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THE TRIUMPH OF CUMBERLAND CHERRY

ORIGINATED IN CUMBERLAND CO PA

FINE DELICIOUS FLAVOR, A PROLIFIC BEARER, AND RANKS WITH THE BEST.
"PRINTED FOR THE CANADIAN HORTICULTURIST."

THE
Canadian Horticulturist.

VOL. V.]

JULY, 1882.

[No. 7.

CHERRIES.

In our climate the Duke and Morello varieties of cherries are the most valuable, and although these are for the most part more acid than the more tender Heart and Biggareau cherries, yet when we consider their superior culinary qualities they seem on the whole to be the best, as well as the most hardy. Many years ago the Kentish cherry was very largely planted in the Old Niagara District, and rows of them formed the boundary of the apple orchard, or a lane from the highway to the house. These have grown old and decayed, and mostly disappeared, without having their places supplied by more recent planting. Hence the supply of cherries, in proportion to the population, is much less than it was five and twenty years ago; and we presume this is, in the main, true of the whole of the Province of Ontario. Taking all things into consideration, we esteem this old Kentish cherry the most valuable variety that is grown in Canada. It is the most hardy of all, capable of enduring a very severe degree of cold, and of accommodating itself to a great variety of soils. It is an exceedingly abundant cropper,

coming into bearing early and continuing to bear to extreme old age. When about half ripe, that is when the fruit is of a bright red, it may be used for pies, tarts, and all cooking purposes; and when fully ripe, at which time it will be of a dark mahogany color, it is a very agreeable dessert fruit. If any cherry tree can be planted with profit for market purposes, this variety will yield the most sure returns of any that have yet been fully tested.

New varieties have been brought to our notice within a few years. Prominent among them is one raised by James Dougall, of Windsor, Ontario, which he has found to be one of the most hardy sorts in his collection. It is to be hoped that it will soon be widely disseminated over the Province, and its ability to endure the cold fully tested.

The Leib is also a promising variety, of larger size than Early Richmond, less acid, and of better quality. It gives promise of being very hardy.

Trial is being made of some of Weir's new cherries, in the hope that some of them will be found to be well

adapted to our climate. Of these his Flagg, Galusha, and North-west seem to give promise of being extremely hardy, excellent in quality, and enormously productive.

The colored plate which is given in this number is a representation of a new variety lately introduced under the name of "Cumberland." It originated in Pennsylvania, and is highly commended by prominent horticulturists in that State.

AMERICAN FORESTRY.

It is both interesting and gratifying to see that there are representative men, occupying positions of influence and power, who are alive to the importance of preserving, and in some places of restoring, the wood-lands of America. It is so natural and easy for men to become absorbed in the study of what seem to them, and are, great questions of state policy, questions affecting the great interests of commerce, manufactures and national prosperity which have engaged the attention of statesmen in all civilized countries, and will necessarily engage it to the end of time, that when an effort is made to interest them in a subject such as this of forestry, they are slow to be convinced that it is a matter that should engage their attention, and are disposed to look upon those who have studied the subject as enthusiasts. But men who can take broad views of national interests soon find that this is a subject which touches the national prosperity at many points. That it has most vital connections with commerce, with manufactures, with the supplies of food, with the health and the life of a people. Among such men stands prominently the Hon. Mark H. Dunnell, of Minnesota, whose speech in the House of

Representatives of the United States is replete with earnest words, most valuable information, and an evident appreciation of the importance of the subject. From his speech we learn that in February, 1874, a committee of the American Association for the advancement of science brought a memorial from that body to the President of the United States, urging the duty of Government concerning the cultivation and the preservation of forests, and recommending that a commission should be ordered to mature plans calculated to meet the requirements of the subject. The President laid this memorial before Congress, which resulted, in 1876, in the appointment of Dr. Franklin B. Hough, of Lowville, New York, to the duty of ascertaining the annual amount of consumption, importation and exportation of forest products, the probable supply for future wants, and the best means for the preservation and renewal of forests; the influence of forests upon climate, and the measures applicable in this country for the planting of forests.

In pursuance of this appointment, Dr. Hough made two reports to Congress, one in 1877, the other in 1878-9. Of the first of these an officer of the Wurtemberg forest service says: "It awakens our surprise that a man, not a specialist, should have so mastered the whole body of American and European forestry literature and legislation."

From this speech we also learn that the quantity of pine lumber produced in the State of Maine has steadily declined from an average of 100,000,000 of feet per annum in 1851 to 1855 to an average of 11,800,000 per annum in 1876 to 1881; that the timber supply of the upper peninsula of Michigan, at the rate of production in 1879, will last *eighteen* years; that of the lower peninsula will last *seven* years; that of the State of Wisconsin scarce *twenty*

years; and that of Minnesota about *eleven* years; and that at the rates of present consumption in the North-west, the whole supply of the timber of the United States would last about *seventeen* years. Hence he concludes that it is the duty of Government to inquire how far it can withdraw remaining timber lands from market and place them under regulations that shall secure the greatest present benefit from the use of timber now fully mature, having regard to the requirements of the future, and to ascertain how to impress upon private owners the importance of planting, and how far and in what manner it may encourage this object. To this end he advises the establishment of experimental stations for the careful study of the requirements and capabilities of soils, and of the several kinds of trees, and publish the results in a form particularly calculated to impress their importance, and to teach the simplest rules for securing success. He concludes his very interesting and instructive speech by saying:

"We are using up the capital which nature had for centuries been providing for us in the growth of forests, and we are doing nothing to restore them. Under skillful management the supply might be so arranged that in twenty-five or thirty years for some kinds, and in fifty or sixty years for others, a new crop would be furnished by growth; and if only a twenty-fifth or thirtieth part of the former, or a fiftieth or sixtieth part of the latter, were taken yearly, the supply would be perpetual. But, instead of this, we are taking a tenth or a twentieth part every year, while the growth from our neglect is not a fourth part of what it should be where any growth is allowed.

"We shall only too soon be reminded of the consequences of this improvidence in the growing prices of lumber, which

in some kinds have already doubled within a very few years, and which are advancing every day. These advances may be ascribed by some to speculation, and doubtless to some extent they are, for the speculator never loses a chance to turn a penny in his own favor, it matters not who suffers; but when these advances are steadily going on from month to month, and year o year, at an accelerating rate, it means that the intrinsic value of the commodity they represent is becoming greater under the combined effects of diminishing supply and increasing demand. It will inevitably lead to the realizing conviction that there is profit in growing timber, and the sooner this is understood and acted upon the better will it be for the country and for the future."

The large gathering of influential and representative men which recently took place in Cincinnati, embracing not only scientists, whose special studies have led them to understand the importance of this subject, but also members of state and national legislatures, leading agriculturists, and the chief of the National Agricultural Bureau, this gathering is a cheering evidence that our neighbors across the border are becoming aroused to the importance of this subject, and that steps will be taken to prevent the needless destruction of their forests, and to secure the planting of woodlands as a branch of economic industry.

It is also very gratifying to us, as Canadians to know that the Honorable the Commissioner of Agriculture for Ontario is fully alive to the great importance of this matter to us, and that he is using every means at his command to procure and diffuse information on this subject, and to encourage the planting of forest trees for timber, shelter and fuel, wherever it can be done with advantage.

Doubtless our own forests are disappearing as rapidly as those of our neighbors under the united ravages of the woodman's axe and the devastating forest fires. Already some parts of Ontario are beginning to suffer for want of a due proportion of woodland in the diminishing volume of her springs and streams in protracted summer drouths, and in the unbroken sweep of frost-laden winter winds. It is time, full time, that public attention be turned to this matter; that something be done to limit the annual cutting of lumber, so that it shall bear a proper relation to our present supply and present needs; that measures be taken to prevent wholesale destruction by forest fires, and that planting be commenced without delay on lands suitable for the purpose, with a view to keeping up the supply perpetually, and of preserving the proper proportion of woodland, so as to save us from those climatic changes which are sure to follow the denudation of the country, bringing in their train drouths, excessive floods, sterility, famine and pestilence.

RIPENING GRAPES.—Josiah Hoopes says in the *N. Y. Tribune*:—"No surer evidence of the impropriety of defoliation to admit the sun's rays can be cited than the results of recent experiments in bagging grapes. We see that the covered clusters ripen more thoroughly, color more beautifully and assume that charming bloom which, without artificial aid, in many sections, they rarely attain. The foliage in a great measure acts as the lungs do in the animal creation, and every perfect healthy leaf taken off a plant destroys a portion at least of its power of subsistence, for vegetation extracts from the air a wonderful amount of nutriment, which enters into its organism through the myriads of minute apertures which nature has so wisely ordained for this express purpose. Then why partially cut off its means of supply to gratify the whim that fruit must receive the direct rays of the sun?"

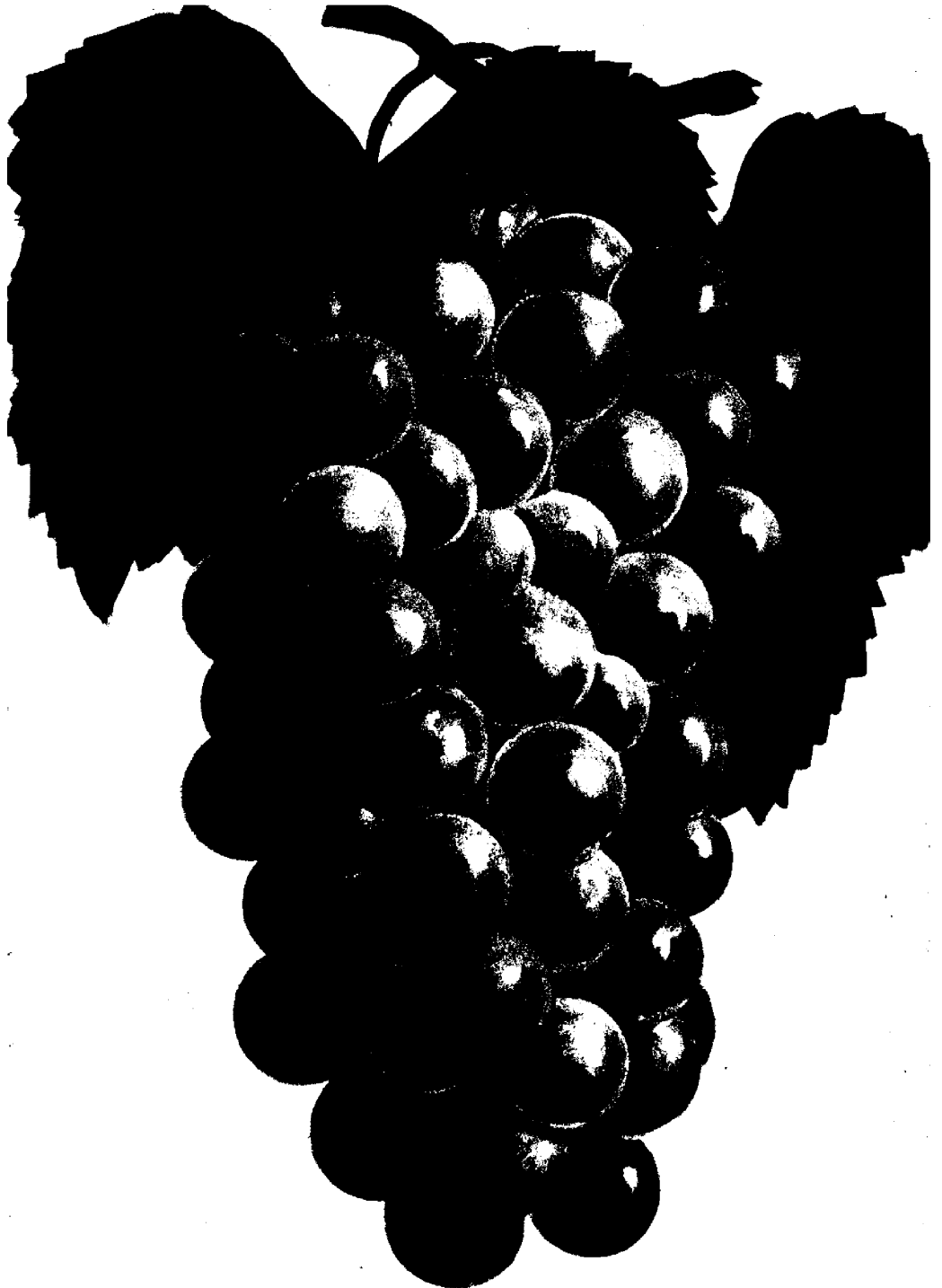
HORTICULTURAL GOSSIP XIV.

BY L. WOOLVERTON, GRIMSBY.

The Horticulturist.—Our magazine is making rapid strides in advance. The beautiful plates which embellish the volume for 1882, will make it an attractive table book, and the large number of practical hints cannot fail to make it popular with fruit growers in general. I have shown some numbers to several growers here, who had become apathetic toward our Association, and I have succeeded in demonstrating that a horticulturist cannot spend a dollar to better advantage than by subscribing for the *Canadian Horticulturist*, a magazine which is entirely devoted to his interests; for in addition to this he also gets the Report of the meetings of the Association, nicely bound for preservation, an excellent plant, and the benefit of some very interesting discussions.

Altogether, I am quite sure that the Ontario Fruit Growers' Association has entered upon a new era of prosperity, when the labors of its Directors will be more than ever appreciated by the public.

Keeping a Calendar.—For some years I have been in the habit of keeping a calendar in connection with the orchard, and would recommend it to others, as forming in time a useful book of reference. A book of twenty-four pages, foolscap size, is convenient for the purpose. Two pages may be devoted to each month, and will answer for six years by dividing each page into three perpendicular columns, one for each year. The number of horizontal lines ruled upon the sheets will correspond with the number of days in each month. This will afford room for a brief note for each day of the month, and will present before one, at a single glance, the same day of the same month for six different years. Comparisons can



PRENTISS.

thus be easily drawn, and will often be of practical benefit in planning work. For example, here are a few extracts for the month of May for six years, without, of course, showing the form, which would require too much space:

- 1874.—18th, Peach blossoms. 25th, Apple bloom.
- 1875.—1st, Snow. 7th to 11th, Wet. 22nd, Cherry and plum bloom. 26th, Killing tent-caterpillars. 27th, Apple bloom.
- 1876.—18th, Peach and cherry bloom. 20th, Transplanting tomatoes. 25th, Killing tent-caterpillars. 26th, Apple bloom.
- 1877.—3rd, Sowing early corn, planting pear, quince and peach trees. 8th, Started cultivator among currant, strawberry and blackberry plants. 15th, Peach bloom. 18th, Hot. Corn up. 20th, Apple bloom. 22nd, Rain. 23rd, Transplanting from hot beds. 24th, Killing tent-caterpillars. 25th, 10 acres ready for corn. 30th, Killing cankerworms with garden syringe and Paris green.
- 1878.—3rd, Apple bloom. 5th to 8th, Too wet for working soil. 9th, Transplanting from hot beds. 10th, Cold and chilly. 13th, White frost cutting off beans, tomatoes, strawberries, cherries, potatoes, &c. 21st, Corn all planted. 24th, Hot. 25th, Killing tent-caterpillars. 30th, Digging out peach borer.
- 1879.—Great drouth through the whole month. 17th, Peach bloom. 23rd, Apple bloom. 26th, Killing tent-caterpillars.
- 1880.—5th, Peach and cherry bloom. 11th, Apple bloom. 18th to 30th, Very dry.

Bearing qualities of various kinds of Apple trees.—This would be a very practical subject for discussion on some occasion, and a great deal of interesting data might be gathered. According to my own experience the leading apple in this respect is the Rhode Island Greening. One old tree of huge dimensions, about seventy years of age, produces enormous crops, almost beyond credulity. One season the huge yield

of twenty barrels was taken from it, and from fifteen to seventeen barrels is by no means an unusual quantity each alternate year.

I do not think any other kind will equal this one for productiveness. The Baldwin, at maturity, will yield eight or ten barrels, the Snow or Fameuse about six, while the Fall Pippin and the Early Harvest yield about four barrels each every alternate year.

Now, if we could obtain from various sections of the country information as to the productiveness of the various kinds of apples, it would be a very useful aid to those wishing to select varieties for orchard planting, because it would help them to determine what varieties would give the highest net returns per acre.

FRUITS OF MANCHURIA.

An interesting letter has been received by Mr. Thomas Beall, Lindsay, one of the Directors of the Fruit Growers' Association of Ontario, brought out by inquiries made by him concerning the fruits of Northern China, or properly Manchuria, with a view to ascertain whether there might not be some found there which, on account of their ability to endure extreme cold, might be worthy of introduction for planting in the more northern parts of this Province. The letter is dated at Newchwang, 23rd February, 1882, and is as follows:

"MY DEAR DOCTOR WATSON,—I fear the fruit trees of this Province are valueless for the purposes of the Ontario Association. The gooseberry does not exist here, and the raspberry is only known in a wild state (in the south of the Province). I have not seen the cherry here, the fruit we eat being imported from Chihli or Shantung—in which latter Province I have seen fair specimens, but none which would repay transportation. The native plum I

have seen in our own garden. We value it for its spring flowers, and it must be confessed it blossoms magnificently. Last year we had two trees in fruit—a five and a four-year old. They bore remarkably well, and to our surprise the fruit was palatable. It is a small russet brown plum, not unlike some of our common varieties at home; but one could not say of it that it is equal to our inferior sorts, or that it is a fruit one would care to eat if one had any choice. The pear is abundant all over the Province, and during my last journey down south, I saw some fine large growers of some fifteen to twenty years' standing. Those I have myself grown are from Kuang-Ning, in the west of the Province, where the Chinese seem to take some pains with the cultivation. I was supposed to have quite a large assortment, but I can only count four varieties, and of these, I say confidently, there is not one which would be tolerated in the west. It might be worth while to enquire whether the variety we commonly speak of as the 'Peking' pear (native of Chihli Province), would not bear removal to America, but I should fancy we only think it luscious in comparison with the turnip taste of the others. I confess I have eaten it as a great delicacy in mid-winter, but then it was in the north of China, and after I had forgotten the taste of home fruit.

"The peach is also a poor thing in this Province, nor did I ever think much of it in Shantung. Some good judges, however, declare it to have a flavor of its own, and I have heard one friend say, that neither the English nor American varieties which he has tasted have the rich, fruity flavor of our native peach (such as we have here in our own garden). Of this you are yourself competent to judge, as you have frequently tasted them. It is noteworthy, however, that the very palatable peaches

you ate last year in Mrs. C.'s garden were from wild plants sown only three or four years ago. We had no such good eatable peaches ever from trees we consider to be grafts.

"As to the grape, I should not fancy we have anything to offer to the west. I differ from most in their enthusiasm for the grape of this Province. All I know is that I could not refrain from eating grapes in Shantung, even when I suffered a severe penalty, whereas here I am simply beyond temptation. I have eaten grapes in Germany, where they were as common as gooseberries with us, and I am meanwhile awaiting the advent of a grape which will dimly remind me of these. But the Chinese seem to me very backward in the matter of grape culture, and therefore we don't know as yet what the native varieties are capable of. For the quince you must enquire further south. I used to see it used largely in condiments in the south of Shantung Province.

"We have, of course, no currants. As you know, a year or two hence we shall have some notion of how American fruit trees do in our Manchurian climate. Excuse poverty.

"Yours sincerely,

"J. MACINTYRE.

"P.S.—Mr. Macintyre refers to some fruit trees which he and I got last year from the States. We can say nothing of them yet. J. W."

This letter was accompanied by one from Dr. Watson himself, dated at Newchwang, 2nd March, 1882, in which he says:

"I very much fear there are no fruit trees worth sending to Canada from this portion of China. There are two pears however—a large and a small kind—grown in and near Peking, which to my mind are simply delicious. I differ from Mr. Macintyre in his esti-

mate of the grape. It certainly is not so sweet as the hot-house grapes we get in England, but it is beautifully grown, and the fruit ripens in immense and splendid bunches from three to ten pounds in weight."

ORNAMENTAL TREES AND PLANTS.

BY GEORGE ELLWANGER, ROCHESTER.

THE HAWTHORN.—(*Crataegus*.)

This distinct and interesting genus is deserving of far more attention than it has generally received. If nature be taken as a guide in the effects produced by the employment of different varieties of trees in adorning and individualizing sylvan scenery, the Hawthorn will stand among the best types of arboreal picturesqueness and a certain boldness of beauty. Among ornamental trees it should be accorded a high rank; as an English enthusiast observes, "it brings the fragrant breath of summer—the purity, freshness and perfume of a real June day." No less on account of its beauty of bloom, however, than for its other many valuable characteristics, should it receive acknowledgement as an important factor in landscape adornment. All of its many varieties are perfectly hardy, thriving in almost any dry soil. In general they produce fine shaped, low trees, occupying comparatively little space, and whose wealth of green foliage and compact heads form most pleasing objects, the tree being scarcely less attractive during winter in its rugged picturesqueness of naked lines. The flowers are conspicuous, of varied colors, from white to crimson, the single varieties especially possessing a fine aromatic perfume.

During autumn and early winter, when the beauty of most deciduous trees remains only as a memory, most of the species stand out in brilliant array, covered with bright red and yellow fruits. Many garden birds remain

as long as the berries are plentiful, and on the fruit of trees skirting woodland, the grouse and other birds are in the habit of feeding in the fall. In addition to its other qualities, the thorn is of much value for its wood, which is almost equal to that of the much prized box, and which is even finer in color. No more advantages can be enumerated for any other genus of ornamental trees. The blooms of the double flowering varieties, together with the single scarlet and pink, are very desirable for decorative purposes. They are also fine objects for conservatories, forcing well and flowering finely. For this purpose the Hawthorn has also been unjustly neglected; and by utilizing it florists might add largely to their store and variety of valuable flowers.

Among native varieties the scarlet fruited is in particular worthy the attention of the landscape gardener. On our own grounds we have a large tree of this charming variety upon which, perhaps, a hundred summer suns have shone, which nature kindly planted in a corner of a line fence. No tree in our arboretum is more admired when in bloom or in fruit. The flower is large, of a pure white, the berries flashing a deep scarlet, and being quite pleasant to the taste.

The double varieties I have referred to—Paul's Double Scarlet, the Double White and the Double Pink—are all European sorts of the *crataegus oxyacantha* type, and are specially recommended for small town gardens, as well as for large lawns and parks. These are all profuse bloomers, covering the trees with miniature roses. The English, appreciating the beauties of the Hawthorn, employ it for hedges more than any other material; and any one who has travelled through English lanes in the flowering season will remember with after-delight the pleasing im-

pressions to sight and smell. Most of the American species are of more robust growth than the European, and therefore better adapted in our climate for hedge purposes.

The Cockspar Thorn, which is widely distributed over the Northern and Middle States, is one of the most vigorous growers, and, if planted in good soil and well taken care of for the first few years, will make an impenetrable barrier for animals.

It does not take up as much room as the Osage Orange and Honey Locust, and can be kept under control with the shears. The Thorn is also more lasting than either of these commonly employed hedge plants, besides being easier cared for, and more ornamental on account of its beauty of flower and berry.

Some of the most distinct varieties in the very large list that have come under my observation, are herewith presented, without adding any particular description, which may be found in the Ornamental Catalogues. It may be stated that the most ornamental are the double varieties previously referred to, and which I place at the head of the list, as deserving the very highest commendation:

Double Varieties.—Paul's Double Scarlet, Double Red, or Superb, Double White, Double Scarlet.

Single Varieties.—Gumpper's Variegated Scarlet-flowering, Pink-flowering, Common White, Variegated-leaved, Scarlet-fruited, Douglass, Azarole, Glossy-leaved, Hybrid Smooth-leaved, Black-fruited, Tomentosa, Oriental, Parsley-leaved, Cockspar, Tansey-leaved, Pyramidal, Maple-leaved, Medlar-leaved, Apple-leaved.

While the double-flowering varieties may, perhaps, be chosen in preference for single specimens where space is limited, the various single varieties are almost equally deserving a place in

larger collections where the space will admit. As to choice among the many excellent sorts, this may best be left to individual taste.

NEW VARIETIES OF STRAWBERRIES.

Manchester.—This is certainly a remarkable strawberry. It is a new variety to the world at large, and yet it has been carefully tested for seven years on a private fruit farm, and each year has been growing in favor with those who have had an opportunity for inspecting the fruit. The Manchester will, I think, prove a decided favorite with those who have sandy soils, as it gives fine crops on such soils that are so light that weeds do not thrive well upon them. Another very valuable point is that the berries are very firm, and stand shipment finely, and usually keep their color so well that they can be kept on sale a day or two longer after being picked than can most strawberries. The fruit is of good size, and ripens from medium to late in the season.

Mt. Vernon.—Though this variety is not sufficiently firm to ship long distances, yet the fruit is so luscious, and of such a brilliant scarlet color as to make it a great favorite for home use or near markets. The berries are of large size, and average large. Their uniform size and brilliant color makes them sell well in market—one-third of an acre yielding over \$600 worth of berries. The fruit ripens moderately late, making it possible to extend the season a week or two longer than would be the case if only early varieties are planted.

Bidwell.—This is proving very popular. The plants are exceedingly productive, the fruit at times averaging as large as the Sharpless, and sometimes being produced to the extent of as many bushels to the acre as the far-famed Crescent. It is a fine eating berry, and

also a good shipping berry. The plants are very vigorous growers, and, what should be carefully noted, have stood the drouth here better than almost any other strawberry, scarcely a leaf having wilted or burned. It is well worthy of trial.

Orient should succeed in places where the Monarch of the West does well, as it has very similar habits of growth. *Finche's Prolific* is also a vigorous growing variety, and a promising market sort. *Sharpless*, *Miner's Great Prolific*, *Chas. Downing* and *Capt. Jack* are other excellent varieties that succeed finely in many places.

Of the one or two hundred varieties that I have been growing at different times, the above, including the *Wilson's Albany*, appear to be among the most desirable.—R. H. HAINES, in *Southern Cultivator*.

HANGING BASKETS.

For hanging baskets the Partridge vine is invaluable, as its brilliant scarlet berries enliven and relieve the sober green. Take up large vines of it with as many berries as possible. If they are green when found they will turn red shortly. Always place the vines around the edge of the basket, put in some *Maurandia* vines to climb the wires. For the centre a *Happy-Thought Geranium*, or what is prettier, a *Myosotis*—*Forget-me-not*.

The popular tradition, which tells how the name of *Forget-me-not* came to be applied to the plant which now bears it throughout Europe, is not generally known. It is said that a knight and a lady were walking by the side of the Danube, interchanging vows of devotion and affection, when the lady saw on the other side of the stream the bright blue flowers of the *myosotis*, and expressed a desire for them. The knight, eager to gratify her, plunged into the river, and,

reaching the opposite bank, gathered a bunch of flowers. On his return the current proved to strong for him, and after many efforts to reach the land he was borne away. With a last effort he flung the fatal blossoms upon the land, exclaiming as he did so, "*Forget-me-not!*"

"And the lady fair of the knight so true
Still remembered his hapless lot,
And she cherished the flowers of brilliant hue,
And she braided her hair with the blossoms
blue,
And she called it *Forget-me-not*."

—*Floral Monthly*.

OLD AND NEW PLUMS.

A New Jersey plum grower writes to the *Chicago Inter Ocean* the following in reference to plum culture:

"There is something peculiarly fascinating in this fruit—a certain charm connected with it, that makes the person who is presented with a basket of plums generally feel that he is receiving an unusual treat. It may be that it is partly owing to the widely prevalent theory, "That the sweetest roses have the most thorns," that this is so, and that consequently as it is usually thought that the plum is a very difficult fruit to grow, it is more highly prized on that account. It certainly is a decided favorite, otherwise persons living in large cities, like New York and Boston, could not be found paying for plums at the rate of a cent a plum at the retail fruit stands or of \$2 to \$3 for a half bushel of the fruit in the wholesale markets. On some accounts the plum is a difficult fruit to grow, not so much from its requiring any special training or cultivation, as superb large plums are often grown on ground that is not touched by plow or hoe oftener than once in five or ten years, but the difficulty arises from the fact of the liability of the plum to be stung and

injured by a little insect called the curculio, causing the fruit to decay or fall to the ground before ripening. The curculio is a small grayish brown insect, about one-sixth of an inch long, and with wings that appear like two little humps on its back. Owing to the crescent-shaped mark that it makes when biting into the young fruit and laying its eggs, it has also been given the name of the "little Turk." However, fine crops can easily be obtained in most sections of the country, notwithstanding this insect. One of the simplest or surest methods is to plant the plum trees in a chicken yard, or to turn the plum orchard, if not large, into a poultry yard when the trees become of bearing age. If pigs are allowed to run in the orchard and eat up all the injured fruit as it falls, then they will prove almost equally as serviceable as chickens. Another method is to plant the trees on the edges of brooks or ponds, so that the branches shall hang over the water. Still another is to have the ground closely paved with large flat stones or shells around the trees. As plums are always picked from the trees, and not from the ground, none of the above plans will interfere very much in gathering the fruit. I could give many other successful plans for preventing the fruit from being injured by the curculio, but must now turn my attention to giving descriptions of some of the finer varieties of plums.

The General Hand is a handsome, very large, golden-yellow plum that is supposed to have originated near Lancaster, Pa. The fruit is of a roundish oval shape, and frequently marbled with greenish-yellow. It is a showy, attractive looking plum, sweet and moderately juicy, and of fair quality; ripens in September. It succeeds better in New York, Pennsylvania, and in some of the Gulf States than it does at the West or North.

Wild Goose—This is proving quite a favorite in many localities, but especially in places where it has been considered difficult to grow the ordinary varieties of plums. It has been heralded throughout the length and breadth of the country as being a "curculio-proof" plum. Though this is not strictly the case, yet it appears in many places to be less attractive to that little insect, either on account of its thicker skin or something distasteful in the fruit. The wild goose is of small or medium size, round, of a yellowish red color, and ripens moderately early. Though it is excelled in quality by some other plums, yet, as it succeeds so generally throughout the United States, and even in Wisconsin and Minnesota, it will probably continue to be a favorite.

The Richland is a plum that is not very widely known. The fruit is of medium size, of a purplish red color, tinged with blue, of oval form, and of quite good quality. It ripens in August, at about the middle of the plum season. It is grown for either market or table use, and thus far mostly within the Middle States.

Pond's Seedling is one of the largest and most beautiful of plums. The fruit is of oval form, skin of a yellow color, profusely dotted with red, and with a white bloom. It ripens in September, and is of moderately good quality. It is of English origin, and has not yet been very generally tested, but thus far has proved quite promising where grown.

Coe's Golden Drop, Imperial Gage, Washington, and Yellow Egg are some of the largest, best, and most delicious of yellow plums, and are very general favorites. The first is quite a late variety, and the second moderately early. Lombard, a reddish purple plum, is popular on account of its great hardiness at the far North.



STRAWBERRIES.

The following account of the opinions given at the last meeting of the American Pomological Society was given to the *Prairie Farmer* by the horticultural Editor, Mr. T. T. Lyon.

P. T. Quinn, of Newark, N.J., commenced by saying that his views, as to the proper method of growing strawberries had undergone a change within the last dozen years. He is now of the opinion that the best of soil and cultivation is requisite for the production of fine berries and profitable crops.

Until recently he had planted in summer, but now thinks spring planting more profitable. He gives clean culture till the middle of September, and then mulches for the winter, raking off the covering in spring. He omits the use of horse power in cultivation during the year of fruiting, for the reason that the feeding roots come too near the surface, and would hence be too much disturbed by the cultivator.

He stated that he had produced over 170 bushels from a single acre. It is his practice to test the promising, new varieties. All things considered, the Charles Downing is his favorite, though Boyden's No. 30 (Seth Boyden), is popular with dealers. His last crop netted him fourteen cents per quart.

Dr. Hexamer, of N.Y., dwelt largely upon the value and importance of irrigation. He concurred with Mr. Quinn in a preference for spring planting, but thought Wilson one of the best shipping berries. For amateur planters he recommended the use of potted plants. In response to a question by a member, he remarked that the *Triomphe de Gand* was one of the finest of shipping strawberries.

The consideration of the several varieties served to bring out prominently the fact that nearly or quite all varieties are more or less local, so far

as successful cultivation is concerned; a very few only proving satisfactory over an extended range of territory.

Agriculturist was not generally thought worthy of a place in the catalogue.

Black Defiance was commended as "best" for those who want a first-class large berry.

Captain Jack, one of the best market berries. Quite prolific.

Charles Downing, one of the best of all berries for general use. Said to be liable to blight in some places.

Col. Cheney, good, if well fertilized.

Crystal City, a valuable early berry. Commended in Georgia, but not as good for shipping. Said to be poor and small on clay.

Crescent is very well able to take care of itself, has great vitality, is profitable for a near market.

Cumberland Triumph, one of the best, popular everywhere. A good shipping berry in Ohio; holds its size till last picking.

Downer's Prolific is being replaced by more recent and better varieties.

Duchess, an early berry; does well grown in hills.

Duncan, early and of very fine quality.

Forest Rose, under ordinary culture has not realized the anticipations of growers. Its foliage falls and the blossoms are tender.

General Sherman, poor in quality.

Glendale, generally regarded as worthless.

Glossy Cone, fails under the influence of sun and drought.

Golden Defiance, a fine, late variety, for home use.

Great American, variable and uncertain, usually unproductive; very disappointing.

Green Prolific, very sure, prolific and profitable for a near market. Some members suggested that it is no longer needed since we have the Crescent.

Henry Davis, a good amateur berry, does not bear heavy crops, but is of good quality.

Hovey's Seedling, originated fifty years ago, was the first hybrid strawberry of American origin; still retains its quality.

Jenny Lind, little grown outside of Boston and its vicinity.

Jucunda, once so popular, has ceased to be satisfactory.

Kentucky, one of the best market berries in Arkansas, the late market berry of Ohio. It takes care of itself.

Longworth's Prolific, is the great berry of California.

Matilda, generally unsatisfactory.

Miner's Great Prolific, one of the finest and largest of all the strawberries.

Monarch of the West, uncertain, liable to be injured by spring frosts.

Newman's Prolific, the popular berry of Charleston, South Carolina, quality often poor elsewhere.

Nicanor, very early and hardy, some say earlier than Duchess and Wilson.

Pioneer, an early variety and a strong grower.

President Wilder, of the finest quality, under high cultivation, handsome and unsurpassed. It has stood for twenty years as one of the best in form, color and quality.

Prouty, superseded.

Rocky Hill Triumph, same as Cumberland Triumph.

Russell's Prolific, superseded.

Russell's Advance, of good quality; stands the sun well, hardy, soft.

Seneca Chief, little known; of no value.

Seneca Queen, of good quality, productive, uniform in size and shape, a little later than Duchess.

Boyden's No. 30 (Seth Boyden), sweet, valuable in some places, especially with abundant moisture.

Sharpless, fruit not good in a wet season; large and prolific under good treatment; quality usually good, misshapen only when overgrown. The Massachusetts Horticultural Society gave it the first premium this year. It is less prolific the first season.

Springdale is very fine for home use.

Triomphe de Gand, the type of high quality, and on suitable soil will give the best results; keeps well.

Triple Crown, of very high flavor.

Victoria (Golden Queen), unsatisfactory.

Windsor Chief, a fine berry.

Manchester, a very promising berry, uniform in size, prolific, as large as Cumberland Triumph; said to thrive on poor soil.

Kirkwood, a vigorous plant, profitable for a near market, precisely like Mount Vernon.

Longfellow, said to be very valuable.

Warren, of good quality, but very uncertain, resembles Seth Boyden.

Cetewayo, one of the strongest growers.

Gypsy, hardy, good quality.

PINCHING MELON, CUCUMBER AND SQUASH VINES.

A practical gardener makes the following important statement: "Last year, as a test of a frequent practice among growers of melons and squashes, I pinched the ends of the long main shoots of the melons, squashes and cucumbers, and left some to run at their own will. The squash plant sent out a single stem, reaching more than forty

feet, but did not bear any fruit. Another plant was pinched until it formed a compact mass of intermingling side shoots eight feet square, and it bore sixteen squashes. The present year, a muskmelon plant thus pinched in covers the space allotted to it, and it has set twenty-three specimens of fruit, the most of which have been pinched off. The pinching causes many lateral branches, which latter produce the female or fertile blossoms, while the main vines only produce the male blossoms. The difference in favor of the yield of an acre of melons, treated by this pinching process, may easily amount to 100 barrels."

HOW TO SECURE HARDINESS IN OUR TREES.

(From Address of President Barry, before the Western New York Horticultural Society.)

Hardiness, or the power to resist extreme cold, is generally recognized as a quality of the first importance. When a new variety of fruit or a new ornamental tree or plant is introduced, the first enquiry made is about its hardiness. In such climates as ours, it is the one indispensable quality. What, then, can the cultivator do to promote hardiness? He can do much; first, and above all, our land must be dry, that is, absolutely free from stagnant moisture, either naturally, or made so by underdraining. We all know that plants grown on low, rich, moist lands are filled with watery fluids, which render them peculiarly susceptible to injury from frost. We often see plants on low, moist grounds killed by an early frost, when on adjacent dry ground, only a few feet distant, they escaped. Vegetable physiologists have adopted the axiom, "That the power of plants to resist cold is in the inverse ratio of the rapidity with which the fluids circulate," and "that the liability of the fluids of plants to

freeze is greater in proportion to the size of the cells." That is, the less water there is in the fluids of plants, and the smaller the cells, the greater is their power to resist cold. This is in harmony with all our experience. This is the reason why such destruction has fallen upon Western plantations. I have seen orchards at the West, on low, rich lands, frozen while in full leaf, so that they looked perfectly black and dead. They were full of watery fluids when overtaken by the frost. The Chairman of the Wisconsin State Fruit Committee reports that "the exposed crowns of many of the highest limestone bluffs in that State, from 100 to 400 feet above the adjacent valley, produce as perfect orchards as can be desired, up to latitude 44½°, where a large variety of our

EASTERN APPLES AND PEARS

are permanently successful; while in the valley below nothing but the Siberians or Duchess of Oldenburg will stand. This is the experience all over the West, and it is ours only that in our milder climate it is not so marked. In the second place soil must possess sufficient fertility to produce a moderate healthy growth. Trees or plants that are underfed become stunted, and are neither useful nor beautiful. The sooner they die the better. Those that are overfed make a rank, watery growth, which does not ripen, and is not in a condition to resist cold. These extremes are by no means uncommon in the treatment of trees. As a general thing, the starvation process is more common, but it is also very common to apply manure to excess. To maintain trees in a state of health and vigor, yielding their maximum of utility or beauty, requires both care and skill in the application of fertilizers and the treatment of the soil. In the management of fruit trees, over-cropping is a

great and very general evil. A tree overloaded with fruit can neither perfect the fruit nor ripen its wood properly, and in a severe climate is quite likely to succumb to a degree of cold, which, under proper treatment, it could have resisted perfectly. It is safe to say that millions of trees are annually ruined in this country by over-crops. The grape is very sensitive in this respect; if overloaded, the fruit will not color, nor will the wood ripen. It is not uncommon to hear people complain of their grapes not ripening and their vines being killed, and ascribing the trouble to every cause but the right one, over-cropping. This is an error committed not by novices only. A great many trees and plants are killed by kindness, too. New plants, costing a high price, are very apt to be stimulated by manure and water, so that, instead of making a moderate, well ripened growth, they are forced, as it were, and come out dead in the spring. I have seen many such cases. I will only refer to one on our own grounds as

A FAIR EXAMPLE.

There was a large bed of the new *Hydrangea paniculata* on the lawn; the plants were set close, and it was thought that a surface dressing of manure and plenty of water would assist their flowering, which takes place late in the season, and generally when it is dry. This treatment was well enough, but they got too much of both manure and water. They did not ripen either roots or tops, and nearly all were dead the following spring, while those in other parts of the ground left to themselves were not injured in the slightest degree. I will mention another instance which has frequently arrested my attention, as showing the importance of well-ripened wood. The varieties of Golden Arbor Vita have proved so liable to be injured in winter,

that their culture with us has been almost abandoned. Four years ago a couple of them were planted on a piece of rock work, and these have escaped the slightest injury, even during the last severe winter. They make a moderate growth, but it is healthy; the color is perfect, and they seem quite at home. In every other situation they have failed. It is because the roots running among the rocks, free from stagnant moisture, acquire perfect ripeness, as do the whole plants. I believe that by special means of this sort we may do much to increase the hardiness of many beautiful trees and plants only half-hardy. Much injury is done in city gardens by the excessive use of water, not only to the lawns, but to trees and plants, and to health as well. Ripeness, then, is essential to hardiness, is

THE SOURCE OF HARDINESS,

and the cultivator should never lose sight of this. Thanks to our climate, it is not so difficult to secure ripeness here as it is in some parts of our country. In reading a report from Minnesota, a few days ago, the writer stated that they had scarcely any autumn, but passed at once from the season of growth to severe frosts. Here our autumns are splendid, with rarely frost enough to kill flowers until about the 1st of November. The early frost is the exception, and it is generally so light as to do little harm, so that generally it is our own fault if our trees and plants are not well ripened. The generally acknowledged superiority of nursery trees grown in Western New York is due mainly to the perfect ripeness they acquire. The means to be employed to secure ripeness and hardiness may be very briefly summed up as follows:—

First—A dry soil, absolutely free from stagnant moisture.

Second—Sufficient fertility only to produce a moderate and healthy growth.

Third—Such treatment of the soil as will encourage growth early in the autumn. In the case of tender plants these precautions will be all the more necessary.

Fourth—In the case of fruit-bearing trees and plants, avoid over-cropping.

NOTES ON NEW VARIETIES OF POTATOES.

Lyman Wall, of Webster, N. Y., writes to the *Rural Home* an account of the observations he has made upon the quality and productiveness of some of the new varieties of potatoes. In his report, Mr. Wall makes quality and productiveness the two main considerations, the next thing being hardiness, shape, size, color, etc. He says :

“Several years ago I discarded the Early Rose, and grew the Early Vermont, for an early potato. I think the Vermont far preferable to the Rose. It is more productive, less liable to scab, full as early, and of better quality. Beauty of Hebron, not quite as early as the Vermont. Quality slightly inferior. Have raised the Early Ohio two years and shall discard it. Am satisfied that in some sections it is a first-class early potato, but wish me it is inclined to scab, and yields about half as many merchantable potatoes as the Vermont.

“The Ontario, a new seedling originated by H. H. Doolittle, is the best early variety I am acquainted with. In size, shape, quality and productiveness, it is as near perfection as anything yet introduced.

“The Belle, a new seedling of the Early Rose, is one of the best medium early varieties. Ripens about three weeks after the Vermont, is productive, and one of the best table potatoes I have ever eaten.

“The Mammoth Pearl, a large white potato of good quality and very productive. With ordinary field culture it produced this season, at the rate of 210 bushels per acre of large fine potatoes.

“The Magnum Bonum is one of the best very large potatoes I ever saw. Season about the same as the Belle. It is a seedling of the White Peach-blow, which it resembles very much in shape and color. The only objection is deep eyes in the seed end, the other eyes are few and of ordinary depth. For poor land I think it preferable to any other variety. Potatoes invariably large. On the poorest soil capable of producing only one in a hill, that one will be large.

“Have raised Burbank Seedling for two years, and shall discard it. During four days' attendance at the Western New York Fair, I talked with several hundred farmers about the different varieties of potatoes, and nine-tenths of them condemned the Burbank. But I find no potato so poor but some one will praise it, and none so good but some will condemn it.

“For a late potato I know of nothing equal to the White Whipple, originated from the Whipple. No potato has given such universal satisfaction to customers as the Whipple. In spite of its objectionable color it has won favor, and no potato is more sought after in the Rochester market.

“The White Whipple is equal in every respect, and has the advantage of being white, very much resembling the old White Pinkeye. When on exhibition at the fair this fall, many old farmers declared it to be their old favorite, the White Pinkeye.

“We commence eating it at digging time, and eat nothing else till potatoes grow again. It is not as late as the Peachblow, but ripens before frost. I planted half an acre this season, the

17th of June, and they were ripe and ready for digging the 1st of October, making a very good crop of fine large potatoes.

"Wall's Orange is another new potato originated by me from the Whipple. It is of a reddish orange color; in shape, size, and productiveness it resembles the White Whipple; when cooked, not quite so firm as the Whipple, but dry and mealy, and of the very best quality. From 25 lbs. of seed, I this year, with ordinary culture, raised 35 bushels of first-class potatoes. For quality and productiveness I know of no varieties equalling the White Whipple and Wall's Orange. They are about the strongest growers I ever saw, vines completely covering the ground, and as nearly bug-proof as possible. Growing in my experimental field beside other varieties which were bugged several times, they took care of themselves, and were the last to succumb to the drouth.

"I have a quantity of selected seedlings, one, two, and three years old, that I shall thoroughly test before putting on the market. My seedlings are from seed balls of Whipple and White Whipple. Among all the varieties grown by me for several years, the Whipple and their seedlings are the only ones producing seed balls. Other varieties blossom freely, but fail to produce seed. I have been investigating the subject this summer, and will give the result for what it is worth, hoping that others better qualified than I am will give us the truth in the matter.

"I noticed the bumble-bees were very busy apparently collecting honey from the blossoms of the Whipple, and paying no attention to the blossoms of other varieties growing near them. I came to the conclusion that the blossoms of the Whipple contained honey, and the other varieties did not, and that the bees carried the pollen from flower to

flower, thus fertilizing them and producing a large amount of seed. I think I could have gathered a bushel of balls from an acre."

FASHION VERSUS TASTE.

Single buds of Gen. Jacqueminot Roses were sold on New Year's Day in New York for from two to four dollars, and even at these extravagant prices the supply fell short of the demand, so that one wealthy young gentleman considered himself fortunate to be able to procure the last four Roses of New Year's Day for fifty dollars, rather than appear before his bride without a gift of Rose-buds.

Is this an indication of an increasing taste for flowers? We think not, and if it were, it would be but a doubtful compliment to the æsthetics of our fashionable society if it had required all this time to discover the beauties of the Rose.

Pleasant as is the custom of sending one's New Year's compliments to his lady friends in the shape of fresh flowers, the fact that this year it cannot be done in any other form than Gen. Jacqueminot Roses is no more a sign of refined taste or individual preference than is the wearing of one-button gloves or the crinoline so soon as fashion dictates.

Violets and Lilies of the Valley are also admissible, and, strange to say, a bunch of Daisies—particularly when they are called "Paris Daisies"—may find an honored place in the most fashionable parlors, while a few years ago the offering of a bunch of Daisies to a lady would have been considered an insult. Is it taste that rules the queenly Camellia and sweet Orange blossoms out, and Daisies and Tulips into fashion? Even the graceful Smilax, decreed fashionable by the whim of an opera prima donna, is losing caste in society, to be supplanted by

Fern leaves, which should never have been ruled out.

These various freaks in floral fashions may add something to the stock of botanical knowledge of our city belles, but taste—a clear perception and appreciation of beauty and excellence—is rarely developed by fashion, which often takes retrograde steps and brings faulty modes and ill-shaped forms into common use, which, by their frequent contact, rather dull the taste for real art and beauty. A fine taste is not created by a freak of fashion; it is either born with us or is the result of careful study and high culture.—*American Garden.*

THE FARMER'S FRUIT GARDEN.

I contend that every prosperous farmer owes it to himself and to his family to supply his table with all the desirable and wholesome luxuries which his farm, under ordinary cultivation, is capable of producing, and to supply it bountifully, and failing to do so he fails in his duty to his family, and can not reasonably expect his sons and daughters to grow up contented with their lot. Children brought up on a farm are deprived of many privileges enjoyed by those brought up in the city, and should be provided as compensation with those which the farm is capable of producing. The farmer's boy or girl, visiting town, sees upon the green-grocer's stand almost every species of fruits and vegetables, and know that these desirable luxuries are grown on soil similar to their father's, and if they are continually deprived of such luxuries, what wonder that they are discontented.

None of the products of the soil are more enjoyed by children than fruit, and there is no portion of the homestead farm that are longer remembered or more fondly cherished, than the fruit garden. I remember, when a mere infant, visiting an uncle at Red-Hook,

Duchess county, and the only thing about the place that made a lasting impression on my mind was a garden of plum trees, loaded with luscious blue, red, and yellow plums. I pity the farmer's son who grows to manhood's estate with no such cherished spot to chain him to the parental home.

Having said so much to prove the value of the fruit-garden to the farmer's family, I will say but little about its character. In the first place, it should be ample. No farmer is so pinched for room that he can not afford space for a liberal fruit garden. A large garden can be cultivated in less time than a small one, as it affords room for using a team to advantage.

Then plant liberally of every desirable species, so liberally that there will be an abundant supply for the family without using defective fruit. A well-to-do, independent farmer should put no second-class products of the field, orchard or garden upon his own table. Throw wormy or rotten fruit to the pigs, but never offer it to your children.

Plant enough of the hardy, vigorous, productive varieties of the various species to insure a supply in unfavorable seasons, and then plant some of the higher-flavored, that require more nursing, so that you may have some of the best. I would say, plant none but those of highest quality, but should that be done, unless the farmer is an expert, there would be seasons when there would be no fruit, or at least an insufficient supply.

Plant in the fruit garden, pears, peaches, plums, apricots, cherries, quinces, grapes, gooseberries, currants, black-berries, raspberries, and strawberries. Cultivate the surface well until the trees are well in bearing, and then you may cease ploughing the trees, if you choose, but never cease to manure them. The small fruits, of course, must

always be cultivated. A bearing fruit-garden would afford a more delightful promenade for the family, if kept in grass, closely cut, but it would soon cease to be a pleasant resort if allowed to decline in fertility, and consequently in the quality of its fruit.—*American Rural Home.*

HARDY SHRUBS. II

BY ANTOINE WINTZER, WEST GROVE, PA.

Persons who have places in the country sometimes desire to plant a few shrubs that will thrive and bloom without too much nursing. To assist them in their efforts, I will give a list and description of about a dozen of the most desirable varieties for general culture.

In the first place a few suggestions about the planting and treatment of hardy shrubs may not be amiss. They can be planted at any time from October to May, when the ground is not frozen or is not too wet.

Now allow me to say a few words about the pruning of shrubs. This is a very simple affair. All shrubs that bloom in spring, or early summer, should *not* be pruned in winter or spring unless they have been newly planted; in this case they should have their tops shortened. When shrubs grow too many shoots, a number of them should be cut out entirely in February or March. If they grow too tall the tops can be clipped in summer, after the plants are through blooming for the season. But *Altheas* and *Hydrangea Grandiflora* should always be cut back in winter or early spring, because they bloom in late summer on the young shoots, while the *Spireas*, *Deutzias*, *Weigelas*, and all shrubs that bloom in May or June, must have shoots of the past season's growth to produce their flowers.

Weigela Rosea.—This beautiful Chinese shrub is one of the most effective

plants in the lawn. It produces its beautiful rose-colored flowers in June in the greatest abundance. The plant grows to the height of six or eight feet, and will thrive in any soil.

Weigela Nana Variegata.—This is another fine plant. It is desirable both for its flowers and its beautiful foliage, which is green in the centre and white on the outside of the leaf, and retains its distinct color all summer. The flowers are a beautiful blush in color, and it would be hard to find a more charming looking plant than this when in full bloom.

Hydrangea Grandiflora.—This fine shrub was introduced into this country from Japan. It is as hardy as an oak. It begins to bloom in this section (latitude of Philadelphia) about the latter part of July, and the flowers remain on the plant until frost. When the flowers first open they are pure white; after a few weeks they become rose-tinted. They are produced on the ends of the young shoots in large panicles, which are a foot or more in length, and good bushes will grow from 50 to 150 of these immense heads. This plant should be trimmed every year, at any time from November to April. If you want large flowers, prune sharp; if smaller bloom is preferred, prune light. Plant it on the lawn in a sunny place (for this variety does not require shade), keep the sod from growing around the roots, and give it a surface dressing of stable manure in the fall, and you will have a plant of which you will be proud. It will flourish for a lifetime with decent treatment. It will grow from seven to eight feet high.

Viburnum Plicatum.—This is a beautiful shrub of the Snowball family. It produces its flowers in pure white bunches like the old variety, but the plant has firmer and thicker foliage and a more erect habit of growth. It blooms

in spring, and requires but little pruning at any time.

Spirea Reevesii.—A fine plant for the lawn. The bush, when in bloom, is charming in the spring of the year, when it is one mass of white. The leaves are small, and the plant has a half-drooping habit, which gives it a graceful appearance.

Spirea Thunbergia.—One of the most graceful hardy plants we have. Produces small white flowers early in the spring. The foliage is very small, and the bush remains green until late in the fall.

Cydonia Japonica (Japan Quince).—This is a very showy bush early in the spring, when it is covered with its bright scarlet blossoms. It bears clipping, and can be kept in any desired form; it also makes a very nice hedge. There is also a light colored variety, which is fine when planted in contrast with this.

Deutzia Crenata.—This is one of the best Deutzias. Flowers double, rose-colored, and produced in great numbers. It blooms in June. The bush grows four to six feet high, and will do well in any soil.

Deutzia Gracilis.—This is a more dwarf-growing variety than the preceding. Flowers pure white, single. A nice plant to force for winter flowers.

Hibiscus Purpurea Pleno (Purple Althea).—This well-known shrub blooms in August. Altheas are fine plants when well kept, and all that is necessary to keep them in good condition is to clip them back every fall or winter. This will not affect their bloom, as they flower on the young wood. There are several good varieties beside the above, such as *Double Rose*, *Carnation Striped*, *Double White*, *Variogated Leaved*, and several others. They can be used as hedge plants or for ornaments.

Syringa Vulgaris (the common purple Lilac).—A list of hardy shrubs would hardly be complete without this old favorite. There are several newer varieties, but the old purple is as good as any. It thrives in any soil, and the plant requires no pruning—only an occasional thinning out of surplus shoots.

Philadelphus Coronarius Nana (Dwarf Mock Orange).—This is worthy of a place in any lawn. The plant blooms in late spring. The flowers are pure wax white and delightfully fragrant. The bush grows nice and compact.

Berberis Purpurea (Purple Barberry).—This is a good plant for the lawn, and it will also make a fine hedge. Its flowers are yellow, produced in spring, but its beauty is in the rich purple foliage, which remains on the plant until late in the fall. It should be clipped every year in fall or winter.

The above make a small collection of hardy shrubs that will do well in any soil that will grow grass, and can be bought at a reasonable figure from any good nurseryman.—*Farm and Garden*.

CELERY.—Celery is a vegetable which apparently receives but little attention from the public, and still the trade in this article amounts annually to many thousands of dollars. While many use it for its medicinal qualities, its well-known effect on the nervous system causing it to be highly prized, others and by far the majority of consumers consider it a luxury, fit only for the wealthy. Few are aware that fully one-third of the celery of commerce is thrown away as useless. All the coarser parts—the outside stalks and the greener portion of the stock—all, in fact, that is unfit for the celery glass, can be utilized by cutting into short pieces, cooking and serving in precisely the same manner as asparagus. All housekeepers who try it never after waste any of their celery.

PERSIAN CHAMOMILE OR INSECT POWDER.

"How is the Persian insect powder used to destroy flies, mosquitoes, bed bugs, etc. ? I have tried burning some but the fumes did not kill flies."

A teaspoonful of pure "Persian Chamomile" heaped in a little cone and burned in a medium sized room, that is not ventilated during the burning, will kill every fly in it. If it fails to do this the powder is not genuine. To test its purity, put a little in a bottle with a dozen flies; when the bottle is closed they will go into spasms and die almost instantly if the drug is what it should be. "Persian Insect Powder," like other things, is sometimes adulterated; it will also lose its strength if kept loose too long. Druggists mix it with other ingredients for various purposes. Borax is a valuable addition when cockroaches are to be disposed of, but for flies, mosquitoes, and bed bugs, the pure powder must be used. It costs from seventy to eighty cents a pound, has a bright, buff color, is light, burns readily, and gives a rather pleasant tea-like fragrance. It is the powdered leaf of a harmless flower growing in Caucasian Asia, where for centuries it has been used to keep the insect world in subjection. It acts on their breathing apparatus, evidently producing vertigo, respiratory spasms and paralysis, but is perfectly harmless and not particularly disagreeable to human beings. Of course a little curl of blue smoke can't be expected to kill the flies over all creation or even in a large airy space. It will weaken the ambition of all those which come within its influence, but to produce death the effect must be concentrated.

In rooms where windows and doors are opened the burning powder will keep out unwelcome insect intruders. In a house protected by screens, the

flies already in may be most conveniently disposed of by using the dry powder with an insect gun, which costs about twenty-five cents. Puff the powder into a close, warm room, until the air is filled with it, then shut the door and return in half an hour. If every fly in it is not either dead or dying, throw away your powder and send to a reliable dealer for that which is good. Pure "Persian Insect Powder" never fails in its effect.

For bed bugs puff the powder with the insect gun into all the cracks and crevices where such vermin harbor; leave the room undisturbed for a few hours, closely shut meanwhile, they will walk out and surrender at discretion; a semi-annual application will prevent all further trouble.

Dust your house plants, your pet dog and your poultry with insect powder, but don't undertake to kill spiders or you will be disappointed.—*Prairie Farmer.*

CATCHING CURCULIOS.

It is now over fifty years since I first learned when a boy to catch curculios by jarring on the spread sheet, and since that I have tried several modifications. Although I have published the mode which answers best, I find some of our best and most intelligent fruit growers still pursue old and inefficient means. Stout muslin about 6 by 7 feet is stiffened with light rods along the opposite edges, and these are kept apart with a cross-rod at the middle. This cross-rod is a little shorter than the width of the muslin, so as to leave the muslin a little slack and concave to hold the insects. Iron plugs are set in the trees, if small, or in the larger limbs if large, on which a single blow with an axe brings down every beetle. This is incomparably better than any padded mallet, or any other imperfect pounding. The operator

carries the sheet on his left arm, first to one side of the tree and then to the other; never has to stop, works rapidly and it costs almost nothing to keep the trees clear.—JOHN J. THOMAS, in *Green's Fruit Grower*.

NEW VARIETIES OF GRAPES.

Several persons deserve much praise for their success in the production of new varieties of grapes. Years ago I fully published my observations on the thirty-nine varieties produced by Mr. Rogers, of Salem, Mass. And what I said of them has been fully sustained. They are such rampant growers, so hardy, that the continent over they are known and valued. I would as soon part with my fruit-yard as let go Rogers' No. 3, that feasts me every year; or No. 13, like No. 3, but a little later; or No. 15, that honored number. Another successful man has come on the field with newer varieties that will satisfy those who dislike the stronger flavors of the Rogers. It is James H. Ricketts, of Newburgh, N. Y., who presents us with Lady Washington, Jefferson, Naom' and Bacchus. These are probably valuable in about the order I have placed them.

The Lady Washington, when grown for agricultural fairs, is a grape three-quarters of an inch in diameter, white, with a rusty cheek, somewhat transparent, with a golden greenish tint; bunch two-shouldered, six or seven inches long by five inches through the shoulder. As ordinarily grown it should be a third less in size, and yet be one of the most magnificent American varieties, equalling European grapes in size and appearance. So far its flavor is unexceptionable. The Jefferson is a red grape, claimed to be a cross of Concord and Iona, having the form of Iona, and the hardness of the Concord. A full-grown, typical bunch

is six inches long by six inches through its two shoulders; berries about five-eighths of an inch in diameter. As ordinarily grown it should be half an inch in diameter, and five inches long and wide in the bunch, or about equal to bunch and berry of the Isabella. In flavor it is much like Iona. Those who like the somewhat indefinite sweetness of Delaware and Iona, as compared with the higher flavored American grapes, ought to be satisfied with this, for it is the popular taste to eat such grapes.

Next I name the Naomi, because I believe it is a grape that will fully please me. I do not completely fancy a mere sweet bag of a grape, and as this is a hybrid of the Muscats and Clinton, it has shape and flavor enough. Mr. Vick says: "I have fruited it about ten years, and pronounce it one of the most magnificent grapes for the table that ever grew." It is a white grape, berry medium, oval, greenish yellow, ruby cheek, in a large shouldered bunch. I have not eaten it, and hence can only say that it is much praised by those who have seen and tasted it. The Bacchus is a seedling of the Clinton. The Clinton is not a favorite of mine, though it is of most people, but it is hardy and productive. The Bacchus is a peculiar shaped grape in its bunch, reminding me of an English grape called the Eldred; that is, the bunch is long, and nearly as large at the bottom as at its slightly shouldered top, measuring, when not overgrown, five or five and a half inches long by two and a half inches at top and two inches at the bottom. This is a smallish bunch. The Eldred is similar in shape, and nine to eleven inches long. The flavor of the Bacchus is acid and Clinton-like. I am now no believer in the use of wine or other alcoholic liquors, and I repent of all I ever wrote and said or did for wine making.

Hence I have nothing to say of its wine qualities, but Bacchus is a fair table grape.

As I close this article, I can but invite the grape-lover to the new feast of grapes so amply provided for him. Certainly they claim a fair trial, and if they have won their high esteem, in the face of a taste educated by so many years of excellent kinds, they are a step in the onward, creditable to their originator, and one that no grape-grower can neglect.—S. J. PARKER, M.D., in the *Country Gentleman*.

THE ONTARIO POTATOE.

This potato originated with H. H. Doolittle, the originator of the Doolittle raspberry. We have tested it thoroughly, and find it all he claims below. He says: "The smoothness or shallowness of eyes is the first striking peculiarity. Its shape is flat and oblong. Never grows together or knots up or deforms. Its skin and flesh are white, cooks dry, but avoids the fault of all shelling off and falling to pieces when boiled, and its quality such that the usual expression is, "The best I ever ate." In size, it reaches to 1½ pounds, but the largest are never deformed.

As to earliness, one testifies to planting "17th day of May, and commenced eating dry ripe potatoes from them the 3rd of July and a good yield." One calls them two weeks and another ten days earlier than the Rose. One's enthusiasm may lead him to mistake the effects of blight or some local cause in ripening a hill or a rod square several days in advance. But my own testimony is that having planted this seedling for four years alongside of the Early Rose and Extra Early Vermont, the whole plot of the Ontario shows a general earlier deadening of the tops, so as to be noticed from a distance.

With this earliness it combines the

best keeping qualities for summer use. Many think that this heaviness and solidity as an old potato is sufficient to commend its universal growth.

Yield.—From the tiny seed five years ago it has grown yearly in size and yield till this year on one-fourth of an acre of ordinary soil, without manure this year or last, or fertilizers of any kind, there were ninety-five bushels, taking about thirteen hills to make a bushel—showing a native vigor and capacity of yield unsurpassed in late years.—*Green's Fruit Grower*.

TREES IN CITIES.

An interesting paper has been recently read by Dr. Phene at Edinburgh on the benefits to be derived from planting trees in cities. Among the beneficial results to be attained are, he stated, the relief to the optic nerve through the eye resting on objects of a green color. Just that which is effected by the use of green or blue glasses in strengthening and sustaining the power of sight is attained, or, at any rate much aided, by the presence of green in nature; and in streets the only method to produce this result is by planting trees. It was pointed out by the author that wherever opportunity exists nature provides green and blue (the latter being the same color minus the presence of the yellow) and that the absence of color produces snow blindness, and in tropical calms, where the ocean presents only a white reflected light from a uniform glassy surface, reduced optical power soon follows a long continuance of the absence of blue color, which becomes immediately apparent on motion of the waves. So in the streets, to the occupants of houses having a northern aspect, the glare of the reflected light is injurious; but the effect would be much modified by the coolness to the eye, produced by the green trees. In ancient surgery, persons

of weak or declining sight were advised to look at the emerald. In the old style of building, the streets being narrow, were both cooler, from the sun not being able to penetrate them with direct rays, and less subject to noxious exhalations from the purifying effect of the searching air to which the narrow streets were subjected, so that while there was no space for trees, there was also less necessity. Wide streets, on the contrary, are hotter, and require the shade of trees to cool them; and, as is the case in London, which has so far done without trees in its streets, it was pointed out that not only the compulsory width of modern streets, but also the enormous increase in metropolitan buildings render every sanitary question one of importance; and the chemical properties of trees, as shown by experiment, give an important standing, irrespective of ornament or the pleasure they produce. Some of Dr. Phene's experiments on this subject have extended over a period of 30 years, and he it was who first tried the planting of trees in the streets of London. Since the reading of a former paper by him at Manchester, where the importance of the subject was pointed out, a number of streets in wealthy localities have been planted, and even Trafalgar Square, in the heart of the metropolis.—*Michigan Farmer.*

WHITEWASHING TREES.

Do not be afraid to whitewash fruit trees of all kinds. It looks neat, fresh and nice; and it not only destroys insects and their eggs, but the white coat on the body of the tree reflects the heat and keeps the inner bark and sap vessels from being scalded and blighted by the rays of the sun. Every fruit grower knows by experience how injurious the blaze of the sun is to the limbs and trunk of a tree.

A thick coat of whitewash will be

much better protection than straw, boards or other materials, under which mice and bugs and worms can harbor. These destructive pests can be completely kept away by using sulphur in the whitewash. The way to mix it is to take for each peck of lime four pounds of flour of sulphur. Mix the lime and sulphur together in a barrel and pour in a bucketful of hot water. Cover the top of barrel while the lime is slacking, so as to retain all the fumes of the sulphur. When slacked add sufficient water to make a thin whitewash. Put this wash on the trees with a broom or a brush, taking care to keep the sulphur well stirred up, as it will be found to float like a scum of oil on the surface of the water.

This lime and sulphur wash is good for grape vines and posts and stakes in the vineyard. When properly made and put on a strong smell of sulphur will be detected several feet from the trees and vines during the whole summer. These fumes are caused by the slow combustion or oxidation of the sulphur when sulphurous acid gas is formed, which is certain death to all the low order of animal and vegetable life. This oxidizing action of sulphur is the reason why it is used to dust grape berries and leaves to check the spread of *oidium*, mildew, grape rot and other fungoid diseases, because as soon as the sulphurous oxide gas is formed and pervades the surrounding atmosphere, all these fungus growths are instantly killed. So, too, would be all insect life, and on a large scale, so, too, would be all animal life.

The use of sulphur as herein recommended, in combination with lime, in a whitewash, has been found efficient and valuable by several who have tried it; it is hoped it will be more generally adopted by all orchardists and grape growers.—*Farmers' Home Journal.*

THE PLANTING OF THE APPLE TREE.

WM. CULLEN BRYANT.

Come, let us plant the apple-tree,
Cleave the tough green sward with the spade;
Wide let its hollow bed be made;
There gently lay the roots, and there
Sift the dark mold with kindly care,
And press it o'er them tenderly:
As 'round the sleeping infant's feet
We softly fold the cradle-sheet,
So plant we the apple-tree.

What plant we in this apple-tree?
Buds, which the breath of summer days
Shall lengthen into leafy sprays;
Boughs, where the thrush, with crimson breast,
Shall haunt and sing, and hide her nest;
We plant upon the sunny lea
A shadow for the noontide hour,
A shelter from the summer shower,
When we plant the apple-tree.

What plant we in this apple-tree?
Sweets for a hundred flowery springs
To load the May-wind's restless wings,
When, from the orchard row, he pours
Its fragrance through our open doors;
A world of blossoms for the bee,
Flowers for the sick girl's silent room,
For the glad infant sprigs of bloom,
We plant with the apple-tree.

What plant we in this apple-tree?
Fruits that shall swell in sunny June,
And redden in the August moon,
And drop, when gentle airs come by,
That tan the blue September sky;
While children come with cries of glee,
And seek them where the fragrant grass
Betrays their bed to those who pass,
At the foot of the apple-tree.

And, when above this apple-tree,
The winter stars are glittering bright,
And winds go howling through the night,
Girls whose young eyes o'erflow with mirth
Shall peal its fruit by cottage-hearth,
And guests in prouder homes shall see,
Heaped with the grape of Cintra's vine,
And golden orange of the line,
The fruit of the apple-tree.

FLORICULTURAL.—Every garden should have a clump of lilies. They are easily cultivated, and require but little attention. The bulbs should be planted five or six inches deep. In fall, cover them with coarse manure. The following are desirable varieties: *Auratum*, the famous gold-banded lily from Japan, which only a few years ago sold at \$5 each; *Candidum*, the old, common white, but still one of the best; *Brownii*, trumpet-shaped, rich purple on the outside, cream-white within; *Lancifolium album*, white; *Rubrum*, white and red; and *Eximium*, large white flower of exquisite shape.—*Libby's Flower Garden*.

HORTICULTURAL NOTES.—A vineyard of 50 acres in New Jersey, in 1880, marketed 80 tons of grapes, and in 1881 a larger amount. Estimating the grapes to be worth three cents per pound at the vineyard, the income from the 150,000 pounds would be \$4,500, or \$96 per acre, with less than half the labor required to grow an acre of wheat or corn.

PROPORTION OF FARMERS.—The last report of the Commissioner of Agriculture shows that 7,600,000 persons in the United States are engaged in agricultural pursuits. The total value of farms and farm implements is \$13,461,200,438, or two-thirds of the productive wealth of the nation. The value of farm products and live stock for 1878 was \$3,000,000,000 against \$2,800,000,000 of mining and manufacturing products. Thus it appears that only a majority of the adult population of the United States is engaged in agriculture, but more than one-half the wealth of the Union is invested in that industry.

PAPER BAGS FOR GRAPES.—Having read with considerable interest the writings of horticulturists in reference to protecting grapes with bags while young, I tried the experiment. Having less than two dozen young vines, I shall say nothing of the cost or trouble of bagging grapes. My vines are rather close to the hen-yard, and I have always had trouble in this direction. The hens have invariably destroyed all the grapes before they were quite ripe, and thus caused me some annoyance. I saved all the paper bags that came into the house, and after the grapes were formed I commenced bagging them, and kept at it until they were almost full grown. Bagging may not be an effectual remedy for all the other ills which grape flesh is heir to, but I have found it a perfect remedy for all interference on the part of poultry. I believe that grapes will ripen just as well, if not better, in strong paper bags as otherwise. They will ripen as evenly, and if carefully handled will retain the same beautiful bloom, which is the greatest charm of a table grape. I have grapes growing in bags, and not bagged at all, upon the same vine. I am satisfied that it is a good thing.—F. K. M., in *Country Gentleman*.