, close-grained, dark-colored wood, small black bitter fruit and flowering in short racemes. The wood, leaves, flowers and fruit are so powerfully perfumed that it is known as "the perfumed cherry." The mazard seedling is from the pits of the wild red cherry of Europe ; it is nearly allied to and supposed to be the original form of many of our cultivated varieties. The choke cherry is neither the one or the other, being an American seedling known as the *Prunus Virginiana*. The myrobolan plum from seedling is an imported plum from Europe used extensively by American nurserymen as stocks upon which to graft and bud plums, prunes and apricots.

—Director S. M. Emery, Mont. Exp. Sta.

A HUGE TOMATO.



EARLY last month the writer received from Mr. John Kerman, Grimsby, samples of his fine *Ignotum* tomatoes grown under glass here at Grimsby. The samples were accompanied by the following note:—

SIR:—I would like to call your attention to the large tomato which weighed when picked 1 lb. 11½ oz. This is the largest tomato I have ever grown. I picked one a few days ago which weighed 1 lb. 8½ oz. I sent it to Prof. Bailey, of Cornell; when acknowledging it he said it was by far the largest hot house tomato he had ever seen, and he had only grown one larger outside, which was of the variety *Ponderosa*, and weighed 1 lb 10½ oz.



FIG. 979.—*IGNOTUM*, REDUCED NEARLY ONE-HALF.

We measured the large sample referred to, and found it was 16¼ inches in circumference; and then we photographed it that our readers might see it also. Mr. Kerman has about four hundred feet of glass devoted to growing the tomato, and seems to thoroughly understand his business. He has wide connections with the best American markets where his fine stock commands the best prices.

Wash for Peach Trees.—We usually wash our peach trees in May with a solution composed of 15 pounds of potash to a 48 gallon cask of water and 1 quart of crude carbolic acid, and lime enough to make a good paste. We have used cotton hull ashes for a wash, but it burned the trees some. A bushel of ashes was put in a barrel of water and applied in May. The acid, potash and lime wash is so offensive to borers that we have but a small percentage of them. —J. H. Hale, Connecticut.

SELECTION OF APPLES; PACKING.



IN sending apples to England, the only way in which they can be secured from bruising is to pack them in proper boxes. Most of our Quebec apples are too tender in flesh and skin to stand packing in barrels without bruising. The Fameuse, Wealthy, Winter St. Lawrence, McIntosh Red, etc., may be classed as late autumn and early winter fruit, and are in perfect order for the table between the 1st November and the middle of December. It is a vital error to pack such apples in barrels, for it is certain that when they arrive in England they will be found to be bruised or crushed.

In barrels, apples will hardly stand even a short journey, unless they be packed very tightly and the tops and bottoms of the barrels be pressed so firmly into the fruit that there be no rattling about; on the other hand, our tender apples cannot be packed in this way without getting crushed, and even the slightest bruise will soon cause rotting. For the last ten years I have adopted a patented box that has given me perfect satisfaction: see engraving. (Fig. 980).

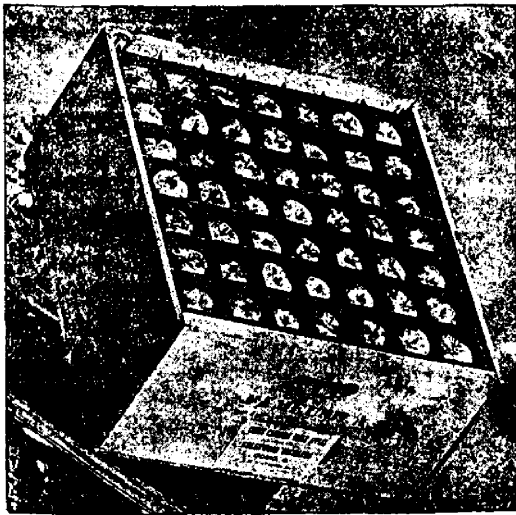


FIG. 980.—PATENTED BOX FOR FRUIT.

In these boxes we even succeeded in sending Duchess apples in perfect order, last season, to Liverpool and Edinburgh. Autumn St. Lawrence, too, arrived in England in capital condition; but as this variety was not known there, and the color did not please the English, my agent did not return me

much encouragement. The Wealthy, Red McIntosh, and Winter St. Lawrence were highly appreciated. Their deep, rich color pleased the buyers. The best way of finding out the state in which the fruit arrives in England is to have agents there to watch the arrival of our apples.

The Wealthy and the Winter St. Lawrence, which I sent to my brother, in England, via London, about the 1st October, not only reached him in perfect order, but on the 7th December, when he wrote to me, were as firm and crisp as need be. This shows clearly the excellence of the compartment-box for packing this kind of fruit.

If the boxes are filled in the orchard, and the fruit carefully handled, it cannot be bruised or injured unless the boxes are flung about or smashed. I must say that, during the last ten years, great improvement is visible in the way boxes are dealt with aboard ship. For more than three years I have had no complaint to make. The boxes weigh about 65 to 70 lbs. when full. They can easily be carried by putting the fingers into the slits at each end of the box.

Last year, I sent a good many empty boxes of this kind to orchardists in Nova Scotia, who wished to try them for exporting their famous Gravensteins. I hear they answered perfectly. Of course, the apples whose flesh is firm and hard enough to stand the voyage when packed in barrels, cost less to send, and most of these apples will for many years continue to be sent in this way.

The Tasmanian apples, which are sold in great quantities in spring and summer, are sent in long boxes, each apple wrapped in paper; and yet this fruit, that has several thousand more miles to travel than our Canada apples, reaches England in perfect condition.

If we Canadian fruit-growers study the demands of the English market as earnestly as our exporters of butter and cheese have done, we shall soon see that it is absolutely necessary that our fruit should reach England without bruises or any other injuries.

R. W. SHEPPARD, JR., Montreal.

Professor Troup, of the Indiana Experiment Station, writes in the North American Horticulturist that sixty-seven trees of Missouri Mammoth quinces near Indianapolis, and ten years old from the graft, yielded last year 140 bushels of the finest selected fruit. Quinces of this variety are said to ripen ten days earlier than Orange quinces; they are much larger, of firmer texture and quite as highly flavored. Professor Troup adds that the failure of a quince-tree to produce a good yield is more often due to neglect than to any deficiency of soil or severity of climate.

NOTES ON GOOSEBERRIES.



RECEIVED on July 8th by express a number of gooseberries from John Carnie, Esq., of Paris. These consisted of two varieties: Carnie's Yellow and Phœnix. The former were in very bad condition, the Phœnix being greener were in better shape. Carnie's Yellow, as the name indicates, is yellow, and a very fine berry apparently. In size about equal or a little larger than Chautauqua, 12 berries weighing $2\frac{1}{2}$ ozs. Phœnix is a magnificent berry, as large or larger than Triumph, 12 berries weighing $3\frac{1}{2}$ ozs. I find the bush of Carnie's Yellow to be quite vigorous, and, as Mrs. C. says, it is a great cropper: it will no doubt be a popular variety. The foliage and tips of the young wood of every variety under test mildewed with me this year, drought with heavy dews at night seems to be favorable for the growth of this fungus.

I cannot imagine where friend Brooks got the idea that Chautauqua is reported by me as a small berry. I may have in private correspondence carelessly spoken of it as small as compared with English varieties in general. The Lancashire Lad is certainly a hairy berry, and Mr. B. is correct in using the term *hairy*, as prickles don't correctly express the fact. No doubt the berry in its wild state was covered with what may be properly called prickles, but cultivation has changed the character of these till hairy or pubescent is the more correct expression.

Yes; my private opinion is that vigor is absolutely essential in any variety that it shall be a success in Canada, and every year strengthens this opinion. I find that as a general rule the vigorous growers are less effected by mildew. The longer, cooler summers in England, with absence of mildew, make the conditions quite different. However, as my duty is to report what I find to be the truth, and not what I think, I may have reason in the future to change my mind.

South Simcoe Exper. Station.

STANLEY SPILLETT,

Small Cost of Spraying.—During last year the Delaware Experiment Station made some exhausting tests as to the cost of spraying trees. In using the Bordeaux mixture they sprayed the trees six times, and reckoned in the cost of materials and cost of labor, and found it to be 2 cents per tree per spraying or 12 cents per tree for the season. The result was that the rot was reduced to one-third what it was on the unsprayed trees. They found also that four sprayings gave about the same results as six sprayings, and that there was about twice as much rot with two sprayings as with four or six. So we see that four sprayings, or 8 cents per tree, is all that it really costs.—New York Farmer.

THE FRUIT GARDEN.



PEACHES and plums may taste better when they are allowed to ripen perfectly on the trees before being plucked, but apples or pears don't: they should be gathered before they are ripe and brought indoors into a cool, dark room or cellar and there allowed to mellow at leisure. Among pears we now have Doyenne d' Ete, Osband's Summer and Giffard, in using condition, and some Margaret and Clapp's Favorite plucked and in store. When gathered eight to twelve days before they are ripe they don't assume that dry, insipid condition that pears that ripen on the tree are apt to have, they are juicy, refreshing and well flavored, and they keep longer. Early fruit when stored in the house or cellar is apt to be kept too warm and dry, avoid this as much as practicable, heat hastens maturity and decay, and dryness causes it to shrivel. While we can stow winter apples in bins or barrels with perfect safety, keeping fruit in any such bulk at this time of year is to invite decay.

It is now time to set out strawberry plants. The ground should be deep, rich, and moist if possible. The best sorts to plant are the ones that thrive best in your locality, for no strawberry is good in all places. We recommend for trial Sharpless, Bubach, Parker Earle, Marshall, Timbrell and Brandywine. Some one of these is almost certain to suit your ground. What are called potted plants, are runners that have been rooted into little pots plunged under the brim in the ground; when the pots are filled with roots the runners are severed from the parent plant, and are fit for planting out. Before setting them shake the ball of earth and roots a little to unravel the roots somewhat, and plant firmly. Strawberry plants set now or for six weeks to come should yield a fine crop of big berries next June. While as potted plants is an excellent way to get young stock from the nurseryman, it isn't at all necessary in the case of saving runners from our own beds, when they are well rooted lift them with a trowel and plant them out at once. Our rows are two feet apart, and hills about 20 inches asunder in the row, three plants in each hill. We also have a good many rows where the plants are set six to eight inches apart in the row and not in hills at all. But this system is only for the garden, in the field the rows should be three feet apart.

As soon as red raspberry bushes have finished bearing cut out the old canes and the most slender and supernumerary of the young ones, but don't shorten back any of the young canes retained for next year's crop, it would cause them to sprout again, hence become more tender than if left uncut, hence more apt to winter kill.

Thin out old, scraggy, and worthless wood from the currant bushes to allow of the young stems remaining ripening up their wood better.—Gardening.

YIELDS AND PROFITS OF THE BLACKBERRY.



THE year following the planting, there should be a sufficient yield to pay for the cost of the plantation to that time. The third year, the crop should be large, and from that time on, the yield should be nearly uniform, when the seasons are good. I do not know the limit to the profitable age of blackberry plantations. It is certain that it should continue to bear heavily for twenty years if it has good care, and I am told by careful growers that a patch will last even longer than this. As the plants are generally grown, however, they cannot be expected to hold out this long, for the land becomes hard and foul, and the plants full of dead and diseased wood.

Blackberries are capable of yielding 200 bushels per acre, year by year, unless very unfavorable seasons intervene. This station once made an inquiry amongst fifty growers in various parts of the country as to the average yield of blackberries. The lowest return was 40 bushels, the highest over 300 bushels, and the average of the whole fifty was 98 bushels per acre. The prices in this State range from seven to fifteen cents a quart. J. M. Mersereau, of Cayuga, one of our best blackberry growers, recently said to me: "Let me choose the soil, and I will guarantee to clear \$200 per acre on blackberries." In our own experience at Ithaca, blackberries have sold the most readily of any of the bush fruits, at prices ranging from eight to fifteen cents per quart. Granville, Cowing, Muncie, Indiana, a most successful grower of this fruit, makes me the following statements respecting the profits of it: "The blackberry is probably the most profitable of the small fruits. Owing to its firmness it can be kept much longer in good condition than the strawberry or raspberry, and often brings better prices. The best varieties are enormously productive, their cultivation comparatively easy, and a well kept plantation of them should last a life time." Whilst all these figures and statements are tempting, it must, nevertheless, be said that the blackberry, like all other fruits, yields the golden harvest only to those who work for it, and who think whilst they work.—Cornell B. 99.

Chestnuts.—The American chestnut has the sweetest kernels, but are smaller, and the trees must be some fifteen or more years from the seed before they bear. The European, or Spanish chestnut, has nuts nearly double the size of the American, but are tamer in flavor. But the seed will bear at about ten years from the seed. The dwarf Chinquepin Chestnut will often bear the second or third year from seed, but the nuts are so small, that they are not in general use. The Japan chestnut, is a comparative dwarf, though a stronger grower than the American Chinquepin,—but the nuts are as large as the European chestnut, with about the same taste. Like the Chinquepin, they bear early. But all the kinds bear early when grafted from bearing trees.—Meehans' Monthly.

CLOSE PRUNING AND TYING OF RASPBERRIES.



OR several years back a wealthy neighbor in sight of my home, has had a raspberry patch which he has pruned very closely in August and kept tied to small stakes scarcely larger than bean poles and four and one-half feet high. The varieties are Gregg and some early variety, probably Souhegan. Thorough cultivation has been given by plowing in the spring and cultivating after fruiting. The canes are allowed to grow at will until after picking when the old wood is removed and the new tied to the stakes and the ends cut off about five feet high. Short laterals grow after this pruning and contrary to what one would suppose, do not winter kill any worse than when pinched early in the season. I think this plantation must be about ten years old, and up to last year was wonderfully productive. Last year anthracnose injured a part of it, but there is a little this year. However I think it has seen its best days and should be cleared up and the ground treated to rotation crops.

Nearer home a young gardener is practicing the same method and his plantation seems wonderfully productive, but what the yield is I am unable to say as I dislike to ask him. He might think it none of my business and give me an answer that might not tally with the facts. He does not have a stake for every hill but uses No. 12 wire with stakes 20 or more feet apart. The merit of the plan lies in the effect that the canes are up out of the way and secure from breaking by wind, ice, or snow, and the fruit gets abundant light and air and is easy to pick. The young gardener grows early cabbage, beets, onions, radishes and lettuce in rows between the raspberries which are seven feet apart, one way, and three the other. The plantation is close to the barnyard and manure is applied with a wheelbarrow. The manure helps the berry crop, and it is possible the berries use some portion not needed by the vegetables. I am thinking of wiring up an acre which I planted four feet apart, believing that I can get enough more from it to pay for the work and expense with a handsome profit to boot.—L. B. Pierce, E. F. G.

A Medina, N.Y., letter dated June 13, says: "Orleans County fruit growers have a new apple destroyer to contend with in the form of a small green worm which eats into the apple itself when it has begun to form. The worm is smaller than the dark worm which sometimes attacks the matured fruit and eats its way into the heart of the apple, causing it to wither and die. Some orchards in this vicinity are most devastated by this new pest. In the early spring the most promising fruit was the Baldwin, which is grown in large quantities throughout the country. This apple has come along so rapidly, however, that many orchards are far in advance of the season. In several large orchards the fruit will be premature. Already in some cases the Baldwin has begun to color, though the apple is but one-third the usual size."—Fruit Trade Bulletin.

GREEN VEGETABLES AND FRUITS.



THE cabbage has been laid down as the healthiest of green vegetables. The early spinach also has its virtues, and it is said that the American dandelion root and leaf, whether used as greens or as a salad, has a direct agency in assisting the liver to do its work. The tomato is acknowledged as one of the most valuable of blood purifiers, and is largely eaten. The silica in corn and peas has the reputation of being of use to growing children, lettuce and celery of resting the nerves, onions and onion tops of aiding digestion, encouraging sleep, and stimulating the circulatory system, and carrots of preventing dyspepsia; while the turnip is very nutritious.

Cucumbers come in season to cool the heated frame. Strawberries and cherries are cooling and purifying; the juice of the apple and orange, taken in the early morning, is a fine tonic, and the peach, when in perfect condition, is well known as a corrective. A change to a vegetarian and fruit diet for a day or so will sometimes work wonders in quickly restoring health.—New York Farmer.

RUSSIAN PLUMS.

SIR:—I note by the excellent "HORTICULTURIST," and also by letter from Mr. Craig, that the Russian plums are not generally proving satisfactory as regards production, and perhaps in quality. I have quite an assortment of them, received from Prof. Budd of Iowa, four and five years planted, and am getting as much fruit from them as from other varieties, except perhaps some of our own and western wild kinds. They are perfectly hardy, and vigorous growers. It occurs to me that perhaps my method of planting with all these varieties and species together, closely planted, may account for my better success. The soil of my plum orchard is sandy on the surface, but deeply underlaid with clay at a depth of one or two feet. Surface water does not stand upon such a soil; but there is always moisture at a moderate depth. I am aware that perhaps few would have just such a piece of ground; yet my experience might afford a hint as to the needs of the Russian, and indeed all plums, for I see very little of a distinguishing character in the Russians, except perhaps a somewhat dwarf growth and early fruitage. For profit alone I should prefer our own wild plums (Western and Eastern alike), so far as I have gone in plum culture. They are immense croppers, and the fruit sells at wholesale for quite as much money as the foreign sorts.

Newport, Vt.

T. S. HOSKINS.

SOME NEW GOOSEBERRIES.



N article in an English paper recently giving almost fabulous reports concerning the productiveness of gooseberries in that far-away island, led me to investigate the merits and success of certain new and large varieties now being tried in this country. That Gooseberry culture has been greatly stimulated and increased either by improved methods of culture, or by better and larger sorts recently brought out, is evinced by a recent order given by one man for 90,000 plants. The English article above referred to stated that 27 tons of fruit had been harvested from 10 acres and the following year 30 tons. But the variety there cultivated is the Industry and it does not generally succeed in this country. It is too productive and lacks vigor.

An amateur has been testing nearly all of the new sorts as they have appeared and finds a ready market for all the fruit he can grow. Downing with him ranks high, but is small to medium in size; 29 points. Smith's Improved, small, quality best, has 30 points in its favor. Keepsake, medium to large, 27 points. Industry, large, is graded at 27 points. Red Jacket very productive, 32 points. Triumph, or Columbus, which is the same, is very large and scores 27 points. In freedom from mildew Downing ranks as best and Red Jacket as second. With me the report would be reversed, for I have not found a trace of mildew since I have had that variety and the Triumph has been equally free though not so vigorous a grower. If these large varieties should prove as productive and healthy as the Houghton a great and valuable addition will have been made to the fruits of the temperate zone and especially to us in America.—Farm and Home.

Elberta in Michigan.—The Elberta was doing finely. It marks an era on peach culture as great as the Concord grape did in grape culture. It is large, handsome and of uniform size and very excellent quality. Planters of peach trees are now growing varieties that will give a succession through the season, whereas they formerly planted all the late varieties. Continued cultivation from early to late has been found the best for peach orchards, beginning with the blooming of the trees. Orchards that were not cultivated until June produce fruit, but its size was not nearly as large as those cultivated early. The fruit is mostly handled by shipping associations and the cost of grading, packing, packages and marketing is 18 1-2 to 20 cents per bushel. One of the most profitable methods in peach culture is proved to be that of thinning the fruit in its early stages. There is much less strain upon the tree, the fruit is more uniform in size, and much larger and finer than where not thinned. Mr. Miller closed with the remark made by an intelligent observer of mankind, that the commercial fruit growers were the most intelligent class of agriculturists.—Country Gentlemen.

SMITH'S GIANT BLACK CAP.

On the 8th of July we called on Mr. A. M. Smith to see his seedling black-cap. He has about half an acre in full bearing, and carrying an immense load of fruit.

Mr. Smith thinks it is showing sufficient merit to deserve dissemination among our fruit growers, as a first class hardy and productive raspberry. Our acquaintance with it is too limited to say much in this regard as yet, except

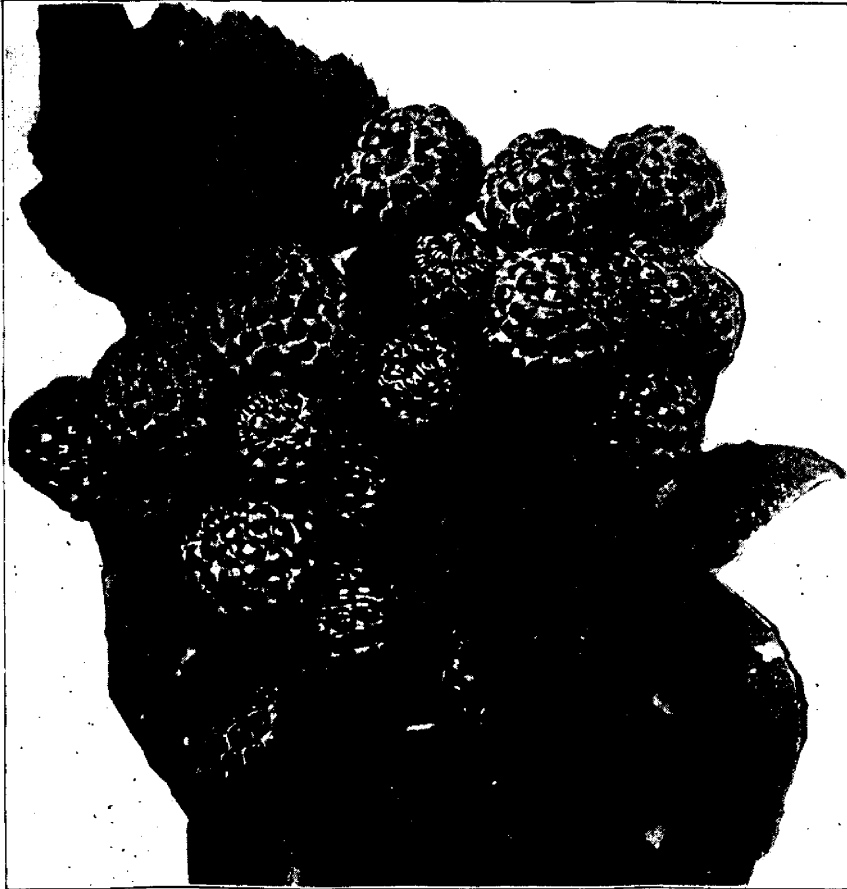


FIG. 981. — SMITH'S GIANT BLACK CAP.

to note that Mr. Caston calls it hardy at our Simcoe station, north of Barrie; and the crop at Mr. Smith's speaks for its productiveness; but all this needs farther test at our other stations. In size it is much the same as Gregg. The engraving is from one of our photographs of this berry, showing two clusters of Smith's Giant, natural size.

WESTERN JOURNALISM.



copy of the "Montana Fruit Grower" has just been examined by the writer with considerable interest. The free and easy manner with which the typical Western Journalist and correspondent uses the English language is well known and easily recognized. That this peculiar style of diction is not in vogue only with daily and weekly news and business sheets, may be inferred from the following sentences taken from a more than usually racy article in the Journal mentioned above, in which the practice of buying foreign grown nursery stock is denounced and the danger of importing injurious diseases and insects is emphasized.

"Here we see a quarrel in progress between New York and Washington as to which has given us the great wild, woolly, white-eyed, bald-faced, and peaked-toed tree aphid. This terrible monster was purchased by some 'd——' like myself, from one or the other of them, when he could have bought better stock at half the price right across the next section from his home ranch. Yes, Mr. Editor, that is just what I did, although I did not import the wild and woolly monster then or since. I can, however, produce a man who knows the "wall-eyed critter" by his roar, who found one, a whole one, alive and foaming at the mouth, on a tree that came from New York the same as mine did. Mine, however, was small fruit, and had sat in a flat car at Missouri 7 days, and were dead or died shortly after planting. I paid \$1 apiece for some varieties. Three of us—neighbors—saved one tree, a plum, out of orders aggregating \$50, with the best of care, out of that flat car. At the same time I planted the same kind of fruit from the nursery across the section, which are in blossom this year, and may perhaps bear some fruit. These last did not cost me a cent, the owner of the nursery having given them to me to place along side my boasted \$1 apiece New York stock to see if they would grow, he said. He is an old country German, was a 'König's Gärtner' there, sort of purveyor to the 'Pooh Bah,' of Germany, I suppose."

The following advice is given with regard to purchasing Eastern nursery stock :

"I say, let us ranchers buy from neither a 'New York insect and tree raiser,' or a 'Washington bug and blackberry grower,' or an 'Idaho snail and strawberry planter,' but, let us buy our fruit trees right at home in Montana. Let us band together to get State laws passed so that no one can sell these pestiferous, infectious things to suckers like myself who give them a dollar apiece for their dead and dying—travel-killed—bug coffins. We shall not anyhow have to be paying freight on such monsters as the woolly aphid."

Comment on the above is hardly necessary. We trust that the need of this vivid "Arizona Kicker," style is not felt at present nor likely to be demanded by CANADIAN HORTICULTURIST readers in the future.

J. C.

PACKING APPLES FOR THE LONDON MARKET.



THE Tasmanian Journal of Agriculture contains the following advice from a London writer, on packing fancy apples for that market.

Grade the apples so that each box contains fruit of equal size, that is, do not put two sizes into one box. It always damages the sale. If the packer has three sizes let him put them into three different sets of boxes and sell them in three grades.

Another important thing is to pack the apples in rows, all with their noses up and stocks down. They look so uniform when opened, and show to the buyer that the packer may be trusted as knowing his business. It is a most foolish thing if there is a little hole at one corner or elsewhere to place a small apple in it. Instead of a small apple stuff a piece of paper there. If the buyer sees only one small apple on the top he will surmise there are others underneath, and bid a shilling less for the box; and if there are 10 boxes in the lot the packer loses 10s for one small apple's sake. Again, the packer should remember the one golden rule for success on the London market—send nothing but the very choicest fruit—and then he will soon get a reputation and find his goods sell on his brand. It is so with several large French exporters, and it should be the honor of the Australian exporters to achieve a similar reputation. Inferior goods of all kinds London is full of, and they never pay the grower. It is the main road to a successful trade to earn a reputation for choice quality goods. It will pay the exporter in the long run better to send 50 boxes of choice apples than 100 of medium quality. It must never be forgotten that there is a very wealthy community of consumers in London who do pay, and are prepared to pay, high prices for choice goods, only it is an absolute necessity that they should be choice. The market for this choice stuff is of course limited, but it is extensive enough to take all the very choicest fruit that the colony can produce.

UNITED STATES A MARKET FOR CANADIAN APPLES.

SIR,—Some of your readers may consider my statement for prime apples an over estimate, but it is not. The apple crop of the United States for 1895 was 65,000,000 barrels or about one barrel per capita. By 1910 the population of the country will exceed 90,000,000 and the per capita consumption will increase as it has done for the past twenty years and at that date if it is only $1\frac{1}{4}$ barrels per capita the total consumption will be 112,500,000 barrels. If *prime* apples can be sold in our large cities at the east at retail for \$4 per barrel and at that price they should yield a fair return to the producer, the consumption will be very great. I was a nurseryman at Rochester from 1853 to 1861 and frequently heard fruit growers at our conventions, warn their fellow members against the

over production of apples, and yet in 1895, with a crop of 65,000,000 barrels, there was no over supply of *prime* fruit, at far larger prices than they commanded in 1855; and if Ontario has 10,000,000 barrels of *prime* apples to send us in 1910 or 1920 they will find a market at prices which will yield a much better return than wheat, barley, cattle, horses, sheep, cheese or butter.

I shall make inquiry and learn the name and address of some *reliable fruit dealer* in this city, and give it to your readers in my next letter. Let me warn them again to *pack with care*, in neat and clean packages, only prime fruit and brand distinctly, and thus establish a valuable reputation.

There were two mistakes in the figures of my last letter, as published, 25,000,000 should have been 35,000,000, and 4,500,000,000 should have been 4,550,000,000.

The Ontario apple is superior in quality to all other American apples. The superiority is due to the climate and for this reason the demand for prime Ontario apples will always exceed the supply when they have an established reputation.

I have received a number of communications from Canadian fruit growers since my letter respecting the shipment of prime Summer apples in small packages from Canada to our Eastern markets, appeared in the July issue of the CANADIAN HORTICULTURIST, asking for the name and address of fruit merchants to whom fruit can be safely consigned for sale. I have made some inquiries and given the subject considerable consideration, and have concluded to suggest that your Association should send an agent to Boston to open up a market in New England with that city as a centre, another to New York City; and still a third to Philadelphia. From these three centres a very wealthy consuming population of 8,000,000 can be reached, south of Portland, Maine, and north of the Potomac River, for the trial of the experiment.

Let all the apples sent to these agents be most carefully selected and packed in neat, clean, fresh cases, or kegs, containing not more than one bushel each. Success depends upon selection, packing, quality, condition and appearance when exposed for sale.

If the crop of Summer apples is abundant, growers can well afford to send only the very best to this market as an experiment. Make them so fine that they will command attention. Brand carefully and distinctly the name "Canada" upon each package and instruct the agents to advertise them as "Canadian Apples." They should arrive here in the night and be sold the next morning at auction for *spot cash* on the wharf where they are delivered from the cars.

Nearly all of the California fruit comes to this market by the Erie Railway, and is opened and arranged at once for sale at auction upon the Erie Railway wharf early the next morning.

In 1894 two car-loads of California pears, plumps, peaches and grapes came to New York on the same train, and were sold at auction on the same wharf at

the same time. One of them sold for \$2800, and the other did not realize more than the freight, ice, and other charges. The first was superior fruit, carefully selected and well packed, the other was a mixed lot in quality, badly packed. Both were in sound condition and healthy, but there was a great contrast in the appearance. One yielded a liberal return, and the other was a total loss to the grower and shipper. Superiority commands a market at good prices, when inferiority must be sold at a loss to all concerned.

Ship Red Astrachan, Benoni, Gravestien, Duchess of Oldenburg, Primate, Sweet Bough, Sour Bough, St. Lawrence, Maiden's Blush, Porter and Fameuse, or Snow Apples. I never have been able to purchase here, during the last ten years, fine snow apples for less than 75 cents per peck. There may be other varieties which are of good quality and fine appearance. Crabs might be shipped to some extent as a trial. The name of the variety should be branded upon the package so as to establish a reputation for it and educate the consumers to ask for it. Fair peaches to-day are sold by the street vendors for one cent each; better ones are three for five cents, still better ones at two for five; and superior Crawford's at five cents each, and the price of the best was firmer than that for those of fair quality.

I purchased three fair sized, southern Red Astrachan apples to-day for five cents. They were soft, coarse grained, very mild in flavor, and thick skinned. Not like those grown in Canada, crisp, brittle, brisk acid flavor, appetizing, refreshing, fine-grained and thin-skinned.

Our crop of apples for 1895 was estimated at 65,000,000 barrels, or nearly one barrel per capita, and yet cooking apples sold here at retail for from \$2 to \$3 per bushel through December, January, February, and March, and prime eating apples at a higher price. The per capita consumption of fruit is increasing as well as our population. In 1910 our population will exceed 90,000,000, and if we consume only one and one-quarter barrels per capita the grand total consumption at that time will be 112,500,000 barrels per annum.

Intelligent, patient, persistent labor, combined with integrity, has opened and held a market in Great Britain for 155,000,000 pounds annually of prime, full, cream, Canadian cheese.

Having had twenty-five years experience as a manufacturer of reapers, mowers, binders, grain drills, broad-cast seeders, horse hay racks, plows, threshers, horse-powers and agricultural engines with the farmers of Canada, I appreciate their high character, industry, patience, persistence, and integrity.

The climate of Canada produces a better apple than any other section of this continent. Prove it by sending prime fruit here, well packed, and establish the high character of Canada apples, and the demand will exceed the supply. Canadian apples retain their firmness, brisk acid flavor, crispness and appetizing quality longer than those from south of the Great Lakes, and are better keepers. Cold storage can be provided in Canada very cheaply, and prime winter apples

can be sent here by the car-load in February, March and April, and sold at good prices. There are far less difficulties to overcome in opening and retaining a market here for 10,000,000 barrels of prime Canadian apples, at remunerative prices, than in making and retaining a market in Great Britain for 155,000,000 pounds of prime cheese or 100,000 head of prime stall fed cattle. The cheese and cattle nets the producers not more than \$15,000,000, while the apples will net not less than \$20,000,000, and cost less labor, and represent the product of less land.

I am sure my friend, the Honorable John Dryden, Minister of Agriculture, who still represents dear old South Ontario in the Commons of the Province, will assist in all legitimate ways to advance the fruit industry of Ontario as he has that of the dairy. Nature has done far more for Ontario as a successful apple producing country, than it has as a cheese or fat cattle producer. Farmers have learned that they cannot cheat a cow or stalled ox of their food or good care with impunity. Neither can they their apple orchards. Our Canadian cousins need not have any anxiety as to the outcome of our Presidential election. We shall route the crazy conglomerates who met, formulated and published a platform of principles at Chicago early this month, horse, foot and artillery, and bury them in the grave with the destructive policy of revenue reform, rag money, free silver, bimetalism, communism, anarchy, Clevelandism, and repudiation, and restore the constructive policy of protection to American interests of every kind, name and nature, and thus enter upon a long period of prosperity with a very largely increased power of consumption under the administration of the incarnation of prosperity and financial integrity—President William McKinley.

We shall not commit financial, commercial, and industrial suicide on the invitation of revenue reformers again so long as the enforced idleness, self-denial, severe and painful economy, and humiliation of the past three years is remembered, and, therefore, Ontario's fruit growers may confidently look forward to a marked increase in the demand for prime apples such as they alone can supply.

Cleveland revenue reform, like the small pox, once in a generation is quite enough for the electorate of this Republic.

I may add that it will give me very great pleasure to assist in every legitimate and possible way to successfully introduce Canadian fruit in Greater New York and vicinity.

With best wishes, I am, my dear Mr. Secretary,

Yours faithfully,

543 Madison St., Brooklyn.

FRANCIS WAYLAND GLEN.

THOSE SCORE CARDS.

At the last meeting of our Association a Committee was appointed to revise and report upon the score cards for judging fruit which had been introduced by the Secretary. This Committee consisted of Messrs. A. H. Pellet, Alex. McNeill, and T. H. Race. The two first named met with the Secretary at his office on Friday, July 24th, and after considerable discussion decided upon commending the following score card for use in judging apples and pears :

Score Card for Apples and Pears.

POINTS.	VALUE.
Color	
Size	
Quality	
Commercial value	
Total	

N. B.—Maximum of points for each plate 10

For judging Grapes the following card was commended :

Score Card for Grapes.

POINTS.	VALUE.
Color	
Size of bunch and berry.....	
Form of bunch	
Flavor..	
Total	

N. B.—Maximum of points for each plate 10.

In judging single plates, a half dozen of the best plates could be selected by the eye, and then the score cards filled for those securing the prize, to show the ground upon which the prize had been awarded.

In collections, the best collections could be first detected, and then the score cards placed on each plate of these collections. The sum of points gained by all the plates in a collection would determine the relative merit of these collections, and consequently the ones deserving of the prize.

For commercial value, and for quality, the judge would of course consult the Report of the Fruit Growers' Association, at least in case of any fruit concerning the value of which he was in doubt. We hope that the public will demand of the Fair Manager that these cards be given a good trial during the coming season.

A HOME-MADE HAND CART.



EARLY every farmer is possessed of an old, worn-out buggy or vehicle of some sort from which he can obtain a pair of wheels and an axle. Take the axle (*a*) to a blacksmith and have it cut and welded to measure about 2 ft. between the wheels. Then get two strong oak pieces for handles about 2x3 in. and 5½ to 6 ft. long, and shave them down into shape (*b*). Next get four small iron straps (*c*) with bolt holds at the ends (*e*) to lay across handles at *f*, and likewise four more to fit directly under axle. Connect these with light, strong bolts, letting ends of handles reach about twelve inches over axle (*g*), and just wide enough apart to admit a milk can between. About three inches from the end, at *h*, bore two small holes and drive in two iron or hardwood pegs, leaving about an inch out to catch in handles of can. Bolt on a crosspiece (*i*) underneath handles put on wheels, and your cart is done. With this cart a man can pick up and wheel on the level an ordinary milk can of milk, water, swill or other substance; it can be used for wheeling bags of grain, baskets, boxes, etc., by setting on axle and crosspiece. In fact, no farmer knows the number of uses to which such a cart can be put till he has tried one for awhile on his farm.—Farmers' Advocate.

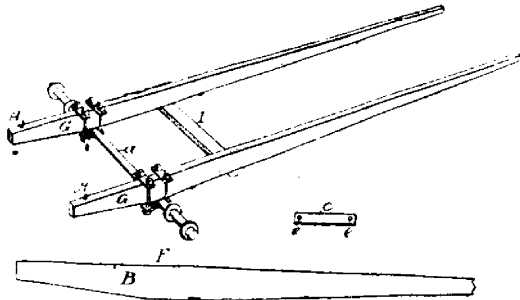


FIG. 982.—HOME MADE HAND-CART.

Wire Fence Without Barbs.—Many thoughtful farmers object to barbed wire, as each year serious accidents to stock result from its use. Where sheep and hogs, however, are pastured, the plain wire needs to be put close together below or the animals will press them apart and crawl through, especially when the posts are located from 12 to 16 feet apart.

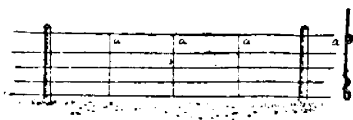


FIG. 983.—IMPROVED WIRE FENCE.

This can be overcome by the plan shown in the sketch. Set the posts 14 feet apart, and put on the usual number of wires. With No. 12 wire cut into the proper length, wrap one end around the top wire, then wrap once closely around the next one, and so on until the bottom is reached, placing three of these cross wires (*a*) between each post. The manner of doing this is shown more clearly in the sketch above. To keep the wires equally distant, saw notches one inch deep in a hardwood board the distance apart that the wires are attached to the posts; place these over the wires as near as possible to the point where the connecting wires are to be wound, moving along when the wire is firmly wound in place.—Am. Agri.

SIZE OF FRUIT PACKAGES.

The following weights and sizes of fruit packages have been widely adopted in the United States :—

Box.	Weights—lbs.	Outside Measurement.			Lineal Measurement.		
		Height.	Width.	Length.	Height.	Width.	Length.
Apples.....	55	12	12½	19¾	11	12	19¾
Pears.....	45	9½	12½	19¾	8½	11½	19¾
Berry—24 boxes.....	25	8¼	14	19¾	7¼	13¾	19¾
Berry—4 baskets.....	25	5½	16½	17	4½	16	17¾
Plum or Peach.....	20	5½	12	19¾	4¼	11½	19
Cherry.....	10	2¾	10¾	19¾	2	9¼	19¾

The 5 and 6 inch plum or peach boxes are not included in these weights but go on actual weight, to be determined hereafter. The railroads measure all boxes by extreme outside measurements. This action will result in considerable saving of time and expense in rating cars, as the weight will be determined by counting boxes instead of continuous weighing.

Irrigation in the East has been made a special study by Prof. F. M. Rane, at the West Virginia and New Hampshire experiment stations. In bulletin 33, W. Va, he described sub-irrigation in greenhouses, which has since come into quite general use, and bulletin 34, N.H., shows that the same system works well out doors. By this system, the water is applied below the plants by means of lines of tile placed from six inches to two feet below the surface and from 6½ to 40 ft. apart, having a drop of about one inch per 100 ft. By this plan the surface soil never bakes or surface-hardens, plants run very evenly, soil can be worked at any time and can be kept in better condition, less water is required, the tile serves to both water the beds and retain the moisture, surface evaporation is slight, fungus diseases are not so prevalent, and the openings underneath the soil allow the free access of air so that the soil never becomes sour or stagnant. Where it is desirable to get the water to the roots of plants with as little waste as possible, it may be run through common porous 2½ inch drain tiles laid end to end on the surface of the soil between the rows of vegetables. By stopping up the further end, the water leaks through the joints sufficiently to moisten the plants at either side. In the case of celery, the tile are run beside the rows and covered up as the plants are banked up, this proving sub-irrigation in the latter part of the season. This plan is a great economizer of time in watering, saves water, applies it where the plant cannot help but receive benefit from the water, and is simple, practical and inexpensive. Prof. Rane concludes that sub-irrigation, surface irrigation, cultivation, mulching and subsoiling are all methods of counteracting drouth that can be applied at a practical profit on many farms in the middle and eastern states.

❖ Flower Garden and Lawn. ❖

A PRETTY LAWN TABLE.



TUMPS of old trees that have outlived their usefulness and been relegated to the wood pile are not uncommonly seen upon lawns, and many attempts are made to turn them to artistic and useful account. The stump is first sawed to a flat surface and then fitted with a top of thick boards of the desired dimensions. Four rustic supports or brackets are placed underneath at the four corners. These should be as much as possible in their natural state, with any little crookedness or knots allowed to show, as they add much to the pretty effect on the whole. The edges, too, of the top board may be given a rustic tone by tacking to them strips of wood with the bark on them. When the little table is finished and "set" with its dishes and pots of plants, the owner of it is quite sure to stand a little way off and admire it audibly. All summer long it will be a charming abiding place for the choicest house plants, out of the reach of tiny marauders and within sure reach of admiring eyes.—Farm and Home.

CRIMSON CLOVER.



CRIMSON clover was introduced in this country a number of years ago by the late Dr. Haradine. Being a great lover of flowers, he was attracted to this plant by its beauty, which is hardly exceeded by the finest flower that adorns yard or garden. The beautiful deep green which may be seen all through winter when not entirely covered with snow grows deeper and brighter as spring advances until early in May when the flowers appear and the field changes from a green to a brilliant crimson, making a sight to behold and remember.

At first its value as a forage plant was not understood, and as a soil restorer it was unknown and the progress of the plant at first was rather slow.

Every one admired its beauty, and numerous plots were grown for ornamental purposes, but years elapsed before farmers awoke to its value as a regular rotation crop.

To-day crimson clover is grown to a greater or less extent in every state in the Union. It is good for hay, good for fall and early spring pasture, valuable for seed, which it produces in large quantity.

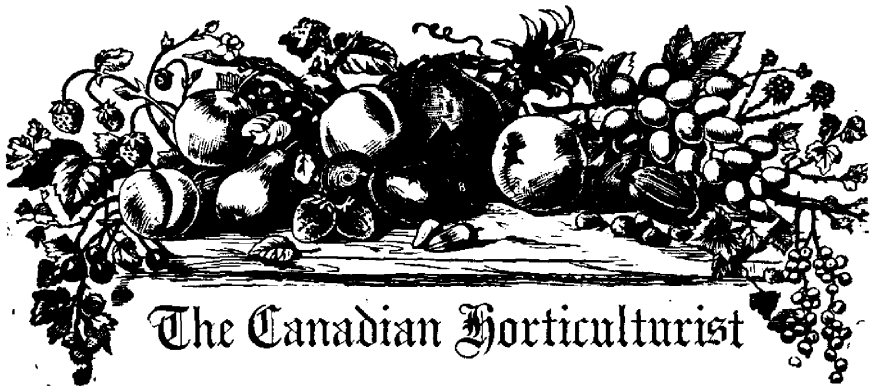
Its greatest value lies in its ability to store up plant food and at the same time send deep feeding roots far down into the subsoil and bring to the surface elements of fertility that would otherwise be lost.

Crimson clover is an annual and must be sown in its proper season; this extends from August to October 15th. About eight or ten quarts are usually sown on an acre.—C. Staples, in Farm, Field and Fireside.

A FLORAL LOVE STORY.



FAIR (Marigold) a maiden was, (Sweet William) was her lover ;
 Their path was twined with (Bitter-sweet), it did not run
 through (Clover).
 The (Ladies' Tresses) raven were, her cheeks a lovely (Rose),
 She wore fine (Lady's Slippers) to warm her small (Pink) toes.
 Her (Poppy) was an (Elder) who had a (Mint) of gold,
 An awful old (Snapdragon), to make one's blood run cold !
 His temper was like (Sour Grass), his daughter's heart he wrung
 With words both fierce and bitter—he had an (Adder's Tongue) !
 The lover's hair was like the (Flax), of pure Germanic type ;
 He wore a (Dutchman's Breeches), he smoked a (Dutchman's Pipe).
 He sent (Marshmallows) by the pound, and choicest (Wintergreen) ;
 She painted him (Forget-me-nots), the bluest ever seen !
 He couldn't serenade her within the (Nightshade) dark,
 For every (Thyme) he tried it her father's (Dogwood) bark,
 And so he set a certain day to meet at (Four-o'clock),—
 Her face was pale as (Snowdrops), e'en whiter than her frock.
 The lover vowed he'd (Pine) and die if she should say him no.
 And then he up and kissed her beneath the (Mistletoe).
 " My love will (Live-for-ever), my sweet, will you be true ?
 Give me a little (Heartsease), say only ' I love (Yew) !'"
 She faltered that for him alone she'd (Orange Blossoms) wear—
 Then swayed like supple (Willow), and tore her (Maidenhair)
 For (Madder) than a hornet, before them stood her Pop,
 Who swore he'd (Cane) the fellow until he made him (Hop) !
 Oh, quickly up (Rosemary) ! she cried, " You'll (Rue) the day,
 Most cruel father ! Haste, my dear and (Lettuce) flee away !"
 But the inhuman parent so plied his (Birch) rod there
 He settled all flirtation between that hapless (Pear).
 The youth a monastery sought, and donned a black (Monkshood) !
 The maid ate (Poison Ivy), and died within a wood.
 —Catherine Young Glen, in March Ladies' Home Journal.



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. ✦

SAMPLE OF A SEEDLING GOOSEBERRY comes to hand from Mr. J. P. Crouch, Davisville, which grew on a bush three years old. The berry is dark green, oblong and slightly obovate; size nearly equal to Whitesmith.

THE P. BARRY PEAR must be a good keeper. Garden and Forest states that this variety from cold storage was being offered for sale on the 1st of July in New York City, along with the first harvest apples of this season from California.

CIDER.—In reply to an inquiry published in this Journal last February, on page 72, a subscriber writes: I beg to say that Messrs. A. H. Ruridan, Co., of Annapolis, N.S., are engaged in the manufacture of that article, under the style of "The Valley Cider Works."

HOW TO SELL OUR APPLE CROP to advantage will be a problem facing Canadian fruit growers this fall. Never was there known such a yield, and so few calls. Fortunately Europe is open for a large quantity, but even those markets will be too small this season. We have proved that Australia is an excellent market for Canadian apples, our Cranberry Pippins bringing nearly four dollars a bushel at Sidney. The only blockade is the want of a cool storage for crossing the tropics. What greater public benefit could our new Dominion Government bestow upon Canada, than to subsidize the C. P. R. steamers on condition of providing cold storage accommodation for Canadian apples to New Zealand and Australia. What a source of wealth would thus be gained to the Canadian apple growers!

THE WORLD'S FAIR MEDAL AND DIPLOMA, so long promised has at last appeared, after about three years delay. The tardiness is said to be due to the difficulty in procuring parchment in sufficient quantity and of proper quality. The writer took care to exhibit a complete set of bound copies of our journals and reports, under the head of Horticultural literature, and for this exhibit a medal and diploma was awarded our Association. On the diploma we read "This exhibit is of a very high order of merit. It exhibits the extensive and progressive work of a wonderfully successful organization."

THE ARMY WORM is marching through portions of Welland County destroying everything in its way. Prof. Panton of the O. A. C., Guelph, has been visiting the infested sections, and reports finding a parasite beginning to prey upon the worms, and many of the latter are now turning in to pupæ, so their work is nearly over for this season.

Prof. Panton advises ploughing furrows to intercept their march, into which they will fall and can be easily destroyed; spraying with Paris Green the plants in advance of them; scattering dry straw upon them and burning them, etc.

AN IMMENSE APPLE YIELD is reported in Perth County by the Globe. This is but a sample of the state of this crop all over Ontario. Not only will the yield be abundant, but the size and appearance surpasses all previous records. Nearly the whole crop will be grade 1. This is the season for Canadian fruit growers to extend their apple markets throughout the whole world. If no outlet is furnished, our apples may rot on the trees, even at the best, with only the European markets, our apples will not be worth more than 50 cents a barrel in the orchards, and at that it may be difficult to get them out of the country, unless exceptional facilities are provided.

PLANTING RASPBERRIES IN THE PEACH ORCHARD.—This practice, very common in the Niagara District, is not commended by Mr. Van Deman. He says, among peach, plum and cherry trees I would never set raspberries, blackberries or currants, because they should be set in no soil and climate over 20 feet apart and their roots will soon need all of the space even if their tops do not cover it. The berries need feeding and pushing to their highest bearing limit, and so do the peaches and cherries. Each needs all the opportunities the soil will afford.

Now, no doubt the objection is well taken and applies well in those districts where the peaches may be expected to produce a crop about every year; but when, as in Canada, we only harvest a peach crop at an average of once in four years, it seems to be a wise step to set at least one row of Cuthberts between each row of peach trees, in order that we may at least receive enough from the ground to cover the cost of cultivation.

THE APPLE CROP.—Messrs. M. H. Peterson & Co. of Toronto, write;—“From reports concerning the apple crop so far received (July 7th), the indications are as follows,—Great Britain and the Continent, excepting Belgium and the Rhine Valley, a short crop; Maine, the New England states and New York a large crop; Missouri and Illinois, a short crop; Ontario and Nova Scotia, a large crop, good quality.

CANADA'S GREAT EXPOSITION.—The Toronto Industrial Exhibition, now known as “Canada's Great Fair,” is an occurrence to which almost every Canadian looks forward with pleasurable anticipation, as it is made the occasion for their annual holiday outing. It is to be held this year from the 31st of August to the 12th of September, and as the live stock exhibitors and various associations have agreed to have their stock on the grounds from Thursday, the 3rd September, till the close of the Fair, the first week will now be as good as the second. We have received a copy of the Prize List, which is unusually well gotten up. Any one desiring a copy can obtain one by dropping a post card to Mr. H. J. Hill, the Manager, Toronto. A great programme of interesting attractions is promised. Applications for space should be made early.

THE RED CROSS CURRANT.—A sample of this currant has just come to hand (1st July) from Chas. Green, Rochester, the introducer. In size and appearance there is little to distinguish from the Cherry currant, except that the flavor is not so tart. Mr. Green writes:

We have instructed Jacob Moore to send you by this mail a sample of his new seedling currant, named “Red Cross,” which we purchased of him last Fall for \$1,250 00. Mr. Moore says that his currants were injured by late Spring frosts, hence we are not sure that you will get a good sample. Should you think this worthy of notice in your journal, I will be pleased to have you give it such attention.

Description.—On our grounds at Rochester, N. Y., the Red Cross currant is as large as Cherry or Fay. Its peculiar advantage over either of the above varieties is that it makes twice the growth, having made from 18 to 24 inches last Fall, set plants up to July 1st. The fruit is often so dense upon the stalks as to hide the canes entirely from view; color bright red; berries set in compact cluster, with long stems of which to pick. This is the first variety introduced of a large number of seedlings the result of scientific crosses by the veteran hybridist, Jacob Moore, originator of the Brighton grape, Diamond grape, Bartlett Seckle pear, and other new fruits.

Yours truly,

CHAS. A. GREEN.

NEW FRUITS.—We are reminded by a letter from Mr. D. W. Beadle, the well known Canadian pomologist, that the Fruit Growers' Association has a duly authorized Committee on New Fruits, consisting of Horticulturists, John Craig Ottawa and H. L. Hutt Guelph, and the Secretary of our Association. It will be a public benefit, as well as an individual advantage, if those having new fruits of merit will forward the same to any of the members of this Committee.

MESSRS. WOODALL & Co's. Apple Diagram for 1896 has come to hand. It shows that Canadian Baldwins still hold their place at the top for value in the Liverpool market. The second place is held by Main Baldwins, while the third and fourth place is in dispute between New York and Boston Baldwins, Canadian Baldwins started out last October at 17/ touched 15/6 in November, and reached 23/ in April.

The quantity of apples imported into Liverpool market in 1894-5 was 857,215 barrels, and in 1895-6, 438,354 barrels. This year will no doubt break all records.

DWARF APPLES.—Mr. Lodeman, Assistant Horticulturist at Cornell, has issued a bulletin (No. 116) on "Dwarf Apples," in which after discussing their merits and productiveness, as compared with standards, he does not recommend them for profit. For fancy or dessert purposes dwarf trees answer an excellent purpose, often yielding finer fruit than standards while the trees of course occupy much less room. Apple trees are usually set 30 to 40 feet apart, but dwarfs may be set 8 or 10 feet apart. Two kinds of stocks have been used for dwarfing the apple, viz., the *Paradise*, comprising several European varieties of small growth; and the *Doucin* an Italian variety of stronger growth than the French *Paradise*, but not so valuable, and therefore almost wholly discarded by nurserymen of late. The yield from dwarf apple trees usually averages two or three pecks per tree, and possibly 300 trees might be set to an acre.

FLOWER SHOWS are all important to the successful Horticultural Society—especially those affiliated with our Association. We do not mean those cumbersome affairs at which the chief object of the officials is to enrich their treasury, so that every kind of objectionable feature is introduced to draw the crowd; and at which the exhibitors themselves, aim only at carrying off the prize money. We refer to an exhibition of another character entirely; a much simpler undertaking for the officials and a much more enjoyable and successful affair for the members of the Society generally, because all share equally in the results.

First, let our Societies lay down the ruling principle that the first aim is the general good of the members and the encouragement of a taste for floriculture and fruit culture. Then in the summer let the directors plan upon at least one special meeting of the Society, at which flowers and fruits are shown by the members, for comparison, but no money prizes allowed. Art work may also be shown if thought advisable. Let some flower be prominent, something which has been distributed by the Society, as sweet peas or gladioli. The room or hall should be in charge of a Committee of Arrangements, who should place the flowers on tables up and down the centre of the hall in the afternoon, and then in the evening, say at 7.30, let it be thrown open to the members and the public generally, either with or without admittance fees. The first hour should be a *conversazione*, the visitors walking about among the floral exhibits and comparing notes. Then the last hour the President should call the meeting to order for a formal programme of music, readings and addresses. A meeting like this is held every year about the 1st of September by some of our societies, and is looked upon as the social event of the season.

❖ Question Drawer. ❖

Knotty Growth.

855. SIR.—I enclose a growth that grew in the bark of young winter St. Lawrence trees. Will you please tell me the cause, remedy, and if it is injurious to the trees?

A. S. CROSBY, *Compton, Que.*

Reply by Horticulturist Craig, of the Central Experimental Farm, Ottawa.

I find that they are not of fungus or parasitic origin, but appear to be an extraneous knotty growth made up of woody fibre. The little tubercles seem to contain an extra amount of starchy matter, and in this way may possibly serve the purpose of storehouses for this food material. I do not think that these little outgrowths are characteristic of Winter St. Lawrence, as I have frequently seen them on other varieties of apples, but usually at or near a terminal bud, or what was a terminal point of growth.

Spraying.

856. SIR.—Please give me some information on this subject. I have been using Anderson's Double Action Spray Pump, spraying for others at five cents per tree for three applications. I used Bordeaux as recommended in your annual report, and a barrel covered from eighty to one hundred trees? One person has a blighted tree, and he claims it was due to the spraying and wants damages.

WM. LEONARD, *Woodstock, Ont.*

Our correspondent has evidently done his work properly, following the directions given in our report. Nothing but good could possibly result, so that he is justly entitled to be paid for his work, instead of paying for damages by the blight, which has no connection whatever with the spraying.

The apple twig blight is very serious in many parts of Ontario, especially about Hamilton and west. It is as mysterious in its origin and cause as the pear blight, and thus far no certain remedy has been discovered. The affected parts should be cut off and burned.

Rose Beetle.

857. SIR.—There is (to me) a new insect doing a good deal of damage in pear and apple orchards here, it is a small beetle about one-third of an inch long, fawn or drab color, with a bronze cast about the head. It is exceedingly active dropping and flying off when disturbed. It is eating the small apples, seems to prefer "Kings." I saw as many as a dozen on one apple at Mr. Freel's one day recently, he says spraying does not check them. What remedy would you advise?

WM. H. WYLIE, *Niagara, Ont.*

Mr. James Fletcher says it must be the rose beetle (*Macrodactylus sub-spinosus*) an insect which so far seems to baffle the entomologists as far as an effective remedy is concerned.

White Horned Maple Borer.

858. SIR.—The fly I enclose I found on a maple tree, and, as the few we have are nearly killed by some insect, I thought this might be the one. It seems to be a kind of borer. I used to find little empty cases same as the one sent, sticking out of the bark, and my father cut out many of the maggots from under the bark last year. Is there any remedy to preserve the trees from dying?

MRS. TOBIN, *Fergus, Ont.*

Reply by Mr. James Fletcher.

The fly-like insect which Mrs. Tobin has found destroying her maple leaves belongs to the Horn Tail family and is known as the White-horned Maple borer. The only remedy which can be suggested for this insect is washing the trees with an alkaline wash, the same as is done for borers in apple and other fruit trees. In this way the female will be prevented from depositing eggs upon the bark.

The Four-lined Leaf-bug.

859. SIR.—I send you samples of black and green insect, found on my *Datura*; it also did much harm to my pansy blossoms.

MRS. F. TOBIN, *Fergus, Ont.*

Reply by Jas. Fletcher, Entomologist, Central Experimental Farm, Ottawa.

The insects complained of by Mrs. Tobin, of Fergus, are, No. 1, "a green and black bug," found on her *datura*, which it punctured and destroyed the appearance of by making a large number of dark spots on the leaves and flowers, and which Mrs. Tobin says also injured her pansy blossoms last year. It is the Four-lined Leaf-bug, which is figured and described in the Experimental Farms' Report for 1893, page 181. The only way to treat these insects is to dust the plants with *Pyrethrum* powder at the time the young bugs make their appearance. Mr. Slingerland made the important discovery that this insect passes the winter in the egg state. The eggs being embedded in the tips of the branches of currants and other shrubs. He says, on bushes which have been infested this year the egg scars can soon be found during the winter, as the whitish tips of the eggs are quite conspicuous. The eggs remain in the tips of the twigs for nine months, making it practical to prune during winter months when other work is not pressing.

Irrigated Fruit Farms.

860. SIR.—Are there any fruit farms successfully irrigated in this Province? I want to try it by use of a hydraulic ram.

H. PICKET, *Clarkson, Ont.*

We know of no such instance. Some fruit gardens have been fairly well irrigated with windmill power about Grimsby. We shall be pleased to hear from any one who has tried irrigation on a larger scale.

Hardy Plums.

861. SIR,—Isn't there something wrong about the reply to question 846 in June number? I think Mr. Gordon is mistaken about the tenderness of Lombard. Lombard has been, according to Horticultural Reports, for many years recognized as one of the very few really hardy varieties. We find it classed with Weaver and Damson in North-Western State reports, and our experience here in New York State this year is, that whereas nearly every other variety (unless it was sheltered or in very favorable location) have failed to produce, the Lombard is showing a fair crop. Again Lombard is used largely as a stock tree on which to bud or graft poor growing varieties. If not hardy it could not well be used profitably. I think I speak the mind of many orchardists in the State when I say that Lombard is much hardier than at least four or five of the varieties named by Mr. Gordon as hardier than the Lombard.

E. H. BURSON, *Clifton, N. Y.*

Ice House and Cold Storage.

A subscriber in Agassiz, B. C., asks the following question, to which we invite answers by our readers.

262. SIR,—I want to build an Ice House and Cold Storage, suitable to hold say 1000 bushels of fruit? Can any of your subscribers advise me how best to arrange the two buildings together and the size required? Lumber can be laid down for about \$14 per 1000. Stone can be had by blasting out the solid rock, adjoining the spot I intend building on? About what would be the cost of such a building suited to my purpose? As I can get the lumber cheaper now than later, if I use that material, I would like to get as early reply as convenient. As saw dust will be rather expensive could I use hay or straw for packing between walls? I want the building so that I can use ice during the summer season for other purposes aside from cold storage.

* Open Letters. *

Large Gooseberries.

SIR,—Mr. Porter, one of your subscribers here, is working away in true Lancashire style to grow monster gooseberries. He showed me the Triumph which is a very pretty sight, ropes (as Mr. Spillett would say) of them under every branch equal to the best Downing, but much larger. My Triumph has mildewed but only a little. In White Eagle I have a berry much larger than any of Mr. Porter's. I have only one bush, no mildew and the growth would please even Mr. Spillett. The berry is smooth like Whitesmith. The Yellow Scotch appears to me fit for this country. It grows well, has nice fruit and does not mildew. I think I told you that both Columbus and Industry mildews with me, as do Crown Bob and Red Warrington. Sulphur is clear so far. Mr. Porter has several seedlings, mostly of Whitesmith, some of which are A 1.

W. E. BROOKS, *Mount Forest.*

Crimson Clover.

DEAR SIR.—On page 233 of the July No., you say, "Crimson Clover does well in Ontario." Allow me to criticize. If by "Ontario," you mean the "farm of Mr. D. J. McKinnon," the vicinity of "Grimshy," or the Niagara District," I would not take issue; but for fear that some of your readers take your "Ontario" in its broad meaning, I will give you my experience here at Port Elgin.

My soil is sandy and naturally drained, but between drouths and frosts, failures with the older varieties of clover have followed me persistently for the past three or four years,

until I was easily induced by the high sounding praises of American Seedsmen and the most respected Agricultural Journals of the U.S., to give the crimson variety a trial

About the first of August of last year I sowed about $1\frac{1}{2}$ acres, all in well prepared land, except that it was poor. Part of this was lightly scuffled in, between rows of corn, and the balance in open ground, alone.

The afternoon it was sown was showery but very warm, and continued so all night, and the seed, which is round, fat and seems full of vitality, was on examination next day at 10 o'clock found to be sprouted a $\frac{1}{4}$ inch. This beginning pleased me and all my neighbors. My interest was aroused, and I watched it almost daily as it kept fastening itself to the soil, and making its wonderful growth upwards in the lean land, until the first snow fell, and I was satisfied that the crop went into winter quarters in first class order, and my hopes were mighty that we had at last a clover that would supercede all others.

Under the snow this clover lay all winter, under what I thought the most favorable conditions, the covering being uniformly and throughout about 6 to 8 inches.

March and April were not unfavorable months, but right here is where my experience with Crimson Clover ends. I never saw any more of it, and if the roots have continued to grow as they did last summer, they have gone the other way.

However, I am going to try it again as a summer crop.

The circulation of the Horticulturist is so large; its reliability and influence so great that a misunderstanding may be the means of loss to its readers; hence these remarks.

J. H. Wismer, *Port Elgin.*

The First and Best Raspberry.

DEAR SIR,—This is the earliest red raspberry cultivated at the present day; it is a seedling discovered growing wild in the woods and it is quite distinct from any other variety of red raspberry known at the present day. It produces its fruit buds on wood of last season's growth, and it is therefore ready at the very least approach of warm weather, to commence blooming; with us, it blooms in the winter, long before strawberries are beginning to start, and in climates where this early bloom does not get killed, it will ripen its fruit long before any strawberry. Where we live here, there is very cold weather at intervals, during March and April, and the first blooms of this raspberry, are always killed; still later, they throw out new fruit buds, and there is always a crop in spite of the severe frosts, and this crop, too, ripening earlier than any other raspberry. We have quite a good chance to observe the merits of all new raspberries, as we grow all the varieties of raspberries that there is known at the present day, of any importance, having at present, about 86 kinds. The First and Best raspberry, is of large size, and of a beautiful light rosy crimson color, and very deliciously flavored; the bushes yield enormous crops, and the fruit is of uniform size, from the beginning to the end of the season.

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

Canadian Fruit and Fruit Trees in England.

SIR,—Last winter I received an order from H. R. H., the Prince of Wales, to ship him some of our Province of Quebec apple trees. I sent to Sandringham, Norfolk, about the first of May, twelve each of Fameuse, Wealthy, Winter St. Lawrence and McIntosh Red. They were carefully packed in a box with damp moss around the roots.

I received a letter from Major Gen. Sir F. de Winton, the Controller of the Household, as follows:

“YORK HOUSE, ST. JAMES'S PALACE, S. W. LONDON.

June 24th, 1896.

“DEAR SIR,—With reference to your letter of the 1st May, I have much pleasure in informing you that the parcel of trees arrived safe and in good condition and have given complete satisfaction. They have all been planted and so far seem to be doing very well.”

I have sent this extract of Sir F. de Winton's letter because I think you will be interested in knowing that our Canadian trees are appreciated in England, and can be delivered

there in good order. The Prince of Wales desired to have these trees because he had tasted some of the apples which I had sent to Sir F. de Winton last fall, in the compartment cases, and H. R. H. thought that at Sandringham he could grow as good apples. We shall see in good time if the apples will have the colour of our Canadian fruit. There is a very large and excellent crop of apples in this Province, this season. Prices will probably range low.

R. W. SHEPHERD, *Montreal Que.*

FRUIT PROSPECTS.

WENTWORTH, WATERLOO, DUFFERIN AND HALTON COUNTIES.—Mr. W. M. Orr, of "Fruitland," Ont., Provincial Director of Spraying Experiments, writes :

I have reports from eight points in Counties of Wentworth, Waterloo, Dufferin and Halton as follows ; Apples, 80 to 90 per cent. ; peaches, 00 ; plums, 7 per cent. ; grapes, 75 per cent. ; pears, 30 to 40 per cent. ; strawberries, 75 per cent. ; cherries, 5 per cent. ; raspberries, 75 per cent.

Around "Fruitland" and Winona : Plums, 90 per cent., peaches, 25 per cent.

Reports from twenty-nine points throughout Ontario where experimental spraying is being done, indicate a large apple crop, and as the codling moth has not attacked the fruit up to date, our apples will probably be free from worms this year. The canker worm is spreading in many sections. Many trees, and in some cases, whole orchards have been defoliated. Other insect enemies are reported numerous.

↔ The Markets. ↔

Our Apple Markets.

LIVERPOOL, Messrs. L. H. William, writes : SIR,—The crop this season in the Home Country, and also for the most part on the Continent, is exceedingly light, owing to both drought and blight ; and as our markets now rely, under any circumstances, on receiving large quantities of your best growths, the prospects are extremely favourable. Early shipments will do well, provided the fruit is fine and arrives here in sound condition.

May add we have every facility for handling large quantities of Apples promptly and to advantage : and intending shippers may rest assured their consignments will always have our careful personal attention.

Would draw your attention to the grading of the fruit for export.

The Foreign Apple Markets.

Messrs. Isaacs & Sons, of London England write, under date of June 17th :

SIR,—We take this early opportunity of giving you a few particulars of the prospects of our Home and Continental apple crops :

ENGLAND.—As usual at this time of year, reports from the various English apple-growing districts are somewhat conflicting, but after carefully weighing the information from the various sources, we are of opinion that the apple crop in England will be considerably below that of last season.

GERMANY.—Our information from Germany, whence large quantities of apples are generally shipped to our market, is that the crop will be much below that of last season, and it is not expected that there will be more than a quarter crop in that country.

FRANCE, BELGIUM AND HOLLAND.—Some of the districts in those countries report prospects of good crops. The bulk of these apples find their chief outlets in the North Eastern counties of England, and are not shipped to any extent to the London Markets.

Should the present drought continue, the crops on the Continent, as well as in England, are likely to be prejudicially affected.

So far, things certainly look as if there will be a good field for apples shipped from your side to our markets.