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W. Wilson.

BRIEF ESSAYS

—ON—

NEW FRUITS,

ORNAMENTAL TREES AND PLANTS.

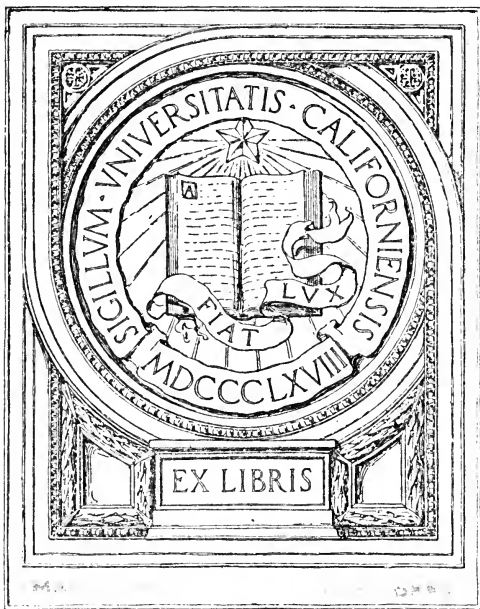
—BY—

WILLIAM C. BARRY,

MOUNT HOPE NURSERIES, ROCHESTER, N. Y.

YC 60255

IN MEMORIAM
Professor Wickson



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In Memoriam
Prof Wickson

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NEW FRUITS IN 1879.

A PAPER READ BEFORE THE WESTERN N. Y. HORTICULTURAL SOCIETY AT
ROCHESTER, JANUARY 29TH, 1880.

Referring to my report* of last year on New Seedling Peaches, I suppose the question will now be asked whether any of the many varieties then enumerated and described have proved to be acquisitions. You are, of course, aware that in so brief a period it is not possible to obtain much reliable information on matters of this character; but it gives me great pleasure to furnish such facts as have been communicated to me, and I hope that the list may serve in some degree to avert the confusion which must necessarily arise from the introduction of so many new varieties at one time.

New Peaches.

Relative to **Beckwith's Early**, which heads the list, we have nothing new to report, as the tree did not produce any fruit the past season.

Wyandotte Chief failed also to bear any fruit. Its history and description, as given in my last report, was incorrect. Mr. Kroh informs me that it originated on the farm of Mr. Matthew Mudeater, near Wyandotte, Kansas, and he describes it as a dark red free-stone, rich, juicy, and fine flavored. Average specimens have measured eight and a half inches in circumference, and in 1878 it ripened ten days in advance of Amsden.

Bledsoe's Early Cling—The severe winter of '78 injured the fruit buds. Mr. Wood has changed its name to "**Advance**," and he describes it as a delicious peach; superior to Alexander or Amsden, and five to eight days earlier.

Respecting the Seedlings Nos. 1 and 2, raised by Jas. A. Storm, of Missouri, I have not been able to obtain any new facts.

Brice's Early June, according to reliable authority is remarkably early, but Prof. Vandeman, of Geneva, Kansas, says that "**Vandeman's Early**" is destined to excel it in many particulars. As this Seedling has not been before described, I give the following description as sent to me by the Professor:

Vandeman's Early—Originated by H. E. Vandeman, Geneva, Kansas, and named Vandeman's Early by the Kansas State Horticultural Society, bore its first crop in 1878, and ripened June 13th, the fruit measuring seven to eight inches in circumference; color bright purple and crimson on white ground; flesh white, adheres slightly to the stone; in flavor equal to Hale's. Prof. Vandeman says that he has twenty other promising seedlings. In that vicinity there are also the following seedlings, for the description of which I am indebted to Mr. Vandeman:

Nugent's June—Originated by E. J. Nugent, Ottawa, Kansas, very promising.

Towns' Early—Originated by Mrs. Towns, of Garnett, Kansas, and perhaps the largest of these very early peaches.

Emporia—Originated by Mrs. L. Burns, near Emporia; resembles the other very early kinds.

Rev. S. M. Irwin, of Geneva, Kansas, has twelve seedlings, all very early.

Ashby's Early, which in my report was described as having originated in Texas, was raised by G. W. Ashby, at Charrute, Kansas, and is said to be ten days earlier than Amsden, and of better quality.

Simon Bucher, of Emporia, Kansas, is reported to have twenty kinds earlier than Amsden; and Mr. C. C. Kelsey, of Humboldt, Kansas, has some five or six seedlings that ripened ten days in advance of Amsden.

Of **Hynes' Surprise**, the Hon. E. F. Hynes writes me that the late cold weather in spring injured the buds so much that there were but few peaches. He describes his several seedlings as follows :

Hynes' Surprise has fruited four years. In size it is medium to large, very highly colored, flesh white and red, fine flavored, and a free stone when fully ripe. It is an excellent keeper.

Hyne's Nectar—My latest new peach is a freestone, and delicious. In 1878 ripened five days in advance of Surprise.

Early Lydia ripens with Hale's Early. Skin rose-colored, and a free stone. None of these have shown any indications of rot, while the Hale's Early and Early York on the same ground rot badly.

Early Rose, a freestone; **Gov. Phelps**, a large yellow clingstone; **Howard, Gen. Custer** and **La Belle** are all seedlings raised by him.

Hape's Early—Raised in Atlanta, Ga., and of the same season as Alexander and Amsden, is said by Mr. Berckmans to be superior to either in quality, and preferable because it is more of a freestone.

Baker's Early May—Raised by G. W. Mosteller, Girard, Ks., did not produce any fruit in 1879.

Bowers' Early—The original tree did not bear in 1879, but a few specimens were produced on young trees; these ripened two to three days earlier than Amsden and were larger than that variety, and of finer quality. The disseminators, Messrs. Morris & Miller say that it is so much superior to Amsden in flavor, that it would be valuable even if it did not prove any earlier.

The Rochester Seedlings may be regarded as still on trial, although one of them ripens with Crawford's Late, and resembles it so closely as not to be worthy of a distinct name. The other is quite promising.

The Very Large Seedling Peach raised in New York City, ripens too late to be of value at the North, but would undoubtedly prove desirable at the South.

Gov. Garland is described as a large clingstone peach, resembling Amsden in appearance, but larger, earlier and superior in flavor. The original tree is growing six miles from Bentonville, Arkansas, but the fruit buds

being injured by severe weather last winter, no fruit was obtained this season. Prof. Wm. Hudson of Tehuacana, Texas, who is experimenting with the new peaches, had a young tree which bore a single specimen that ripened five days before the Alexander.

Harper's Early, originated in Wilson Co., Ks., is, according to reliable authority resident in Kansas, not so large nor so early as Amsden.

Kinnaman's Early—Regarding this variety I have not been able to learn anything new.

Burns' Peach—I have not received any new facts relative to this variety.

The Sallie Worrell, raised in Wilson Co., N. C., is described as very large, sometimes measuring 14 inches in circumference; color creamy white shaded with pale red; flesh juicy, vinous and very good; one of the finest peaches; ripens with Stump the World.

Bustion's October, Harris' Winter and **Albright's Peach** are late varieties of value at the South, but too late for cultivation at the North.

Callie Scaff is said to be a seedling of the Early York, one-third larger than Amsden, and adheres slightly to the stone, same as Hale's. In the same orchard with Amsden and Alexander it ripened in 1878 eight to ten days earlier. In '79 the fruit buds were injured by frost, hence no fruit.

The Davidson Seedlings raised in Painsville, Ohio, were carefully compared with other very early sorts by Mr. M. B. Bateham, the well-known horticulturist; and he has reported the following results:

Seedling No. 1, ripened in 1879 two weeks later than it did in 1878. Mr. Bateham, however, believes it to be a few days earlier than Alexander or Amsden.

Seedling No. 2, which last year ('78) ripened a week later than No. 1, was not more than three days later this year ('79). Both are of fair size, brilliant color, and equal in quality to any of this class of peaches. No. 2 ripened with Amsden and Alexander.

Mr. Bateham says that **The Allen Peach**, which ripened very early in 1878, matured ten days later this season ('79), and the fruit was smaller than usual. This variety was raised by A. T. Allen, of Willoughby, Ohio, and in 1878 the first ripe peach was taken from the tree on the 6th of July.

Honeywell, which was supposed to be considerably earlier than Alexander or Amsden, ripened in 1879 at the same time as these varieties, but was inferior to both in size and quality.

Brigg's Early May, which was regarded as very early, ripens with Alexander and Amsden, and is not so large nor of such good quality.

Waterloo.—In 1878 the Waterloo ripened a week before the Alexander or Amsden. In '79 the difference in time of ripening was slight, owing in a considerable measure to the overloaded condition of the tree and its unfavorable location. By actual weight and measurement we found the Waterloo to exceed in size all the very early peaches which we tested.

Wheatland is a seedling raised by D. E. Rogers, of Wheatland, N. Y. Fruit large, flesh yellow, juicy and of excellent flavor; ripens between Early and Late Crawford. Mr. Rogers, who is looked upon as one of our best peach growers, esteems this variety highly.

Wager was originated by Mr. Wager, of Millers Corners, Ontario Co., N. Y. It is a bright yellow peach shaded with red on the sunny side; flesh juicy and sprightly, and of fair quality. Tree very hardy and productive; ripens about the same time as the Crawford.

Conkling, which is undoubtedly one of the handsomest peaches known at the north did not produce any fruit the past season.

Alpha is a seedling raised by T. V. Munson, of Dennison, Texas, and is thought to be a cross between Early Rivers and Foster. Mr. Munson says it has ripened twelve days before Alexander, and is higher colored and firmer than Early Rivers. Among the many very early sorts this seems to be the first representative of a new type, and we sincerely hope it may prove worthy of dissemination. We have now, far too many seedlings of the Hale's and our efforts should be directed towards originating peaches like the Alpha.

Mr. Munson says that the following seem to be real acquisitions for the south.

Family Favorite, originated by W. H. Locke, Bonham, Texas; a seedling of the Chinese Cling, but ripening two weeks earlier.

Bogy's Leviathan—Raised by Mr. Bogy, of Bonham, Texas, very large; of fine quality, and ripening three weeks later than Crawford's Late.

Miss May, originated by Mr. Carroll, of Dresden, Texas, of large size, first quality and very late.

Infant Wonder—Raised by Capt. Daniel Webster, of Denison, Texas; very large and fine; late.

Mr. Munson, who is making a specialty of peach culture says, that according to his observations, those varieties with reniform and notched glands are the most robust and healthy. Those with globose glands rank next in vigor while such sorts as have serrate or glandless leaves are unreliable as to time of ripening and are disposed to rot and mildew. He has classified the following:

To the first section belong—**Early Beatrice, Early Louise, Early Rivers, Brice's Early, Waterloo and Alpha.**

To the next—that is those with globose glands—**Wilder, Musser, Early Canada, Alexander, Amsden, Baker's Early May, Hynes' Surprise, Hynes' Nectar, Bowers Early.**

To the last belong—**Downing, Climax, Cumberland, Saunders, Honeywell, Brigg's Early May and Early Lydia.**

I am indebted to Mr. Munson for the following list of new peaches, the names of which are now given for the first time.

Williams—Discovered in Delaware some years ago by Lewis Williams, of Hillsboro, Md., said to be earlier and finer than Alexander.

Larkins' Early—Raised by D. F. Larkin, Hunt's Station, Tenn., is represented to be as fine as Large Early York, and ten days earlier than Alexander.

Eureka—Disseminated by M. W. Samuels, Clinton, Ky., is said to be as good as Alexander and earlier.

Kelley's Early—Raised by H. M. Kelley, Irving, Ill., is said to be very large and to have ripened twenty one days before the Amsden.

Ramsey's Early Cling—Originated by A. M. Ramsey, Mahomet, Tex., is described as an improved Alexander.

Seedlings No. 1, 2 & 3—Raised by Mr. Sharp, of Wooster, Ohio, are all said to excel the Alexander.

Sherfey's Early—Raised by Raphael Sherfey, Gettysburg, Pa., who thinks it will eclipse all others.

Brown's Early—Originated by W. L. Brown, Ashley, Ill., is said to be very early.

Sleeper's Dwarf is the name of a dwarf variety originated by W. M. Sleeper of Oxford, Indiana. It is described as of remarkable dwarf compact growth; the original tree having grown only three feet in eight years. Fruit of medium to large size, greenish white tinged with crimson; flesh juicy, sweet, rich; season, October. In our nursery the tree of this variety has not grown more than two inches in two years, and we have therefore rejected it from the list, as unprofitable to cultivate. It is, however, a curiosity, and will be considered desirable by some as an ornamental tree.

Schumaker is a seedling originated by Michael Shumaker of Fairview Township, Erie Co., Pa. Borne for the first time in '77. Described as large, round, bright yellow splashed with crimson, and is said to ripen three to four weeks earlier than Alexander or Amsden.

Graves' Semi-cling—Originated by Mr. Wm. Graves, Hazelhurst, Miss.; is believed to be a hybrid of the apricot and peach. It is described as one of the largest and finest of the very early peaches, and five to six days earlier than Alexander.

Thus you see how extended has become the list of New Peaches. It is to be regretted that so many sorts ripening almost at the same time, and so closely resembling each other should have been named and offered for sale. We trust that in the future no one will attempt to introduce a new peach until they are perfectly satisfied that it has superior qualities not common to any other variety. At the North, generally, and in Western New York, in particular, the past season was remarkably favorable for the peach. We had ripe specimens of the Waterloo sent to us August 2d, and on the 1st of November we gathered from our own orchard, ripe fruit of Comet, one of Mr. Rivers' Seedlings. At the West, however, the severe winter of '78-'79, and late spring frosts at the south ruined the peach crop in many localities; otherwise I should have been able to submit a much more complete and interesting report. Another favorable season will, I hope, enable us to fix definitely the value of many of these novelties, and then the list will undoubtedly be greatly reduced. I will add that the following varieties of Mr. Rivers' seedlings ripen at the same time with Mountain Rose and Crawford's early, and being only of medium size and fair quality are hardly worth retaining. They are Dagmar, Dr. Hogg, Early Albert, Early Alfred. Early Beatrice is superseded by Alexander.

New Apples.

Novelties in this class of fruits are remarkably scarce.

Highland Beauty, a seedling apple of medium size, good quality and a long keeper has been brought to notice by Mr. E. P. Roe.

Kirkland is the name of another handsome seedling apple, resembling the Yellow Bellflower; of large size, good quality and a late keeper. Both have been described in our horticultural journals, and it is not necessary to refer to them here.

New Pears.

The "Hoosic"—Some nine or ten years ago, we received from the Hon. A. Foote, of Williamstown, Mass., several varieties of seedling pears. Among them were seedlings of Hacon's Incomparable, Seckel, Marie Louise, Washington, etc. They all possessed a certain degree of merit, but up to this time only one of them developed sufficient character and quality to be worthy of dissemination. This is a seedling of Hacon's Incomparable, which Mr. Foote first sent us as "Hacon's No. 3," and subsequently named "Hoosic." This variety we have fruited several years, and we believe that its many good qualities fully justify us in calling particular attention to it. Fruit large, obovate, having considerable exterior resemblance to Beurre Diel. Stalk $1\frac{1}{4}$ inches in length, moderately stout, and set obliquely in a slight depression; calyx large, open, in a shallow basin; skin, greenish yellow, dotted and marbled with russet; flesh fine grained, melting with a rich almond flavor like that of the Edmunds; in quality ranking as best; season October. Tree an erect, free grower, very hardy, and remarkably prolific.

Herr's Late Winter is the name of a new seedling pear raised by A. G. Herr, of Louisville, Ky., and brought to public attention by Messrs. Nanz & Neuner. It is described as of medium to large size, good quality and a long keeper; specimens having been kept in perfect condition until May and June of the following year.

New Cherries.

Mr. D. B. Wier, of Lacon, Ill., who has been experimenting with seedling cherries for several years, offered for the first time last autumn 45 new varieties of the Early Richmond type. We have several of them on trial. We have also in our collection a fine seedling resembling the Elkhorn or Tradescant's Black Heart. It equals that variety in flavor and firmness of flesh, ripens a week later, and shows no disposition to decay. For home use and market it must prove valuable on account of its good quality and lateness. I cannot permit the occasion to pass without referring to the choice sorts of **Montmorency**, now in cultivation; one of them in particular deserves special mention. This variety came to us under the name of "Montmorency Longue Queue," but did not prove true. We have called it "**Montmorency Large Fruited**," as the fruit is of large size and for one of that class of very fine quality; preferred by many to the sweet cherries.

Dyehouse Cherry—Figured and described some years ago in the American Agriculturist, has proved to be a valuable addition to the list of hardy cherries. It was found some thirty years ago growing wild among some Morello cherries, by a Mr. Dyehouse, in Lincoln Co., Ky. The fruit is of medium size, bright scarlet, with a very small stone and is produced in great abundance at the strawberry season. The tree is of dwarf compact growth, and very hardy surpassing in this respect the Early Richmond.

New Plums.

I can only recall one variety which seems deserving of special notice. This is a foreign sort, not new, but quite rare, and called **Decaisne**. It is in form, size and appearance exactly like Coe's Golden Drop, but it ripens in August and promises to be very valuable.

New Grapes.

The new white Grapes, **Niagara**, **Prentiss**, **Duchess** and **Pocklington** have been so frequently noticed and described that I will not occupy your time with any reference to them. We are now testing Miner's and Pringle's seedlings, which are quite numerous, and we hope to find among the number some varieties worth keeping. I have received a circular in which the **Cortland** grape is described and recommended as a remarkably early black variety. I will be obliged for any information regarding it.

New Raspberries.

Within the last few years many seedlings of the Philadelphia type have been raised. They are all hardy but of indifferent quality, not fit to eat, but being of coarse, dry texture they can be handled successfully and are therefore valuable for market. Let us hope that the new ones that are to come may prove more palatable.

The Montclair raised by the Messrs. Williams, of Montclair, N. J., is said to be a promising new sort; hardy, productive, and of good quality.

Norwalk Seedling disseminated by Mallory and Downs, of South Norwalk, is also said to be valuable.

Belmont is the name of a new Black Cap Raspberry raised by Mr. John Scobs, of Barnesville, Ohio. It is described as larger than the Mammoth Cluster, more productive, and is said to ripen its main crop five to seven days later.

New Blackberries.

Warren—Said to be very early, ripening six to eight days before the Kittatinny.

Duncan Falls—Said to be very hardy, productive, and free from rust. Berries of a large size, good flavor, and ripens before the Kittanny.

New Strawberries.

Crystal City, raised by E. Williams, of Crystal City, Mo., is said to be one of the earliest varieties. It is of fair size, color bright scarlet, and of good quality. Plant vigorous, running almost as freely as the Crescent Seedling.

Marvin's Seedling was originated by H. Marvin, of Ovid, Michigan, in 1874. Berries large, roundish, conical, bright red, juicy, sub-acid. The plant is said to be very prolific, and the fruit of such a texture as to fit it for shipping; very late.

Huddleston's Favorite, a Seedling of the Wilson, raised by D. Huddleston, Dunreith, Indiana, is described as larger than the Wilson, and of better quality; in short, it is said to possess all the good qualities, and none of the bad, of that berry of world-wide fame.

Success—A Seedling of Jucunda, raised by N. B. White, of Norwood, Mass., is said to be large, firm, of excellent flavor, and very late; plant, vigorous, hardy and very prolific.

Longfellow & Warren, raised by A. D. Webb, of Bowling Green, Ky., were produced from a mixed lot of seed from Seth Boyden, Black Defiance, Champion and Monarch.

Longfellow is described as very large, long; color dark red; flesh firm, sweet, rich and of first quality; ripens early and ships well. Plant vigorous and very productive.

Warren, large and of fine flavor; color dark red; flesh firm and of good quality. Plant vigorous, and as productive as Cumberland Triumph.

Mr. Durand sends out a new sort called **Black Giant**, said to be very large, and of good quality.

Glendale was found growing wild in Akron, Glendale county, Ohio; fruit is of large size; color bright red, and is said to be of excellent quality when fully ripe; it ripens very late and is said to ship well. I saw a sample of the fruit last season, at Cleveland, but it seemed only to be of medium quality.

The Garden, raised by P. H. Foster of Babylon, N. Y. is said to be a seedling of Monarch of the West. It is described as large, of fine flavor and very handsome.

Shirts is the name of a new variety raised at Shelby, Michigan, and is said to be promising.

Cetywayo—Raised by A. J. Caywood & Son, Marlboro, N. Y., is described as large, irregular, firm, sometimes measuring six inches in circumference. It ranks with Chas. Downing in flavor; fruit stems eight to ten inches long, foliage a foot high; quite prolific.

Mammoth Bush of same origin described as making remarkably large plants, having twenty to thirty fruit stools, foliage standing fifteen inches high, more productive than the Wilson; fruit a third larger than Wilson, uniform, and equal to Triomphe de Gand in flavor.

*The report referred to is one entitled "New and Rare Fruits in 1878," copies of which can be had on application to author.

MIDSUMMER AND AUTUMN

Flowering Shrubs and Plants for the Decoration of Gardens.

Many, if not the majority of gardens, which in spring and early summer charm the eye and gladden the heart with a profusion of flowers become all at once, as autumn approaches, almost destitute of bloom. This is not surprising, when we consider that the greater number of shrubs and plants flower in May and June, and that the late flowering species and varieties are not, comparatively speaking, numerous nor sufficiently well-known to be duly appreciated, or properly employed. Some persons are accustomed to regard this annual change as a natural consequence, and make no attempt to extend the flowering season, while others more observant, having noticed that there are gardens which, even during the autumn months, exhibit a wealth of flowers, are prompted to inquire, and questions are often put to us in this way:

What can I plant to render my garden beautiful and attractive in Autumn?

It is gratifying to note that during the past few years considerable interest has been manifested in this subject, and in response to many inquiries I have prepared a brief list of choice fall flowering shrubs and plants which, if judiciously used, will render the surroundings of our houses exceedingly attractive during the autumn months.

I would direct attention first to the

Althæa or Hibiscus Syriacus,

commonly called the Rose of Sharon, a most remarkable and valuable shrub which, as it were, holds its blooms in reserve until there is a notable scarcity of flowers. Whether in the mixed border among other shrubs or isolated upon the lawn, the Althæa when in flower produces a charming effect, relieving the monotonous aspect which prevails in most gardens at this season, and enlivening the landscape with its bright flowers. It must be admitted that the blooms of this shrub lack delicacy of texture, brilliancy and purity of color, but when there is a dearth of flowers we must not be too critical. Seen from the bush, its coarseness cannot be detected, and that which to some eyes appears to be a defect or blemish, serves on the contrary only to enhance its value for out of door decoration. We must recollect that coarse flowers have their offices to fulfill as well as the delicate ones. Besides considerable progress has been made in improving the Althæa, and amateurs will be pleased to learn that the new varieties are quite in advance of the older sorts. Among recent introductions **Boule de Feu**, which produces large double flowers of a violet red color, can justly command admiration. **Duc**

de Brabant with very full flowers of reddish lilac color may also be regarded as an acquisition, while **Leopoldii flore pleno** with large, double flesh-colored blooms, together with **Totus albus**, having single snowy white flowers, are, I think, all destined to become favorites so soon as known. A few of the older varieties like the **Double Variegated** or **Painted Lady**, **Pæoniflora**, and the **Double Red**, cannot yet be dispensed with. They flower from the first of August till the first of October. In this latitude an objection is sometimes raised to the *Althæa*, because it is said to winter-kill in severe seasons. This occurs, however, only with young plants or with specimens recently transplanted, which are not yet fully established. Young plants should be protected with straw or evergreen boughs the first and second winter after being set out, and as soon as they are well rooted they become perfectly hardy.

Another real treasure which all plant lovers esteem highly, on account of its many good qualities, is the

Hydrangea paniculata grandiflora, or Plum- ed Hydrangea,

Planted singly or assembled in groups or masses, it becomes in August and September, when in full bloom, a real curiosity to many, while to others fully impressed with its magnificence, it is a noble object deserving the highest praise it is possible to bestow on any hardy plant. A circular bed of this shrub occupying a prominent position on our lawn, has been the object of so much attention every year that I furnished a brief description of it for the *London Garden*. The plants composing the bed were in full flower on my return from Europe two years ago, and I wrote the Editor, Mr. Robinson, that notwithstanding the many remarkable and effective beds of flowering and fine foliage plants which I had seen abroad, I thought nothing equaled this. "The mass consists of thirty-five plants, with a broad edging of the *Coleus 'Shah'* around it. The contrast between the green grass, the crimson and yellow foliage of the *Coleus*, and the immense white and pink panicles of the *Hydrangea*, was novel and beautiful. I have often seen and admired large single specimens of this *Hydrangea*, but masses like this are uncommon, and I call attention to this manner of planting as it tends greatly to heighten the effect and increase the attractiveness of this noble shrub." A few hints relative to its culture and management may not be amiss. Being a robust, rank grower, and a very free bloomer, it requires to be well fed. The more food the larger will be the panicles, the greater their number, and the longer they will remain in perfection. I think that I do not exaggerate when I say that most cultivators actually starve this plant, and this fact explains why fine specimens are not oftener seen. A top dressing of the very best manure should be given the plants every fall, and in spring as early as possible, it should be incorporated with the earth by means of the spading fork. During the dry summer weather, when the earth around the plants is apt to become hard, it should be loosened and made mellow. If drouth should prevail at the flowering period, which is generally the case, then apply water liberally every evening. Another important operation connected with its management, is the pruning of the plant every spring. This should be performed early, say in March before the sap begins to move, and the stem should be cut back within two or

three buds of the old wood. These will then push forth vigorously at the growing season, and every shoot will produce a panicle of flowers. If these directions are observed the result will be surprising.

Next in importance are the

Tall Phlox, or Phlox Decussata.

These, when properly grown, are unquestionably the finest of autumn flowers, and in the hands of a tasteful cultivator can be made to furnish very satisfactory results in garden ornamentation. Latterly, for some unknown reason, they have not been so popular as they formerly were. On the continent of Europe they are at present held in the highest estimation, and new varieties are being constantly raised from seed, many of which I am pleased to say show great progress. The Phlox has many qualities which commend it for the garden. It is of vigorous habit, easy culture and produces in great profusion, during a long season, flowers of fine form and substance and of bright and varied colors. Just as the Roses are fading, the Phlox puts forth her first flowers, producing a fine succession of bloom and prolonging an interesting season at least six weeks. As regards their culture it may be briefly stated that they succeed in any good garden soil, but they are greatly improved by being liberally manured, and an occasional supply of liquid manure during the growing season will greatly increase the size of their trusses. When in flower they should be watered freely every evening. The Phlox usually flowers in July and August, and in order to render it autumnal flowering it is necessary to pinch the shoots about the first of June, and again in July. The plants will then flower in September. For early flowers some of the plants may be left unpinched. When two years old the finest trusses are produced. The third year the plants flower tolerably well, but they will not keep healthy and thrifty after that. The old plants should then be lifted in the fall, divided and transplanted. But the better plan is to keep up a succession of young plants from cuttings by securing a fresh collection every spring. The following varieties have been chosen from among a hundred, and the collection embraces the choicest of recently introduced sorts :

- Coccinea**—Deep fiery scarlet ; dark center.
- Emperor of the Russians**—Bright rosy lilac.
- Gambetta**—Rose ; vivid red eye.
- Gloire de Puteaux**—Rose ; distinct white center.
- Lothair**—Rich salmon color ; crimson eye.
- Madame Audry**—Crimson purple ; crimson center.
- Norma**—Lilac with distinct scarlet eye.
- Oberon**—Coppery red.
- President Payen**—Vermilion shaded with lilac.
- Phoeon**—Lilac rose, with carmine eye.
- Princess Louise**—White, suffused with crimson ; carmine eye.
- Queen**—Pure white.
- Richard Wallace**—White, with violet center.
- Rendatler**—White, distinct purple center.

Reve d'Or—Brilliant cerise salmon ; cerise eye.

Selliere—Dark purplish rose.

Vierge Marie—Pure white, of waxy texture.

The following are the cream of the Novelties of 1879. The descriptions are to be found in the Florists' Catalogues:

Andre Leroy, Francis Coppee, Frederick Lemaitre, La Fille de Roland, Queen of Whites, York et Lancastre.

The Japan Anemone

admitted everywhere to be one of the finest hardy perennials, stands in the foremost rank among plants for autumn decoration. The species called Japonica grows about three feet high and bears on long footstalks very pretty purple flowers measuring two inches across. A fine variety of the Japonica named **Honorine Jobert** resembles it in habit, but has snowy white flowers. These, when planted together, as companions produce a fine effect by their striking contrast. The plant is of such neat, compact habit, demands so little care, is so hardy and beautiful and bears such an abundance of flowers that it is sure to become popular wherever known. On large lawns a grand circular bed may be formed by planting the center with the white variety followed with a broad ring of purple around it, then another circle of that fine fall flowering Sedum—spectabile. It is difficult to describe the beauty of beds of this character. They must be seen in all their glory of an autumn day to be fully appreciated. How much more sensible to expend time and money on permanent beds like these, rather than to devote so much to soft-wooded bedding plants which are of such short duration. With the great variety of hardy plants at our disposal, pleasing combinations may be multiplied at will, and beds once well made will be constant objects of pleasure.

For midsummer decoration the

Hollyhock

proves very effective. As it attains a height of from six to eight feet it is useful to plant at the back of borders of shrubbery, and it may also be arranged in beds or planted alone. In July no flower is more attractive, and their long spikes of large rosette-shaped blooms of beautiful and brilliant shades of color present a charming appearance. No garden which lays claim to completeness can afford to dispense with so great an attraction. Hollyhocks are raised easily from seed planted in the open ground in July, so that the young plants may become strong enough by autumn to survive the winter, by being slightly protected. They can be lifted early in the spring, transplanted, and they will flower in July and August. Propagation by division is performed in autumn as soon as possible after the plants have flowered. The roots should be dug up and cut into as many pieces as there are shoots, and these pieces can then be replanted. We raise our plants entirely from seed, and as the varieties are constantly changing I will not endeavor to give any list.

Another invaluable class of summer-flowering plants are the

Delphiniums, or Larkspurs,

which exhibit a wonderful variety of beautiful colors and shades from pale blue to black. In the mixed border they are superb. Tall and conspicuous when in flower, they never fail to arrest the attention of even the most unobserving. Their culture is easy, and, like other perennials, they can be increased by division in the fall. The following are choice tall varieties :

Ivanhoe—Bright blue, double, superb.

Louis Agassiz—Blue, with purple center, double ; very striking.

Mrs. Goodell—Dark blue, with purple centre.

Cælestinum—Very light blue, beautiful, double.

Although generally of little value for out of door decoration on account of being destroyed frequently by early frosts, nevertheless, the

Chrysanthemum,

in mild autumns, often proves very desirable, producing an abundance of flowers late in the fall, when all other flowers have passed away. If care be taken to set out the plants very early in the spring, then give them the necessary attention during the summer, so that their growth may be made early, and in case of early frost afford them protection, one can secure quantities of bloom nearly every year. If the weather should be extremely severe, the plants can be lifted, put into pots or boxes and allowed to bloom in the house. In the progress of floriculture the Chrysanthemum has not been overlooked, and great improvements have been effected during the past few years, both in color and form of the flower. The new varieties produce perfectly shaped blossoms of pleasing colors, vicing in brilliancy with those of any other flower. The following are some of the finest kinds now grown :

LARGE FLOWERING.

Mr. George Glenny—Lemon yellow, changing to pearl white ; beautifully incurved flowers. Acknowledged to be the finest variety in cultivation.

Alfonso—Large, fine, reflexed flowers, of a bright, glowing crimson color.

Mrs. George Rundle—The finest white flowering Chrysanthemum ; flowers large, globular, beautifully incurved.

Grand Turk—A Japanese variety, with large purplish rose flowers.

Mrs. Wreford Major—Large, deep rose colored, finely formed compact flowers ; plant dwarf.

Countess of Derby—Pale lilac incurved flowers, centre nearly white.

Fulgore—A Japanese variety, with large, rosy lilac flowers, changing to white ; under part of petals striped with purple. This is a most distinct and odd sort, and is well calculated to excite curiosity and admiration.

POMPONE VARIETIES.

Cendrillon—Rosy lilac, small and compact.

Model of Perfection—Rich lilac, edged with white ; well formed ; plant a handsome grower.

Gen. Canrobert—Pure yellow. A fine full flower; early.

Criterion—Bright yellow.

Aurore Boreale—Orange and salmon.

Pablo—Rose tinged with purple, beautifully fringed.

Hecla—Bright amaranth, very showy.

Rosina—A beautiful pink variety.

The Dahlia

is still recognized as a most valuable fall flowering plant, but it is not nearly so popular now as it was some years ago. The culture is so easy and so well understood that I do not deem it necessary to refer to it in this article. Neither will I occupy your time in naming and describing the many select kinds now grown—the names of which are to be found in the Trade Catalogues.

The Tritoma Uvaria,

sometimes called the **Red Hot Poker** or **Flame Flower**, blooms in September. Its flower stems are from three to five feet high, and are terminated with spikes a foot long, of pendent red and orange scarlet tubular flowers, resembling the plumes of a soldier's cap. In the mixed border these plants are very showy and effective, and they are also very useful in the centre of beds, of autumn flowering plants.

A late flowering

Spiræa, called Callosa Alba

must not be overlooked in a collection of midsummer flowering shrubs. The plant is of dwarf, compact habit, almost round, always forms a pretty specimen, and produces white flowers. It commences to blossom in July when all the other Spiræas are out of flower, and continues in bloom nearly all summer. For the edges of borders, or employed as a single specimen, I know of no shrub that is more elegant and useful in a garden.

Hardy Roses.

A few of the finest autumn flowering varieties may be named as follows: Alfred Colomb, Marguerite de St. Amande, La France, Countess of Serenye, Paul Neyron.

VINES AND CREEPERS.

[*Written for the Rochester Democrat and Chronicle.*]

With the advent of spring our interest in indoor life decreases. The bright, sunshiny days which occasionally vary the monotony of our dull winter weather give us a foretaste of what we may expect in the future, and we now begin to picture to ourselves the pleasures of life in the open air, of rambles in our garden, among the fruits and flowers, and, with the pleasantest recollections of the past summer yet fresh in our minds, the question naturally suggests itself: What can we do to make our gardens more beautiful and enjoyable than before?

The long winter evenings afford ample time to consider and discuss this important question, and to arrange a programme for the spring work. In these times, when so much study and thought are bestowed upon the ornamentation of our dwellings, the grounds which surround them should not be overlooked. An equal share of enthusiasm and interest should be manifested in both. This would lead to a proper consideration and appreciation of home surroundings. We should remember that our garden may be compared to a picture, of which we are the artists. Exposed as this picture is to public view at all seasons of the year, it should be our endeavor to make it as attractive and beautiful as possible. In fact, we should aim at being able to give intelligent direction to all garden operations, thereby sparing ourselves the annoyance which those must surely experience who, having no knowledge of the gardening art, depend entirely upon the gardener. To accomplish this, we should profit of the knowledge and experience of others, obtain and read thoroughly such treatises on fruits, flowers, and gardening as "Barry's Fruit Garden," "Scott's Suburban Home Grounds," and the catalogues of the various nurserymen and seedsmen. The abundance and variety of valuable material which we find at our disposal almost perplexes us; but, having given the subject due consideration, and with a correct idea of the requirements of our garden, we can undoubtedly make a selection of such trees and plants as we fancy the most, and which appear the best adapted to the purposes we have in view. A perusal of these works will not only afford us much pleasure, but at the same time supply a delightful subject for study. Those who desire to pursue their inquiries still further should procure the handsomely illustrated works entitled "The Parks, Promenades, and Gardens of Paris," "Robinson's Sub-Tropical Gardening," and Shirley Hibberd's "Amateur's Rose Book," all of which will be found instructive and interesting. I would like, if space permitted, to name several other valuable horticultural works and periodicals which merit a place on the library table. But those who read carefully the publications which I have suggested will not be satisfied to limit their horticultural reading to them. Their interest in horticulture once awakened, they will, of their own accord, seek the best mediums for more extended information. Then will we have the gratification of noting

rapid progress in the art of gardening. An honorable rivalry will spring up, and there will be a lively competition as to who will have the finest gardens and grow the choicest fruits and flowers. Having made these, which I shall be obliged to call prefatory remarks I will take up the subject assigned to me and call your attention to

Vines and Creepers.

Of the various forms of growth peculiar to plants, the climbing or twining habit is unquestionably the most remarkable and interesting. Dependent for support upon their more robust neighbors, these creepers and trailers, simple and lowly though they are, arrest our attention, elicit our sympathy, demand our care and protection, and the intimacy which thus arises creates in us a greater love and admiration for plants of this class than for those of any other. Then, too, they are so appreciative and thankful, repaying an hundred fold every attention which we bestow upon them, by lending additional charms and attractions to their appearance. The American Ivy (*Ampelopsis*), climbing to the tops of the tallest forest trees, clothing their trunks in summer with rich, luxuriant foliage, which in autumn changes to glowing crimson tints, presents, at these seasons, a lovely picture for the eye to dwell upon. The English Ivy, covering the walls of some ruined abbey or castle, clinging to an archway, or encircling a tower, is a picturesque scene one does not easily forget and which it is ever pleasant to recall. The Chinese Wistaria, with its long, pendulous racemes of lilac flowers and wreaths of beautiful foliage, never fails to rivet the attention of the most indifferent observer. The Prairie Rose, with its showy blossoms; the Honeysuckle, redolent with rich perfume; and the Sweet-scented Clematis, so exquisitely fragrant—what a wealth of floral beauty! what a profusion of plant drapery! But I am sure there is no necessity of reminding any one of the many beauties which the plants of this class possess. We will now consider

The value of climbers for ornamental purposes, and how to use them.

Every one will admit that the interest and beauty of a garden are greatly enhanced by the use of climbing plants. In city gardens especially they are invaluable, as they require but little attention after being planted, and do much to render beautiful and attractive plain wooden structures, or brighten and relieve the barrenness of brick and stone buildings. Architectural effects are wonderfully improved by a judicious employment of climbing vines. What frescoing and paper hangings are to the interior of a dwelling vines are to the exterior. In nearly every quarter of the city we will find examples to prove the truth of this assertion. Call to mind a residence embellished with a variety of climbers, and you will at once express your admiration of its beautiful and home-like appearance. On the other hand, recall, if you will, one which lacks these decorations, and you do not hesitate to say: How cheerless and unfurnished! This form of vegetation is peculiarly adapted for embellishing pillars, arches, corridors, verandas, porticoes, balconies, walls, trellises, and screens. For ornamental arbors they are also particularly valuable. These are garden structures which in our climate seem almost indispensable. On a hot July or August day we all know how refreshing it is to get away from the direct rays of the glaring sun. We seek the shade of a tree, house, hedge, or anything which affords protection. This suggests the more frequent employment of arbors and covered seats in our gardens. They are certainly very useful, and by plant-

ing climbers to cover them they can be made extremely ornamental. But it must be said, regarding arbors, that they should never be made a prominent feature of the garden. Their position is in some nook or corner, partially concealed by trees or shrubs, and then, covered with vines, they become a most interesting object; or they may be made the dividing line between the lawn and vegetable garden, and, with a dwarf evergreen hedge on either side, serve as a screen, and at the same time a welcome retreat. An arbor tastefully designed and constructed of wire or wood, then covered with Clematis, Climbing Roses, or Honeysuckles, is an ornament which deserves a place in every garden.

Some of the climbers, especially those of more delicate habit, may also be employed very advantageously for ornamenting the stems of trees. The Honeysuckle and Clematis, when planted at the base of small trees and allowed to twine around the stem and among the branches, present, when in flower, a very ornamental appearance. Shrubs, too, decorated in a similar manner, are rendered exceedingly interesting. Evergreens, particularly the Arbor Vitæ, with Clematis and moonseed clambering over them, produce unique effects. The Wistaria, trained up the trunks of the larch, Scotch pine, or other trees, and allowed to droop down among the branches in elegant festoons, is very picturesque. In the rockery or rootery (the latter term being applied to grotesque arrangements of old stumps) they appear to much advantage, especially the Clematis. On a recent visit to Mr. Jackman's, who resides near London, England, and who is the originator of that famous variety called Jackmanni, I had an opportunity of seeing this mode of training done to perfection. In close proximity to the house there were several masses of stumps or rooteries, artistically arranged, the several mounds being separated by serpentine walks, like flower-beds in a parterre. Each mound was covered with one variety of Clematis, and the thousands of purple, lilac, and white flowers, in rich and striking contrast with one another, presented a picture the beauty of which words cannot express. I will refer later to other modes for training this truly admirable flower. Having suggested some of the ways to use climbers and trailers, I will now present a list of the finest species and varieties for the garden. Vines are known as *creepers*, *twiners*, *climbers*, and *trailers*.

Creepers are those plants which throw out little roots from their stems as they climb, like the Virginia Creeper and English Ivy.

Twiners wind round and round, like the Honeysuckle.

Trailers are those which creep upon the ground.

These I will now divide into two classes—hardy and tender vines.

Class I.—Embracing Hardy Vines.

The Virginia Creeper, or American Ivy—I name this first because it is, all things considered, one of the most valuable climbers known for this climate. It is very hardy, grows rapidly, and the foliage is of a rich green color in summer and changes in autumn to crimson scarlet. For verandas, walls, or for covering tree-trunks, arbors, etc., it is by far the best vine we have. Although I have not as yet seen any distinction made, I think that we may very justly claim that there are two varieties of this popular shrub. One of them is furnished with tendrils, which flatten out and cling to the wall, like Ivy. The other is not supplied with these tendrils, and must, therefore, be trained on a wire trellis. When planting this climber against the house, care should be taken to obtain the true creeper.

Ampelopsis Veitchii—This is a comparatively new species and comes from Japan. Its leaves are much smaller than those of the American, and overlap one another, forming a dense sheet of pleasing green. While young, this plant is a little tender, and requires protection the first winter after being planted. So soon, however, as it gets well established, there is no further risk, and it becomes hardy as an oak. It grows rapidly, and, without any fastening, clings to the wall or fence with the tenacity of the Ivy. The foliage is very handsome in summer and changes to crimson scarlet in autumn. For covering walls, stumps of trees, and rockwork, I know of no plant so useful. For the ornamentation of brick and stone structures it can be specially recommended as superior to the American.

Aristolochia Sipho (Pipe Vine) is one of the finest climbers to embellish the pillars of a portico or veranda. It has large, heart-shaped, deep green leaves, which remain fresh upon the plant until late in the autumn. Its flowers are curiously shaped, resembling a pipe. Being a twiner, it will require a wire support to run on.

Honeysuckle, or Woodbine—In this family are included some of the choicest twiners. Possessed of handsome foliage and bearing a profusion of fragrant flowers, they may be employed to great advantage for the decoration of both house and garden. For the veranda and porch they are especially desirable, and when trained on a trellis in the garden or allowed to twine around a tree they produce a fine effect. There are several varieties, but I will name only a few of the best.

Honeysuckle—Hall's Japan—This variety, though not new, is comparatively rare. It is called an evergreen shrub, because its leaves are green the entire year. We all know how delightful it is to get a glimpse of green foliage in the midst of winter. A plant of this variety trained to our front veranda will enable us to indulge in this luxury, at little trouble or expense. Then its white-and-yellow fragrant flowers are produced in great abundance from June to November. It is the best Honeysuckle we have, and, in my opinion, one of the most valuable climbers in the entire collection.

The Monthly Fragrant, or Dutch Honeysuckle, has red-and-yellow flowers, which are very fragrant.

Brown's Scarlet Trumpet Honeysuckle, with bright scarlet flowers, should be included in a collection.

The Japan Golden-Leaved Honeysuckle has foliage beautifully netted or variegated with yellow; but, as it is not entirely hardy, it can be used to better advantage in baskets, vases, or as an indoor climber.

Bignonia, or Trumpet Flower—This well-known creeper has luxuriant pinnate foliage, and produces large trumpet-shaped scarlet flowers in August. For growing on stumps of trees, rooteries, and arbors it is valuable. A variety called **atrosanguinea** has purplish crimson flowers.

Akebia quinata, a climber, still quite rare, although brought to notice some years ago. Its foliage is delicate and pretty and its flowers bluish violet and sweet-scented. It does well trained on a wall or trellis. For those who desire something that is not common, this may be suggested.

Ivy, English—When we think of the ivy-clad cottages, churches, and towers in England, we sigh and wish that we too might be favored with a similarly mild, moist climate, in order that the ivy might luxuriate here, as it does there.

On account of our severe winters, it cannot be recommended for general cultivation in this latitude, except on the north and east sides of buildings, and then it will require a little protection. Its special value for us is for culture indoors.

Periploca Græca, or Virginia Silk Vine, is a vigorous twining vine, with large glossy foliage and small velvety brown axillary clusters of flowers. It grows rapidly, and may be used with fine effect to cover trees. As the odor of the flowers is not agreeable, it should never be planted near the house.

Menispermum Canadense (Moonseed)—A very pretty climber, of slender growth and producing small yellow flowers. Used in connection with the *Arbor Vitæ*, as previously suggested, it becomes very valuable for decorative purposes.

Clematis—Within the last ten years the hardy *Clematis* has been wonderfully improved, and the newer sorts now in cultivation are justly regarded as the most beautiful and striking ornaments known for garden decoration. Contrary to the general impression, the severest winters do not injure them, when slightly protected with straw or leaves. In order to induce a long succession of bloom, liberal culture is absolutely necessary, and a deep, well-drained soil consisting, of loam, rotten manure, and leaf-mould is the most suitable to plant them in. During the warm, dry weather in summer, liquid manure may be given them advantageously, and every year the surface of the ground around them should be mulched with manure, to keep up their strength. The *Clematis* is a gross feeder and must be fed well to flower freely.

It may be used in many ways, either trained on verandas, walls, or trellis-work, or planted in rockwork and rooteries; or they make superb single specimens on the lawn, trained to some ornamental support. They may also be employed as permanent bedding plants, and pegged down, like the verbena, or with a wire support of neat design, raised about a foot from the ground, to run on, very pretty beds may be formed. On trees and arbors their showy and handsome flowers are very effective. Some of the choicest varieties are as follows:

Jackmannii, violet purple, is the best, all things considered; **Miss Bateman**, pure white and somewhat fragrant; **Lady Londesborough**, of a silvery-gray color, with a paler bar on each sepal.

Velutina purpurea, blackish mulberry purple, the deepest colored of all the varieties of this type. **Viticella venosa**, reddish purple, veined with crimson. **Lady Stratford de Redcliffe**, a new variety, of a delicate mauve color and the anthers chocolate red. **Otto Frœbel**, one of the largest and finest varieties yet obtained; flowers grayish white or French white, and of a thick, fleshy texture.

Marie Lefebvre—Pale, silvery mauve, with a deep mauve-colored bar. This list would be incomplete were we to omit that old favorite, which I regret to say is too rarely met with, the **European Sweet Clematis (flam-mula)**, which has always been so highly esteemed for the fragrance of its blossoms. It flowers freely in the summer and autumn months and does well on pillars, trellises, etc. **The American White Clematis (Virginiana)** is also an admirable climber. It produces a great profusion of flowers in August, followed by very conspicuous seed-plumes.

The Chinese Wistaria is unquestionably the most elegant climber we have. Its long, pendulous clusters of pale blue flowers render it a charming object when in blossom. Trained to a wire trellis, it will climb the highest wall in a short time. In the City of New York it is employed extensively for decorating the fronts of dwellings. It appears most effective when trained horizontally and grown like a grapevine; also when allowed to climb over evergreens, as above described.

The Chinese White Wistaria is a variety of the above and very desirable. Recently a new double purple variety has been brought to notice, and it promises to be an acquisition.

Climbing Roses—These are indispensable in every garden. The best of them are **Baltimore Belle**, **Queen of the Prairies**, and **Bennett's Seedling**. The Climbing Hybrid Roses, an interesting class, promise to be very valuable. Although they are less rampant in growth than the Prairie Roses, their fine blooms make them more desirable in every respect. There are several varieties which merit attention, for the names of which the Rose catalogue may be referred to.

Class II.--Tender Climbing Plants.

The following annuals may be grown from seed, and are very useful for the summer decoration of the garden:

Adlumia cirrhosa.
Balloon Vine.
Canary Bird Flower.
Convolvulus.
Cypress Vine.
Eccremocarpus.
Gourds, ornamental.
Ipomœa.
Loasa.
Lophospermum.
Sweet Peas.
Tropæolum.

Greenhouse Climbers which may be planted out of doors in summer.

Cobœa Scandens.
German Ivy.
Passion Flower.
Physianthus Albens.

Pilogyne suavis—This is a superb plant for verandas, also for culture in the window-garden.

THE NEWER STRAWBERRIES IN 1879.

[Published in the *Country Gentleman* July 24, 1879.]

In this vicinity the season of 1879 has been a very favorable one for the strawberry. A somewhat protracted drouth, in May, threatened serious injury to the crop, but copious showers about the first of June, at the time the berries were setting, secured a fair crop of finer fruit than is usually seen. In the Rochester market, immense quantities of strawberries have been handled. As an instance of this, I quote from the *Union* of recent date, as follows: "The sale of strawberries during the past few days has been unprecedented, and a leading groceryman informed a reporter of this paper, that the day before yesterday he sold 2,000 quarts; yesterday he disposed of 4,000, and this morning before eight o'clock he had sold 1,500 quarts." When we consider the large quantity many other grocerymen like the above must have sold, together with what the dealers shipped out of town, we will find that the daily sales of strawberries have been unusually large. At Cleveland, where this fruit is cultivated on a more extensive scale than at Rochester, the sales are said to have amounted to 2,000 bushels a day. Besides an increasing demand, it is gratifying to note that the larger and finer-flavored varieties are becoming better known and appreciated. When Wilson's was selling at six cents a quart, Sharpless sold for twelve, and Triomphe de Gand, Jucunda, Cumberland Triumph and Monarch, for eight and ten cents. Of such varieties there has not been nearly enough fruit to satisfy the demand, and growers will consult their interests by giving more attention to the larger and better kinds.

The favorable season has afforded us a fine opportunity to test the many new varieties now on trial. These novelties have revived the interest in strawberry culture, and all over the country there are enthusiastic amateurs and growers who are waiting anxiously for the result of this year's experience. We propose to give ours as briefly as possible.

Arranging the sorts alphabetically, Cinderella first claims attention. It is one of Mr. Felton's seedlings, and was sent out in 1876. The fruit is of medium to large size, conical, regularly formed, and of a bright, glossy-scarlet color; flesh firm, solid, with a mild, rich, aromatic flavor; plant vigorous and prolific. It is a handsome strawberry, and in quality fully equal to, if not better, than Triomphe de Gand. It will undoubtedly prove very desirable for the amateur's garden. Continental, another of Mr. Felton's seedlings, and sent out with the above, is of medium to large size, obtusely conical, regularly formed, and of a dark-red, almost black, color when fully ripe; flesh firm and of fair quality, but inferior to Cinderella; plant vigorous and very productive. Crescent Seedling, which appeared so promising last year, has disappointed us greatly this season—not in productiveness, but in quality. Nevertheless, it is an improvement on the Wilson, and having proved to be wonderfully prolific, must, on that account, still claim a good deal of attention as a market berry. Captain Jack is another variety, the quality of which does not rank high, and it has the serious fault

of overbearing. A large portion of its fruit does not mature sufficiently to render it marketable. Grown in hills under high culture, it may be of great value in some localities. In Ohio, several strawberry-growers esteem it very highly, some going so far as to call it the best variety. Cumberland Triumph is one of the newer varieties which, with us, has proved a real acquisition. The fruit is large, regular, very uniform, and of a beautiful bright-red color; unquestionably one of the handsomest berries known. In quality it is good; plant vigorous and productive. It is not firm enough to ship long distances, but will be valuable for home market on account of its uniform size and attractive appearance. Duncan, of medium size, has an exceedingly agreeable flavor, and may be regarded as a valuable addition to the list of good garden sorts. Duchess is early, and the fruit large and handsome. In quality, it can only be rated as good, but is worthy of culture on account of its size and earliness. The plants are not productive enough to render it a profitable market variety. Forest Rose is of large size and fine quality. The plant is a strong grower and quite productive, but is often injured by the sun.

Glendale, one of the latest introductions, has not fruited upon our grounds, but a fine exhibition of the fruit was made at the Nurserymen's Convention lately held in Cleveland, where I had the pleasure of seeing and testing it. The fruit is large, conical, and of a bright red color; flesh firm and of moderate flavor. The size and appearance may render it valuable as a market fruit, but I do not think it will ever become popular for the amateur's garden. A trial of it at home may change our opinion. Golden Defiance, raised by Mr. Miller, originator of the Cumberland Triumph, is a large berry, roundish, regular and of a dark crimson color; flesh moderately firm, solid, of delicate texture, and of fair quality. The fruit stalks are remarkably short, which is a serious objection; plant vigorous and moderately productive. It ripens late, and may be valuable on that account. Great American has not improved much in my estimation. It is quite productive, but a large proportion of the berries do not attain full size. Probably if planted near a variety with abundance of pollen, it might do better. A well-known strawberry-grower says: "Plant the Forest Rose near it, and you are sure of a good crop." The berry is high flavored and may be worthy of further trial. It should be grown in hills, and must have good culture. Miner's Great Prolific is large to very large, roundish, and of a bright crimson color, but the flesh is soft and deficient in flavor. On account of its size and fine appearance I consider it worthy of further trial. President Lincoln averages large to very large, irregular, and of a bright glossy red color; flesh moderately firm, with a marked Hautbois flavor, rendering it very desirable for the garden. Sharpless is unquestionably the best new strawberry. This was my opinion last year, and every report received thus far proves that I was not mistaken. We planted largely of it this last spring for market. Springdale, another of Mr. Miller's seedlings, did not do well with us last year, but has borne a good crop of fine fruit this season. In hot, dry weather the plants sometimes suffer. We think enough of it to give it another trial. Star of the West is unproductive and therefore of no value. Centennial Favorite, Pioneer, Beauty, Glossy Cone, all of them Durand's seedlings, have not yet been sufficiently tested to give a fair opinion of them. Champion, Crystal City, Windsor Chief and Damask Beauty, must fruit again before their value can be determined. Longfellow, a new seedling raised by A. D. Webb of Kentucky, was shown at Cleveland. The fruit was large and handsome, but the quality not of the highest character.

RASPBERRIES--OLD AND NEW VARIETIES.

[Published in the *American Agriculturist* October, 1879.]

The varieties of the Raspberry are now very numerous, and as each one is represented to possess some special merit, the amateur, as well as fruit-grower, is often puzzled to determine which are the best. For the purpose of giving the many kinds a thorough trial, we planted a few years ago, in our private garden, a complete collection, adding the novelties as they appeared. The plants have borne an abundant crop this season, and afforded an opportunity to judge of their merits.

Philadelphia—The parent of several varieties superior to it in size and quality, is still esteemed in some localities as a market variety. The fruit is too poor to render it of any value for the garden.

Reliance—A seedling from the Philadelphia, and of recent introduction, is of stocky habit, with dark, heavy foliage, vigorous, productive, and apparently perfectly hardy; fruit large, roundish, dark red, firm, with a sprightly, acid flavor, and remains in good condition sometime after it is ripe. Promising for either field or garden culture.

Early Prolific—Another comparatively new variety of the same parentage, is also of stocky habit, vigorous, hardy, and very productive; fruit large, dark red, moderately firm, and of a brisk, vinous flavor, not rich. Its productiveness will make it desirable for the garden and home market, but the fruit is too soft for shipping.

Herstine—Said to be a seedling from the Allen; is a vigorous grower, abundant bearer, and quite hardy; fruit large, roundish, conical, moderately firm, sweet and rich, valuable for family use and home market.

Saunders—Claimed also to be a seedling from the Allen, is a strong grower and good bearer, but as the fruit is only of fair quality, it hardly deserves a place in a collection.

Highland Hardy, which originated in Ulster County, N. Y., is vigorous, hardy, and productive; fruit of medium size and inferior quality. It is the earliest of all the raspberries, and on that account may be included, to some extent, in every collection, while its hardiness, productiveness, and good shipping qualities render it profitable for market.

Turner—A Western variety is said to excel all other kinds in hardiness. It is a very strong grower; quite productive; fruit moderately firm, juicy, and sweet. It remains to be seen whether it will be valuable for market. In our opinion, the fruit lacks the requisite firmness. Its entire hardiness renders it valuable for cold climates, but for this locality we have better sorts.

Brandywine, or Susqueco—Cultivated extensively in Delaware for market is a good grower, hardy, and productive; fruit large, firm, bright scarlet, but lacks flavor; bears transportation well, and is regarded as a profitable market sort.

Thwack, introduced recently, is said to be a cross between Brandywine and Herstine, and resembles the former. It is hardy, productive, and the fruit firm, but not of the first quality.

Delaware—Comparatively new; said to be a seedling from the Hornet; has not borne sufficiently to develop its qualities. We are inclined to think it lacking in flavor; probably profitable for market.

Burlington, or Prosser, an old variety, now rarely met with, succeeds admirably with us. It is very hardy, robust, and prolific; fruit large, firm, and of fair quality. We would give it the preference to many new varieties now grown for market, while it is also entitled to a place in the garden.

Henrietta, from Connecticut, is the latest novelty, and remarkable for the great size of some of its berries. They are not high flavored, however, nor are they uniformly of very large size. The plant is a robust grower, hardy, and productive. Some assert that it is identical with Belle de Fontenay, which it resembles in habit and foliage, but we have never seen so many nor such large berries on that, as the Henrietta produced this season. In autumn we will compare their later bearing qualities, and can then decide more satisfactorily.

Caroline, claimed to be a cross between Brinckle's Orange and Catawissa, has not borne with us yet. It is described as a large, luscious berry, of orange color, and perfectly hardy. The only defect of the Orange is its liability to injury in severe winters. If this variety is of good quality and hardy, it is an important acquisition.

Cuthbert we have not yet fruited, but if it is as represented, a hardy, firm, red raspberry, of excellent quality, it is just what is required now. We shall watch it with interest.

Pride of the Hudson, and **Queen of the Market** have not yet been tested. The former appears to be tender with us.

Among the older sorts, the **Hudson River Red Antwerp**, so well-known and extensively grown on the Hudson River, is not sufficiently productive. **Belle de Palluau** has not been a success either. **Parnell**, originated near Cincinnati some years ago, is hardy and productive; fruit large, conical, dark red, moderately firm, juicy, quality fair.

Clarke—Next to the Brinckle's Orange, is, without doubt, the best raspberry for the amateur's garden. The plant is robust, very hardy, and productive. On rich ground it suckers freely, and sometimes requires vigorous thinning to keep it in good condition for bearing; fruit of large size, bright red, and in quality is almost, if not fully, equal to the best foreign sorts. It was raised from seed by E. E. Clarke, New Haven, Conn., in 1856.

Brinckle's Orange is the highest flavored of all the raspberries; fruit large, obtuse conical, orange color, soft, sweet, delicious; the best of all for the table. The plant, unfortunately, is a little tender, and must be well protected in winter.

Col. Wilder is a fine-flavored, yellowish-white raspberry, and would be desirable for the garden if hardier and more productive.

Knevett's Giant is a splendid fruit, certainly one of the finest for family use, but the plants are not sufficiently prolific. **Fastolff**, another fine berry, does not bear well, producing more wood than fruit. **Franconia**, like the

two last mentioned, fails to produce a satisfactory crop. The berries are of fine quality. Where the winters are not so severe as with us, all three would be of great value.

Belle de Fontenay is a very strong grower, and moderately productive. It is valuable only for its autumnal crop, and in order to insure this, many of the suckers must be removed. The fruit is then produced on canes of the same season's growth, as well as on those of the previous year. Many are tempted to discard this variety, but, when properly treated, it well repays the trouble taken with it.

Naomi, regarded by some as the same as **Franconia**; is a distinct variety with us. It is a good red raspberry, but superseded by others. The same may be said of **Victoria**. **English Superb** is not productive, and **Imperial Red** is not worthy of cultivation. **Gambon** is a good variety, but its place is already filled with good kinds.

Mrs. Wood, of the Philadelphia type, is equally productive, and a much better fruit. It ripens late.

Vice-President French, raised by Dr. Brinckle from the **Fastloff**, crossed with **Yellow Antwerp** is a first-class variety; canes are robust, branching, hardy, and do not sucker so freely as some kinds; fruit large, firm, sweet, and of fine quality. **Antwerp Yellow** produces a fair crop of fruit, which is not of the highest flavor. **Cæsar Blanc**, **White Imperial**, and **Jaune d'Anvers** are moderate growers and bearers, and the **Brinckle's Orange** is so much superior to them that they are not worthy of cultivation. Of the

Black Caps, the **American** and **Seneca** are superseded by the **Gregg** and **Mammoth Cluster**. The **Gregg** is a variety of great promise. **Ohio Everbearing**, **Davison's Thornless**, **Catawissa**, **Ellisdale**, **Ganarqua**, and one of the new varieties, **New Rochelle**, are of such a dirty color and inferior quality that they are not worthy of being included in any collection. The **Ohio Everbearing** and **Catawissa** may be valued in some places as fall-bearing sorts, but we consider the fruit too poor to be of much value at any season. Of the

Yellow Cap Raspberries. **Hawkins' Orange**, which is said to have originated recently in Western New York, is the most valuable. It is exceedingly productive, and the fruit is of fair quality. **Minnesota Salmon** we have discarded. The **Florence**, a new sort, is said to be promising. In conclusion, there does not appear to be any among the newer sorts which are destined to supersede the old favorites for the garden. The new Raspberries are nearly all for market, and as such, show some progress.

For a small collection for family use, we would name the following choice varieties:

Brinckle's Orange.
Clarke.

Vice-President French.
Mammoth Cluster or Gregg.

For a greater variety, add the following:

Highland Hardy, the earliest.
Knevett's Giant.

Herstine.
Reliance.

Belle de Fontenay, fall bearing.

For market:

Brandywine.
Clarke.
Highland Hardy.

Reliance.
Turner.
Mammoth Cluster or Gregg.

WEeping TREES.

—•••—
A PAPER READ BEFORE THE WESTERN N. Y. HORTICULTURAL SOCIETY
AT ROCHESTER, JANUARY 24TH, 1878.

In this class are embraced the most charming examples of ornamental trees. Graceful in outline, elegant and novel in their mode of growth, impressive and attractive in appearance, they possess all those characteristics of growth and foliage which render them especially desirable and valuable for the embellishment of landscapes and the ornamentation of grounds. The beautiful cut-leaved Weeping Birch, sometimes called the Lady Birch, with its bright bark glistening in the summer's sun and its graceful drooping branches, swaying in the lightest breeze, is a worthy subject for the artist's pencil and the poet's pen. In winter, too, covered with ice and illumined with the brilliant rays of the setting sun, its trembling branches apparently studded with innumerable brilliants, it presents a charming picture, attracting the attention and winning the admiration of even the most careless and indifferent observer. This elegant tree, which Mr. Scott very appropriately calls "the most exquisite of modern sylvan belles," was introduced and first offered for sale in this country by Ellwanger & Barry about the year 1851. Henry W. Sargent, Esq., writing to the *Horticulturist* from Germany in 1848, and describing Booth's nursery at Holstein, stated that "among trees and shrubs new to me I noticed a Weeping Birch peculiar to Germany. It had descending shoots 32 feet long. The branches hung as perpendicular downward as those of the *Sophora pendula* or the common weeping willow, and are quite as pensile as the latter." From this description Messrs. E. & B. at once concluded that this must be a very desirable and valuable tree, and they immediately ordered a specimen to be forwarded to them. In due time it came, was planted, and as soon as possible, a large stock of young trees was obtained. No novelty was ever received with greater enthusiasm, or gave more general satisfaction than this. The demand was so great that for several years from 5,000 to 15,000 stocks were budded annually. Until the month of November last the original imported tree stood in their nursery grounds a living monument, full of beauty and grace, adorning the landscape, and gaining for itself hosts of admirers. Unfortunately, however, being in the way of projected improvements, it had to be destroyed, much to the regret of those who had seen it planted, and watched its growth for nearly twenty-five years. In view of the many interesting facts associated with it, it had already become a historical tree, but fifty years hence, when its offspring will be found in every city and hamlet of this great country, it would have been, could it have been left standing, remarkably interesting to the admirers of characteristic and note-worthy trees. Mr. Scott, who evidently appreciates the value of this Birch for ornamental planting, says that—

"It stands the acknowledged queen of all the airy graces with which lightsome trees coquette with the sky and summer air. It lacks no charm essential to its rank. Erect, slender, tall, it gains height only to bend its

silvery spray, with a caressing grace on every side. Like our magnificent Weeping Elm, but lighter, smaller and brighter in all its features, it rapidly lifts its head among its compeers till it overtops them, and then spreads its branches, drooping and subdividing into the most delicate silvery branchlets, whose pensile grace is only equalled by those of the Weeping Willow."

Although extensively planted in all parts of this country, it is far from enjoying that universal recognition to which its merits justly entitle it. While I was surprised to note its absence in the finer European parks and gardens, I am still more astonished to see so few fine examples in a city where it has been propagated by the thousands for years. The managers of our parks, too, have evinced great indifference toward this tree, if we may judge from the small number of fine specimens to be found growing in them. Strange as it may appear, it seems to have been reserved for the projectors of one of the fine parks in the West to properly employ this truly noble tree, by planting one of their leading avenues with it. All honor to the gentlemen of Chicago, who, realizing the surpassing charms and beauties of this Birch, have not only formed an avenue which will do credit to the park and themselves for all times to come. but will teach, stimulate and encourage similar efforts in other places.

The **Cut Leaved Birch** is one of those trees which is complete in itself. It has no defects of habit which require to be concealed, and should always be planted by itself in the most prominent and conspicuous position on the lawn. Although it is a rapid grower and attains to considerable size, it is equally well adapted for large and small grounds, and wherever planted always contributes towards rendering a landscape charming and effective. For avenue planting it surpasses all other trees. I have in my mind an avenue which has been planted lately in our city, and I trust the time is not far distant when we shall have several. Were we limited to a single ornamental tree, we should have no hesitation in selecting this in preference to any other. It is the most graceful of all trees, and deserves to be better known and more widely disseminated.

Young's Weeping Birch is a new and interesting variety, which is admirably adapted for the lawn. It was discovered about twenty years ago by Mr. W. Young, of Milford Nursery, England. Owing to the slenderness of the branches, which, in the original plant were so weak, as to creep along the surface, great difficulty was experienced in propagating it. It was first offered in this country by Ellwanger & Barry, in 1873. To the graceful elegance peculiar to the Birch family it adds the odd singular erratic habit of the Weeping Beech. It has long, slender, thread-like branchlets, which fall from the main branches like spray. Grafted upon stems 6 to 7 feet high, it can be grown into a rounded, regular head, like the Kilmarnock Willow, or left to itself, it will send up a leading shoot, with side branches like the cut-leaved, only more spreading. In this distinct type we have gracefulness and picturesqueness combined. It is one of the very best of new trees, and worthy of being introduced into every garden.

Betula alba pendula elegans is another charming variety, of quite recent introduction, and, as yet, but little known. It originated with the Messrs. Bonamy Bros., at Toulouse, France, in the year 1866, and was first exhibited by them at the Paris Universal Exhibition in 1867, where it received a gold medal, the highest award for new trees. Ellwanger & Barry first offered it in this country in 1873. Its habit of growth is unique and beautiful. Grafted on stems 6 to 8 feet high, the branches grow directly

downwards, parallel with the stem. Its decided pendulous habit, rich, handsome foliage, delicate branches, render it particularly showy and attractive on the lawn. Among ornamental trees of recent introduction this, and Young's Weeping may be considered the most valuable acquisitions of many years.

The **Kilmarnock Weeping Willow** first offered in this country by Ellwanger & Barry in 1857, is now so well-known as to need no description. Being one of the most popular and widely disseminated of weeping trees, its history may not be uninteresting. It was discovered growing wild in a sequestered corner of Monkwood estate, near Ayr, in Scotland, by an aged botanist, named John Smith, an enthusiastic lover of plants, and a zealous collector. From him, Mr. Lang, a nurseryman at Kilmarnock, purchased one plant in the year 1844.

Sir W. J. Hooker, curator of Kew Gardens, received two plants in the spring of 1852, and having observed how exceedingly ornamental it was, gave Mr. Lang a decided opinion, stating that he thought very highly of it, and that it was much admired in the Royal Garden at Kew. The name Kilmarnock Weeping Willow was given to distinguish it from the common weeping willow and the American weeping willow. Of all weeping trees, it is the one best adapted for small lawns, garden plots or yards. Very handsome plants may now be obtained, grafted on stems six to eight feet high, for training into umbrella heads. Grafted low, say three to four feet high, with the head nicely kept and the branches trailing on the ground, it becomes a novel and interesting object on the lawn. For rounding off or completing the end of a belt or border of trees or shrubs, it is very appropriate. In my tour through Scotland the past summer, I did not meet with a single specimen of this tree, either in the parks, nurseries or gardens, and I am at a loss to know why it is so little esteemed in its own home especially since we in this country hardly think any ornamental tree equal to it.

The **Weeping Beech** is undoubtedly one of the most remarkable of drooping trees. Its habit of growth is odd and eccentric, but at the same time picturesque and beautiful. A strong grower, its branches shoot upward, then outward, twist in various directions, and turn into a variety of shapes, then droop and trail on the ground. Divested of its leaves, it is quite ungainly; but clothed with its rich, luxuriant foliage, it presents a magnificent appearance. It is one of the largest and most curious of lawn trees, and should be planted by itself, where it can have abundance of room. Large specimens often cover an area one hundred feet in diameter. Its history is somewhat remarkable. Some sixty years ago Baron de Man's gardener, at Beersal, Belgium, was planting an avenue of Beeches. The Baron, while superintending the work, noticed among the trees selected for the purpose, one poor and crooked specimen, and rejected it. The gardener thinking, however, that it possessed some merit, planted it in a corner of the garden, where it grew to be one of the most beautiful of trees. One of the noblest specimens I have seen was in Mr. Anthony Waterer's nurseries, at Woking, England.

The **New American or Fountain Willow** is a well-known pendulous variety, which forms a very handsome specimen when budded standard high. While it can be trained in umbrella form like the Kilmarnock Willow, it is a much stronger grower, and requires more space. On account of its vigorous growth, it is much more difficult to keep in shape than the Kilmarnock,

and, all things considered, hardly equal to that variety for ornamental planting. It is a trailing species of American Willow, grafted standard high, and was introduced from France about the year 1852.

The **European Weeping Ash** is a well-known weeping tree of vigorous habit, its branches spreading at first horizontally, but gradually drooping towards the ground. Its strong, stiff growth does not render it as graceful, and ornamental as many of the trees of this class, but planted singly on a large lawn, it forms an interesting object. It is one of the best trees for forming an arbor.

The **White Leaved Weeping Linden** is a handsome drooping variety, with large round leaves, of a grayish green color above, and silvery gray beneath. Worked upon stocks standard high, the branches shoot out almost horizontally, and as they increase in length bend gracefully towards the ground, giving to the tree a decidedly pendulous character. Being a strong grower it requires to be vigorously pruned to keep in shape. In this way it can be trained into a round symmetrical head, and will always be found a desirable addition to any collection, on account of its distinct silvery foliage, which contrasts effectively with the deep green of other trees.

Of **Weeping Elms** there are several which deserve attention. Our American Elm is one of the most noble and stately of weeping trees. It is so well-known, that any notice of it here would be superfluous, but it may be proper to remark that it is not admissible on small lawns.

The most popular of weeping Elms, is the **Camperdown**, a very picturesque and elegant tree which can be employed with the most satisfactory results in extensive grounds, as well as in small garden plots. It is of rank growth, the shoots often making a zigzag growth outward and downward of several feet in a single season. The leaves are large, dark green and glossy, and cover the tree with a luxuriant mass of verdure. By a judicious use of the knife, it can be kept very regular and symmetrical in form, and a handsome specimen isolated on the lawn, will always arrest attention and elicit admiration.

The **Scotch Weeping Elm** (*montana pendula*), is a drooping variety, resembling the Camperdown, but not so good.

The **Rough-leaved Weeping Elm** (*rugosa pendula*), is a pendulous variety with large rough leaves, and **Elm viminalis**, is a distinct slender branched variety, very ornamental in habit and foliage.

The **Weeping Mountain Ash** has probably received as much attention as any weeping tree, on account of its distinct and curious habit. A careful examination of its mode of growth cannot fail to excite wonder. If worked two or three feet from the ground and allowed to grow wild, it soon becomes as odd a piece of framework as it is possible to imagine. I have an indistinct recollection of one I saw growing in this manner, and at the time, I considered it as great a curiosity as I had ever seen. Grafted six to eight feet high, it becomes a very desirable lawn tree, and in the autumn, laden with large clusters of bright red fruit, it produces a brilliant effect.

The **Weeping Poplar** (*Populus grandidentata pendula*), although not so elegant and graceful as some of the drooping trees we have mentioned, has many desirable qualities which commend it to the admirers of fine trees. Its character is decidedly pendulous, and its branches spread and droop gracefully towards the ground. But the knife must be used unsparingly

to preserve the symmetry. It is the most rapid grower of any in this class, and those who desire a weeper which will produce immediate effect, will find their wants amply requited by planting this tree.

The **Black Barked Weeping Poplar** and the **Parasol de St. Julien**, two varieties recently introduced from France, are almost similar to the above.

Probably the most remarkable and beautiful tree in this class, and one which is very little known or mentioned, is **Bujot's Weeping Honey Locust**. It has every characteristic of habit and foliage to commend it, but in severe winters it is liable to injury from frost. Its propagation is somewhat difficult, which will always make it expensive and rare. Like the Weeping Japan Sophora, it sometimes succeeds in sheltered positions. I know of only one specimen in this vicinity, which has survived the severity of several winters, unprotected. Those who love and admire fine trees, sufficiently to give them the necessary protection, will feel themselves amply repaid for any trouble or expense they may incur in securing a specimen, and giving it the protection it requires.

The **Weeping Japan Sophora**, one of the most beautiful trees, is not quite hardy here, and is not propagated in the nurseries. We have a fine specimen tree, however, which thrives in a sheltered position, the same as that occupied by the Sequoia, or big tree of California. The **Golden Barked Weeping Ash**, a handsome weeper, is not hardy.

The **Weeping Cherries**—**Everflowering Weeping**, **avium pendula**, **Bigarreau pendula**, are all pretty lawn trees, but not sufficiently known to be properly appreciated. On some future occasion I hope to be able to call attention to these more particularly. It should be borne in mind by those intending to plant drooping trees, that their appropriate position is always on the open lawn, single, never in groups or masses, nor mixed in with other trees or shrubs in belts or borders. In the hands of the skillful planter they are capable of producing the most charming results, and are more effective in giving character and expression to a landscape than any other trees. I append a list of select varieties for large and small grounds :

SELECT DROOPING TREES FOR SMALL GROUNDS.

Kilmarnock Weeping Willow.	Weeping Larch.
Yeung's Weeping Birch.	American Weeping Willow.
Cut-leaved Weeping Birch.	Camperdown Weeping Elm.
Dwarf Weeping Cherry.	Birch elegans pendula.

To the above may be added—

FOR EXTENSIVE GROUNDS.

Ash, European Weeping.	Elm, Scotch Weeping.
Beech, Weeping.	Linden, Weeping.
Birch, European Weeping.	Weeping Poplar.
Birch, tristis.	Weeping Cherry.
Elm, Cork-barked Weeping.	Mountain Ash, Weeping.

HERBACEOUS PÆONIES.

[Published in *Rural Life*, June, 1879.]

For nearly a month our garden borders have been enlivened with the beautiful and showy blooms of the Herbaceous Pæony. Planted among conifers, flowering shrubs and ornamental trees, their gay-colored flowers produce a charming effect. On our grounds we have a border two hundred feet in length, and fifteen feet in width, which contains a choice collection of ornamental trees, conifers, shrubs, roses, pæonies and hardy border plants. The tall-growing trees and evergreens form the background, the shrubs and trees of medium size come next, with the pæonies, roses and border plants in the foreground. The assortments of pæonies when in flower is undoubtedly the most interesting feature of the collection.

On our nursery grounds a large circular bed about twenty feet in diameter, planted with the most showy and distinct varieties, has during these beautiful June days attracted great attention. It is surprising that so noble a flower, almost rivaling the rose in brilliancy of color and perfection of bloom, and the Rhododendron in stately growth, should be so neglected. Amateurs seems to have entirely lost sight of the many improved varieties introduced within the last few years, and our finest gardens, perfect in other respects, are singularly deficient in specimens of the newer kinds. In the hope of popularizing to some extent this valuable class of plants, I will briefly refer to their many desirable characteristics of growth and flower, and at the same time furnish the names of a few choice sorts.

The first point in their favor is hardiness. It may be truly said of them that they are "hardy as an oak." In the severest climates the plants require no other protection than that which they afford themselves. Then their vigorous habit and healthy growth, freedom from all diseases and insects, are important arguments in favor of their cultivation. Growers of roses know well that their flowers are obtained by great vigilance and care. Not so with the Pæony, which, when once planted, all is done. Each succeeding year adds to their size and beauty. The foliage is rich and glossy and of a beautiful deep-green color, thus rendering the plants very ornamental even when out of flower.

The newer varieties produce very large, handsome, regularly-formed cupped blooms, resembling large roses. No other flower is so well adapted for large, showy bouquets. The Pæony may be planted either singly on the lawn or in borders. Where the lawn is extensive a large bed makes a grand show, almost equal to a bed of Rhododendrons. The following are six of the best and most distinct kinds :

Modeste—Deep rose, very large, cupped like a rose.

Delachii—Dark purplish crimson ; the best dark variety.

Ambroise Verschaffelt—Purplish crimson, very full ; fragrant.

Papillionacea—White, superb large flower.

Humei—Deep rose with purple shade ; very full and double ; one of the latest in bloom.

Whittlejii—White ; center slightly yellowish ; fragrant.

For a dozen add the following :

Chas. Verdier—Lilac rose, of perfect form ; cupped.

Monsieur Bouchardat—Bright rosy lilac ; large, full, fragrant, and very late.

Dr. Bretonneau—Rosy violet ; large and of fine shape.

Fulgida—Crimson ; profuse flowering.

Delicatissima—Flesh color, delicate and beautiful.

Festiva—Pure white, with a few marks of carmine in the centre.

Early-flowering Varieties.

Tenuifolia—Single dark crimson ; leaves beautifully cut.

Rosea—Double crimson at first, changing to rose ; beautiful.

Pulcherrima plena—Crimson, with purple shade.

NATIVE FRUITS.

A PAPER READ BEFORE THE WESTERN N. Y. HORTICULTURAL SOCIETY AT
ROCHESTER, JANUARY 27TH, 1881.

The Secretary addressed the several members of the committee, as well as some prominent horticulturists, and requested any information they might possess relative to the newer fruits of promise. The replies which some have sent indicate that although a large number of new fruits are at present under trial, few have been sufficiently tested to justify an expression of opinion as to their value. The memoranda which others have kindly furnished appear in full in the report. For the purpose of giving additional interest to the report, the Secretary has taken the liberty to draw attention to some of the older fruits, the merits of which seem to have been disregarded or overlooked.

Apples.

Although a considerable number of new apples are said to have been introduced to notice during the last year, few have come under the observation of the committee. During the autumn, Mr. J. F. Tillinghast, of Factoryville, Pa., sent us specimens of the **Clarke Apple**, a variety which originated in Lackawanna county, Pa., some thirty-five years ago. It is supposed to be a chance seedling, and in the locality where it was found it is highly esteemed. The fruit is of medium size, say three inches in diameter; form, roundish ovate, contracted at the eye; stalk, short and slender; skin, whitish-yellow, sprinkled with dark specks; flesh, white, fine grained, tender, juicy, mild sub-acid, not rich, but pleasant to the taste. The tree is said to be of branching, drooping habit, and an early, regular and abundant bearer. It is evidently a fall fruit, but Mr. Tillinghast says it will keep till spring. On account of its good quality, we deem it worthy of trial.

Sutton Beauty. We are indebted to Mr. O. B. Hadwen, of Worcester, Mass., for the following, relative to this variety: "Its origin was on the farm of the late John Waters, of Sutton, Worcester county, Mass. I think it was first shown at the rooms of the Worcester Horticultural Society, some twenty-five years since, by Joel Knapp, but the annual exhibitions being in September, and the "Sutton" being shown in an unripe condition, it did not receive the notice it deserved. A few trees were grown by the late S. H. Colton and George Jaqu's. I have two trees of it, some twenty years old, that bear fine crops on the even years, and I have a growing appreciation of its value. First, for the thrifty, upright habit of the tree; second, for its productiveness of apples of uniform size, of roundish conical form, fair specimens measuring $9\frac{1}{2}$ inches each way; third, the color of the fruit is very marked and attractive, being a light crimson red, with a few

dots at the stem end, but thickly dotted at the calyx end ; the stem is short, serinted in a clear, well turned cavity, slightly bronzed ; the calyx is partially open, in a basin of medium breadth and slightly corrugated ; the flesh is white, with a slight yellow tinge, crisp and tender, sub-acid, with decided character. It is an apple that is rapidly growing in favor, one that the customer seeks the second time and always after using it once. I think as an apple for export it will take the front rank, as it looks well, tastes well, and keeps well up to May."

We have fruited the Sutton Beauty two or three times, and fully concur in all that Mr. Hadwen says of it. As a late keeper it will undoubtedly prove valuable, as it retains its freshness and fairness for a remarkably long period. Its waxen yellow skin, beautifully shaded with light crimson, renders it showy and attractive, and in spring, when there is a scarcity of fruit, it will command a good price.

Through the kindness of Mr. Arnold, of Paris, Ont., we were enabled to test his seedling apples, **Arnold's Beauty** and **Ontario**. The former is said to be a seedling of the Northern Spy, crossed with the Wagener and Spitzenberg. It is a handsome fruit, about the size of Wagener, and possesses some of the striking characteristics of that variety, but I do not think it is any improvement upon it, if as good. It may have merits which the Wagener does not possess, but, so far as I can see, it will not be of much value here.

Ontario, said to be a seedling of the Northern Spy crossed with Wagener, bears a striking resemblance to the Spy, and outwardly would easily be taken for that variety, even by good judges ; but it is only necessary to put the knife into the flesh to detect the difference. The flesh is not nearly so firm and delicate as that of the Spy, neither has it the exceedingly agreeable flavor for which that variety is so justly prized. For shipment and long carriage it is better adapted than the Spy, on account of the flesh, which is firmer. In the nursery both are strong-growing trees, and can be propagated profitably, but it is questionable whether they have sufficient merit to deserve propagation, at least here.

In the rapid introduction of new fruits, many choice old sorts are very much neglected. The **Melon Apple** is an instance of this. A rehearsal of its valuable qualities will no doubt recall to the minds of many here pleasant recollections of an old but truly noble fruit, one which, though rarely seen now-a-days, is not, I trust, destined to be forgotten altogether. It originated in the orchard of our much esteemed member, Mr. Chapin, of East Bloomfield, and for some time its cultivation was confined to the orchards in that vicinity. Mr. Reuben Norton, of East Bloomfield, first brought it to the notice of Ellwanger & Barry, and recommended it by saying, of all the apples he grew (and he had a very fine collection) this was always the first to be consumed by his family and friends. The attention of the public was first drawn to it by Ellwanger & Barry, through the *Albany Cultivator*. As the tree is rather a delicate grower, nurserymen cannot propagate it advantageously, and on this account the stock has always been very limited. The only way to obtain good standard trees it to top graft it on some strong-growing sorts, which of course renders the trees more expensive ; but the apple is so valuable that no one should object to pay an extra price for the tree. Lest there should be some who are not acquainted with this variety, it may be well to describe it briefly: Size

medium to large ; form, round, slightly flattened at the ends ; skin, pale whitish-yellow in the shade, nearly covered with light red, and frequently striped with carmine ; flesh, white, exceedingly tender, juicy, melting, agreeably perfumed, and having a mild sub-acid flavor. As a desert apple it has no superior, if any equal. The fruit, however, is so tender that it will not bear much handling or long carriage, and the tree is not vigorous enough to render it a profitable variety for orchard culture. But it is such a desirable fruit for family use, that it ought to be included in every garden collection.

The public are beginning to appreciate choice fruits, and orchardists will find it profitable to top graft this kind upon a vigorous-growing variety. I am certain it will sell readily at a good price, as soon as its merits are known. Is it not surprising that a fruit possessing so many good qualities should be so rarely seen? To show how scarce this apple is, I doubt if a barrel of them could be found in Rochester to-day. Yet it is unquestionably the finest of all winter dessert apples, and ought to be found in the market.

Another apple equally valuable, and nearly as difficult to obtain, is the **Jonathan**. It is one of those slender-growing sorts, which find no favor with nurserymen. But it seems to me that the people cannot afford to dispense with such a valuable sort. If its value were properly estimated, nurserymen I am sure would be able to raise trees of it profitably. Among the numerous sorts on exhibition to-day, I ask is there a handsomer or better apple than the Jonathan? Of medium size, roundish ovate form, skin of a light yellow color, nearly covered with light red, deepening to a rich crimson, then to a dark purple ; flesh, white, tender, juicy, with a pleasant sub-acid flavor, it has all the qualities which constitute a perfect dessert apple. And this, one of our best winter apples, can hardly be obtained in the market. In this, one of the greatest fruit-producing regions of the world, there is no excuse for depriving the public of the best apples we have. Grow extensively, if you will, Baldwins and others of that class for exportation, but let us have the best for home consumption. It will not be long till fruit generally, and the apple especially, will be classed among the most important articles of food. For those who are engaged in sedentary pursuits, or who suffer from indigestion, apples of fine quality, like those above mentioned, are invaluable, and they should be used daily in every family, and at every meal, in some form or another.

We do not half appreciate the advantages we possess in being able to enjoy such luscious fruits as can be obtained here at so small a cost. Last summer, while in England, I paid exorbitant prices for grapes, peaches and strawberries. Even then the peaches, having been grown under glass, could not compare in flavor with ours produced in the open air. And the hot-house grapes, which the English esteem so highly, were not any better, if as good, as our best native grapes. I there learned to appreciate my good fortune in being a resident of Western New York, where the finest fruit can be had remarkably cheap. In no other section of country that I know of can such fine apples be raised as in this vicinity, and we ought certainly to give more attention to the choice sorts, especially since they can be raised with so little extra trouble.

I might refer at length to other valuable varieties, which deserve more attention than they receive, but the limits of this paper will not admit of it.

Pears.

Among the New Pears the **Hoosic** is destined to hold a high place in public estimation. Its size, attractive appearance, fine quality and productiveness, will soon render it popular among fruit growers

Frederick Clapp, another fine pear of recent introduction, combines valuable qualities which will make it a general favorite. As it has been pronounced by competent judges superior to **Beurre Superfine**, we have a right to expect that it will prove to be one of our best native pears.

Plums.

Mr. S. D. Willard, of Geneva, says: "A few years since my attention was called to a plum being grown on the Hudson River, styled the **Gweil**, which I have fruited for the second season, and while the quality can scarcely be regarded as equal to many other varieties, the beautiful bloom which appears upon the fruit as it matures, coupled with its great productiveness, and hardy and fine growing qualities of the tree should, I think, make it a very desirable market sort for this section. The fruit sold at good prices in Philadelphia."

Peaches.

This is a prolific subject. Several favorable peach seasons in Western New York have given a fresh impetus to peach culture. While the yellows in some localities is destroying many fine orchards, a large number still remain in a thrifty condition and yield large crops, to the great satisfaction of those who enjoy this luscious fruit. While great progress has been made in producing early sorts, several choice old kinds are very much neglected. Prominent among these are **Brevoort**, **Druid Hill**, **Malta** and **Poole's Large Yellow**. Several of Mr. Rivers' productions have proved to be very valuable, but they hardly come within the province of this report.

Briggs' Red May and **Harper's Early**, two of the very early sorts, are growing in favor. The first named appears to be less disposed to decay than the other early sorts. **Harper's Early** has fine flavor. From information received from many cultivators of the peach in different States, I learn that a large number of the new sorts which gave promise of remarkable earliness, failed during the past year to fulfill the expectations which were raised about them. A great many of them opened later than usual and about the same time as **Alexander**. It is a singular circumstance, and difficult to account for. It will require another season's trial to determine the value of these sorts. An objection is frequently raised to the very early peaches, as they decay so easily. Those who are cultivating the peach on an extensive scale are experimenting with the very early varieties, in the hope of finding one which is free from this defect. Unfortunately the severity of this winter has been so great that peach trees will have suffered more or less in every section of the country, and it is to be feared that this will delay many important experiments which cultivators had been intending to make.

Grapes.

The number of new grapes now in course of propagation and dissemination is very great. Several of the hybrid varieties raised by **Mr. Ricketts** are being tried in various sections of the country, and reports as to their

merits are beginning to appear. The **Lady Washington** seems to be the most promising of all tested thus far. It is remarkably vigorous, has fine foliage, and the quality of the fruit is good. The Hon. Marshall P. Wilder mentions a graft which made seventy-five feet of wood last year. Mr. Chas. A. Green, of Clifton, N. Y., says: "It succeeds admirably with me thus far. Vine vigorous and healthy; fruit exceedingly handsome, and few complaints will be made of its quality. The pink blush over the clusters is an attractive feature." We regret to have to say that Mr. Rickett's **Secretary** has turned out to be a great failure. The fruit is small, of medium quality, not so good as **Clinton**; the vine is a miserable grower, and the foliage poor. In this connection Mr. E. Williams, of Montclair, N. J., says: "Of the new varieties now being offered, I have strong hopes that the **Jefferson** will attain a prominent position. I have had several opportunities of testing Mr. Rickett's seedling at exhibitions, for two years past, and basing my opinion on this alone, I regard the **Jefferson** as the best in quality of any he has yet sent out, and its parentage leads me to hope it has sufficient vigor to succeed generally. Of **Moore's Early** Mr. Williams says: "It bids fair to supercede the **Concord** as an early grape." I am glad to hear so good an account of it from New Jersey. I hardly think it will displace the **Concord**, at least in Western New York. In quality it is little if and better than **Concord**, and the bunch and berry do not seem to be very much larger. In New England, where great importance is attached to earliness, it has, perhaps, a particular value.

The **Niagara**, **Prentiss**, **Duchess** and **Pocklington** are all promising White Grapes, and as they are being grown extensively in this vicinity, we shall take a special interest in them. They possess important qualifications which have long been sought in white grapes, such as vigor, hardiness and productiveness. With five fine varieties like the above and more to come soon, grape growers will surely be able to satisfy a long felt want.

It will be an interesting experiment to test these varieties side by side, in order to determine which is the best.

The **Centennial** is a new grape raised by Mr. D. S. Marvin, Watertown, N. Y., and is claimed to be a seedling of the Eumelan grafted upon an Iona root. Mr. Marvin believes that grafting is an important factor in improving our native grapes. The plant which we have in our garden produced a small, compact cluster of white berries, slightly flushed with pink. We are not yet prepared to pass judgment upon this variety as the plant has not had a fair chance. Being a product of the Eumelan and Iona, we may look for something good from it, and we shall watch it closely.

The **Vergennes Grape**, a sample of which was exhibited at the last Annual Meeting of this Society, was described at length in the *Rural New Yorker* of May 1st, 1880, and its qualities were summed up by Gen. W. H. Noble, in the following language:

"For hardiness, vigor of growth, large bounteous fruitage, a luscious fruit of the richest of tint of blended pink and purple bloom, for its yield of wine with the most delicate aroma, for its early maturity of wood and fruit, for its long keeping quality, lasting in excellence beside the apple on our table. I think this the equal of any American grape yet grown. I say this with great tenderness towards all its native rivals."

The "**Amber Queen**" is claimed by the originator, Mr. N. B. White, Norwood, Mass., to be the richest and best flavored grape that has ever

been produced. It is described as a strong grower, with thick leaves, bunch large, shouldered like the Hamburg, berry large, amber colored but growing darker as it becomes riper. Eatable in August and lasts through September.

Elvira and **Uhland** White Grapes, raised in Missouri and recently introduced, are of little value in this locality, the bunches being small and the berries are so much crowded that they crack badly.

We have on trial twelve of **Miner's Seedlings**, all of which are white, and we hope to find among them some which will prove worthy of cultivation. The **Victoria** appears quite promising.

While a great deal of attention has been given to the newer varieties, some excellent old sorts are very nearly forgotten. The **Lindley** for example, where it does well, is one of the best red grapes we have. The Hon. M. P. Wilder in writing to the *Rural New Yorker*, says: "From the first introduction of Rogers' grapes, I have considered it one of the most reliable varieties. Its quality is but little below that of the Delaware with me, while in size, beauty, vigor and hardiness it is superior. As a proof of its excellence, I selected samples of both, taking small berries of the Lindley so as to have them in appearance as much alike as possible, and had them tested by connoisseurs, nine out of eleven persons preferred the Lindley."

The **Gaertner**, another of Rogers' Hybrids, appeared unusually well with us the last summer. The bunch and berry were large and remarkably showy; color at first amber deepening to a rich purple; quality, though not of the highest character, good; vine hardy and productive. This variety seems to be but little known. Should it continue to be as fine at it proved last season it will be worthy of a good deal of attention.

The **Eumelan** is one of the best flavored grapes that we are acquainted with. It is hardy and bears well every year. As it is propagated only with considerable difficulty, nurserymen do not regard it very profitable to grow. It should be grafted upon some vigorous sort.

A good authority says with reference to the old varieties: "The **Delaware** as a table fruit still stands at the head. The bunch is elegant in form, beautiful in color, and the quality is unequalled."

"The **Iona**, when in perfection, which it seldom attains, requiring the most favorable conditions of soil, exposure, culture, etc., is on account of its wonderful excellence worthy of every care."

"The **Catawba**, when perfectly ripened, comes close up to the Iona and is really good enough, but it needs in our State the warmth of Pleasant Valley with good seasons and good culture."

It is interesting to note what a correspondent of the *Country Gentleman* recently said about grapes. Writing from Ohio, he says: "I have spent a thousand dollars in planting, tending and digging up, and am still experimenting. I planted an acre of Ionas, dug them up and planted Salems, and now, after ten years labor without fruit enough to pay first cost of vines, I have to dig them up and put out Delawares which will stand thirty years if properly cared for"

Raspberries.

It augurs well for the future now that the quality of fruit forms a subject for discussion in horticultural journals. We usually attach too much importance to appearance and productiveness, and have too little regard for flavor. Take for example the newer Raspberries, and we may well ask ourselves what progress they indicate. True, we have made gains in certain directions—in hardiness and productiveness, but the flavor has not been improved, on the contrary it has deteriorated. With one or two exceptions hardly any of the newer raspberries are fit for garden cultivation, and we have to rely mainly on the older sorts for high flavored fruit. It is questionable whether this is the right kind of progress. In raising new fruits nowadays, we should aim at producing in the first place, fruit of good quality, due regard being had for the necessary vigor and bearing properties of the plant. But in Raspberries—I refer now to the newer sorts—we have a superabundance of vigor and little flavor. What we want in red Raspberries is a fruit with flavor equal to that of Brinckle's Orange but sufficiently firm to carry well, and the plant should be as vigorous, hardy and productive as Braydywine, Thawck, Delaware, Philadelphia and others of that type which produce dry, insipid fruit. The public are getting tired of them. So far as I know, the nearest approach to the perfect red raspberry is the **Clarke** or the **Herstine**, although these are said to fail in some localities or lack firmness.

Reliance, though not so good as either in quality, possesses greater firmness, and would probably be more valuable for market.

I have not seen the **Cuthbert**, but if it comes up to the descriptions which are given of it, it is the raspberry that has been anxiously looked after for years.

The **Turner** is esteemed by many on account of the sweetness of the fruit and the great hardiness of the plant, but it is too soft to bear much carriage. I think the time has arrived when so many mere apologies for fruit should be discarded and our attention turned to those varieties which deserve it. A step forward has been made in yellow Raspberries in the introduction of the **Caroline**, a berry of fair quality and the plant is sufficiently vigorous and hardy to withstand severe weather.

New Rochelle, a new cap, is remarkably productive, but the fruit has a dirty color and its quality is indifferent.

A well known authority says "The **Clarke** is by no means the best of red raspberries. The **Hudson River Antwerp**, **Fastloff**, **Franconia** and **Knevet's Giant** are all fine, and only need to be laid down in winter. **Brinckle's Orange** is not very tender. It never suffers if laid down, and it is the finest of all the raspberries."

"**Caroline** is a Yellow Cap, less seedy and better flavored than the class generally, but still not to be compared with Orange. People who want fine raspberries must stand by the old sorts named above. The seedy, insipid caps may do for market to supply those who cannot afford better."

I hope this question of quality in fruits will be more freely discussed in the future than in the past. An exchange of opinion, together with the discussions which must result therefrom, will have a tendency to bring the choicer fruits more prominently before the public. In this manner a keener appreciation for really good things will be encouraged.

Strawberries.

So many new varieties are now on trial and opinions differ so much as to their value that it is a difficult matter to select those which merit particular notice.

Crystal City, one of the newest sorts, appears to meet with favor every where on account of its extreme earliness and good quality. It is the first to ripen with us. The fruit, however, is so soft as to render it unfit for long carriage. The plant is very vigorous and productive, and requires hill culture.

Cinderella is growing in estimation as a choice garden sort.

Sharpless has succeeded beyond the anticipations of the most sanguine. According to all accounts it has failed in but a few localities.

Glendale will perhaps be valuable for market on account of its bright color, lateness and productiveness, but the flavor is not of such a character as to render it desirable for garden cultivation. I saw it at Cleveland when it was first exhibited two years ago, and I concluded at once that its poor flavor would be a great drawback to its successful introduction.

Glossy Cone, one of the more recent introductions of Mr. Durand, is a handsome fruit, but this season it rotted before it was fully ripe, and the flavor was indifferent. The plant is vigorous and productive. I notice that this variety usually is highly recommended.

Crescent Seedling is wonderfully productive, and when grown in hills is a success on nearly all soils.

Miner's Great Prolific produces large, handsome fruit, but it is dry and spongy. Plant very vigorous and productive.

Champion and **Windsor Chief** as we have them are distinct. The former is a moderate, low grower and produces medium sized fruit which is very acid. It ripened June 9th. The latter is a strong grower and yields abundantly large, fine flavored berries. Ripened June 16th. We received the Windsor Chief from Michigan and the Champion from a grower in New York State.

Panic, raised near Waterloo, is a good shaped, high flavored fruit, nearly equal to Triomphe de Grande. The plant is more vigorous and the fruit more perfect.

M. Roe, in response to an inquiry kindly furnishes the following notes :

"I regard the **Bidwell** as the most promising new variety of Strawberries. It was originated in Michigan by a Mr. Bidwell and was first sent out Mr. T. T. Lyon. The plant is a rapid and vigorous grower, forms immense stools, foliage light green, and there was not a sign of curl leaf, burning or scalding during the entire season. Very productive. Fruit large, conical, regular, of a bright, glossy crimson color, with a glazed neck. Flesh firm, pink, rich, meaty and of the genuine strawberry flavor. Mr. Downing and many others who saw it, thought it the most promising of the new berries. Season early."

Oliver Goldsmith is a variety originated by Mr. Wm. Bennisson, Delaware, Ohio, in 1874, and is a cross between Charles Downing and the Monarch of the West. I have been so impressed with the value of this variety that I have purchased the entire stock. The plant is strong, vigorous and very productive; the fruit large and of good quality."

Mr. E. Williams of New Jersey says that at the State Horticultural Society's Exhibition in Newark last June, Mr. E. W. Durand, of Irvington, exhibited samples of two new seedlings which he has named **Superb** and **Jersey Queen**, which attracted much attention from professionals and amateurs. Mr Williams regards the Superb as much the best in quality of any berry he has yet shown.

I close this report hoping that the season of 1881 may be a favorable one for fruit, so that a fair trial may be given the many interesting novelties which are now being experimented with.

W. C. BARRY,
Secretary of Native Fruit Committee.

NOTES ON PEACHES.

SEASON OF 1880.

[Published in *The Cultivator and Country Gentleman*, January 6, 1881.]

The season of 1880 was remarkably favorable for the peach crop in Western New York. An experimental orchard—embracing 114 varieties, which we set out three years ago—came into bearing for the first time and enabled us to test the leading standard sorts, besides many of the older kinds which are little known, as well as several novelties. I give the results of our observations, naming the kinds as nearly as possible in the order of ripening.

The Early Sorts.

On the 24th of July we gathered fine specimens of Briggs' Red May. This variety originated in California, and was one of the first of the very early sorts brought to notice. It has much the same character as the Alexander and Amsden, and is hardly distinct enough to be grown under a separate name. Mr. Myers, a prominent peach-grower of Bridgeville, Delaware, says it is less liable to rot than either Alexander or Amsden. He also states that a well-known pomologist of Georgia, after having seen Briggs' Red May two years, believes it superior to Alexander or Amsden for shipping.

July 26.—We have before us splendid specimens of Alexander and Amsden. The difference between them is very slight. Alexander, however, appears to average larger, and is less disposed to decay upon the tree.

July 27.—To-day we received a fine basket of Waterloo peaches, gathered from the original tree. These are fully up to the standard. Next year we hope to have fruit from our own trees, when the opportunities for comparison will be better.

July 29.—This morning we find upon our table a remarkable collection of peaches. Alexander, Amsden, High's Early Canada, and Harper's Early are ripe and beautiful. All these varieties bear a striking resemblance to each other. High's Early parts more freely from the stone than the others, and Harper's Early seems to excel in flavor.

August 2.—We sold Alexander and Amsden to-day at the rate of \$3 per bushel. The specimens were superb, many measuring eight inches in circumference, and weighing four and a half ounces.

August 4.—Early Beatrice is now ripe, but after enjoying such magnificent fruit as we have for the last few days, this small peach fails to give satisfaction, and is of little value here. Mr. Myers writes me he has marketed thousands of bushels of this peach, and he finds it valuable; though small, it is produced very abundantly; the tree is hardy, and the fruit is exempt from rot.

August 7.—Early Louise, now in perfection, seems to be a profitable market variety. Mr. Myers says that in Delaware the tree is remarkably productive, and when in bloom it is capable of withstanding, without injury, a greater degree of frost than any other peach.

August 10.—That delicious peach, the Early Rivers, is now in fine condition, for eating. In this vicinity it is, beyond question, the best variety we have. Mr. Robert Hogg, in his Fruit Manual, says: "This peach was sent to me by Mr. Rivers on the 20th of July, 1867, when it was first produced, and I was so struck with its superiority over all other early peaches, and its perfectly distinct character, that I considered it a fitting opportunity to record the name of the raiser by associating it with a fruit which cannot fail to become a universal favorite. In France it succeeds so well, that Mr. F. Jamin says it is the finest early peach in France. Its only fault is that it splits at the stone." In one of my reports on peaches, I expressed the opinion that Early Rivers would not be of much value for market, owing to its thin skin and delicate flesh, but Mr. Myers, who for ten years has made a specialty of peach-growing for market, informs me that Early Rivers is the most valuable of any of the early peaches for market. It is a great satisfaction to be able to commend so choice a peach for both purposes. In many instances only the coarser fruits can be recommended for market.

August 15.—Early Leopold is too small, and the quality too poor, to render it worthy of a place in a collection.

August 18.—Rivers' Early York is the earliest freestone we have fruited. Fruit of medium size, good quality, and the tree yields well. Snow is a beautiful white peach, especially valuable for canning and preserving. It deserves more extensive culture.

August 20.—Large Early Mignonne is of medium size, fine quality, and a freestone. The tree, loaded with fruit, presents a remarkably fine appearance.

August 22.—Hale's Early is ripe.

August 23.—Acton Scott, Early Rose, Early Savoy, and Belle Conquête are good peaches, but not large enough to be grown, profitably. Belle de Doue, Belle Beauce, Grosse Mignonne and Belle de la Croix have the highest flavor and can be recommended to all who are seeking after delicious fruits.

August 25.—Two of the best peaches in our collection are now ripe. I refer to Haine's Early and Large Early York—varieties which are undoubtedly identical. I have no hesitation in placing them at the head of the list, either for garden or orchard. George the IV is another high-flavored peach, resembling the two last named very closely. Cooledge's Favorite is one of the most valuable varieties. The fruit is not large, but handsome and of good quality, and the tree is so hardy that this peach will always be a favorite in the northern sections of this country, where many kinds fail, owing to the rigorous and changeable climate. Mountain Rose, of recent introduction, promises to be desirable for market. It is not so richly flavored as the above, but large and handsome.

August 31.—Shanghai, a very large Chinese clingstone peach, is ripe, and is remarkable for its fine flavor and handsome appearance. The tree is exceedingly prolific, and the fruit is so showy that it will take well in market. Most of the specimens measured nine and one-half inches in circumference, and weighed eight ounces. It is a variety which merits attention.

The September Varieties.

September 1.—Early Alfred, Crimson Galande, Dagmar and Pucelle de Malines, are handsome white-fleshed peaches of medium size; but ripening, as they do, about the same time as Crawford's Early and Surpasse Melocoton, they cannot compete with them, and we shall drop them from the catalogue. Crimson Galande, with its deep purple cheek, is very handsome, and a tree full of fruit is an interesting object to look upon. Crawford's Early, on account of its size and attractive appearance, maintains its reputation as one of the best peaches for market. Foster and Surpasse Melocoton are rivals which are steadily growing in favor, and both are superior to Crawford's in flavor, and they average equally as large, if not larger. We had specimens of Surpasse Melocoton weighing five and three-fourths ounces, and measuring eight and five-eighths inches in circumference; Foster weighed five and one-fourth ounces, and measured eight and five-eighths inches in circumference; Crawford's Early weighed five ounces, and measured eight and one-fourth inches in circumference. Richmond, Dr. Sylvester's seedling, does not prove satisfactory. Conkling is a large, fine yellow peach. Alexandra Noblesse, one of the newer sorts, is an excellent large peach, raised by Mr. Rivers from the old Noblesse. Early Silver, from which the Early Rivers was raised, is a splendid variety, and deserves extensive trial. Magdala, Morning Glory and Atlanta are medium sized, white-fleshed peaches, but not large and attractive enough for market. Atlanta deserves attention from amateurs for its delicate flavor. The Wager peach, with yellow flesh parting freely from the stone, is said to be valuable for canning.

September 5.—Morris White is still a favorite with orchardists.

September 10.—Jacques' Rareripe, resembling Crawford's Early, may be esteemed in some sections of the country, but it lacks flavor here. Monstrous of Douay, Chevreuse Hative, and Hicks' Seedling do not possess sufficient merit to render their cultivation advantageous. Goshawk, raised from Cooledge's Favorite, adds size to the many valuable qualities of its parent. It is certainly very promising.

September 12.—Malta is a desirable peach for the amateur's garden. The flesh is juicy and melting, and the flavor all that one could desire, but the tree is not productive enough to justify us in commending it for market.

September 15.—Leopold 1st, a Belgian variety, and Prince of Wales, one of Mr. Rivers' seedlings, are deficient in flavor, and we intend to drop them from our lists. Cole's Early Red will be treated likewise. Just now Brevoort is the best peach we have. Its flavor is delicious, and on that account it is certainly entitled to a place in every garden. The tree is only a moderate bearer, which would prevent its culture for market. Oldmixon Free is now in first rate condition for eating, and deserves to be, as it is, classed among the most valuable peaches for garden or orchard. In addition to its many other good qualities, it has a rich flavor, which will always make it desirable. Stump the World, although a popular market peach, has not flavor enough to commend it to the attention of amateurs.

September 20.—Susquehannah, a large yellow peach, has a rich, vinous flavor. Hill's Chili has been highly recommended, but I do not see why it should be. The fruit is not large, and the flavor is indifferent. Late Morris White is a variety of Morris White, resembling it in every particular, but ripening ten days later. The Nectarine peach is, by all odds, the best

of its season. It is said to have been raised from a stone of a Dutch nectarine, called Grand Noir, and has a peculiarly delicious flavor. White Melocoton is a large, handsome peach, juicy, melting, and of good quality. Carrine has no flavor, and should therefore be rejected. Red Cheek Melocoton and Mammoth Melocoton are fine, yellow-fleshed peaches. Raymacker's resembles Crawford's Late, and does not seem to be any improvement upon it.

September 26.—Van Buren's Golden Dwarf is a large yellow peach, resembling Crawford's Late. It is a clingstone. The tree is of dwarf habit, and very prolific. Princess of Wales, raised by Mr. Rivers from seed of Pavie de Pompone, is a beautiful cream-colored peach, melting and of good flavor, valuable on account of its lateness. Crawford's Late continues to be valued as a late peach. Pool's Large Yellow, ripe at same time, is a very large yellow peach. The flesh is finer than that of Crawford's Late, and from what I have seen of this variety, I think it deserves a good deal of attention. It seems quite an improvement on Crawford's Late. Of its bearing qualities I am not able to judge.

September 27.—Lord Palmerston, another of Mr. Rivers' fine seedlings, raised from the Princess of Wales, is very large, skin creamy white, with a pink cheek; flesh fine, juicy and rich, stained with red at the stone. It deserves careful trial, as it promises to be of great value to succeed Crawford's Late. Ward's Late Free is a desirable white-fleshed variety. Its flavor is excellent. Druid Hill, raised in Baltimore, has an exceedingly pleasant flavor. I should not hesitate to rank it among the best of peaches. It has an additional value in ripening so late, and it surpasses Ward's Late Free in flavor. Walburton Admirable is large, juicy and delicious; a first-class peach in every respect. Heath Free is a choice late peach. McClane's White does not equal it in flavor. Carpenter's White is very good, and merits attention.

October 2.—Lady Palmerston will be valuable further south, but is too late for this locality. This remark applies equally well to Smock Free, Salway, Temple White, De Grauw's White, Delaney Heath Cling, Jersey, Comet and Jones' Seedling. Some of these in such exceptional seasons as that of 1880 ripen here pretty well.

A few trees did not produce fruit. This will account for the absence of some kinds from the list.

Several varieties of the very early peaches show a disposition to decay, and their value is greatly lessened by this defect. Another year's trial will establish to a certainty the advantages which some sorts possess over others in this respect. As will be seen from these notes, several old peaches which have been neglected of late have been found to possess qualities which well merit attention. We expect next year to fruit the following: Saunders, Wilder, Musser, Conkling, Mrs. Brett, Bradley, Honeywell, Governor Garland, etc. Mr. Myers says that Saunders is not quite so large as Alexander, but has fine color and is entirely free from rot. The tree is very productive, and ripens its fruit a few days after Alexander. Downing ripens with Alexander and Amsden, and is of medium size, and free from rot. Wilder, of same season as Alexander and Amsden, decays like these varieties.

This collection of peaches has been the most interesting that I have had the pleasure of examining. I hope that other fruit growers will favor us with the results of their experiments, so that we may assist each other in determining which kinds to keep and which to reject.

NOTES ON SOME DESIRABLE FRUITS.

[Published in the *Country Gentleman*.]

An Invaluable Apple for the Table.

Considering the large number of apples known to cultivators, it is surprising how few answer the requirements of a perfect table fruit. In choosing apples for eating, it is customary to make flavor a primary consideration. This I think is an error, for some of the highest flavored apples have such hard solid flesh that they burden the stomach, and are difficult to digest. In my opinion the most important qualification of a good eating apple is a tender, delicate, melting flesh, which dissolves quickly and digests easily. Flavor is the next consideration.

Apples abounding in acidity are liable to derange the stomach, and a mild sub-acid flavor is undoubtedly the pleasantest as well as the one best calculated to promote digestion. I am reminded of this fact by the handsome and excellent **Fameuse** or **Snow** apples which we are enjoying, and which I am glad to say are tolerably abundant in the market. This variety, more than any other that I know, possesses qualities which commend it, not only to all who enjoy fine fruit, but more especially to persons who suffer from indigestion. It is a beautiful fruit, of medium size; the skin is of a purplish crimson color, its flesh is white as snow, tender and delicate, and the flavor very pleasant, with just enough acidity to render it exceedingly refreshing. Now that fruit has come to be regarded so valuable an adjunct to other food, and so conducive to health, there are many no doubt searching after the choicest kinds, and I recommend this as one of the finest fruits of its season.

Criticism of the Above.

The Fameuse Apple.—In your number for Dec 2d, W. C. Barry's article upon "an invaluable apple for the table," selects the Fameuse as the one variety most nearly combining all the qualities of a dessert apple. He is certainly quite right as to its quality when it is grown perfectly, and free from black spots or cracking; but unless he succeeds much better than myself and many others, he will have to grow at least five apples to get one fair specimen. For this reason, perhaps, his article may mislead many in selecting this variety for setting, unless he can give a remedy for this defect in the fruit, and loss in growing for market. I would suggest the Gravenstein as an apple equally as good in quality, growing more uniformly fair, and much more profitable.

South Byron, N. Y.

C. E. C.

RESPONSE.

The Fameuse Apple.

EDS. COUNTRY GENTLEMAN—On page 822 of your paper, C. E. C. criticises my article on the **Fameuse** apple. In reply, I would say that the object of my remarks was to draw attention to the valuable qualities of the

apple as a dessert fruit. I had no intention of recommending it for market, although I believe that when it is properly appreciated it will command a ready sale at good prices. For family use no apple of its season equals it. Those who know its value will readily pay an extra price for it. It sometimes cracks and spots, but this undoubtedly comes either from allowing the trees to overbear, or from their unthrifty condition. We all know that judicious thinning and good culture are necessary to produce fine fruit. To obtain perfect specimens of the **Fameuse**, it is highly important to have the tree vigorous, and if the crop is too large, the fruit should be thinned out. If growers find that this sort is more difficult and expensive to raise than others, then a higher price should be demanded for it. No better proof of its widespread popularity could be offered than the fact that in the catalogue of the American Pomological Society, it is recommended for nearly every State in the Union.

C. E. C. suggests the **Gravenstein** apple as equally good in quality, growing more uniformly fair, and much more profitable. The **Gravenstein** is an excellent apple, and probably more profitable for market than the **Fameuse**, but it will not take the place of that apple. The **Gravenstein** ripens in September and October, when there is an abundance of choice fall fruit. The **Fameuse** is in perfection from November till the middle of January, before the best winter apples are ready to eat. The **Gravenstein** is high flavored, tender and juicy, but rather acid, and is liable to derange the stomach of many persons. The **Fameuse**, on the contrary, has such a mild, sub-acid flavor that it never disturbs even the weakest stomach. This constitutes its chief value.

I think the idea which I wished to convey could not be made clearer than by comparing these two apples. Now-a-days a great deal of money is expended on medicines for the cure of indigestion, and I would suggest the daily use of this apple, during its season, as one of the best remedies for this disorder, as well as one of the most valuable means to keep the digestive organs in a healthy condition. I am so convinced of the superior excellence of the fruit that I have no hesitation in recommending its introduction to every garden, no matter how small. In time the public will understand its real value, and then there will be a demand for it. A family which has once enjoyed the fruit, will not be without it.

[Published in the *Country Gentleman*.]

A. Valuable Chinese Peach.

One of the most remarkable peaches produced in our extensive collection during the past season was the **Shanghai**. This variety, although known to cultivators for a long time, having been sent to this country from China several years ago, has received very little attention. We have fruited it once or twice under glass, and have been struck with its distinct and attractive appearance, but it has never shown itself to such good advantage as it did the past season in the orchard. The young tree producing the fruit was heavily laden, and all the specimens were large to very large, many measuring nine and one half inches in circumference and weighing eight ounces.

In form it is roundish oblong, somewhat irregular, with a deep suture on one side. The skin is of a pale green color, occasionally marked with red next the sun. The flesh is white, red at the stone, to which it clings; very

juicy, melting, and of excellent quality. The tree seems to be hardy, very productive, and the fruit ripens about the middle of August. Notwithstanding the many fine varieties now under cultivation, we invite attention to this one, believing that it has qualifications which render it worthy of the attention of both amateur and orchardist.

[*Published in the Country Gentleman.*]

A Splendid Early Pear.

Petite Marguerite is one of M. Andre Leroy's seedlings, and was held in such high esteem by that celebrated French pomologist that he named it after the youngest of his grand-daughters. In the year 1863 it was first offered in France, and in this country it has been on trial several years, but not until recently have its merits been recognized, and its propagation and dissemination seriously undertaken. This shows how much time is required to determine the value and to raise a stock of a new fruit. M. Leroy was remarkably fortunate in the production of choice pears, but many of his seedlings, like **Eugene Appert**, **Henri Desportes**, **Madame B. Desportes**, **Mme. Andre Leroy**, and **Maurice Desportes**, are such indifferent growers that nurserymen will not attempt to propagate them, and these sorts must therefore remain comparatively unknown, at least until a higher estimate is placed upon quality, and cultivators are willing to pay an extra price for choice kinds that are difficult to raise in the nursery. These varieties will all have to be double worked, which of course adds to the cost of the tree. **Petite Marguerite**, although a moderate grower, both on pear and quince, is sufficiently vigorous to satisfy nurserymen, and I hope in the near future to see this valuable pear extensively propagated in the nurseries. The list of choice early pears is not so large but a few more good sorts may be added, and I am certain that all lovers of fine fruits will welcome the new comer. There is no doubt that when this pear becomes known it will be regarded as indispensable.

It is of medium size, just large enough to be acceptable as a dessert fruit; skin green, covered with grey and brown dots, and sometimes bronzed on the side exposed to the sun; flesh greenish white, fine, melting, juicy, acidulous, with a pleasant perfume. Ripening, as it does, about ten days before the **Bartlett**, it possesses a particular value as an early pear. As a fruit of the very first quality, it can be highly recommended to connoisseurs for the table, but it is not large and showy enough for market. M. Leroy, in his "Dictionnaire de Pomologie," describes it as the best pear ripening in August. We believe this statement to be as true in America as it is in France.

WIER'S CUT-LEAVED MAPLE.

(ACER DASYCARPUM VAR. WIERII LACINIATUM.)

[*Published in the American Agriculturist.*]

To acquire a really valuable new tree is nowadays of such rare occurrence that, when a novelty like **Wier's Maple** is introduced, there is cause for congratulation among admirers of beautiful trees. As this tree was brought to notice in 1873, giving sufficient time to prove it thoroughly, we may now safely venture an opinion as to its worth. Like its parent, the native **Silver Maple**, it has a vigorous constitution, and makes a remarkably rapid and luxuriant growth; the leading shoots push directly upwards, while the lateral branches, being slender, fall in graceful curves towards the ground. This half drooping habit is an interesting feature in this tree, while its deeply and variously cut leaves constitute one of its greatest charms, and fully justify us in ranking it among the most valuable of ornamental trees. This variety, as well as the typical form, possesses a great advantage as an ornamental tree which is not sufficiently appreciated, that is, its freedom from disease and the attacks of insects. Not alone in Spring, but all through the Summer, its clean, bright, delicately cut foliage has a peculiar freshness which delights the eye; though the leaves do not assume the brilliant colors for which some of our maples are so justly admired, nevertheless the rich golden autumnal tints of this tree make it a desirable object in scenery. The extremely rapid and spreading growth of **Weir's Maple** makes vigorous pruning absolutely necessary, and a judicious use of the knife gives the tree a pleasing outline, and tends greatly to increase its beauty. I think all who know this **Maple** will join with me in commending it, on account of its graceful habit, as a fit companion for the **Cut-leaved Birch**. It is especially suited for planting singly in conspicuous places on the lawn, and introduced among other trees, it imparts to a group an effective variety and expression.

DOUBLE WHITE-FLOWERED HORSE CHESTNUT.

[*Published in the American Agriculturist, February, 1880.*]

Although the Double-flowered Horse Chestnut was introduced to this country in 1852, this superb variety has not acquired that popularity which its merits warrant. It is surprising that so important an addition to our hardy flowering trees should not have met with greater favor, and I can only account for this lack of appreciation by the fact that its many good qualities have not been understood. It was figured and described the first time in America, in the *Genesee Farmer* for 1852. Since that time it has been propagated and disseminated in but limited numbers, and, as yet, fine specimen trees are seldom seen. The first imported tree, obtained from the late Mr. Rivers, is now growing on the grounds of Ellwanger & Barry, at Rochester, and is about sixty feet high, its branches covering a circle twenty feet in diameter. It is as hardy as the common Horse Chestnut, of vigorous, erect growth, regular, pyramidal outline, with rich, dense foliage and splendid inflorescence. Few trees can lay claim to a greater combination of attractive features, and it possesses several characteristics which render it even more desirable for ornamental planting than the ordinary form. In habit it is more upright and formal, its height being about three times its breadth, and a fully developed specimen is a perfect pyramid of verdure. Its flowers are perfectly double, and in spikes larger than those of the single flowering kind, resembling gigantic hyacinth bouquets. They appear in remarkable profusion at the season of bloom, which is about two weeks later than that of the common kind. On the lawn this tree forms a conspicuous and pleasing object, and although I have never seen it used as a street tree, I think it admirably adapted to the purpose. It produces no fruit, a characteristic which many will regard as an important point in its favor, as much litter is avoided. A proper consideration of the merits of this fine tree will induce amateurs and planters to employ it oftener in the ornamentation of public and private grounds.

SOME OF THE BEST HARDY ROSES,

WITH BRIEF HINTS AS TO CULTURE.

[*Published in the Rural New Yorker, January, 1881.*]

I know of no hardy plants which will render a garden more interesting and attractive than a choice collection of roses. There are many persons who suppose that rose culture is exceedingly difficult, and who for this reason are unwilling to attempt it. This is an error, and the object of this article is to demonstrate how easily the rose may be grown, as well as to call attention to some of those varieties which are best adapted for general cultivation.

Location.

One of the principal requisites of the rose is a genial situation. We should select the best spot in our garden; a place which is protected from bleak, cutting winds, and sheltered from the full force of a mid-day or afternoon's sun. Too much shade must be avoided, as well as proximity to hedges or overhanging trees. An eastern aspect, where the full benefit of the morning sun may be obtained, is the best. A hedge, wall or fence on the north, south and west sides will afford the necessary shade and shelter. Fences and walls, usually unsightly, may be rendered very ornamental by covering them with climbing vines and running roses. S. Reynolds Hole, the well-known rosarian, says: "The rose garden must be both exposed and sheltered, a place both of sunshine and of shade. The center must be clear and open, around it the protecting screen. It must be a fold wherein the sun shines warmly on the sheep and the wind is tempered to the shorn lamb—a haven in which the soft breeze flutters the sail, but over which the tempest roars, and against whose piers the billow hurls itself in vain."

To secure the best results our roses should be kept together and planted in rows in a prepared border, or in beds; when scattered about the garden it is difficult to give them the care which they require. If we are content with moderate results, we can plant them here and there in the garden, where they will produce a fine effect; but we must not expect such fine blooms as can be obtained from those plants which have the benefit of rich soil and shelter.

Soil.

It is absolutely necessary that the soil should be well drained. The rose is a great feeder and luxuriates in a rich, stiff loam, such as is found in a well cultivated garden. If the soil is sandy and light, it should be made heavier by the addition of cow manure, clay or loam. If too heavy and stiff, lime, leaf mould and stable manure should be applied.

Manures.

No plant that I am acquainted with shows so quickly the advantage of a well prepared soil as the rose. In rich ground it makes a luxuriant growth and yields flowers in the greatest profusion. In poor soil it makes no growth and quickly becomes the victim of disease and suffers from the attacks of various insects, so that it becomes necessary, if you wish success with your roses, to plant them in good ground, properly enriched in advance with well decomposed manure. Fresh manure incorporated with the soil just before planting, is apt to injure the roots of the plants, and unless suitable manure can be obtained it is better not to use any until after the plants have started; then the manure can be applied on the surface of the ground as a top-dressing and be left as a fertilizer through the summer. It will keep the soil cool during the hot, dry weather, and will prevent the plants from suffering from drought. Then in the fall, say in November, give each plant a liberal supply of the best cow manure, leaving it around the plants during the winter and turning it under in April. Of all the manures which I have experimented with cow manure shows the best effects—spent hops mixed with cow manure add value to the dressing. This mode of manuring should be practiced every autumn. Liquid manure is very beneficial and can be applied occasionally during the summer, but care must be taken that it be not too strong; make it weak and apply it frequently.

Pruning.

This is an operation of great importance. We find the early spring, before the plants have commenced to grow, the best time to prune. Some varieties require to be cut back more than others; but a rule which will apply generally is to shorten the strongest stems of last season's growth to about 18 or 24 inches, and cut out all weakly growth. We take it for granted that the bushes make a growth of from five to seven feet during the season. In my garden several varieties make an annual growth of eight to nine feet, that is, when not summer-pruned. A great many are afraid to use the knife vigorously, and their plants suffer materially on that account. In order to obtain flowers in autumn the plants may be slightly pruned in July, after the flowering season is over. The plants will then produce a quantity of blooms again in September, and the shape of the bushes will be improved.

Planting.

The spring is the best season for planting, although where the winters are not severe it can be done in autumn. It is highly important to plant early, as roses suffer extremely if set out after the growth has started. April is the best time in this locality. Secure your plants early, and if they are budded on the manetti, plant them so that not only the stock, but also a portion of the bud will be covered with earth. This will enable the plant to send out roots above the bud, and in a short time the bush will be on its own roots. This point is worthy of serious consideration. If you do not set out the plants yourself, see that your gardener observes this suggestion. I prefer budded plants, except for beds, to any others, as you obtain a stronger growth and larger and finer flowers than you do from plants on their own roots. Some object to budded plants on account of the suckers they send up. These suckers will not appear if the planting is properly done, and any one who loves roses will soon learn to distinguish the stock from the plant, and as soon as a sucker appears it can be cut out.

Protection in Winter.

To protect against injury from severe weather in winter, I would recommend laying down the shoots in the autumn, the same as is done with raspberry canes. In bending the stems be careful not to break them, and cover with a few inches of earth, leaves, or branches of evergreens. Sometimes the shoots make such a strong growth that it is almost impossible to bend them without breaking. In this case it is better to tie them to stakes and cover them with straw. A little practice and experience, however, will enable any one to lay down roses without injuring them.

Care and Management During the Growing Season.

Having procured strong, thrifty plants, and having set them out properly in well prepared soil, and in a good situation, your roses ought to make a good growth. If dry weather should prevail, liquid manure, well diluted, will be very beneficial. One of the greatest secrets of success in rose culture is to keep the plants in a thrifty condition. As long as the plants are in robust health they easily resist the attacks of insects, and with a little assistance from us they gain the battle every time.

We hear it said frequently, "If I could only keep off the insects, my roses would thrive." At the outset I am going to be plain, and tell you that insects are numerous; that they are great foes, and can be conquered only by great industry and perseverance. Now, if we esteem our roses as we ought to, we will be willing to devote some time to them every day. To the ardent lover of the Queen of Flowers, nothing is pleasanter than each morning to make a tour of the rose garden, while the plants are yet sparkling with myriads of dew drops. How can we pass an hour more pleasantly than in examining the variety of growth which the different kinds exhibit, in comparing the peculiarities of habit, in noting the marked vigor of some sorts, the thorny shoots of others and the beautiful foliage with which some varieties are clothed? And, while engaged in this examination, let us keep on the lookout for the rose caterpillar, which in May makes its appearance, rolling itself up in the leaves. Its presence is easily detected, and we must at once make up our minds to put an end to its career, by crushing it between our thumb and fingers. Go over every plant, every day, and rid them of this pest. The rose slug appears in July and August, and eats the leaves. It can be disposed of by hand-picking and by syringing the plants with a weak solution of whale-oil soap. White hellebore, sprinkled over the plants while the dew is upon them, will keep off other insects.

Roses in Bush Form.

The bush form is the one usually adopted, and is perhaps, on the whole, the most satisfactory. Roses grown in this way produce the finest blooms and furnish flowers a longer time than when pegged down.

Roses Pegged Down.

This is a method of bending the shoots so as to make the plants low and dwarf. It is practiced to great advantage when making beds of roses upon the lawn. Plants intended for growing in this way should be allowed to make their first season's growth in the usual way. Early the following spring shorten the longest and strongest shoots a little, and cut away the weak stems. Then, before the buds start, bend the shoots toward the

ground and fasten them to it by wooden pegs or hooks, such as you can obtain at any pile of brush. It is surprising what a quantity of blooms will appear on each shoot, making a superb display; but there is this disadvantage, that all the flowers appear nearly at one time, and there is not that succession of blooms that there is on the bush plant. Pegging down must be attended to every spring, preserving and bending down the best wood, and cutting out weak growth. For beds or the outer edges of borders, where tall growth would be objectionable, this method can be practised.

VARIETIES.

I shall recommend only those which can be grown to the best advantage by the amateur cultivator.

Alfred Colomb I name first, because I regard it as the peer of any rose. It has a vigorous habit, fine foliage, and it produces carmine-crimson flowers of beautiful form and delightful fragrance. That famous raiser of roses, Lacharme, at Lyons, who rarely, if ever, fails to give us a good rose, originated this one.

Anne de Diesbach is one of the older roses, which the newer sorts have not yet displaced. It lacks fullness of flower, but its brilliant, carmine shade is, unequaled and renders it one of the most effective roses.

La France, now classed among the Hybrid Teas, is a rose the beauties of which it is difficult to portray. Possessing in an eminent degree the delicious fragrance and perpetual-blooming qualities of the Tea Rose, it has also sufficient hardiness to endure severe cold, when it receives a little extra care. It generally produces its choice blooms so abundantly and continuously that great injury is done to the plant unless some of its buds are removed. It is a most valuable variety, and should be included in every collection.

John Hopper, one of the old favorites, has hardly an equal as a rose for general cultivation. It is a model of healthy habit and robust constitution; its flowers are large, full, of a bright rose-color with carmine center. Among many varieties in my garden, it has given the best results with the least care.

General Jacqueminot is another old and well known sort. It is hardy and vigorous, and its blooms, though not so well formed as might be desired, are of a brilliant crimson color, which always attracts and pleases.

Madam Victor Verdier is a most beautiful, finely formed, very fragrant, free-blooming rose, of a carmine-crimson color.

Comtesse Ceile de Chabillant, though not large, is the admiration of all connoisseurs for its symmetrical blooms of a delicate pink shade.

Marie Baumann; on account of its unequaled beauty, ought to have been placed first on the list. It resembles Alfred Colomb, and is finer, but it is probably not quite so valuable, being less vigorous. Perfect blooms such as it usually yields, possess the highest qualities which could be sought after in a rose, and in competition with other sorts of its class almost invariably take the prize.

Chas. Lefebvre is rapidly becoming one of the greatest favorites. Its large, well-formed, reddish-crimson flowers never fail to excite admiration, while its good habit and fine foliage commend it to those who appreciate desirable qualities.

Coquette des Blanches and **Madame Alfred de Rougemont** are valuable free-blooming, white roses, and yield an abundance of flowers during the summer. There are many other white roses propagated which produce exquisite flowers, but which are of no value, as they make such a poor growth.

Louis Van Houtte is a variety which I esteem next to **La France**. Its elegant form, rich, velvety maroon color, and fragrance, form a combination of desirable characteristics rarely found in a single rose. I do not hesitate to call it the best dark rose we have.

Paul Neyron is a real curiosity among roses on account of its immense size. Although very large, its blooms are not coarse, but handsome and showy; the plant has ample foliage, is a free grower and very vigorous; color deep rose.

Baronne Prevost, one of the oldest sorts, is still much admired. Its flowers are of a pure rose-color, and its habit is all that could be desired.

La Reine, surpassed by many others in beauty of flower, is valued chiefly for its hardiness. The flowers are large, moderately full and of a glossy rose-color.

Victor Verdier is a choice sort resembling **John Hopper**, but devoid of fragrance. Its habit is good.

Maurice Bernardin is a fine, free-flowering variety, producing vermilion-colored flowers.

Caroline de Sansal bears pale, flesh-colored flowers. It is one of the best of the light roses.

Madame Boll, an American rose, is much prized for its large carmine-rose blooms, and its rich, glossy foliage.

Prince Camille de Rohan and **Baron de Bonstetten** are the two sorts upon which we have to depend mainly for our very dark flowers.

Francois Michelon is a superb variety, of a deep carmine-rose color. It yields an abundance of flowers in summer, when other varieties are out of bloom.

Marguerite de St. Amande distinguishes herself as an autumnal bloomer, producing a profusion of rose-colored flowers in autumn.

Marquise de Castellane verifies the adage "no roses without thorns." Its shoots are remarkably thorny; its flowers are noted for their bright carmine-rose color.

Baroness Rothschild is a charming sort; flowers large, of fine globular form, and of a pale flesh color.

Mad'le Eugenie Verdier is a beautiful and graceful rose, with large, finely formed blooms of a silvery-rose color.

Mad'le Marie Rady bears superb, bright-red, fragrant roses.

Countess of Oxford produces very showy carmine-colored flowers, and is a most valuable and effective variety.

General Washington, one of the older kinds, still merits a place in collections. It bears an abundance of bright red blooms shaded with crimson.

Among climbing roses, **Baltimore Belle**, bearing white flowers, and **Queen of the Prairies**, producing red blooms, are still favorites. The new hybrid climbing rose, **Jules Margottin**, bids fair to become valuable.

Among the summer roses which bloom but once, yet seem indispensable, are **Madame Hardy** and **Madame Plantier**, with pure white, well-formed flowers, and the **Persian Yellow**, bearing beautiful bright yellow blooms.

Prominent among the Mosses are the **Common, Glory of Mosses, Crested** and **Salet**.

All the roses in the above selection are valuable and desirable. Any one who is willing to observe the cultural directions given above can succeed in growing superb roses. For further information on this subject, S. Reynold Hole's "Book About Roses," and Mr. Hibberd's "Amateur Rose Book," are strongly recommended.

AMERICAN GRAPES.

[Published in the *Gardeners' Chronicle*, London, England, November 6, 1880.]

When in England I noticed particularly the scarcity and high price of good fruit. Grapes at 3s. and 4s. per pound are too expensive a luxury to be indulged in by the masses, and the question frequently suggested itself whether it might not be possible to produce cheaper fruit by cultivating the American Grape. I understand that the chief obstacles to open-air grape culture are late spring and early autumn frosts, as well as moist, dull, cloudy weather. But are there not localities, at least in the southern parts of England, where these frosts do not prevail, and where there is a sufficient amount of solar heat to mature the grape? It is well known that night frosts are far more destructive in valleys than on elevations. Vegetation, too, on low ground is far more liable to injury from frost, because the growth is more luxuriant and less matured. In our severe climate we see this verified every year, and when in France a short time ago, I saw on low ground relics of what were once magnificent specimens of *Sequoia gigantea*, but which had been utterly ruined by the severity of the past winter, while on high ground but a short distance away this tree was uninjured.

Again, in low places the mild weather which often occurs in winter forces the buds prematurely, and succeeding cold weather does great injury. We think here, that hillsides sloping to the east and south, where the full benefit of the sun may be obtained, and where protection from high winds is secured, are sites peculiarly suited to the growth of the vine. I call attention briefly to these points, not so much for the purpose of giving information, as to remind experimenters that elevation and aspect have a great deal to do with successful cultivation. I find another impediment to the introduction of the American Grape is the quality of the fruit. I learned that American Grapes were considered too pulpy and foxy to merit attention. Varieties like **Isabella**, **Concord** and **Hartford Prolific**, which rank second in quality even in America, seem to have been tested to some extent, and, proving unsatisfactory, the conclusion seems to have been reached that all American Grapes deserve similar condemnation. I regret that an opinion like this should prevail, for during the last few years several American Grapes of fine quality have been introduced, and it seems to me that if these were tried in the open air under favorable circumstances, they would certainly prove desirable, if not profitable.

Our grapes may not be so melting and high flavored as well-grown, thoroughly ripened **Hamburgs**, **Frontignans**, **Muscats**, etc., nevertheless I have seen in the London market hot-house grapes which certainly were inferior in quality to American Grapes. In August I found a considerable portion of the grapes in the market only half colored and imperfectly ripened, and frequently I visited several stands before obtaining such grapes as I desired. I am aware that this is the result of over-cropping; but I mention the fact to show that European grapes are not always perfect, at

least such as are sent to market. In Paris I had a similar experience, and I naturally came to the conclusion that if this quality of fruit could be sold at a high price, then American Grapes, if they can be grown, ought to find a ready sale, especially since they could be offered so much cheaper. In view of the difficulty and expense of producing grapes under glass, I hope some one will give American grapes a trial, bringing to bear upon the subject all the knowledge and skill for which the English are so justly celebrated. It is my intention to name only a few of our best sorts, and I will commence with

Black Grapes.

Eumelan, supposed to be a seedling of the Isabella, but without any of the foxiness of that variety. The bunch and berry, though not large, are of good size, and the flesh is tender, juicy, sprightly, refreshing and very agreeable. No grape that I know has such a pleasant vinous flavor, and it is surprising what a quantity of the fruit can be eaten without causing any uneasiness. The only defect which this variety exhibits is the habit of the vine, which I regret to say is not the best. Had it the vigorous constitution of the Concord or Hartford, it would undoubtedly be cultivated almost to the exclusion of all other varieties. It is such a poor grower that it requires to be grafted upon a vigorous variety, then it succeeds admirably.

Barry, or **Rogers' Hybrid No. 43**, claimed to be a hybrid between an American and a European variety, is a black grape, large in bunch and berry, and bearing a closer resemblance to Black Hamburgh than any other American sort. The flesh is tender, sweet, and the flavor pleasant. Of the many varieties of Rogers this is justly entitled to the first place. No other combines so many valuable qualities, and whether for amateurs' use or for vineyard culture, it has few equals. In our vineyard a long line of trellis supporting some large vines heavily laden with immense bunches of this variety, some of them weighing 27 oz., is a picture which would excite the admiration of a veteran grape grower, and certainly astonish the novice in open-air grape culture.

Herbert, another black variety of Rogers, is not so large in bunch and berry as the last-mentioned, but the fruit is superior in quality.

Red Grapes.

Lindley, or **Rogers' No. 9**, is, all things considered, one of the best red grapes we have. The bunch is large and long; berry of medium size; flesh sweet, juicy and high flavored. The Delaware has long been regarded as the best table grape, but I think that the Lindley, when it becomes known, is destined to supersede it. The fruit is certainly equal in flavor, much larger, more showy, and the vine is a stronger grower.

Delaware, in the estimation of the American public, occupies the same rank among grapes that the Seckel does among pears. The bunch is of medium size, shouldered, very compact; the berry is small, light-red, with a thin skin; flesh melting, sweet, vinous, excellent. The vine is a slender grower, and requires high culture; nevertheless it is hardy, and very productive.

Brighton is an early grape, raised by artificial crossing of the Concord and Diana Hamburgh. The bunch and berry are of good size; flesh tender, sweet, vinous and high flavored. The vine is a vigorous grower, and very productive.

Rochester is another early purple grape, of fine quality. I consider it one of the most valuable to experiment with, as the vine is healthy and vigorous, and the fruit ripens early and well, even in the worst of seasons.

White Grapes.

Of the white grapes now grown, or about to be introduced, I do not think that any one of them will be entirely satisfactory. Those which are healthy and vigorous in habit produce fruit of medium quality, while those which yield high-flavored fruit are deficient in vigor. It is doubtful whether any of the white grapes will succeed in England; nevertheless, I would recommend a trial of the following:

Croton, a cross of the Delaware with the Chasselas, is the best, so far as regards the quality of the fruit, but the vine is not robust enough, and is sometimes liable to mildew.

Rebecca is another fine flavored grape, but the foliage is tender, and the growth moderate.

Lady Washington, a new grape, is a seedling of Concord crossed with Allen's Hybrid, and is very promising. The vine is a robust grower, bunch large, and the fruit good.

Duchess is another new variety, and, according to all accounts, perhaps the best. The vine is said to be vigorous and healthy, and the fruit sprightly, rich and vinous.

Niagara is a splendid new grape, a pure native. The vine is vigorous and hardy; foliage healthy; the fruit is large and handsome, and of fair quality. It combines many important characteristics, and will, it is believed by many, take the lead in this class.

New Grapes.

We are making remarkable progress in this country in the production of new kinds of grapes. I have recently seen some new hybrids which are far in advance of any varieties now known. They combine qualities long sought after but never attained until now—hardiness, vigor, with fruit of fine texture and high flavor, fully equal to the best foreign sorts. Their introduction will mark a new era in grape culture in America.

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