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PROCEEDINGS

OF THE

TENTH SESSION

OF THE

AMERICAN POMOLOGICAL SOCIETY,

*10*

HELD IN

ROCHESTER, SEPT. 13, 14, AND 15, 1864.

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PUBLISHED BY THE SOCIETY.

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ROCHESTER, N. Y.:

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## LIST OF MEMBERS.

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S. Hastings Grant,	New York,	New York.
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E. W. Herendeen,	Macedon,	New York.
C. L. Hoag,	Lockport,	New York.
B. Hodge,	Buffalo,	New York.
J. C. Holmes,	Wilson,	New York.
C. M. Hooker,	Rochester,	New York.
H. E. Hooker,	Rochester,	New York.
Josiah Hoopes,	West Chester,	Pennsylvania.

William Howe,	North Salem,	New York.
Stephen Hoyt,	New Canaan,	Connecticut.
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G. Mattison,	St. Louis,	Missouri.
O. B. Maxwell,	Dansville,	New York.
T. C. Maxwell,	Geneva,	New York.
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David Miller, Jr.,	Carlisle,	Pennsylvania.
S. P. Miller,	Grantsville,	Maryland.
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Jacob Moore,	Rochester,	New York.
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Samuel B. Parsons,	Flushing,	New York.

Thomas Penrose,	Maiden Creek,	Pennsylvania.
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William H. Pullen,	Heightstown,	New Jersey.
F. K. Phœnix,	Bloomington,	Illinois.
William R. Prince,	Flushing,	New York.
Guerdon W. Russell, M. D.,	Hartford,	Connecticut.
C. J. Ryan,	Rochester,	New York.
John Saul,	Washington,	Dist. Columbia.
William Saunders,	Germantown,	Pennsylvania.
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C. W. Seelye,	Rochester,	New York.
Daniel Smith,	Newburg,	New York.
W. Smith,	Geneva,	New York.
P. D. Stillman,	Hartford,	Connecticut.
E. Stone,	Dedham,	Massachusetts.
E. Ware Sylvester, M. D.,	Lyons,	New York.
T. L. Shields,	Sewickly,	Pennsylvania.
Edward Tatnall,	Wilmington,	Delaware.
J. F. Terrell,	Auburn,	New York.
George Thurber,	New York,	New York.
Thomas C. Thurlow,	West Newbury,	Massachusetts.
Isaac Trimble,	Newark,	New Jersey.
F. Trowbridge,	Millford,	Connecticut.
George R. Underhill,	Locust Valley,	New York.
R. T. Underhill,	Croton Point,	New York.
Stephen Underhill,	Croton Point,	New York.
James Vick,	Rochester,	New York.
E. A. Vickroy,	Johnstown,	Pennsylvania.
Henry A. Warner,	New Haven,	Connecticut.
L. L. Whittick,	Brandon,	Vermont.
J. F. Whittle,	Nashua,	N. Hampshire.
William Woodward,	Vial's Gate,	New York.
W. G. Waring,	Tyrone,	Pennsylvania.
James Younglove,	Johnstown,	New York.
J. I. Younglove,	Bowling Green,	Kentucky.
Godfrey Zimmerman,	Buffalo,	New York.

PROCEEDINGS  
OF THE  
*American Pomological Society.*  
...  
TENTH SESSION.

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THE Society assembled at Corinthian Hall, Rochester, N. Y., on the 13th of September, according to previous notice, as published in the official *Circular*. Suitable arrangements for the entertainment of the Society and the exhibition of Fruits had been provided by the Fruit Growers' Society of Western New York. At 12 o'clock, M., the Secretary, JAMES VICK, called the Convention to order, and read the following letter from the venerable President of the Society, the Hon. MARSHALL P. WILDER, of Massachusetts :

*To the Members of the American Pomological Society :*

I am happy to state, that my health is gradually improving, and I have strong hopes of its perfect restoration. I have been so long identified with this Society, and am so anxious for its prosperity and the advancement of the objects it seeks to promote, that I can scarcely content myself to remain at home during its coming session. My judgment and the advice of my physician compel me to refrain from risk which might impede the progress of my recovery, and therefore I shall not have the pleasure of meeting with you.

With fervent desires for the welfare of this institution, and with affectionate regard for its members, I am, as ever,

Your Devoted Servant,

MARSHALL P. WILDER

At the suggestion of the Secretary, Vice President JOHN A. WARDER, of Ohio, was called to the Chair. Dr. WARDER, while expressing regret, which all felt, at the absence of our long-honored President, congratulated the members present on the favorable auspices under which they were assembled in the goodly city of Rochester, for the promotion of the noble objects for which the association was organized. The President then appointed the following Committees :

COMMITTEE ON CREDENTIALS AND DELEGATES.

Dr. J. S. Houghton, Pa. ; Geo. Ellwanger, N. Y. ; T. C. Maxwell, N. Y. ; Geo. M. Beeler, Ind. ; Geo. W. Campbell, Ohio.

COMMITTEE ON FRUIT ON EXHIBITION.

E. W. Herendeen, N. Y. ; R. Lewis, Pa. ; S. F. Marshall, Ohio ; Chas. Downing, N. Y. ; E. D. Pearce, Ohio.

COMMITTEE ON BUSINESS.

J. J. Thomas, N. Y. ; M. B. Batcham, Ohio ; R. Buist, Pa. ; J. D. G. Nelson, Ind. ; W. Saunders, D. C.

COMMITTEE ON NEW GRAPES.

On motion, the following gentlemen were appointed a committee to examine new grapes on exhibition, and report at the present session : Peter B. Mead, Charles Downing, Geo. M. Beeler, J. S. Houghton, B. F. Edwards.

The Secretary read a communication from the Treasurer, THOMAS P. JAMES, of Pennsylvania, regretting his inability to be present ; and also the Biennial Report, as follows :

## TREASURER'S REPORT.

*To the President and Members of the American Pomological Society.*

GENTLEMEN:—The Treasurer submits his Report for the Term 1862—1864, viz. :

## STATEMENT.

## RECEIPTS.

1862, Sept. 17.	To balance on hand, per last report, .....	\$138.43
1864, Sept. 13.	To Cash received from 49 Life Members, \$10, .....	490.00
1864, Sept. .	To Cash from 144 Term do., \$2, .....	288.00
	—————	\$916.43

## EXPENDITURES.

1862, Oct. 22.	By Cash for— Reporting discussions, &c., &c., by order of the President, .....	\$ 85.00
1863, June .	Printing Circulars, Cards, and Show Bills, .....	15.50
1863, April 8.	Benton & Andrews, for Composition, Press-work, and Printing Report of Committee, .....	114.00
“	Ditto for Composition, Press-work, Printing, &c., of Transactions, ...	143.11
“	Ditto, 14 Reams Extra Paper, also Paper for Covers, .....	228.10
“	Ditto, Binding Transactions, .....	11.25
“	Ditto, for Alterations, and Printing Fruit Catalogues, .....	30.10
“	Ellwanger & Barry, for work on Catalogues, and Postages, .....	32.52

1863, Sept. 5. James Vick, for work on Proceedings, .....	30.00
1864, Sept. 13. Sundry Freight Boxes, &c.,	10.26
“ Ditto Postages, Envelopes, &c., .....	30.34
Balance on hand, .....	186.25
	—————\$916.43

Respectfully submitted,

THOMAS P. JAMES, *Treasurer.*

The Treasurer also presented the following memoranda of the numbers of the “Transactions” on hand, from the commencement of their publication :

Issue of 1852, .....	260 copies
“ 1854, .....	28 “
Issue of 1856, .....	35 “
“ 1858, .....	90 “
“ 1860, .....	118 “
“ 1862, .....	82 “

He adds: “By this it appears that there are but twenty-eight complete sets. The Treasurer would suggest that the Society ought not to supply members, even life-contributors, with sets without remuneration above the life-contribution. Some full sets should be reserved for the Society. If any are disposed of, a price should be determined upon. A limited number should be sold.”

After several motions and considerable discussion upon the suggestion contained in the Report, the whole subject was referred to a Committee of three—John G. Bergen of N. Y., S. B. Parsons of N. Y., and M. B. Bateham of Ohio.

Adjourned to 3 o'clock P. M.

#### AFTERNOON SESSION.

The Society was called to order at 3 o'clock, and the Business Committee reported as follows:

That the hours for the morning session be from 9 A. M. to 1 P. M. Afternoon session from 3 P. M. until the Society shall order an adjournment.



The order of business shall be—1. Report of Committee on Credentials. 2. Appointment of a Committee on Nominations, consisting of one member from each State represented. 3. Report of the Committee to revise the Society's Fruit List. 4. Report of other Committees. 5. Discussion of the lists of apples, pears, peaches, plums, cherries, grapes and small fruits, with remarks on the *adaptation of soils* to peculiar varieties of fruits. 6. Remarks on the effects of cold the past winter on fruit trees and grape vines.

[In view of the limited time for the session, we recommend brevity in all remarks, and that no speaker be allowed to occupy more than five minutes at a time, nor, without leave or for explanation, have a right to speak more than once on any one point under discussion.]

Your Committee would also suggest the following topics:—1. The peculiarities exhibited in growth resulting from the specific relations existing between the soil and the plant. 2. To explain what members understand by the term *cultivation*. 3. In the question of pruning, to designate clearly between summer and winter removal of branches, and their respective effects as influencing wood growth, or a fruiting tendency in trees. 4. Diseases. How far experience and observation go to prove the influence of soils, modes of culture and cultural manipulations in the encouragement or exemption of diseases in fruiting plants.

5. The best time to gather, and the most successful modes of keeping and ripening fruit.

The report was adopted.

The Committee on Credentials reported progress, and asked to be continued until Wednesday morning. Request granted.

Committee on Revision of Fruit Lists announced, through its chairman, P. BARRY, that to the circular addressed to State and Local Committees, several responses had been received. Others were expected before the Convention closed, and as soon as all were in, the Committee would be ready to report, or would publish their full report in the proceedings.

No other Committees were ready to report.

The Committee on Nomination of Officers reported a List

of Officers and Committees for the Society. Report adopted unanimously. (See pages 5 to 7.)

The Committee to which was referred the Treasurer's communication in reference to the disposal of the sets of Transactions remaining on hand, reported, recommending "that the Treasurer be authorized to retain permanently, for the use of the Society, eight copies or sets complete, and to dispose of the remaining copies to life members who have not been previously supplied, and to those that may become so, in the order in which they became members, until the remaining twenty sets are exhausted." This report was adopted, and the Secretary was instructed to notify the Treasurer who had become life members at this meeting, giving the order in which they became such.

#### REPORT OF COMMITTEE ON CREDENTIALS.

MR. PRESIDENT: The Committee on Credentials beg leave to report Delegates from kindred Societies as follows:

##### MASSACHUSETTS.

*Massachusetts Horticultural Society.*—C. M. Hovey.  
*Essex County Agricultural Society.*—Thomas C. Thurlow.  
*Worcester County Horticultural Society.*—Edward Earle.

##### RHODE ISLAND.

*Rhode Island Society for the Encouragement of Industry, Providence, Rhode Island.*—Edward D. Pearce, Joseph H. Bourne, Cyrus B. Manchester, Edward A. Taft, Silas Moore and William B. Spencer.

##### CONNECTICUT.

*New Haven County Horticultural Society.*—Dr. Thomas H. Tuttle, Nathaniel A. Bacon, Dr. John I. Howe and H. B. Field.

*New Haven Pomological Society.*—Elizur E. Clark, Stephen D. Purdee, Nathaniel A. Bacon, Charles Dickerson.

## NEW YORK.

*American Institute, New York City.*—B. C. Townsend, Peter B. Mead, Wm. S. Carpenter, Nathan C. Ely, Dr. Isaac M. Ward, John G. Bergen, Isaac Buchanan.

*New York State Agricultural Society.*—J. O. Sheldon, President, and Col. B. P. Johnson, Secretary.

*Newburg Bay Horticultural Society.*—Charles Downing, William A. Woodward, Daniel Smith, Rev. Dr. Forsythe, William L. Findlay.

## NEW JERSEY.

*West Jersey Fruit Growers' Association of Moorestown, New Jersey.*—John Perkins, Clayton Lippincott, Charles S. Willetts, William Parry, and Nathan Leeds.

## PENNSYLVANIA.

*Pennsylvania Horticultural Society.*—Dr. S. W. Noble, Robert Buist, William Hacker, Thomas P. James, C. P. Hayes, Thomas Meehan, Dr. J. S. Houghton, J. E. Mitchell, Wm. Parry, H. A. Dreer.

*Fruit Growers' Society of Eastern Pennsylvania.*—Wm. Hacker, J. B. Garber, William Saunders, Dr. J. S. Houghton, Samuel Miller, Dr. J. K. Eshleman.

*Montgomery County Agricultural Society of Norristown, Pennsylvania.*—Elwood Thomas.

## OHIO.

*Ohio Pomological Society.*—Dr. John A. Warder, M. B. Bateham, S. B. Marshall, Geo. W. Campbell.

*Cincinnati Horticultural Society.*—Dr. John A. Warder, Dr. George Hoadley.

## INDIANA.

*Allen County Horticultural Society.*—J. D. G. Nelson, H. J. Rudissell.

*Marion County Agricultural and Horticultural Society.*—George M. Beeler.

*Indiana Horticultural Society*.—J. D. G. Nelson, George M. Beeler, H. J. Rudissell.

*State Agricultural Society*.—William H. Loomis.

## MICHIGAN.

*Michigan State Agricultural Society*.—William Bort, Detroit.

## MISSOURI.

*Meramec Horticultural Society*.—William Muir.

*St. Louis Horticultural Society*.—Dr. B. F. Edwards.

*Missouri State Horticultural Society*.—Dr. B. F. Edwards, William Muir, G. Mattison, Barnabas Smith.

## DISTRICT OF COLUMBIA.

*Department of Agriculture*.—William Saunders, Superintendent of the Experimental Garden.

## UPPER CANADA.

*Fruit Growers' Association of Upper Canada*.—D. W. Beadle, Professor Buckland, C. Arnold.

Dr. J. S. HOUGHTON,	} <i>Committee.</i>
T. C. MAXWELL,	
GEO. M. BEELER.	

## DISCUSSIONS.

## APPLES.

*Ben Davis.*

NELSON, of Ind.—I should like to hear something said of this very promising apple. I regard it the most desirable apple to cultivate in Indiana. It is not of the highest quality, but good; keeps till May, and will produce more at the same age than any variety I know of.

M. B. BATEHAM, Ohio.—I have seen it in our Ohio markets. I cannot place it so high in quality as our friend from Indiana. In Ohio it is not as good a keeper as he represents it. It is a beautiful tree in nursery, but I have never seen it in bearing.

President WARDER, Ohio.—It may be you have no four-year-old trees of it left over in nursery, for if you had, you would have seen it in fruit. It is cultivated and known as the New York Pippin—especially in Illinois.

P. BARRY, New York.—I have never fruited it. Have seen it in the West, where it is regarded very highly. From what I know of it, think it promising. I find there is a variety of opinions as to its identity, and as to its right name. It is inserted in the Society's Catalogue as the New York Pippin. Is it right?

President WARDER.—Ben Davis is the antecedent and correct name. There is ample testimony to this effect. It is a thrifty, hardy, vigorous tree, and is early productive. It supports its limbs at the junction in a peculiar manner, by what we suppose to be dormant buds, forming a ring about the

union of branch with the trunk. I would not place the fruit higher than medium. And the fruit does not keep as well as the gentleman from Indiana (NELSON) represents. It sells well in Southern Illinois, where it is largely cultivated. It is emphatically a railroad apple there. It is beautiful and regular. It is known by several names—Victoria Pippin, Carolina Red, Carolina Redstreak, &c. It is always spoken of as being very productive. Its hardiness in the West renders it valuable there.

NELSON.—It is more productive than any variety we cultivate. I have one hundred five-year-old trees in bearing—each having from two or three to twenty apples.

B. F. EDWARDS, Mo.—Where I have seen it, in Madison County, Illinois, they consider it the most profitable apple they raise. It keeps till February, is productive, and is considered a very fine apple. It will do as well in Missouri as Illinois.

D. B. WIER, Ill.—I would recommend it as a very fine grower, very hardy, very productive, a good keeper, medium flavor, and a young and abundant bearer in Northern Illinois.

PRESIDENT WARDER—It is an excellent apple—very regular in form. It is rare to see an imperfect apple.

BATEHAM.—How does it bear transportation?

GEO. M. BEELER, Ind.—It has a tender flesh, but a tough skin. We keep it, in Southern Indiana, till May—had them shipped to us at Indianapolis last May. Its flesh and flavor resemble Smith's Cider somewhat, but it is a better apple.

NELSON.—I move that the apple be hereafter recognized by the Society, by its name, Ben Davis.

The motion was adopted.

#### *Bachelor's Blush.*

WM. PARRY, of Cinnamonson, N. J., presented this fruit for comparison with Maiden's Blush, which it resembles in quality, time of ripening and general appearance, and said:—It is a regular bearer, and productive. We regard it a valuable apple with us. Season, August and September. I cannot give its origin; I purchased it of a neighbor. It is distinct from Maiden's Blush, though resembling it.

THOMAS, of N. Y.—Tasting the Bachelor's Blush and the Maiden's Blush, as here exhibited, I perceive a little difference between them, but have seen quite as great a difference in specimens of the same variety grown in different localities.

WARDER.—It is a handsome looking apple, and externally much of the same character as the Maiden's Blush.

ELLWANGER, of N. Y.—I move that it be referred to the Committee on Native Fruits.

It was so referred.

### *Princely.*

This fruit was also presented, and described by Mr. PARRY as follows: Medium to large size; flesh tender and pleasant; sub-acid, and in season from the middle of September till January; color red, with dull stripe; russet around the stem; roundish flat form. It is of first rate quality. Obtained the trees from Bucks County, Pa. It is there selected as the best apple for planting. It is a good bearer, and the tree a good grower.

NOBLE, of Pa.—It is an excellent apple, and I can recommend it.

BARRY.—I notice it is not recommended in any of the lists of Pennsylvania and New Jersey. I do not know why this is.

WARDER.—That is a pertinent question. Why, if it has these excellent qualities, has it not been distributed more widely?

PARRY.—Because it is not known. Where it is known it is popular.

TRIMBLE, of N. J.—Mr. President, I move it be discarded—I have found a worm in it.

WARDER.—That may be the fault of the person selecting it—not of the fruit. Worms often choose the best fruits.

BARRY.—If it ought to go on the list of the Society, members should move to that effect.

CARPENTER, of N. Y.—I have found a great many valuable apples, well known in localities, and not known outside those localities—some of them deserve a much wider distri-

bution. There is one such in Westchester County, N. Y., called there the Golden Pippin.

PARRY.—I move that the Princely be added to the list for New Jersey and Eastern Pennsylvania.

WARDER.—If there is no objection it will be so added.

#### *Cheney.*

PETER B. MEADE, New York City.—This fruit originated on the Cheney Farm, in Massachusetts. An excellent baking apple. Is in season last of September, October and November. I beg to have it referred to the Committee on New Fruits.

It was so referred.

#### *Lippincott Sweet.*

PARRY.—It is one of the best of sweet apples, very productive, greenish white color, and good size. Keeps till spring. Uniform bearer. Wish it to be added to the list of apples as doing well in New Jersey.

WARDER.—Is it not more oblate than the specimen before us? And does it have the bitter-rot?

PARRY.—No: it is longer often, but not more oblate. Is not affected with bitter-rot.

#### *Cogswell and Ohio Nonpareil.*

BATEHAM.—We have had discussions as to the identity of the Cogswell and Nonpareil. Some have regarded them as identical. They are here, and I wish to show them, and show that they are distinct.

DOWNING.—The Cogswell and Ohio Nonpareil are entirely distinct—there is no similarity in the growth of the trees.

BATEHAM.—There is more resemblance between the Graevenstein and Nonpareil.

#### *Grimes' Golden Pippin.*

WARDER.—It is cultivated extensively in Eastern Ohio.

S. B. MARSHALL, of Ohio.—It originated in Virginia. It is hardy, regular, good flavor, good bearer. Season, mid-winter—January to April.



DOWNING.—I have fruited it a year or two. It is promising.

BEELER.—Is hardy in Indiana. Have not fruited it yet. Stood the last winter well.

*King of Tompkins County.*

BARRY.—I wish to hear something about this fruit. How does it do in other States?

NELSON.—I have had it in bearing two years in Indiana. It does finely with us. Produces every other year. It drops badly—otherwise excellent. I regard it as an apple of the highest excellence.

D. HARKENS, of Pa.—We esteem it highly with us.

WM. BORT, of Mich.—It promises well in Michigan.

H. N. LANGWORTHY, of N. Y.—It is a good apple, productive, fine size. Does not fall off with us more than other fruit of the same size. It is a very heavy apple. It is in eating from January to May. Some regard it the best apple in the country, all things considered. It may not be first quality, but it is excellent. It bears regularly with me.

BATELAM, of Ohio.—It is not so favorably regarded in Northern Ohio. In our orchards it is not sufficiently productive; and if productive, drops badly. It is not strictly a winter apple with us.

CARPENTER, of N. Y.—We do not get a satisfactory crop from it. It is attacked by the worms. It is a good apple—not first rate.

PARRY.—I have only fruited it this year. It is not very satisfactory with us. It dropped its fruit early and badly.

ELLWANGER.—It drops its fruit more on young trees than on old ones. As the trees get age, it drops less.

BEELER.—The difficulty we have with it is, that our seasons are too long for it. And it is a fact that northern and eastern apples do not generally give as good satisfaction as the southern apples. The winter apples which come from the south are better adapted to our climate.

THOMAS, of N. Y.—The King only yields about two-thirds as much fruit as the Baldwin or Rhode Island Greening.

CARPENTER, of N. Y.—With us it bears only about two-thirds as much as the Baldwin.

MAXWELL, of N. Y.—It should be picked earlier than is generally the practice. The apple is much improved by so doing. And while it may not yield so much as the Baldwin, in market it makes up this difference by the extra price.

WIER, of Ill.—It is a splendid grower, hardy, fruit large, and of the finest flavor—a young and abundant bearer in North Illinois.

SYLVESTER, of N. Y.—It is an uniform bearer with me, not so productive as the Baldwin and Greening. The same sized tree has not as many branches. It does not drop its fruit more than other apples of same size. It brings a better price than either the Baldwin or Rhode Island Greening.

WARDER.—Gentlemen are comparing this fruit with the Rhode Island Greening and Baldwin; in our country the Rhode Island Greening is not near so fruitful as the Baldwin—hence this comparison is not exactly a pertinent one.

### *Southern Apples.*

GEORGE HOADLEY, of Cincinnati, O.—Has any one had experience in the cultivation of southern apples—from Carolina and Georgia? I have commenced cultivating them as an experiment, and am anxious for any information on the subject which I can obtain.

CHARLES DOWNING.—Magnum Bonum is a southern apple, and a fine winter apple.

BEELER, of Ind.—It has been fruited in Putnam Co., Ind.

WARDER—Some of the southern apples which come to us prove to be old friends with a new name. The Pennock came back to us as Red Ox.

### *Milam.*

HOADLEY, of Ohio.—I should like to know what is thought of this fruit. With us it is the best baking apple we have, and is to be recommended.

EDWARDS, of Mo.—I agree to all that is said in favor of the Milam. We have no apple so much appreciated as an eating and cooking apple in my family. I know of no better flavored apple. It is productive—bears every year.

MUR, of Mo.—It distributes itself evenly over the tree. It is a perfect family apple.

WARDER.—It grows wild about Cincinnati. It was put upon the rejected list by our Cincinnati Horticultural Society because of want of size. It resembles, in some respects, the Westfield Seek-no-further.

BATELAM, of O.—The Westfield Seek-no-further is best in the North; the Milam is best at the South. The latter is a red apple in the South; in the North it is green, and wants character. It is an excellent apple for the valleys and rich lands of the South. It is a handsome tree in the nursery. But it disappoints planters North. The same remarks apply to Rawles' Janet as cultivated in different latitudes.

#### *Fallenwalder.*

HARKENS, of Pa.—Is this fruit known or cultivated in Pennsylvania?

NOBLE, of Pa.—It is cultivated in Montgomery Co., Pa., and is regarded a good apple.

THOMAS, of N. Y.—It is much diminished in size, if cultivated as far north as Western New York, as well as rendered inferior in quality. The same remark applied to the Rawles' Janet.

D. W. BEADLE, of St. Catharines, C. W.—It is fair size, fine-looking, but of inferior flavor, with us.

BARRY, of N. Y.—Grows large and fair with us, but is of inferior flavor.

PAUL, of Mass.—It grows well and bears well in Massachusetts, but is second rate for cooking, and of inferior flavor.

WARDER.—It is one of the finest frying apples we have, and we of the West will place it, fried, beside any of your cooking apples of the East.

JAMES M. PRICE, of Medina, Pa.—We cannot dispense with it in South-east Pennsylvania.

BEELER, of Ind.—It is not long lived with us. It bears thirteen or fourteen years and dies. But it is profitable.

WARDER—It is so profitable that its short life is not regarded as an objection to it.

BATEHAM, of Ohio.—It is grown near Columbus, O., by a man who brings it into market late in the winter so highly colored and beautiful that it is difficult to identify it. He sells it at a high figure because of its beauty. He keeps it from the light, and there ripens it; and this I regard a valuable hint to those who grow green and yellow sorts for the market.

HARKENS, of Pa.—I have succeeded best in ripening this apple in buckwheat chaff.

BORT, of Mich.—Is it hardy in the West.

NELSON, of Ind.—It is rather tender with me at Fort Wayne—a good apple, but tender.

#### *Ridge Pippin.*

PARRY, of N. J.—Has this apple been cultivated in any other States than Pennsylvania and New Jersey. With us it is a valuable winter apple—a good grower, good bearer, and good keeper. It has a blush when it ripens in the sun. Late winter apple. Keeps till June. Turns as yellow as an orange in May. Much heavier bearer each alternate year. I obtained it from Bucks Co., Pa. I recommend that it be added to the New Jersey list.

#### *Wagner.*

NELSON, of Ind.—This is an excellent apple with us. Should like to hear from other Western men concerning it. It is a very profitable apple with me.

BORT, of Mich.—It is good in Western Michigan.

PAUL, of Mass.—It does well in Massachusetts where I am acquainted.

PRICE, of Pa.—Valuable with us.—An early bearer.

HARKENS, of Pa.—It produces well with me.

HOADLEY, of Ohio—It bears early and well, but have found it rather leathery.

MUIR, of Mo.—It has been tried with us. It does well; bears early. I call it a second rate fruit. But it is handsome and highly esteemed.

*Brenneman and Klaproth,*

FROM DR. J. K. ESHLEMAN, of Pa., were presented to the Society, and referred to the appropriate Committee.

DOWNING, of N. Y.—The Klaproth is a very fine fruit.

HOOPS, of Pa.—Dr. E. thinks these two fruits the finest in his collection. They bring the highest price in the Philadelphia market of any apples in their season.

*“Cornell's Fancy.”*

FROM S. W. NOBLE, of Jenkentown, Pa., was presented by sample.

NOBLE—It is an excellent apple, not much known. Deserves to be better known.

*Jeffries.*

H. E. HOOKER, of Rochester, N. Y.—I would like to hear of the Jeffries. It is handsome, pleasant and ripe now. Would like to hear of it from other localities.

HOOPRE, of Pa.—With us it specks badly and falls prematurely. It originated near me—12 to 15 miles from Westchester.

C. L. HOAG, of Lockport, N. Y.—I have fruited it, and think it a very fine apple indeed.

*Evening Party.*

NELSON, of Ind.—I have this fruit. It is a very handsome and fine apple. It is small—too small for market, but desirable in the family. We had an Evening Party in our family all winter, and regard it indispensable.

DOWNING, of N. Y.—I know but little of it, and that little is favorable.

*Northern Spy.*

THOMAS, of N. Y.—I should like to hear how this apple is doing in the West.

NELSON, of Ind.—It improves as we become more acquainted with it, and the trees get age. I had a large and fine crop last year. I would not now like to reject it. With us it is a tolerable keeper. It keeps better than the Rhode Island Greening—keeps till January and February. I would not recommend it for extensive planting.

MARSHALL, of Ohio—The better I get acquainted with it the more I think of it. It rots on young trees, but does better on old ones.

MUIR, of Mo.—It is unprofitable with us—tender under the influence of the sun. It is not adapted to our State.

CARPENTER, of N. Y.—It has been largely planted in Eastern New York, but is not regarded with favor. Trees fifteen years old have produced nothing.

TRIMBLE, of N. J.—I hope the Northern Spy will be planted, notwithstanding the discouraging remarks of Mr. Carpenter. It is sought after in the New York market, and is appreciated. We cannot do without it.

PAUL, of Mass.—With us the tree is a healthy, good grower, and when once in bearing produces as well as any variety. It is a pleasant disappointment to those who have it, after it once begins to bear.

BORT, of Mich.—Since they have begun to bear with us they give very general satisfaction.

SYLVESTER, of N. Y.—It bears late, but the trees, when once in bearing, are uniformly good bearers each alternate year. It is one of our best apples, and will keep till May or June in perfect condition and bring a large price in market. I saw them shipped last May in perfect condition. It is necessary to thin the branches, and when bearing heavily, the crop should be thinned, or it will be inferior.

#### *Cooper's Redlin.*

PARRY.—I wish to call attention to this fruit. We esteem it highly with us. It keeps till May and June. I recommend that it be put on the list for New Jersey.

BARRY.—This is the same as Cooper's Red Market.

BORT, of Mich.—I would recommend that it be put on the Michigan list. It is hardy, and we think it will prove valuable with us.

HOOKEE, of N. Y.—It is highly esteemed by our market fruit growers. It colors finely, is showy and saleable in April and May. It is of fair quality. I think it will be a profitable apple for cultivation, but can never regard it as first quality for cooking and eating.

### *Monmouth Pippin.*

CARPENTER, of N. Y.—With me it is a very fine apple. Think it will be popular with us. Will gentlemen tell us something about it in other localities? I think it will be substituted for the Newtown Pippin for cultivation with us.

PARRY, of N. J.—It does well with us.

PARSONS, of L. I., HOOPES, of Pa., and ELLWANGER, of N. Y., spoke in its favor.

NELSON, of Ind.—We do not regard it highly in Indiana.

WARDER.—It will never drive Peck's Pleasant out of market with us.

HARKENS, of Pa.—Its productiveness and fairness may cause it to be substituted by cultivators for market for the Newtown Pippin, but in quality it is not to be compared with it.

### *Ribston Pippin.*

SYLVESTER, of N. Y.—I should like to hear of this fruit in different localities.

ROBERT BUIST, of Philadelphia, Pa.—I have known it fifty years. It does not do well in warm climates. It ripens there prematurely. It will not prove valuable in southern localities, but I think it will in northern.

BEADLE, of Canada West.—It is a fine apple with us. A gentleman shipped it to Scotland last fall with the Newtown Pippin, and obtained the same price for it—\$15 per barrel.

NELSON, of Ind.—It is a beautiful apple, but the tree is a poor grower and poor bearer with us. It would not do to recommend it for our State.

THOMAS, of N. Y.—I would recommend it as *sometimes* very fine.

WARDER.—In Southern Ohio it ripens prematurely, wilts, and we never, or rarely, get it in good condition.

## GRAPES.

J. S. HOUGHTON of Pa., and M. B. BATEHAM of O., were appointed a committee to select samples of grapes under discussion from the tables, and bring them forward for examination.

### *Adirondac.*

Presented by JOHN W. BAILEY of Plattsburg N. Y.

BEADLE.—Is this grape hardy? I have had but a limited experience with it. I had but one vine. The first winter I protected it. The second winter I did not protect it, and it was killed root and branch.

THURLOW.—I left it uncovered last winter. It bore fruit this season. Thermometer probably 15° below zero. No snow to protect it. Other grapes did not suffer.

MOODY.—Mr. BAILEY says it is about as hardy as the Isabella. In our section the Isabella suffered from the winter.

BEADLE.—The mercury fell 15° below zero, accompanied with a severe wind. The weather was quite moderate immediately before the extreme cold.

HERENDEEN.—A vine that is known to be hardy, will frequently die if exposed when only a year old. That a vine of that age is winter-killed is no test of its hardiness.

CAMPBELL.—I planted it two years ago—a part of the vines grafted on the Taylor, started early in six-inch pots and planted out late. Last spring, though covered, I found them all killed to the collar. Some that were not grafted on the Taylor killed entirely. Last winter was a severe test. But I am satisfied that in comparison with other vines this grape is very tender. Rebecca vines beside it, covered in the same manner, and of the same age, were not injured. The Delaware was the least injured of anything I had. The



thermometer was  $14^{\circ}$  or  $15^{\circ}$  below zero, accompanied with a strong cutting wind. Peach wood was killed.

HOADLEY.—The thermometer with us was  $45^{\circ}$  above zero, and in two hours after it froze the harness on my horse, and in twelve hours it went down to  $12^{\circ}$  below zero—this in Cincinnati.

KNOX.—I planted this grape in the spring of 1863. It grew well and went through the winter uninjured with me. Thermometer marked  $7^{\circ}$  below zero with us.

SYLVESTER.—I had it covered slightly last winter, fourteen miles from Lake Ontario and it came out uninjured.

HOVEY.—I have but little personal experience with it. I set it out in the spring of 1863. It made feeble growth. Cut it back to three or four eyes, and it went through the winter in good condition. I had occasion to visit Mr. BAILEY'S neighborhood, and saw his vines. Found grafted vines, vines from layers and buds in all stages of growth. Three year old vines were bearing three or four bunches, better colored, even, than the Hartford Prolific, and appeared to be likely to ripen earlier, at the time of my visit. The vine, leaf, &c., appeared much like the Isabella. I think it a seedling of the Isabella. But I submit whether the experience of men who have given this grape but one year's trial, and perhaps with a single vine, is of any value in determining the real merits of this grape. The past year is no test. Other hardy varieties were killed. I think this grape as hardy as the Isabella or Diana. My vines have made good growth this year. I think the Adirondac stands prominent among the promising black grapes.

BAILEY.—I find it necessary to cover all my vines. I do not claim for this grape extra hardiness, but I believe it is as hardy as the Isabella. My grapes are grown on open trellis, without contrivances for forcing them. With me the Adirondac is a few days earlier than the Hartford Prolific. It is as free from mildew as any grape I have; the leaves stand the sun well, and the fruit hangs well on the bunch. I have a letter from Richmond, Ind., in latitude  $40^{\circ}$ , where it has been subjected to a severe drouth and

scorching sun the past season, and several varieties have been injured by sun scald, while the Adirondac has not been affected at all. The vine retains its foliage until the fruit is thoroughly ripe. My place is not peculiarly favorable to the growth of the grape, and protection is necessary.

TRIMBLE.—Allow me to ask Mr. BAILEY a question. Here is a representation of a disease which I found on the Isabella at Dr. UNDERHILL'S place. Do you have it on the Adirondac.

BAILEY.—If it is the mildew, we have had it on the Adirondac; but we have had no variety, with us, entirely free from it. Have seen less of it on the Adirondac, than on any other variety except the Concord.

#### *Crevelling.*

KNOX.—It is improving. I have seen much better bunches than are here exhibited. As the vines get age the bunches become more compact. It is not quite as early as the Hartford Prolific. Flavor fine.

HOKER.—(Holds up a bunch.) This is a very good specimen of the Crevelling. It is early, productive and hardy, and valuable for home cultivation; but such bunches as these will not sell well in market—no one should rely upon it as a market grape. Berries hang on well. The form of the bunch is of the greatest consequence in a market grape. The Adirondac bears a beautiful bunch; the looseness of habit in the Crevelling is entirely a characteristic one. I do not believe age will change this characteristic.

MEAD.—I consider the Crevelling a good early grape, and superior to the Hartford Prolific. I am surprised that any one should say that it will not sell, when the Hartford Prolific will. These are not good samples of the Crevelling. As brought into the New York market, they will sell better than than the Hartford Prolific. We are beginning to learn what good grapes are. Why sir, the Hartford Prolific was selling at 25 to 30 cents per pound, and the Delaware at 40 to 60 cents, just before I left New York. I tell you, good grapes will sell; and I wish to do what I can

to wipe out this impression, that a poor grape is as valuable for market as a good one. I wish to give my testimony to the effect that the Crevelling is every way qualified to supercede the Hartford Prolific.

HARKENS.—While its bunches are not so compact and handsome as some other varieties, I think it is to be a popular grape; and I venture to assert, that although its bunches are not as compact, vines of the same age will bear as great a weight of fruit as the Hartford Prolific.

HOOPES.—My experience with it is limited. But I never saw as loose bunches of this variety at any exhibition I ever attended, as these before us to-day. I have seen it grow as compactly as the Isabella. Its berries never drop from the bunch, which is a desirable quality for a market fruit. We like it.

BERGEN.—I have fruited it for the first time this year. The bunches are loose. I concur in the remarks of Mr. HOOKER, that we must please the eye as well as the taste.

SYLVESTER.—As I fruit it, the bunches have this same characteristic looseness. It is not so early as the Hartford Prolific. But it is a valuable, hardy grape. The leaves do not burn, and it hangs firmly on the bunch.

MUIR.—In Missouri, its leaves burn badly—even on young plants so as to retard their growth. The past season, however, it has stood the sun better. It ripens, with us, between the Hartford Prolific and Concord. It is superior to the Hartford Prolific in quality, but if it drops its leaves we shall abandon it.

EDWARDS.—I have sixty vines of it. It does not drop its leaves with me, more than any other variety. It grows rapidly.

CARPENTER.—I have no variety, among thirty varieties, that is more promising. The leaves are perfect. It grows rapidly. Did not mature as early as I anticipated.

DOWNING.—As the vines get age it will ripen earlier.

WOODWARD.—It has borne with me three years. Have seen as fine bunches on it as I ever saw on any grape—full as fine as the Iona this year. Never saw any falling of leaves.

HOVEY.—The time has gone by when we should accept a grape because it is early. It must combine in itself good qualities. So far as the Creveling is concerned, I concur with Mr. HOOKER. Its bunch is too loose; it is a defect that should be looked at in the present state of grape culture.

HUGH T. BROOKS.—Is it not fit that we should not eat with our eyes, but with our lips?

HOAG.—With me, at Lockport, its clusters are broken, loose, and quite green yet, while the Hartford Prolific has been gone ten days.

SEELYE.—This looseness of bunch is not caused by its dropping its berries; the blossoms never set or perfect. The flowers are there, but the fruit does not set.

CAMPBELL.—I have found the Creveling usually rather loose in bunch; think it arises from partially defective stamens; as bunches prepared for raising hybridized seed, and supplied with foreign pollen, were compact and full.

#### *Union Village and Ontario.*

ARNOLD.—Are these grapes identical? I have grown the Ontario—or a grape under that name—several years. I also planted the Union Village beside it. After fruiting them side by side two years, have concluded it is identical. The Ontario is a good grape for market with us. We regard a large grape highly. It is a little earlier than the Isabella—but a few days this year. We cover it as we cover everything. With ordinary cultivation, these on exhibition are fair samples.

SAUNDERS.—As a matter of curiosity, it may be well to know whether these grapes are identical, but what is the use of growing such a grape at all.

KNOX.—I regard it as one of the most profitable market grapes. It will sell with us at *not less* than fifty cents per pound. We protect it just as we protect all our grapes. This matter of protection is not considered with me, if a grape is only tender, and otherwise good. I can protect an acre of grapes for \$5 a year. We train our vines for protection—*down*, in the way they should go.

MEAD.—I have grown the Union Village and Ontario. I think them identical, without doubt. Ontario, ought not to be used, even as a synonym. I would plant the Union Village in preference to the Concord. If well grown, the bunches may be made one-third to one-half larger than those of the latter. Still I don't advocate the culture of large grapes for market. Intrinsic excellence is my standard.

FIELD.—This grape is as bad as the Isabella in every respect, and if that is not saying enough against it, I do not know what is. It blossoms late, and the rose-bug takes every blossom, with me.

NELSON.—I do not regard it as a valuable grape—not as valuable as the concord. A man can raise 1,000 pounds of Concord, easier than ten pounds of the Union Village. I endorse the remarks of Mr. FIELD, as to the difficulty of growing it.

KNOX.—Because it cannot be grown in New York and Indiana, it should not be discarded.

EDWARDS.—Grapes valueless here are valuable with us. The Union Village is far better with us than the Isabella, as to quality and productiveness. I have given up the culture of the Isabella, and shall cultivate the Union Village as a market grape.

BERGEN.—I have both the Ontario and Union Village, Have fruited them two years. They prove to be the same grape. I do not consider it as good in quality as the Isabella when well ripened. Its bunch is large and compact.

CARPENTER.—I have fruited it this season with great satisfaction.

HOVEY.—The Union Village has been grown about Boston several years. It is too good a grape to reject. It is earlier than the Isabella. It is really an excellent grape. It will still be cultivated as one of our excellent American grapes.

MOODY.—My opinion is, that when the real merits of a grape determine its value in market, this grape will be dropped from the list. At first the Delaware was rejected in the market, but as its quality becomes better known,

although small, it is profitable. I think we should drop the name Ontario.

DOWNING.—It drops from the bunch before it is ripe. It is worthless as an eating grape.

SAUNDERS.—We can get much better grapes before we can get the Union Village.

DOWNING.—There is no mistake about the identity of the Union Village and Ontario.

CAMPBELL.—I have had an impression that the two were distinct—that the Ontario might be a seedling from the Union Village. I have seen some evidence of it, I thought; but I may be mistaken, since gentlemen present are so positive concerning this question. The difference I have discovered is, that the vine known as the Ontario ripened its fruit earlier, stood the winter better, and has larger and coarser foliage. And there is a sort of down on the upper surface of its leaves which distinguishes it from the vine called Union Village. But the fruit seems to be almost identical.

Voted that the name Ontario be dropped.

### *Rebecca.*

HOVEY.—I have believed this, from the first, to be one of our finest grapes—so far as quality goes, one of the finest in this country; and I am glad to know that it is improving in habit of growth and other good qualities. It is winning its way rapidly with us in the East. It is sufficiently hardy for any part of the north east, and is a good grower—quite as vigorous as the Delaware. It is to be placed at the head, or among the very first of our American grapes.

BROCKSBANK.—I have propagated it ten years. It is as good a grower as the Delaware, ripening one week later. It is perfectly ripe now with me. Has never mildewed with us. It is as hardy as the Isabella. I protect it; all should be, with me, except the Clinton.

FIELD.—The last speaker's location is very high, and very much exposed on the banks of the Hudson.

BERGEN.—I do not protect any of my vines. I found the Rebecca slightly injured two winters ago. The fruit

is good. I find it more liable to mildew than the Delaware; but has always ripened its wood with me.

PAUL.—I have ripened it in the western part of Massachusetts. The vine is nearly as hardy as the Delaware with me. Quality of fruit the very finest. I have kept it all winter.

BROCKSBANK.—It is not a shy bearer, but quite productive.

HOAG.—Vines planted on sandy loam are bearing fifteen to twenty pounds each.

FIELD.—It is better for higher latitudes. It sun-scalds with me.

CARPENTER.—It is perfectly hardy with me, but a feeble grower, not so strong as the Delaware. But I would recommend it as an amateur grape.

FIELD.—It is a better grape for stiff soils than for sand.

HOOVER.—H. N. LANGWORTHY, of Greece, N. Y., grows it on sandy soil, and says it is improving with him. But I am surprised at the statement that it is a good grower. With me it is not a good grower—not so good as the Delaware. So far as I can procure good wood it is productive.

KNOX.—It is a good grower with me. I am not prepared to say that its reputation for feeble growth is due to the fact that the earlier distributed vines were over-propagated, but I am sure that the later planted grow a great deal better.

MEAD.—Have you noted, Mr. PRESIDENT, the fondness of this Pomological body for talking of grapes bearing feminine names? This Rebecca is Mr. HOVEY's pet. And if he keeps her well wrapped up, and don't let her get away too far from home, she will do very well. But she should have the protection of the garden. She must be sheltered from the north, north-east and north-west winds. Her foliage is tender. She is grown under glass, and sold for seventy-five cents per pound—sold as a foreign grape, thus grown. If offered as a native grape, it would bring but about half that price. It is a hardy grape in winter, but tender in summer. It should be placed high as an amateur grape.

CARPENTER.—In New York City it is growing popular as a table grape, under its own name.

*Mazatawny.*

BERGEN.—I want to hear from Pennsylvania about this grape.

NOBLE.—I have seen it. It grows better in city gardens than in country vineyards. It is more thrifty than the Rebecca.

HOOPEB.—We consider it the best white grape. It is later than the Rebecca, but more valuable with us. It is perhaps too late a grape for the North.

CAMPBELL.—I have fruited it two years. Last year it did not get fully ripe—the robins took it before it ripened. Its bunches are rather loose, long, compared with the Rebecca grown on the same trellis. It is a stronger grower, better covered with foliage, and mildews less than Rebecca.

PARRY.—Last week I saw and tested it fully ripe. Vine healthy, bunch not so compact as the Rebecca—most valuable white grape, I think. I saw it at Moorestown, N. J.

MEAD.—I cannot ripen it. I can the Rebecca. It will not ripen till ten or twelve days after the Rebecca, with me. It is a *very good grape* indeed, as to quality. For our locality and north-west of us it is no use to attempt to grow it. About Philadelphia and South it will be valuable.

PRICE.—As to vigor of growth, with us, that is established. It ripens as early as the Diana.

SAUNDERS.—With us it is quite an early grape, ripening with the Delaware. I have been familiar with it eight or ten years. I described it once as the White Isabella. Have been deceived in regard to it. I think it will ripen with the Isabella anywhere. Its flowers seem to be defective. It is a strong grower—the third, perhaps, in this respect among 150 varieties we have.

DOWNING.—It is a hardy, vigorous grower. Does not ripen with me. The fruit does not set well. Bunch is small.

THOMAS.—The difference in the time of ripening of the different varieties of the grape varies greatly with the latitude. In warmer regions, where two sorts are ripened by the heat of summer, the period of maturity may be only a few days apart; further north, where they ripen in the cooler



weather of autumn, there may be several weeks' difference. It is common to compare the time of ripening as so much before or after that of the Isabella. The absurdity of this comparison will be seen by going so far north as where the Isabella does not mature—and where an early sort may ripen *ten years* before the Isabella, for the latter does not ripen at all.

*Isaac.*

DR. GRANT.—This is the seventh year of its bearing. It is supposed to be a seedling of the Diana. It first bore fruit in 1857. It began to ripen its fruit the 20th of August, was better the 25th, and ripe and very good indeed the 1st of September. Thoroughly shaded it does not color so well but ripens well. The form of bunch is precisely like Grizzly Frontignan.

CAMPBELL.—Has it rotted any?

DR. GRANT.—It has never been troubled with rot nor mildew. This season my Delawares were touched with mildew, but this, beside it, showed none. It has a hardy leaf. I do not protect the vine—it is perfectly hardy. It is hardier in leaf than any other grape I know of. At its first setting it shows the transparency of the foreign grape. It is extremely productive.

I do not know of any other grape which can carry through to perfect ripeness such a crop of fruit. It has been grown from Delaware to Vermont. The Delaware ripens scatteringly, this evenly and at the same time. It is safe to state that it is as early as the Delaware. I do not lay it down in winter. Never have lost one for want of protection. Have had other grapes rot when this did not rot. It has been kept until spring—keeps any desirable length of time—until it dries to raisins.

HOADLEY.—Have you made wine from it?

DR. GRANT.—No, I have never made wine from it, but must have been made and weighed, and it weighs about the same as the Delaware.

DOWNING.—I have fruited it three years. If it does as well the next three years as it has the three past, shall think it one of the best grapes we have in all respects.

MEAD.—I suppose I have fruited the Iona in greater perfection than Dr. GRANT himself. I have fruited it six years. It ripens its wood thoroughly and holds its leaves well. It is as free from disease as any grape I ever knew. It is a good, hardy, healthy vine. It is a good grape—there may be some difference of opinion as to how good it is.

#### *Israella.*

Dr. GRANT.—The Israella ripens from the surface towards the center. It ripens earlier than any grape I've ever cultivated, and keeps as well as any, with two or three exceptions. It keeps easily until the first of March. The Isabella is probably its parent. The wood is hardy—never had any protection. It is much earlier—full two weeks—than the Delaware. It is ripe and good to eat before the Hartford Prolific has turned. It is the best early grape. The bunch is six inches long and shouldered on one side.

#### *Diana.*

BATEMAN.—There is a disagreement with us about the quality of this grape and the time of ripening. I should like to hear it talked about.

KNOX.—I have a great regard for it—it is among the best grapes. The vine is a little tender and must be protected. Protect it, and the tendency is to over bear, hence I am compelled to prune it severely. In a selection of five varieties of grapes, I would put it in. It is a good table grape, a good wine grape and a good keeper. I prune it severely in November to prevent over bearing.

ARNOLD.—The Diana is a shy bearer with me, although I protect it. Will it bear high cultivation?

KNOX.—Yes, I think it will.

FIELD.—It bears sparsely with me—does not fill its bunches well. Alongside of it are thirty varieties, and I can get more fruit from one Delaware vine than from all the Diana vines I have.

EDWARDS.—I wish to ask Mr. KNOX about his summer pruning of this variety. Do you summer prune severely?

KNOX.—No more than I give to other varieties.

BORT.—It succeeds well in Western Michigan—ripens well; was ripe two weeks ago.

Dr. GRANT.—Since the third year I cultivated it; I have not failed to get a good crop from it. It rots a little when other varieties rot badly. It becomes good to eat early but is not perfectly ripe until late in the season. It is second only to the Delaware for wine—superior to the Catawba. The fruit buds will not be developed close to the base of the vine if allowed to grow too long.

LANGWORTHY.—I have a vine planted over the dead body of a horse, and it has not given satisfaction—run to wood and bore sparsely.

#### *Diana Hamburg.*

A New Hybrid, exhibited by JACOB MOORE of Brighton, N. Y., was introduced by H. E. HOOKER, who says. This was a cross between the Black Hamburg, and Diana—the result of patient effort in cross fertilizing, using the native grape as the mother plant, and the foreign for impregnation. Although a native, it really looks more foreign. The experiments of Mr. MOORE prove that the foreign and native grapes can be crossed. There is no doubt as to the fact that this is a hybrid.

JACOB MOORE.—The grape, when ripe, is dark crimson. The sample is not perfectly ripe. I fruited out of doors. I think it perfectly hardy. It was wound about with straw last winter and tied to a trellis.

MEAD.—I consider this a very promising grape indeed. It is unmistakably a hybrid. The Diana is not only an excellent grape, but the mother of more good grapes than any other I know of.

#### *Rogers' Hybrid.*

CAMPBELL.—I know there is a difference of opinion as to whether these grapes are hybrids or not. I believe them to be hybrids; but I believe the female parent so poor a

grape as to render them nearly valueless. I regard No 3 the best of them, and No. 4, next best.

THOMAS.—No 9 is a very beautiful grape of the Catawba type, and has a Catawba flavor. It is earlier, larger and handsomer than the Diana, though probably inferior in flavor.

CAMPBELL.—I have fruited No. 9, but do not regard it as highly as No. 3.

BERGEN.—I have fruited 17 of these hybrids. So far as flavor is concerned, have found but one that I can call very good—No. 5. It has a small bunch, berries medium size, flavor very good. I found No. 44 the earliest. It was ripe before I left home. I have marked as promising, Nos. 43, 41, 33, 13—which may mean 15—4, 3. Marked 5 as best flavored. All have borne. Have been struck with the prolific character of some of them. No 13—as I have it, 4, —43, 41 and 33 may be named as prolific. I have a very good opinion of these from one year's fruiting.

CAMPBELL.—My Rogers' Hybrids were left unprotected last winter. No. 1, 15 and 19 were somewhat injured. No. 3 is the hardiest of them. No. 4 next, the latter being injured about as much as the Concord. The others are tolerably hardy. The thermometer was 15 to 16 deg. below zero, succeeding quite warm weather. I have ripened No. 1, which is rather insipid and flavorless—large and handsome, however. It is not early—ripens about with the Isabella. No. 15 seems to suit the palates of many who test it much better than it suits mine. I do not like it as well as No. 4, which is the most prolific of them all, and a better grape than the Concord.

BERGEN.—With me, No. 44 is earlier than the Delaware. No 9 was partially winter-killed. Several of these hybrids are decided by visitors to my place to be superior to the Concord and Hartford Prolific.

BARRY.—I have seen no evidence that these grapes are hybrids, though whether they are or not does not affect their value. My own opinion is that Mr. ROGERS has made some mistake. I do not believe he has intended to deceive anybody as to their origin.

CAMPBELL.—I have not any doubts that many of these grapes are hybrids, and some of them exhibit the characteristics of the Connecticut Mammoth, the Fox grape on which this cross was made. Others have the appearance of the foreign grape; and I regard this fact good evidence that these are hybrids. No. 4 is so very like Black Hamburg in appearance, that I could not tell them apart without tasting of them.

MOORE.—There is no doubt whatever that they are hybrids. The No. 4 is like a foreign grape. The leaf resembled it also.

HOAG.—I have several of these hybrids. No. 33, exposed, killed to the ground. All were left uncovered. The rest stood the winter well. No. 1 mildews this year. Its fruit is large and fine. No. 4 surpasses all others in cluster. Not one of them ripened with me last year. There is not anything very valuable about any of them.

PARSONS.—I move, Mr. President, that the Fruit Committee be instructed to report at the next meeting such of these hybrids as really have merit, with names to be adopted by the Society, with the consent of Mr. ROGERS. This motion was adopted.

### *Isabella.*

Presented by P. C. REYNOLDS.

BATEHAM.—This sample resembles that known as the Aiken in Ohio.

REYNOLDS.—I know nothing about the history of this grape. I found it on a place to which I removed last fall—soil sandy—the grape trained to a trellis.

HOADLEY.—We have this grape with us. It is not the Isabella of Southern Ohio, but we have always called it Isabella. It is a better grape. I have never heard it called Aiken.

Pres. WARDER.—It is a frequent circumstance that the Isabella is found in this form in localities. Taking cuttings from such vines and planting, the result is a most unmistakable Isabella.

BATEHAM.—We have concluded in Ohio that it is the result of culture and local influences instead of being a distinct variety.

HOOVER.—At our Fruit Growers' Society's meeting last year, Isabellas were exhibited by Mr. BENCH of this city, of such ponderous size that it was doubted if they were Isabellas. But I examined the vine, and found it to be an Isabella, with bunches double the usual size. I think there is no question but these samples are Isabellas.

#### *To Kalon.*

Mr. KNOX, was asked to say something about this grape. I have hardly made up my mind as to the To Kalon yet. I would not recommend it for general culture.

MERCERON.—Rotted badly the present year with us. I do not consider it valuable.

MEAD.—It is liable to so many casualties it should be passed.

LANGWORTHY.—It perished in my vineyard last winter.

HARKENS.—I have nothing to say in its favor. It is not adapted to the valley of the Susquehanna.

DR. GRANT.—I have fruited it fifteen years. Compared with the Isabella and Catawba it is valuable for cultivation. But with its present disposition to rot it should be rejected.

HOOPES.—We got only one perfect crop from it in ten years.

#### *Lydia.*

CAMPBELL of Ohio.—It is a good growing vine; when young it mildews. The berry is large, bunches medium, quality like the Rebecca—fine flavor. It ripens at the same time as the Rebecca, bears better, is a stronger grower and has better foliage. Color of fruit light green—amber in the sun—berry is larger than Rebecca and I like it about as well.

MEAD.—I have grown this fruit. The vine is a good grower and fruit good—not first rate. For vineyard culture it takes a position above the Rebecca. But it is not sufficiently good in all respects to warrant its recommendation for general cultivation. In localities it must be regarded good.

*Allen's Hybrid.*

MEAD.—It is a good grape. Have been successful in growing it. It is tender, sweet, and has a flavor that reminds me of some of our foreign grapes. It is not to be recommended for general vineyard culture. It mildews when exposed—becomes so covered with it that toward the last of the season it loses its leaves. It is a handsome and good grape, and should be on the Amateur's list. I would place it pretty high for an amateur's grape, and excellent for the vineyard in places.

HOVEY.—This grape has been before the Massachusetts Horticultural Society ten years. It is a true hybrid. I have grown it indoors equal to the Golden Chasselas. Out-of-doors, at first, it was rather inferior, but later years it is getting better and better. Vines of it on Mr. ALLEN'S grounds have no more mildew on them than the Hartford Prolific. It is a far better grape than we had an idea it was at first. It will do well planted anywhere that the Delaware and Rebecca will do well, and it mildews no more than these grapes. I think you may set it down as one of the best grapes. With us it has more than met our expectations.

B. B. PROSSER of Yates Co., N. Y.—I have fruited it. It stood exposed last winter and came safely through. It has showed some inclination to mildew, but the leaf is as hardy as that of the Rebecca, and it is a better grape.

DOWNING.—It is the earliest grape I have, and keeps well.

TERRILL.—I have one vine fruiting. It bore twenty bunches. I have not a perfect bunch on the vine.

DR. GRANT.—I have fruited this grape five years. It is as vigorous a grower as the Isabella—remarkably free from mildew. With me it grows better and better. It is a fine amber colored grape. Much better than the Rebecca with me.

HOAG.—With me it is as vigorous a grower as the Isabella.

MEAD.—I think so much of it that I do not hesitate to recommend it where it can be sheltered.

*Miles.*

Information was asked for, concerning this grape.

DOWNING said:—It is a good grower, early, hardy, very productive and fine flavor.

BERGEN.—I have fruited it. Of over fifty native grapes I have, this is the earliest.

HOOPES.—I introduced it eight or ten years since. It ripens with us the last of August—is the earliest grape with us. It is a strong grower, hardy and productive, pleasant flavor.

*Cuyahoga.*

CAMPBELL.—It is too late for ripening in my latitude. It requires a season fully as long as the Catawba. It mildews when young. It is hardier than I expected. It and Colman's White are identical.

Pres. WARDER.—They are identical.

HARKENS.—It has not proved satisfactory with me. It does not ripen—is a Fox grape.

Pres. WARDER.—There is a Fox grape called the Colman's White, which is distinct from the Cuyahoga.

MEAD.—The Cuyahoga ripens too late. I have a vine called Colman's White and another called Cuyahoga, but they are not alike. The vines are quite distinct. It may be that the vine sent me as Colman's White is not true.

*Ives' Madeira.*

Pres. WARDER.—It is a hardy, productive grape, and makes a delightful red wine. It is growing in favor as a wine grape.

*Isabella.*

T. W. FIELD moved that the Isabella grape be transferred from the list for general cultivation, to that for special cultivation. He said people were misled by the present fruit list, expending a large amount of money, with no adequate result. The Society ordered that the Isabella be so transferred.

A gentleman suggested, in this connection, that some



character should be used in reports, to indicate what fruits had been tried and proved failures in the different localities from which reports were made.

#### *Adirondac.*

Further experience from other members was called for, concerning this grape.

PULLEN.—We have fruited it. It was ripe with us three weeks ago. It is earlier than Hartford Prolific and Delaware.

FIELD.—It must be concluded that we can judge nothing of the general character of a grape, from a single fruiting,

WHITLOCK.—I have on the same trellis the Adirondac and Delaware. The former was ripe the fourth of September, and the Delaware was hardly turning. I think the Adirondac among the best early grapes, and the earliest grape in Vermont. It is of good quality

#### *Hartford Prolific.*

KNOX.—The Hartford Prolific is the best early grape yet thoroughly tested by me. There are others that I hope will prove more valuable. It ripens the latter part of August perfectly. Dr. REED may find some tendency to disease in it, but I can find none; it is entirely free from disease with me. It is productive. Twelve vines bore for me, last year, *six hundred and twenty-six pounds*. It is a good grape when perfectly ripe. The fruit does not drop.

HARKENS.—It falls from the bunch, wherever I am acquainted with it.

FIELD.—With me, it is necessary the blossoms should be forward before the rosebug appears. Because of its earliness it succeeds with me. Twenty out of thirty of those who visit my grounds, *like* the Hartford Prolific, as an eating grape.

KNOX.—Although I esteem the Hartford Prolific very highly as a valuable early grape, I would not recommend planting very largely of it. All in all, there is no grape so valuable for the table, and for market as the

*Concord.*

Nine-tenths of those who visit my grounds and store, prefer it to the Delaware. It improves as you go south. It is better at Pittsburg than at Boston; it is still better at St. Louis. I have made a good wine from it, but do not consider it the best wine grape. The Delaware makes a better wine, and is the best wine grape we have.

SAUNDERS.—The Concord is excellent at Philadelphia, and better at Washington, so that visitors prefer it to any other grape we have, in its season. I wish to know if the same grapes ripen in the same succession in different localities.

EDWARDS.—Year before last, my Hartford Prolific were in market several days before those of a grower six miles away. Last year his were ahead of mine, and this year I had mine in market first. The Hartford Prolific and Concord sold in our market (St. Louis) at 40 cents per pound—higher than any other grape. My Hartford Prolifics are productive and saleable. The Concord sells better, with us, than the Delaware. I never saw wine made from the Hartford Prolific. I have seen Concord wine. It was pronounced *good*, by good judges. Wines made of Concord, and Norton's Virginia, and another of Concord and Delaware mixed, were pronounced *very good*. The Delaware has failed to come up to our expectations as a wine grape. Its wine is inferior to many other wines we have. The Concord will make a very excellent wine in our region. The Clinton is also one of our best wine grapes. It is certainly the wine grape for the million.

KELSEY, of Ills.—With us the Concord is the market grape—is preferred side by side with the Delaware. As a market fruit it is ahead of all others.

WILLARD.—In what is known as the Military Tract, of our state, the order of ripening of grapes is very capricious. This year the Delaware and Concord ripened at the same time—the first of September. The Isabella was a week later. The Catawba had not colored at all. There

have been seasons when the Catawba ripened before the Isabella. I make this statement in response to Mr. SAUNDERS' inquiry.

FIELD.—It is a fact that the million prefer the Concord, or the Hartford Prolific, to the Delaware. I think the Delaware ahead of all other grapes. A wine dealer and importer, of long experience in New York, informs me that he has produced a perfect imitation of Sherry, from the Concord juice. He buys all the Concord grapes he can get hold of for this purpose. Says he can sell it as well as imported Sherry.

BERGEN.—I have observed that with me the Concord has been earlier till this year than the Delaware.

This year the Delaware is earlier. Last year my Concord rotted badly; there was no rot among the Delawares. I have changed my opinion in regard to the Concord in my locality. The Hartford Prolific did not rot beside it. The Concord rotted badly at Dr. UNDERHILL'S. It rotted badly with us last year.

## CULTIVATION OF VINEYARDS.

Dr. WARDER.—There are various opinions as to best modes of cultivating the vine. Some prefer Nature's way—imitate the way she cultivates her forests, mulching to a considerable extent. In Ohio we cultivate by horse power. Formerly we used to plant close—three by four, and four by four feet apart—the sides of the hills even closer, because it was supposed there would be obtained better circulation of air, and a better crop of fruit. Experience has proven that exposure is of little moment with us. The period of ripening depends more upon the *condition* of the soil, and the character and condition of the vine. As before said, the Germans selected the hill-sides, and planted closely, cultivating with the forked hoe. But the Americans soon began to plant wider, and use a light plow to cultivate with. This is now the practice generally adopted in new plantations. For

field culture, shallow cultivation with the plow is found most profitable. Horse culture has one disadvantage—that without care the roots are cut off and dragged out of the ground. It is proposed to remedy this by cutting off the surface roots.

Too much care cannot be bestowed in the preparation of the soil—in its disintegration to the greatest possible depth. The limit of this labor is only to be determined by answering the question, Will it pay to expend a large sum in this preparation? It is found to be a sufficiently good preparation with us to expend \$20 to \$25 per acre in preparing the soil, by trenching with a Michigan Double plow, fifteen inches deep, and following in its path with a subsoil plow, lifting the soil six or eight inches deeper. By this means the trenching is done rapidly and thoroughly, and at comparatively small cost. We plow and cross-plow the surface until it is in good tilth. We do not manure; we cannot afford it; and if we could, we do not want to until we take off three or four crops.

KNOX.—Dr. WARDER has described my mode of preparing the soil, very well. There is a great deal of mystery thrown around grape culture. But practical questions—which relate to the solution of this question, "How shall we grow grapes?"—are, Where are the best grapes grown? What are the varieties cultivated? And what is the system adopted? We must get rid of this idea of mysterious manipulation, and let it be known that grape culture is simple culture—that any man with common intelligence, and a common knowledge of horticulture, can grow grapes successfully.

After preparing my soil by trenching and thoroughly pulverizing it, I plant in rows 8 feet apart and 6 feet apart in the row. The third year after planting, I put up trellis, and and take a crop. Between the grape rows, I plant three rows of strawberries, from which I take crops the second, third, and fourth years. I cultivate those strawberries, and and keep the ground clear about the grapes, with a hoe. I am afraid of plows among the grape vines. I sometimes let

the cultivator go through it, but never the plow. My strawberry crop pays the expense of culture up to the time the grapes bear, and more too. I do not pinch off any vines the first year, at all. Let them grow, and train to a stake.

THOMAS.—The form of the teeth used in Share's Harrow, admirably adapts them to grape culture. They pulverize the soil twice as deep as the common harrow, at the same time that they press downward like a roller, instead of tearing out the roots like other harrow teeth. This harrow has one fault—the teeth are made of cast iron, and soon wear out or break. If made of steel, they would be durable, and always keep sharp.

DR. GRANT.—Cultivators with steel teeth so guaged that they will not cut up roots, are used in France in vineyard culture, and greatly diminish the cost of cultivation. They are perfectly free from objection on this account.

There it is regarded an advantage to cut off the surface roots. They act under the influence of the sun in spring before the lower ones. For three or four years they are cut off a depth of the width of a man's hand; for these surface roots damage the vine—enfeeble it. MOTTIER, of Ohio adopted this practice of cutting off surface roots in his culture. These roots are annual as well as the leaves.

KELSEY.—In our preparation of land, we have given up the use of the Michigan sub-soil plow. We follow our ordinary surface plow with a deep tiller plow, which cuts a depth of 16 inches, and then follow with a sub-soil plow stirring 6 inches deeper. In this way we get the work done with less labor.

DR. WARDER.—Our vineyardists train on stakes mainly. In tying the third year, you are supposed to have cut back the weaker cane to two eyes. It is a spur. The bow is to be made from the other cane, two or three feet long. Some prefer to have the main stalk rise a foot from the ground. This bow is fastened at the top, and at the center of the bow, and the bows are made to stand in a line with the stakes, so as to enable the cultivator to plow between the rows. One of the objects in training the vine in this way, is to insure that the top and bottom bnds shall break alike.

A good deal of summer pruning is done—all the surplus wood is taken out—one of the two shoots from each eye—the weaker—is removed—the suckers are removed, unless we want to renew the vine. The Germans think no one should go into the vineyard when the grapes are in blossom. The object of summer pruning, is to regulate the growth of the wood. Some go through and thin as soon as the shoots show where the bunches are to be. As soon as the shoots show flower buds, we take off the wood at the second bud, and pinch off the bearing shoot early, so that the leaves opposite the grape bunches are very large, and a lateral growth is started. The object is to get a new and vigorous growth of leaves close to the grapes, and pinching early, so as to get large leaves. Now we break off the laterals—some of us pinch—leaving one leaf. Instead of cutting off the vine, we bend it at the top.

THOMAS.—I am inclined to think that in this country, vines are planted too thickly. The Cincinnati culturists copy from the European vineyards. It is certainly a beautiful sight, to see those grapes in the vineyards trained on stakes, covering the hill-sides about Cincinnati. But I have seen near that city, Catawbas growing trained on the trellis, with three or four times the room given them in stake training, producing wonderful crops of better fruit.

DR. GRANT.—It matters little what system of training is adopted—whether on stake or trellis. I would plant but three or four feet apart. After a vine is once established, it does not increase in the amount of room it requires. It becomes less and less every year. Excellent wine is never made from vines less than ten years old. It is difficult to keep vines uniform. I have never been able to do it. I have them planted seven, nine and ten feet apart. The rule should be in training, to make the vine fill all the space on the trellis.

FIELD.—I have planted the vine some. I plant three and six feet apart. My trellis consists of ten wires, ten inches apart, the first wire being eighteen inches from the ground. I would plant the Delaware three feet apart in the

row, and six feet between the rows. By my system I carry the first vine to the first wire, the second to the fourth, and the third to the seventh.

HOVEY.—Can vines so trained be protected by laying down?

FIELD.—They cannot be protected.

HOVEY.—It seems to me the plan adopted of trellising the peach in France, at an inclination of 45 degrees, would be valuable applied to grapes in this country, so as to facilitate laying down.

THOMAS.—I think this suggestion is a valuable one. Have seen such training successful here.

Dr. GRANT.—In France the vine is laid down always. It is bent in its early training, so as to facilitate this work.

SAUNDERS.—In grape growing, the subject of suitable trellising demands serious attention. It is worthy of trial whether poles would not answer a better purpose than wire trellis. The best and earliest grapes are invariably produced on strong terminal shoots, and any mode of pruning and training that would ensure the entire crop on such growths, would be a step in the right direction. This may be secured by pruning on what is known as the spurring system, with the important exception that no fruit should be taken from spurs, and instead, the spurs cut close out, a fresh cane would be started yearly to occupy the space that would otherwise be occupied by spurs. This would be the bean ideal of renewal. I hold two undeniable facts in grape culture: 1st, that the best fruit is produced on the strongest and best ripened shoots, and 2nd, that shoots produced from spurs, never mature so thoroughly as those produced from terminal buds. Further, that properly ripened fruit will never be produced from unripened wood. Fruit apparently well colored, may be seen on green growths, but such fruit does not possess the characteristics of a well ripened bunch of grapes.

KNOX.—We have learned one important lesson in grape culture. It is that foreign vines are not adapted to this country. So foreign modes of training are not adapted to

this country. My mode is—and it succeeds well in the vineyard, and I produce good grapes—to have the third year two arms to each vine, each three feet long, and I practice the renewal system. My object is to cover my trellis, from top to bottom with good fruit. The strips of which my trellis is made are put on vertical, nine inches apart from centre to centre. Each vine occupies eight of these strips. I am not confined to the renewal system exclusively. I summer prune considerably, taking off all surplus wood. But, gentlemen, I repeat, this work of growing grapes is not complex. We must make it plain that it is not.

HOVEY.—I like the remarks of my friend KNOX. The idea we want, and should seek to convey, is, that grapes are only produced on *young wood*, and the trellis must be covered with young wood.

KNOX.—We must give our American vines more room—just as Young America requires it, so do our American vines. You cannot confine and control them in our climate and soil, as the vines of Europe are controlled and confined.

HOVEY.—I have found the foreign grape more difficult to control here than the natives. The idea that should be impressed is that the effort should be to cover the trellis with young wood—if we can only induce people to do this, and be somewhat systematic in getting it, they will get grapes.

FIELD.—The only vines that have proved unmanageable with me, on the Thomery system of training, are the foreign vines.

### *The Honey Bee and the Grape.*

GEORGE HOADLEY.—There is a matter which has been agitating the members of our Cincinnati Horticultural Society, which it seems to me proper should be broached here. It is: Is the honey bee an enemy to the grape? There is a difference of opinion on the subject among us in Ohio. It is strongly asserted, however, that it has the power, and does injure the grape crop.



## PEARS.

*Doyenne du Comice.*

HOVEY, of Mass.—This is a new pear. We have fruited it at Boston. At first there was some doubt as to its hardiness, and it was said to drop easily. But we find it is no more faulty in these respects than many others. The tree is healthy, vigorous, upright grower, and ripens its fruit readily. We think it unexceptionable. It is better than the Doyenne Boussock. It keeps till the 10th of December. It is in full maturity the last of November. It has a short stem, and blows off more easily than the Urbaniste.

FIELD.—I have heard it asserted that it spotted like the Glout Morceau.

HOVEY.—It does not spot with me. I should think it an early bearer on pear stock. It resembles Beurré Superfin as a grower.

MEAD.—It is large size, tender, juicy, and spicy; to be highly recommended.

DOWNING.—My experience with it is the same as Mr. Hovey's, in every respect.

*Des Tongres*

Was presented as exhibited by Hovey & Co., of Boston.

HOVEY.—By some accident our principal cultivators have been unfortunate in the cultivation of this pear. The tree is probably rather more tender than many of our pears. But it is a fine, beautiful pear. The specimen before you grew on dwarf. The tree drops its leaves rather early, but this occurs only on damp soils. As cultivated by amateurs with us, it is quite a good pear. It does not transplant well—the roots do not seem to get hold of the soil. It requires careful handling, but I think it will prove a very good pear. Nine years old trees are full of fruit. I regard it a valuable pear, notwithstanding its peculiarities. It succeeds well on pear stock.

SMITH.—It is with me a tender tree and poor grower. It is a rich pear, but too acid for my taste. I could not recommend it for extensive cultivation.

HOUGHTON.—I have two hundred trees of this variety. It is the poorest wood on my place. It is a feeble grower—wood similar to Winter Nelis. It winter-kills with me, which is unusual with other pears. It is a difficult thing to manage.

HOVEY.—For ten or twelve years I have been unable to get fruit from it, on my stiff clay loam, but these specimens are from my neighbor's orchards, on sandy soil, where it grows fine. I think it needs light sandy soil. It does not do well on stiff soils.

DOWNING.—I have fruited it. It is a fine amateur pear, and vigorous grower. It is one of the vinous pears. Dwarfed it does not thrive with me.

FIELD.—Grafted on dwarfs, it is vigorous; no signs of tenderness with me. My soil is sandy. This fruit will become more a favorite as trees get age. It is my experience with many varieties, that we pass judgment upon them too soon. Several pears I abandoned several years ago are recovering. I have excellent fruit on trees of Passe Colmar, Grey Doyenne, etc., fifteen to twenty years old.

HOOKE.—I have fruited this pear. On light soil it is a fine pear for those who like vinous pears. It is, as Dr. Houghton says, a bad grower—poor wood.

#### *Wilmington Pear.*

MEAD.—This is one of Dr. Brinckle's seedlings; it is just below medium size, tender, melting, spicy, first-rate.

#### *Sheldon.*

HOOKE.—With us this is one of our very best, and what is known of it is favorable to it.

HOVEY.—In Boston it is the finest pear of its season, both as regards growth of tree and character of fruit. It has no defect. It was once regarded tender, but it does not prove to be so. The remarks of Mr. Field as to waiting in order to determine the quality of pears do not apply to this one. But it may be well to say, that if we come to the point, as a Society, of saying that we must wait twenty years to determine the quality of the pear, we shall do a very good thing.

Hoadley.—The Sheldon is one of the best of pears in our State. It is hardy and excellent.

KELSEY.—It is hardy in Illinois, as far north as Wisconsin.

HARKENS.—It has proved very satisfactory with us.

MEAD.—It is one of those universally good pears against which nobody has anything to say.

EDWARDS.—It has done well and given excellent satisfaction in our State.

HOVEY.—It does not do well on the quince. Gentlemen should understand this. It is nearly as early a bearer as the Bartlett. The general appearance of the tree is exceedingly ornamental.

BARRY.—It succeeds well double-worked.

THOMAS.—I have succeeded well with it double-worked.

MEAD.—It bears well on the pear stock, and constantly. It does well on the quince with me, and is a larger pear than on pear stock.

ELLWANGER.—It will not do on the quince.

HOVEY.—Has not Mr. Mead's dwarfs struck root from the pear?

MEAD.—I think not, as I plant shallow.

NELSON.—Although my Sheldon trees were injured on the end shoots a little, they did not otherwise suffer by the severe weather. I think it full as hardy as any of my pears.

BORT.—With us it is a hardy and favorite variety.

### *Beurre Clairgeau.*

BARRY.—It is not so melting a pear as it ought to be. It bears young, and on the whole I regard it a valuable pear. It does not do well on quince stock. It is a splendid market pear.

FIELD.—It has great beauty of color. In New York market they want a yellow pear, and they will purchase Jargonelle and other uneatable pears in preference to Louise Bonne de Jersey and other good pears, because of their beauty. Beurré Clairgeau is hardy as a tree, and is a fine market pear. It is prolific, bears regularly, and does not drop its fruits. It is not so good quality as I should wish it. I have eaten better specimens of it than I have grown.

HOVEY.—It is a handsome and excellent market pear. On some trees it is russety, and these specimens are excellent. It is really a very fine pear, good bearer, good grower, and a handsome tree. It is destined to be an excellent grower on pear stock; it does not do well on the quince. I think we ought to talk more about it, and plant it largely.

HORTON.—It had, early, a great reputation at Philadelphia. No pear has had more said about it in that city. I have about 500 trees double-worked and on pear stock. It is a fine grower on pear and on quince if properly managed. Its foliage has a disposition to spot. It has suffered from the winter in the nurseries of Western New York. Its quality is very variable with us. It is not a very excellent pear. It is showy and good for market, but its quality cannot be said to be very good—at least I have never seen it quite first-rate.

SMITH.—It is not hardy with me—not so very hardy—not more so than the Bartlett.

ELLWANGER.—I am astonished at Mr. Smith's comparison of its hardiness with that of the Bartlett! The Beurré Clairgean is hardy with us.

### *Beurre Langelier.*

BARRY.—It does not bear young. It is a good early winter pear. It keeps longer than Beurré d'Anjou and Beurré Diel. It is a very good pear.

HOVEY.—It does not bear till it attains great age. It is impatient of the knife. Trees, on pear stocks, twenty-five feet high, which have not been pruned during the past five years, are bearing well. It is as great a bearer as we have, but we must wait fifteen or twenty years for it; and if pruned, it will not bear even then. It is a juicy, vinous, spirited fruit—a good winter fruit. We cannot get them ripe in December, and it keeps with us till the first of February.

THOMAS.—A dwarf, planted six or seven years since, in my garden, is in full bearing.

*Bonne d'Essex.*

FIELD.—This fruit is a type of excellence, ripened off the tree.

BARRY.—The tree is compact, nicely formed, but the bark cracks, and so does the fruit sometimes.

FIELD.—A little better culture than is usually given it renders the bark smoother.

*Doyenne d'Alençon.*

BERGEN.—It is a pear of good quality and a good keeper with me.

ELLWANGER.—It grows better with us as it grows older. It is a fine bearer, and the fruit is of good quality.

HOUGHTON.—It is an excellent winter pear—substantial, easily managed, and very good.

FIELD.—There is not a single winter pear on the list which succeeds on my soil, except the Lawrence, which is hardly a winter pear. Winter Nelis is a fall pear with me.

BARRY.—This is a valuable pear—not quite as good as Easter Beurré. It is a hardy tree, and an excellent winter pear. It keeps well till April.

NELSON.—I regard the whole list of winter pears a failure—not perhaps in all localities, but as a general thing with the people.

HOUGHTON.—Those who grow winter pears, and know nothing about ripening them, will be dissatisfied with them. Winter pears are generally condemned because they are not well managed. They require correct culture, picking at the right time, and proper treatment in ripening.

THOMAS.—I regard the remark correct, that winter pears are a failure, except they are properly managed. It is a remark that will bear general application. But the Lawrence and Winter Nelis are not failures. They succeed generally.

*Columbia.*

BARRY.—It drops from the tree—otherwise it is a splendid pear.

PARSONS.—When the trees get age, and are sheltered, it does not drop.

MEAD.—It is only a second-rate pear, and for the table is worthless.

HOVEY.—It is easily blown off by wind, but I never knew it to drop. It is a valuable pear, and too much overlooked. I do not know that it has any other defect. It is by no means a pear of poor quality, though not the best. It ripens up beautifully. This Society will some time think more of it than now.

HODDLEY.—With us it is regarded a first-rate table fruit. It does drop, but the fallen fruit ripens, even though it falls before the period of maturity. It is a great bearer. It does not keep later than the middle of December with us.

#### *Queen of August.*

HARKENS.—I should like to hear from members about this pear. I got it of Wm. R. Prince. I regard it a good pear.

DOWNING.—It is the same as Hosenschenk.

#### *Stevens' Genesee.*

BARRY.—This pear is a native of this country. It is not high flavored, but good. It rots quick—must be used soon after gathering.

HOOKE.—It is variable with me—some trees good, others not.

BARRY.—It must be picked early.

#### *Andrews.*

HOVEY.—It has recently been sent to this country under another name—Beurré Audinot. It is a good pear.

WARDER.—It is an early bearer, and bears abundantly. It is a vigorous grower.

THOMAS.—It bears early.

FIELD.—It is a slow grower with me.

PARRY.—It succeeds well with us.

HOVEY.—It has a peculiar flavor—is not high flavored. The skin is like the pond lily in flavor.

WARDER.—We like it very much in Ohio.

HOVEY.—The tree is hardy and a great bearer. It will prove a very good market pear perhaps—brings a good price in market.

WARDER.—Its *name* ought to sell it now.

*Beurre d'Amulis.*

FIELD.—It is quite indifferent in quality. It is large, productive, and good in color. It is as near good for nothing as can be.

*Belle Lucrative.*

BORT.—The tree is hardy with us, but we want to know more of it.

WARDER.—I wish gentlemen would tell us how it gets the name Belle Lucrative.

SMITH.—It is a good pear—not showy.

NELSON.—It is a good pear with us.

BEADLE.—It blights badly with me.

FROST.—It bears young, and is an excellent pear. Its color is an objection to it as a market fruit.

*Bergen Pear.*

BERGEN.—It is not so good quality as the Bartlett. It is a profitable pear, however. It ripens in October, follows the Bartlett in market, and sells at about the same price. It is one of six of the most profitable pears in cultivation.

HOADLEY.—It takes remarkable well on the quince with me.

BERGEN.—It ripens later than Swan's Orange, bears early on pear stock—not so early as Bartlett. It never bears heavily, but bears every year evenly.

*Beurre Hardy.*

BARRY.—It is a high flavored pear, much like Sheldon. It is a good pear, but does not keep long enough.

DOWNING.—It is promising with me—a very fine pear. I would not like to do without it.

*Flemish Beauty.*

NELSON.—I want two stars added to it for Northern Indiana. It is the star pear for that part of the State.

DR. WARDER.—It is better north of 40 deg. N. latitude than south of it. It is splendid south of it, but rots at the core.

NELSON.—It is good in Central Indiana, and I would add two stars to it for that locality.

BEELER.—I consent to the suggestion of Mr. NELSON with reference to Central Indiana. It rots at the core in South Indiana.

BATEHAM.—It is not a "beauty" in Ohio. It varies very much in character.

DR. WARDER.—It is true of this pear in the south generally, but this year it is beautiful.

*Beurre de Montgeron.*

FIELD.—I move that Beurré de Montgeron or New Frederick of Wirtemberg, be added to the list. Referred to the committee on Revision of Fruit List.

*Jaminette.*

ELLWANGER.—It is one of the finest growers we have, is hardy, late in bearing, fruit large, keeps till the middle of December. It is not "best," but is a good pear.

BARRY.—The tree is quite ornamental.

SMITH.—The fruit has a thick skin, and transports well.

HOVEY.—It is an old pear, and has been cultivated about Boston since I can recollect. It is not highly regarded, and is rather declining in public estimation. It lacks flavor, does not color, has a coarse thick skin, and is not desirable for market, because it comes in competition with better, and better looking pears with us.

*Vicar of Winkfield.*

HARKENS.—I want to know about the quality of this pear.

FIELD.—It is indispensable in a pear orchard.



MUR.—Twice in five years it has winter-killed in Missouri—the only variety which killed with us.

BORT.—It is hardy with us, and an early bearer.

Dr. WARDER.—It is a great cooking pear, and one of the most valuable for canning.

FIELD.—My family cook no other when they can get this pear, and when it is ripe they eat no other.

BEADLE.—It has not a good flavor—a useless and worthless pear with me.

THOMAS.—When we have a late, long autumn, it is pretty good—not otherwise.

DOWNING.—I never saw one fit to eat in my life.

HOVEY.—In France it is a juicy, good pear. It stands high there. I think it is a useful pear. It sells well as a market fruit. It sold in Boston as well as the Glout Moreceau. It is not first rate, but it deserves attention.

DOWNING.—I ought to add, that it is the best of all cooking pears I ever tried.

#### *Belle Williams.*

HOVEY.—It is a fine tree, and a good winter pear. Keeps till January. It is an English pear—originated on the same grounds as the Bartlett.

#### *Kingsessing.*

HOOPES.—It is a good grower on quince. The fruit is excellent. I think highly of it.

PARRY.—It does well with us—gives great satisfaction.

HOVEY.—There is but one objection to it; it is blown off the tree easier than I like it to be—excellent otherwise.

HOOKE.—The fruit of this variety is beautiful. The tree is vigorous. It grows better as it grows older. It is a fine grower on the Quince, also on its own stock. The young trees resemble Stevens' Genesee in appearance. It ripens here in October. I think it will become a good market fruit.

HOOPES.—With us it is ripe now, (15th September).

HOVEY.—It never rots at the core.

*Frederika Bremer.*

ELLWANGER.—It is an indifferent fruit.

BARRY.—It is quite variable in quality.

*Manning's Elizabeth.*

DOWNING.—It is only a first rate amateur pear—too small for market.

BERGEN.—It is grown with profit, at Monmouth, N. J., I have been told.

HOVEY.—It is considered the best early pear for market with us. It is a great bearer and sells well. It is ripe the second or third week in August. It is considered a desirable pear with us, coming before Tyson—Doyenne d'Ete ripens before it. It ripens before Osband's Summer.

DR. HOUGHTON.—It is gaining in reputation in all directions.

BEELER.—I have seen it, and think it one of the handsomest early pears; but it is small. We think highly of the Beurré Giffard, in Indiana.

*Kirtland.*

FIELD.—It has proved entirely worthless with me—rots badly inside.

DOWNING.—It rots on young trees; but on old trees it rots but very little, and is a fine pear.

THOMAS.—The flavor is good; sometimes excellent; but unfortunately it commonly rots at the core before the flesh becomes soft. This difficulty will probably destroy its value; otherwise it might prove worthy of general cultivation.

HOOVER.—I have abandoned all idea that it will ever be of any value.

HOVEY.—It is faulty. We pick it about this time. It is short-lived, rots easily, is not an abundant bearer when young. Cannot say a great deal in favor of it.

*Marie Louise.*

FIELD.—It is large, fine, fair and of delicious flavor.

DOWNING.—It improves as the tree gets age, like the Kirtland.

SMITH.—I have had fine specimens of it this year. It is a rich, juicy pear.

HOVEY.—It is one of the finest pears, but the tree must get age before it is good.

HORRINGTON.—I cannot see why a tree should not perfect fruit young, just as well as when old.

### *Oswego Beurre.*

HOOKEE.—It is one of our best pears. It bears well with me, and bears early, both as standard and dwarf. It sometimes cracks, and is not very attractive in appearance.

HOOPES.—I have full crops of it every year, but no good fruit.

THOMAS.—It cracks badly; when it does not crack, it is rarely of much value.

NELSON.—That is my experience exactly.

BERGEN.—And mine too.

HOVEY.—It requires thinning in order to get good fruit, but I think it will become valuable. With proper and judicious cultivation and thinning out, it will be one of the best pears.

### *Muskingum.*

FIELD—On pear stock it is a fine fruit.

### *Beurre Saplier.*

BARRY—It is an excellent pear—as delicious as Belle Lucrative. We have fruited it two years, and I regard it a promising new pear.

### *Howell.*

BARRY—This is one of the most promising American pears. It is not equal to the Sheldon in flavor. It is one month later than the Bartlett. It rots at the core sometimes—is generally as free from it as any other. It is fair, and grows well on the quince.

## PRESIDENT WILDER.

At this point Vice-President WARDER read the following telegram, which was received with cheers by the Society :

BOSTON, Sept. 15th.

American Pomological Society :—Thanks, many thanks, for the unexpected honor of my re-election to the Presidency of the American Pomological Society. My hopes of recovery and of co-operating with the members again, induce me to accept the office.

MARSHALL P. WILDER.

The following Committee was appointed to prepare suitable resolutions concerning deceased members :

MESSRS. FIELD, MEAD, HOADLEY and NELSON.

## P E A C H E S .

Dr. SYLVESTER.—I have a seedling peach raised from the Early Crawford, which ripens eight or ten days later. It is, I think, a better, sweeter peach. It has a tougher skin. I have another, a seedling of George the Fourth, which is a very promising white-fleshed peach. I have a very good crop of peaches. My orchard is in an elevated position, protected by woods.

Dr. TRIMBLE.—It is an interesting fact that there is one crop of peaches in this neighborhood, when the failure is so general. Why is it ?

THOMAS.—Where the surface of the country is rolling, or consisting of hills and valleys, the peach crop usually succeeds on the hills, and often fails in the valleys. An old cultivator, near Palmyra in this State, showed me a hill 120 feet high, where the peach crop had not failed once in twenty years ; while on the land below they did not average more than one crop in two years. In the Conhocton Valley, peach trees themselves rarely survive many years, before being cut down to the ground by frost, but on an adjacent hill, 400 feet high, I have seen an orchard that grew well and bore regularly. [Several other similar instances were mentioned.]

Near unfreezing lakes, the reverse is true, the open water softening the intensity of the frost.

Dr. TRIMBLE.—In the low lands of New Jersey the peach crop is often killed, while on the elevated lands it is almost uniformly saved. The peaches of New Jersey used to be grown on the low lands; now the uplands are selected for orchards.

MOODY.—Our country (Lockport, N. Y.) is level. We have no hills, nor deep valleys, and ordinarily we are as successful in growing a peach crop as any section of the State. I think what we most need is the protection of hedges. Belts of timber would be of great importance to us. When sheltered the peach orchards in our section produce more uniformly. We choose, with us, the lowest ground if dry.

Dr. TRIMBLE.—I have seen excellent samples this year that were grown on soil resembling iron rust or ore. Messrs. Marshall & Duston, of New Vernon, Morris Co., N. J., grew them, and have had wonderful success in obtaining fine crops with wonderfully high color. Their fruit, grown on this peculiar soil, out-sells others because of the exceeding beauty of the peach. They say they have had peaches on this iron-colored soil, when on soil of a different kind they get none.

#### *Hale's Early.*

BATEHAM.—We regard it the very best our of early peaches. It is a great acquisition. It is so much earlier than the early varieties, that we need an intermediate fruit. The tree is healthy, thrifty, hardy. The fruit is only too good—too juicy for transportation at long distances. It is ten days earlier than Troth's Early.

MARSHALL.—I can only endorse what Mr. Bateham has said concerning this peach.

THOMAS.—At Isaac Pullen's, near Hightstown, N. J., I found Hale's Early ripened by the aid of fire-heat. It was gone by the first of June, while Troth's Early was just beginning to ripen. I think there is ten days' difference in the time of maturity.

PARRY.—I can only corroborate as to the relative time

of the ripening of these two varieties. Hale's Early is at least ten days earlier than Troth's Early. I have it growing, but have not fruited it. The tree is healthy and all that could be desired of the peach.

MEAD.—It is the earliest good peach we have. It is of good quality and a good bearer.

#### *Peach Cultivation.*

GEO. M. BEELER, of Indiana, who had been spending some time among the peach orchards of Delaware and New Jersey, was called upon to give the result of his extended observations, which he did as follows: The ground is prepared for planting, merely as for any common grain crop, and the trees are set generally from eighteen to twenty feet apart—sometimes more and sometimes less—I believe, however, not often wider than twenty feet. Some of the persons with whom I conversed, thought that twenty-five feet or even thirty feet would be vastly better. The first two or three years the trees are cultivated, and the intervals between the rows are occupied by corn, potatoes or buckwheat. This latter is thought by many to be the best of any, as the ground receives all the culture necessary, and the nature of the grain is not such as to absorb so much of the substance of the soil as some of the others. This does not look reasonable to me (although I may be greatly mistaken) for Agricultural Chemists and Vegetable Physiologists tell us, that the nature of the food of the two kinds of plants is entirely different, the one being *Arboreous* and the other *Herbaceous*. After the third year no crop is sown or planted in the orchard, but the ground is frequently stirred and kept free from weeds by means of plows and harrows. Generally three or four "bouts" or "rounds" are plowed next the row of trees with a side draft one-horse plow, and the remainder with the common two-horse plow.

The second cultivation is given when the weeds begin to show plainly, and is performed either like the first operation, or—what is much cheaper and more expeditious—by dragging a good two-horse harrow at right angles with the plowing. These operations are performed as often as the case

requires, and the best and most successful cultivators continue as late as the weeds or grass start. One man, who has a very fine orchard, said that *plowing* should not be done after the first of June, as it was liable to interfere with the young roots, and consequently injure the tree.

The trees are generally "headed" at a height of from three to four feet, and the branches grow very laterally. Mr. Corbit, of Odessa, Del., thought that if they were headed at the ground, the growth would be much more upright, and the plowing next the trees would be done more easily to the man and team, and with less injury to the tree. The trees are pruned after the crop is removed, and this consists in cutting away all dead and broken branches—those that interfere with or cross each other, and when too thick to admit sufficient air and sunlight. Cutting-back is not practised, and is not very well comprehended, I think. The result is that the extreme length of the limbs necessarily bearing their fruit far from the trunk, together with the matter of high heading, causes many of the trees to be ruined every year by splitting down. This would certainly be remedied, and perhaps almost entirely done away with, if low heading and shortening were adopted.

Mr. MERRITT, of Middletown, Delaware, was fastening his trees together with iron bolts where they had split down, and expected to reap benefits, not only from *bolting*, but also from the *oxide of iron* which was thus to be introduced into and disseminated through the system of the tree.

The trees do not usually bear a crop until the third year from planting, though they are known to have paid as much as one dollar per tree the second year. *Thinning* is not practised, though every man who had peaches admitted that the fruit would be all the better for it, and that it would pay. The per centage to be taken off must of course be determined by the amount of the crop, but from such as the principal part of this year's yield there should be removed about *eighty per cent*. The Smocks and Yellow Rareripes were particularly full, and as a result the fruit was of no intrinsic value, and sold (or sometimes did *not* sell) at very low prices—fre-

quently not enough to pay the expense of shipment alone. This matter of thinning should be performed before the period of *stoning* or hardening of the seed, as the whole strength and vigor of the tree is exerted in that direction during the process. As an illustration showing that thinning will *pay*, I will say that a few orchards that I saw were extremely full last year, and in the beginning of the present season the owners expected no return from them whatever—as there appeared to be almost none on the trees. When, however, the gathering season came, they were surprised to find that they had nearly as many *bushels* as their neighbors from the same number of trees; and the increased size, beauty and quality of the fruit caused them to realize much larger prices, even in the height of the season and glut of the market.

The fruit is gathered when it is *grown*—that is, when it has attained its size and color, both of *skin* and *flesh*. The exact time may be regulated by the distances from market; but in Delaware it is picked about one week before the proper time for maturing on the tree. The intention is to pick the trees three different times—occasionally only twice—and sometimes four times. This of course depends on the evenness of the maturation, the idea being that the fruit must have attained all its proper qualities from the tree, yet at the same time be firm in flesh, in order to go safely to market.

Those who have the largest orchards and carry on the business with the most attention, care, and system, assort their fruits into three classes—"Prime," "No. 1," and "Inferior." The first named contains nothing but the *best*; the last, those which are bruised, specked with rotten, and having one side green, or are small and decidedly poor. The second is a medium between the extremes, and contains none that properly belong in either of the others—especially the latter. The result of this is, that they obtain "Prime" prices for "Prime" peaches, and even more for their "No. 1" than persons who send them indiscriminately mixed. In ordinary seasons they obtain something for their "culls;" but I saw none being sent to market this year as such, though many that went as "common run" were no better than these castings aside.



The *shipping* is done both in baskets, holding about a half bushel, and in boxes ranging from one-half bushel to two bushels. Every one prefers baskets, but these large boxes were used for shipping to distant markets. When baskets are used, the cars for transporting them are so fitted up that four tiers can be carried, and each one rest on different shelves; this is of course necessary, as the bottoms of the baskets are much smaller than the mouths. Boxes were resorted to this year in excess of any previous use, on account of the scarcity of baskets. The usual size holds two baskets, but is made in an oblong shape, with a division in the middle. When these are used the divisions in the car are of no use, as the box is sufficiently strong to resist any jolts and jams with which they would come in contact. Boxes will only last about two seasons. Baskets from one to five, according to quality, and the honesty of the commission merchants. The best are those made of white oak and hickory, split tolerably heavy. The number of baskets required in proportion to the crop of fruit is really astonishing, ranging from twenty to fifty per cent. more. This depends much on the distance to market, and the energy of the producer in hunting them up from the "middle men."

The varieties which are cultivated extensively are very few. Hale's Early is at present attracting much attention, and all the trees obtainable are being planted. Of those with which they are already acquainted, the Troth's Early ripens first, followed by Early York or Honest, John, Yellow Rareripe, Crawford's Early, Old Mixon Free, &c. The late sorts most popular are Crawford's Late, Ward's Late, Smock, Crockett White, Heath Free, &c., &c. They have in Delaware a peach called "Moore's Favorite," which closely resembles the Old Mixon Free, and is said by many to be that variety. The only points of difference observable in them were that it ripens a little later than that variety, and was very much finer than any which I saw. I was told, however, that this was only true of the locality where these were, and that trees budded from these were natural Old Mixons in other places. Reeves' Favorite is also a very fine peach, somewhat resembling the

Crawfords. Gray Rareripe is a peach not named in any catalogue, but considerably disseminated, whose chief merits seem to be its hardiness and great bearing qualities. It is of only medium size and of decidedly inferior flavor and appearance. It is said to be very profitable. Yellow-fleshed varieties are almost universally good bearers and always well colored. Stump of the World and Ward's Late are considered amongst the best white sorts, especially the latter, which bears every year.

A rain about the time of ripening is very disastrous, and if there are indications of a storm, extra exertions are put forth to get the fruit in one or two days in advance of maturation, rather than allow it to remain and "weather" the rain. It is also considered very bad policy to gather fruit while it is wet, as it does not carry so well to market, and has a rough and damaged appearance from the fuzz being mashed and broken in the handling and jostling.

It is bad policy to mix varieties—especially if of different colors—in the same baskets. Clings are planted very sparingly—indeed, I saw but one or two orchards which contained any whatever, and the owners told me that they could find no market for them in any way. This seemed very strange to me, for in the West we think no peach is fit to eat out of hand, except a cling, and they are also very highly prized in the families for pickling and preserving.

Of the diseases to which the trees are liable, the "yellows" of course stands foremost. I am not able to say anything new on the subject to you of the "yellow" region, but what I have seen may be of interest to the Westerners—though I hope they will always have to go as far East as Delaware and Jersey to see it. It has been settled that trees of all ages are liable to this malady—though they are but seldom attacked before the age of five or six years. The first indications in the tree are a tendency to produce *suckers* or *watersprouts*, generally on but one branch the first year. The fruit on this limb ripens several days before the regular time and before the rest of the same tree. The second year the disease spreads considerably in the tree, affecting it precisely like the first,

and the third year nearly always suffices to "finish" them entirely. That this disease is contagious there can be but little doubt, as it has always been observed that trees immediately adjoining those infected are sure to show the incipient symptoms the first year thereafter. The cause as well as remedy still remains a mystery. Orchards have been known to fail entirely by the ninth year, while others closely contiguous have flourished almost intact to the age of eighteen or twenty years.

The "Winter Wilt" is known in New Jersey, though why called "Winter Wilt" in preference to "Summer Wilt" I cannot see, as it appears in the summer instead of winter. It seems to affect the *fruit* rather than the *tree*, as the tree showing the disease one year is not therefore liable to be so affected the next. The *cause* is unknown but the *effect* is, that a few weeks before time for maturity the fruit suddenly stops its growth, and so remains until several weeks after its natural time for ripening, and never arrives at a state fit for use. It looks reasonable to me that it is the result of a lack of strength in the tree to perfect, at the proper season, the seed—that is, it breaks down in going through the "stoning process."

Their trees are infested with borers in about the same way as those of other parts of the country, and the same means are employed in fighting them.

They trim their trees immediately after the fruiting season is over. It consists in cutting out dead and broken branches. I saw no one who cut back his trees in spring, or "headed in." They cut back severely in planting—cut back to the height at which they want to make heads.

DR. TRIMBLE.—During the first two years of the planting we cultivate with buckwheat.

THOMAS.—I have observed a great many orchards planted and not taken care of. An orchard will come forward much faster when well cultivated. An orchard two miles from Richmond, Ind., of 1,000 trees, planted twenty feet apart, was, six years after planting, composed of large trees and bore a heavy crop. The cost of the orchard could not have been

five hundred dollars, and that season, when I visited it, the owner sold \$5,000 worth of fruit from it, and had more to sell—each tree bearing two or three bushels, and the crop selling from two to three dollars per bushel. We do not want to grow other crops in our orchards.

BERGEN.—It is less injury to an orchard to grow buckwheat in it, than it is to not cultivate it at all, or to cultivate it in corn. Such a crop does my trees more good than to let the ground go bare and uncultivated.

The Yellows first made their appearance in Kings County, Long Island. My father told me he saw it when it first appeared. Up to that time Kings County supplied New York market with peaches, but they have not been profitable there since. Peach culture was next introduced in Monmouth, N. J., and the yellows got into the orchards there and now it is unprofitable to grow them there. There is a district south of Shrewsbury which is now being occupied by thousands of acres. Trees live the longest planted on new land. We can get from three to five crops from an orchard after the yellows first appear, before they appear again.

MOODY.—Sowing buckwheat in a peach orchard is like sowing a crop of weeds. And it is about the hardest weed to get rid of there is. It is better to cultivate the orchard well from the start.

MEAD.—It is a fact that crops of peaches are now grown where the yellows first appeared.

BEELER.—I heard, during my trip, no complaint of curled leaf; I believe it is peculiarly a Western institution.

BERGEN.—I have had it ten years with me.

BEELER.—It is generally attributed to the cold weather. In New Jersey they tell me that after an orchard has been "peached" it must lie twenty years before re-planting.

EDWARDS.—When we want to kill the worst grass we have in the West—"crab-grass"—we put in buckwheat.

DR. TRIMBLE.—It is a universal thing in New Jersey to cultivate the young orchards with buckwheat. The shrewdest cultivators practise it. I am satisfied that the curled leaf is produced by an aphid. This aphid is very short lived. The

egg is hatched as soon as it is laid. You often find the cast-off skin of the aphid on the leaf. This practice of attributing all the ills which befall our trees, to the winter, is a cowardly way of getting on with it. I say again, it is the aphid. The Snow-ball bush has its leaves curled by the aphid. So do other trees; and I do not doubt as to its work on the peach.

THOMAS.—I have made microscopic examinations of this subject, with the aid of a good instrument, and with a great deal of care. I am satisfied it is an internal fungus which causes curled leaf. I have examined it through all the stages of its growth, and am satisfied it is a fungus on the inside of the leaf, just like the rust in wheat, though not so distinct. The curled leaf may be avoided by good cultivation—by keeping the shoots in rapid growth. It is usually found on old trees that have been stunted, and follows cold weather. It may be that the cold weather is an agent in developing the fungus; but the fungus is, without doubt, the cause of the curled leaf.

BARRY.—I am quite satisfied that the cause is due to sudden changes of weather. The curled leaf never occurs in orchard houses. In the early history of this country we had no curled leaf. I lived here fifteen years without knowing of a failure of the peach crop. But as our protection began to disappear, curled leaf appeared. It is a fungus, but cold causes the fungus.

BEELER.—I have seen the aphid on curled leaves, but think it had chosen them as a place of refuge.

## RASPBERRIES.

### *Philadelphia Raspberry.*

PARRY.—It originated in the county of Philadelphia. It is hardy—perfectly hardy—both in winter and summer. I have it planted in all situations. Its crop is uniformly large. I have never protected it. The cane is strong, upright, smooth, purple in color. It propagates by sprouts from the roots—does not sprout from the tips of canes. It bears its fruit upright. It is productive—the second year after plant-

ing yielding for me two hundred and twenty bushels per acre. The fruit is large—not equal in flavor to some other varieties—red—darker than the Red Antwerp—firm for carriage, and sells well. It is larger than the Purple Cane, a firmer fruit, but not so early. It is the only fruit we ever had that would yield more per acre than the strawberry, with half the labor attending its production. It is said that it was taken from the woods in 1838, in Philadelphia county, now embraced in the city of Philadelphia, by F. DEDAKER, and planted in his garden. It is rather slow to propagate.

KNOX.—It seems to me a little strange that for twenty-six years such a raspberry should be grown, and yet its merits not have been discovered. I fancy I have had it many years. There are better and larger berries. Where the Hornet, Brinckle's Orange, and Franconia cannot be grown, it will do to plant the Philadelphia.

BERNEX.—When I first knew about raspberry culture, the berry sent to New York was the Purple Cane—that alone. Forty years ago a raspberry was grown which answers the description given of the Philadelphia. It propagated in the same way, except it propagated readily from roots. This succeeded the Purple Cane for twenty years in the market. But it finally went out of cultivation because it began to winter-kill. It was known as the Red raspberry.

PRICE.—Who knows about ALLEN's raspberry? It brought, when first introduced into Philadelphia, eight cents per quart.

KNOX.—I have three favorite varieties. I put Brinckle's Orange down as best. Franconia, next, is a large, red raspberry; good flavor; hard berry; it canes well, and is profitable. Third is the Improved American Black Cap. It grows popular, and I find it is difficult to supply the market demand for it. Next, I place the Hornet, Pilot, Imperial, Souchetti, and Jonet. The Hornet is the largest berry I know of, and a beautiful fruit. It has not so good flavor as some others. Souchetti is white, and has a fine flavor. Jonet is white, solid and not so large. All of these do well with me.

## STRAWBERRIES.

KNOX.—It is, or ought to be, well known that varieties deteriorate; and their value depends upon locality and cultivation. The *Triomphe de Gand* is and has been my favorite strawberry. It is profitable as a market fruit. It does not yield as great a number of bushels per acre as Willson's Albany, but it affords me a greater profit. Willson's is an excellent fruit for canning—ought not to be planted for a table fruit.

In selecting varieties, we ought to seek to cover the season. I cultivate the *Baltimore Scarlet*, *Burr's New Pine*, *Jenny Lind*, and *Golden Seedling*. The last named is excellent, and has been too much overlooked. It is a Canadian berry. I think it folly to cultivate hundreds of varieties. My aim is to find which are best adapted to my soil, location, the market demand, and fill out the season. I should not like to be without *Burr's New Pine*, *Jenny Lind* and *Golden Seedling*. The last I regard best. The *Fillmore* has been strangely overlooked. The *Russell's Prolific* is of great worth. Shall plant it largely. *Trollope's Victoria*, *Kitley's Goliath*, *Nimrod* and *British Queen*, I recommend as foreign varieties.

*Russell's Prolific.*

HOOVER.—This is a productive berry; large, handsome, of good quality; not very firm. For home use I think it of the highest excellence. It has a pistillate flower, which is a drawback.

PARRY.—It gives great satisfaction in New Jersey, when planted with staminate varieties. It is considered the best. And that means a good deal with us. We sent six thousand bushels of strawberries to market in ten days. It has competed with other varieties on exhibition and in the market, and succeeds in winning favor. Willson's Albany is used as a fertilizer with it.

PARSONS.—We like this fruit very much.

*Buffalo.*

ELLWANGER.—Is not the berry called the *Buffalo* identical with the *Russell's*?

HOOKER.—I do not think it is. Those who have seen them together, think them distinct.

BARRY.—Is not the foliage and habit very similar?

BRADDOX.—There may be a similarity, but I think the form, flavor and general character of the fruit distinct from Russell's Prolific. It has not so good a flavor, consulting my own taste,—is not so sprightly and acid. Its fruit is more regular and uniform than Russell's, as I have seen the latter; and the flower is hermaphrodite.

#### *Triomphe de Gand.*

PARSONS.—Some people regard this as worthless as a market berry.

HARKENS.—It is not found profitable in Northern Pennsylvania.

PARRY.—It does not succeed well with us.

#### *Agriculturist.*

MEAD.—This is a great berry in its way. It grows to an enormous size, and is enormously productive. It is a strong grower. I have seen berries of this fruit between seven and eight inches in circumference by measure. The productiveness of strawberries depends upon their habit of multiplying crowns. This it possesses in a remarkable degree. Its color is not the best, but good. The same may be said of its quality. But, on the whole, it is probably the most remarkable strawberry ever raised. It throws entirely into the shade all such plants as the Willson's Albany.

BERGEN.—I have seen this plant and its fruit, and can only confirm all that Mr. Mead has said of it.

#### CRANBERRY CULTURE.

PARRY.—Cranberry culture is growing in importance. The general result is, however, that it does not succeed on upland as a cultivated crop. I have tried it several years. Low, poorish land is the most favorable—land on which water once stood and has been drained, and which can be flooded at will. The object in selecting and preparing ground should be to control moisture. The ground or bed should be nicely level,



and the plants cultivated the first and second years, after which they will occupy the whole ground. They should be flooded in winter and the water left on the bed until all danger from spring frosts is over—the blossoming retarded. When the vines can be so managed, cranberry culture is successful and remunerative. On uplands they do not do well, nor pay as well as strawberry culture.

BATEHAM.—I have known of a large number of experiments in the cultivation of this fruit, on all sorts of soils, but know of no successful results.

TROWBRIDGE.—The most successful culture I have seen has been on swamp bottom—the swamp simply burned over, with no other preparation. The vines grew enormously and bore heavily. They had been planted four years, and kept clean. They are flooded in winter, water being kept on until the 15th of May. They are sometimes flooded in summer—during drouth or to destroy worms. This is an important consideration in the preparation of a yard. The varieties cultivated generally are the Large Cherry, Bugle and Bell. The last named is the best variety.

HOVEY.—On swamp lands, where they can be flooded, cranberry culture succeeds. They can be grown on uplands for farm use, but not profitably for market. Flooding is necessary for the reasons named—to retard blossoming and destroy worms. And it is an exceedingly profitable crop. I know a man who gets \$1,000 per acre annually for his cranberry crop.

### RIPENING AND KEEPING WINTER PEARS.

Dr. BEADLE.—I have kept them—can keep winter pears ten years; but I never saw any of them good for anything.

Dr. GRANT.—I have kept winter pears at a uniform temperature. I never found winter pears as good as our autumn varieties. The Easter Beurré keeps admirably. Prince's St. Germain keeps best.

THURBER.—I do not believe any one who has kept Vicar of Winkfield, as kept by Mr. Carpenter, would want any better winter pear. It is as good a pear as a man who likes a vinous pear would want to taste.

PARSONS.—The Vicar is so productive that it grows two or three times the amount of fruit that should stay on the tree. The fruit should be thinned as soon as one can distinguish the imperfect pears. Reduce the amount of fruit to one-half or one-third. After the pears have reached two-thirds their size, in September, and the season gets dry, pick off again, so as to adapt the burden of fruit to the capacity of the tree. Leave it on the tree until frost is close. Do not confine it in barrels. Take them to a close, dark and tolerable cool room, and cover a floor with them two feet deep. Store them as you do potatoes. Leave paths between the piles of fruit, so as to get among them and pick out the rotten ones. I keep the Duchess about as long as I do the Vicar.

MEAD.—Apples are frequently placed in heaps and sweated and then wiped dry. It should be strongly condemned. A good deal depends upon the room in which you keep fruit. I have a room adapted to this purpose. It was not built to keep fruit in. With the advantage of ventilation, it has low equable temperature, and is dry. Some kinds of pears keep as well as potatoes. Some pears keep better than others. We want to know how to keep our *best* pears. We want, for this purpose, a low temperature—five to ten degrees above the freezing point—dry, but not perfectly dry. There should be the means for ventilating the room, to be used very carefully indeed—only to regulate the temperature. In effecting changes, air must of course be put in motion, but cold currents of air upon the fruit must be avoided.

TURBER.—Every pear has a limit of time to which it can be kept. It has its season, and it should be eaten in that season. True, I have a friend who keeps the Duchess and Bartlett to mid-winter, in a chamber surrounded by ice. But it is not generally desirable to keep a fruit beyond its season.

FIELD.—I am satisfied there are some localities where winter pears can not be ripened. There is a difference in the growing of winter pears. And some cultivators interfere with the process of nature in ripening the pear. Some trees have a delicate foliage, which drops prematurely, without leaving the pear sufficient support. This delicacy of foliage is

not always peculiar to a variety, but is due to locality and climate. On such trees the fruit withers or rots in spots without ripening. We do not get good winter pears because we can not ripen them good. I am compelled, in my location, to abandon winter pears. I have never yet grown a winter pear that was as good as a Newtown Pippin.

BARRY.—You must first *grow* a winter pear in order to ripen it. The Vicar of Winkfield is an excellent pear. WM. REID once declared it a humbug. But we thin our crops and get good specimens. Mr. REID tried thinning, experimented two years before he ripened it; but he did ripen it, and took back all he had said against it. It is as easily grown as any pear. Prince's St Germain is also easily ripened. We pick our winter pears, put them in barrels, keep cool and dry—out of doors until there is danger of frost, then put in a barn and finally in a cool cellar as the cold increases. We keep Easter Beurré till May. We have convinced gentlemen of the value of this pear for winter keeping and eating. True, there are many poor pears grown on an Easter Beurré tree, but we thin them, and watch them and see that they *grow*. They are worthy such care. The Vicar is not good on young trees—the tree must have age. The Lawrence is a winter pear here, and keeps until January. Ours were opened at Christmas, and they were fine—yellow as gold and handsome. The Winter Nelis keeps with us till January, and frequently until February. Leave it on the tree until late. There is a long catalogue of winter pears. We must not tolerate the idea that winter pears can not be grown—can not be ripened. They can be grown and ripened.

FIELD.—My statement is only of facts. I think winter pears will be found to do better on stiff clays than on light soils. CARPENTER, at New Rochelle, grows good pears and keeps them well. I am on a sandy soil and cannot grow them. I can grow Winter Nelis, Jaminet, Vicar of Winkfield, and Lawrence, and ripen them well; but with me the three first named are not winter pears.

HOVEY.—Grow the pear well and there is no trouble in preserving it to the limit of its season. To preserve such

pears, put them in barrels and keep cool, just as you do winter apples—in a temperature of 45° to 46°. In 1862 we had 30 barrels each of Vicar and Glout Moreceau which were left out doors as long as safe, then put in a packing shed, and then in the cellar, and we found it impossible to ripen them until February. Grow pears well, and put up as you would good winter apples, and they will keep and ripen and give great satisfaction.

MEAD.—We ought to have two lists of winter pears—one of those best for eating, and the other of those best for cooking.

NELSON.—While I concede every thing my friends BARRY and HOVEY have said to be true in their case, I think their statements should be received with the same qualifications with which we receive Mr. FIELD's statements. I must insist that winter pears, for general cultivation, are a failure. Thousands upon thousands of dollars have been expended, and with good culture, but little satisfaction has resulted to cultivators. I have some facilities for knowing. Of twenty winter varieties which I have cultivated, I have not one that I consider a good pear for the mass of the people. The Easter Beurré ripens on one side. The sunny side ripens best, but the other side I cannot ripen. In localities, and in the hands of certain men, winter pears succeed, but I know it to be a fact that they are generally a failure.

FIELD.—I do not like to hear Mr. NELSON put it quite so strong. I think the future is more promising for the pear, because the older the trees the better the fruit.

BARRY.—I think very few winter pears have been planted, comparatively. Our experience is, that very few winter pear trees have been sold. Mainly Autumn pears are sold. But the demand for them is increasing, and I think will continue to increase. When our winter pears are ripe, we take them directly from the cellar to the table, keep them cool, and eat them cool. We do not bring them into a warm room to ripen them. As a general rule pears are not improved by bringing them to a heated room.

BERGEN.—I agree with Mr. FIELD, that in our locality few

pears keep well. The Vicar, Lawrence and Winter Nelis it is difficult to keep till Christmas. I have kept Easter Beurré until March. The difficulty is to make them ripen at all—they sometimes rot in the green state. When best grown they ripen the easiest. I kept the Doyenne d' Alençon till February, and it ripened good.

MUR.—MR. PETTINGILL, of Bunker Hill, Ill., tells a story of buying the Winter Nelis of a farmer who said he had fed it to his hogs for thirty years. He bought the farmer's crop, took them home, stored them in his cellar, piling potatoes over them. When ripened, he sent his farmer friend a half dozen of them, and he soon came over *to see Mr. P. and get grafts of that variety of pears he had sent him.*

HERENDEEN.—Winter pears are excellent for cooking purposes—even if they do not ripen so as to be fit to eat otherwise, they are valuable for cooking.

BARRY.—The Pound pear, St Germain, and the Catillac cook nicely.

HOOPES.—The last named is a splendid pear for cooking.

PARSONS.—We cook the Pound Pear.

FIELD.—MR. BERGEN'S family have cooked in thirty years.

BERGEN.—We cook it and think highly of it. I sell it at \$2 per bushel in the market, for this purpose.

FIELD.—My friend BERGEN is crazy in some respects. He thinks the poorer the pear the better it is. The Windsor Belle is the most profitable pear grown.

HOOPES.—We leave pears on the tree till late in the season, pick them and pack them in boxes, between thin layers of straw. Keep them near the freezing point till time of ripening, put them in the cellar and they ripen splendidly. The difficulty of ripening is more in *growing*, than from any other cause.

BERGEN.—I do not agree with Mr. FIELD at all, notwithstanding his strong assertion. I find the Pound Pear profitable, but regard the Bartlett as one of the most profitable of those I cultivate. The Summer Belle is one of the most profitable of our pears. If it is not put in a list for market, a mistake will be made.

BARRY.—In the New York market, large quantities of pears are bought for cooking. The Windsor is profitable to grow to sell to the million who buy pears to cook rather than eat. Money can be made out of it.

BERGEN.—The Windsor Belle is a good eating pear. But to ripen it, it must be picked early. It is a mistake—it is not sold as a cooking pear in Boston and New York.

#### PEAR HEDGES.

FIELD.—I found the Duchess d'Angouleme capable of growing close and bearing fruit—and there was, with me, a necessity for so growing it. Accordingly, I planted it two and two and a half feet apart, and four feet between the rows. I feared they would get crowded, and I took up every other row. They have grown to be a hedge and bear well. I shear the sides and top. By this means I take off the blossoming ends of the limbs, and they require little other thinning. What I do thin is done late, taking out the stung fruit. I get large fruit from these hedges—170 pears to the barrel. It is true that unless you get large fruit it is not good; and the crop is better every year. Not a plant in those hedges have died—they have never overborne either. You can, of you choose, thin out the old and have new wood all the time. I would plant the rows six feet apart instead of four, or eight if I were going to plant again.

THURBER.—I have also seen the Bartlett grown in the same way, in hedges, and never saw finer fruit of this variety than that grown in this manner.

FIELD.—I have Seckel growing in hedge too. I prune early in spring, and pinch or prune to reduce leading shoots, in July.

#### STRAWBERRIES RESUMED.

KNOX.—I do not wish to be understood that the Triomphe de Gand cannot be surpassed; I hope it will be. It cannot be surpassed by Russell's Prolific in point of color, nor flavor; but I hope it may be as a berry for profit. I do not know but it will be.

I cannot understand why the Fillmore has been overlooked. Perhaps there is a no more profitable variety grown on my place than this same Fillmore.

How do I plant? I plant my strawberries in rows—three rows eighteen inches apart, and then a space of two and a half feet, and then three rows again, as before.

BATEHAM.—I have visited Mr. KNOX's grounds. Mr. KNOX does not tell more than the truth concerning the results of his admirable system of cultivating strawberries and other small fruits. The Cincinnati Horticultural Society appointed a committee to visit Mr. KNOX's grounds and report. We did visit them, and we never saw such fruit, such perfect cultivation and such results as we saw there. We first came upon his store in Pittsburgh, attracted to it by a crowd about it, and were surprised at the perfect fruit we found there, of such size that we supposed it had been assorted for show. But some of the by-standers who heard our remarks, advised us to go to the grounds and see for ourselves. We did go. For one I can say that I went to visit Mr. KNOX's grounds prejudiced against him. I thought he had made more noise in the world than it was necessary for a modest man to make. But, Mr. President, we were convinced that the half had not been told us. The *Triomphe's* were magnificent. But I put the Fillmore, as we found it there, ahead, for its good shape, uniformity, productiveness, &c. It deserves more attention.

BORT.—The *Triomphe* was first introduced into our part of the State by me. I have procured and fruited sixty varieties of strawberries. The best three with us are Burr's New Pine, Willson's Albany, and *Triomphe de Gand*. Three years ago, the Willson's Albany was preferred. Last year the *Triomphe* gained favor, and the past season it has stood the drouth better, and borne a better crop than the Willson's Albany. It will be the berry planted with us, hereafter.

BERGEN.—Will Mr. KNOX tell us more about his mode of cultivating strawberries?

KNOX.—I plant my strawberries among my grapes; I have already given my mode of preparing the soil for grape plan-

tations, so that I need not repeat it here. But if I prepare the land for strawberries exclusively, good plowing—say eight to ten inches deep—is good enough for strawberries. The plants are put in rows, as I have before stated. *All runners are kept off and the weeds are kept down.* The whole strength of the land and vine is devoted to producing fruit. I manure some, by putting rotted manure between the rows. I protect the plants in winter in order to preserve the embryo fruit. I use straw—flail-threshed rye straw is preferred—for such protection. It operates both as a protection from frost in winter, and to keep the fruit from the dirt in summer. It also keeps the weeds down. I cleverly cover the vines with the straw—try to do it just before a rain, to avoid its being scattered by wind, though I have little trouble in that respect. In the spring the straw is removed from off the vines and left between the rows. Do not use the hoe much in cultivation, nor the cultivator at all. The weeds are pulled up by hand, and the runners pinched off.

#### *French's Seedling.*

PARRY.—This fruit is large, early, good quality, very attractive in appearance. The plant is vigorous, hardy, spreading rapidly on almost all kinds of soil. The blossoms are hermaphrodite. It is an accidental strawberry found in a meadow, so that it is not entitled to the name of seedling at all. Its color is bright scarlet, attractive and goes into market the very first and commands the highest price. It is not quite so early as the Early Scarlet, but is close to it, and much larger. It seems to combine the good qualities of the Early Scarlet and Hovey's Seedling, which were the principal berries grown with us prior to this fruit attracting attention.

MEEHAN.—French's Strawberry, in Philadelphia, is as popular as any variety in market. The Triomphe and Willson's Albany are also popular. The Hovey has almost disappeared. The Lady's Finger is largely sold.

#### MISCELLANEOUS REMARKS.

THURBER.—I wish to call attention to the Union—a New Jersey strawberry—and ask for experience concerning it.



BRILL.—I have been prejudiced against it, under this name, believing it to be Trollope's Victoria. I have not fruited it. The parties sending it out as Union believe it to be distinct. I do not.

THURBER.—I do not believe it to be a new variety. I have never seen a larger crop of fruit than on the Brooklyn Scarlet. On Mr. FULLER's grounds it is a great success. It is the only one of the "Tribune Strawberries" that amounts to anything.

BARRY.—We must wait to see these remarkable varieties reduced to ordinary cultivation and tested there, before we can tell what they will amount to. Berries have been sold at enormous prices because of a reputation made under the most favorable circumstances—a reputation which they do not sustain when put in the hands of ordinary cultivators.

KNOX.—These remarks are very true and very important. One thing, I want it distinctly understood that there is no Bartlett Strawberry. It and the Boston Pine are identical.

BRILL.—I think these remarks well timed. I was surprised to see premiums given to a berry labelled Bartlett at the American Agriculturist Office, when it is identical with the Boston Pine.

FIELD.—I was a member of the committee making the award referred to. The premium was awarded to the variety having the best flavor. No labels were on the fruit at the time of making the examination. The decision of the Committee was made, and subsequently the fruit receiving the award was labelled "Bartlett" by some one to the committee unknown. There was nothing surprising about it, so far as the committee was concerned. It only had to do with the flavor.

The society voted to reject the name Bartlett as applied to any Strawberry.

BARRY.—I suspect the Buffalo and Russell's Prolific to be identical.

BRILL.—I judged it to be similar to the Russell at first, but as I got more fruit from it, I found a greater difference.

*Ju Cunda.*

WARDER.—I want to hear something about this fruit

BATEHAM.—I saw it at Cleveland. It was beautiful as well as good. The gentleman who had it obtained it of SAUL, of Washington. No foreign variety that I have seen equals it, except the Triomphe. It appears to be identical with KNOX's "700".

KNOX.—I want gentleman to understand that my "700" is not a name. All my strawberries are numbered, and recorded by that number. Some of them have no name when I get them. I give them none, nor send them out under any name until I am sure what name belongs to them. I do not know the name of the fruit numbered in my grounds "700." I want to find out what it is. If it has a name I want to know it. If I am satisfied that it has none, and it continues to be as good a fruit as it is now, I shall name it. But be assured, gentlemen, it will never go from my grounds except it is rightly named. It is a beauty, no matter what name it bears.

BATEHAM.—If gentlemen will examine Mr. Knox's catalogue, they will find what he says is true.

Dr. WARDER.—I think Mr. Knox's "700" and Ju Cunda are identical, but am not sure.

## HOLCOMB BLACKBERRY.

HOADLEY.—It went through the winter with me much better than the New Rochelle.

## CLOSING PROCEEDINGS.



## INJURIOUS INSECTS.

Dr. TRIMBLE, of Newark, N. Jersey, at the solicitation of members of the Society, and by invitation of the President made some remarks on insects injurious to plants.

Dr. TRIMBLE said: I propose to speak of the Codling Moth. I find many of the fruits on exhibition here penetrated by this moth. The *Curendio* is the greatest enemy we have to fruits. It attacks peaches, plums and apricots, apples, pears and cherries. But this apple moth does not attack stone fruits—only apples and pears. I had satisfied myself that all insects attacking fruit are subject to our control, except this Codling Moth. My observations and experiments the past season have convinced me that it too may be controlled. I first set out to find how useful birds might be as aids in controlling this moth. To this end I have been shooting and examining our small song birds throughout the season—a horrible business, but one which I trust will prove beneficial to us and them. I found by dissecting a Chickadee, five of the larvæ of this apple moth, at one time. Found them also in the Downy Woodpecker—three at a time. The larvæ of this moth secrete themselves in the crevices in the bark, and remain there through the winter. And how do you suppose these birds find them? They do find them! They peck directly through the bark upon them. You will find they always go right—for right under the bark where these holes are made, are found evidences of the larvæ having been there. How is it done? Who directs these birds? Is it instinct? It is the guiding hand of

God Almighty. We can not understand it. Then these two birds which I have named aid us in controlling this insect enemy of our fruit. They operate to remove the larvæ and destroy them before the spring time develops them into the injurious insect.

Then comes the moth upon the fruit. You see here a specimen of fruit in which this worm has done its work. This Codling Moth is beautiful. It comes out a moth in June. [Dr. T. exhibited paintings of it in the various stages of its development.] Trees old enough to have scales on the bark—to become shaggy barked—afford protection to the larvæ. If the trees are not old enough to afford this protection, they crawl in the crevices between hoops of barrels, splintered wood, fence rails, some place where they can make their cocoons and spend the winter. It may be that they seek these spots because instinct teaches them of the danger they are in from birds. At any rate, it is in such places that we find them; and knowing this, I thought perhaps cloths hung upon the trees would be attractive to them. In the crotch of a tree an old boot-leg had been thrown, and in its folds I found eight cocoons of this caterpillar. I have pursued these experiments in various orchards, putting up various contrivances, such as coils of hay-rope, cloths, &c. On one tree under one of these hay-ropes, which was wound two or three times around the body of the tree, I found seven cocoons. Only this simple protection is necessary to secure and destroy all of these worms. Here is a piece of Chamois leather, which was wrapped around a Bartlett pear tree. On the bark of the tree, under the leather, I found fifteen of these worms. And here is the leather, in which will be found many others. It is thus we may hope to control them. One season's experiments are not sufficient to decide the matter, but it is settled that we may trap these enemies in this way. And it is a significant fact, that outside of these traps, on trees where I had placed them, I have found none of the cocoons nor worms.

As regards the Curculio, I think, with the exception of the cherry, the fruit falls to the ground with the larvæ in it.

And it lies there several days. Hence our domestic animals—cows, hogs and chickens—may aid us in controlling this insect. But the apple worm leaves the fruit before or as soon as it falls, and you can not get at it, as at the Curculio. Traps are necessary. These birds help you, but they can not do the work alone. Try these traps, and save your fruit. Half the apple crop is destroyed by the Codling Moth alone. You may talk about apple lists, and pear lists, until we are all crazy—we want to save the fruit after we get it!

THOMAS.—How shall we treat large orchards containing a thousand trees or more? Will it be practicable to apply this remedy on so large a scale?

TRIMBLE.—How treat large orchards! How do you find time to cultivate trees? It is easy to grow trees, but of what value are they after we get them if we do not save their fruit? How long will it take to make hay-rope enough to wind around the trees on an acre? Not long. Let us not cowardly give up our fruit to these insects.

THOMAS.—It is a practical answer to a practical question which I wish to get at. A pound of hay would make hay-rope enough to pass two or three times around each tree. The little hand implement used for twisting hay-rope would enable one to do the work rapidly. A ton of hay would make rope enough for two thousand trees. This hay-rope should be passed two or three times around each tree, early in the season, and be examined once in two or three weeks during the summer, and all the cocoons found destroyed. The examination should also be continued through autumn and winter. This I understand to be the application of the proposed remedy on a large scale.

TRIMBLE.—I should think so. Speaking of the Curculio, some Western man told me it did not come to perfection in the apple. I have experimented to find out if this was true, and from a bushel of apples last year I caught at least one thousand Curculios. This year I only goteig ty from a bushel. The fruit seemed as badly stung, but the insect did not mature. There is something in the weather which regulates the development of

these insects—perhaps the drouth was the cause of the difference, but I don't know. Yet I think there is evidence that in some places it is utterly destroyed in its transformations by the drouth. At any rate, experiments prove that they require a certain amount of moisture to insure perfect transformation. The year following severe drouths there will be less curculios.

CARPENTER.—I think this subject of insects an important one, and that it should receive more attention. We—this society—should give it more attention.

BARRY.—I am gratified with Dr. Trimble's remarks. It is an important subject. But the remark of the gentleman that the list of apples is so long that it makes him crazy to look at it, demands attention. He should remember that this is a great country—that each State in the Union has localities that require different varieties—that the varieties which thrive best in one locality do not thrive at all in another in the same State. So that no general list can be made.

THOMAS.—The object of the society, in its desire to obtain new fruits, is not to increase the catalogue, but to diminish it. It is our aim to find fruits which combine the greatest excellence. In proportion as we do so, we shall diminish the number on our lists.

#### THE LEAF-FOLDER ON THE GRAPE.

Dr. B. F. EDWARDS, of St. Louis, Mo., read a letter he had received from JOHN H. TICE, a member of a committee appointed by the Missouri State Horticultural Society, to visit the vineyards of Missouri and Illinois. The reporter makes the following extract from this letter, which relates to the work of the Leaf Folder in the vineyards of the West:

"We found fine vineyards about Muscota, Ill. \* \* The *Desmia Maculalis* (leaf folder) has been fully as bad there as with us. The Catawbas, Isabellas and Rebeccas looked as if scorched by a fire, in consequence of their depredations. I am afraid, from appearances, that this is going to be the most formidable enemy that grape growers

have yet encountered. I observed there the same facts as I told you I had observed in my own vineyard, namely: all varieties having a downy leaf, such as Catawbas, Isabellas, Adirondac, &c., are those it particularly affects; while those having a smooth thin leaf, like the Clinton, Herbemont, Taylor, &c., are not touched by it. There are, however, some exceptions. Where the leaf is so thick and stiff, as in the Sage, Blood's Black, and the Fox varieties, as not to yield to its folding operations, they are exempt. For this reason the Concord is not so much affected, except in its younger leaves, as other varieties with a more pliable leaf. The reason why it does not attack the thin-leaved varieties, amongst which is the Delaware, though a little affected, is that when it eats the leaf there is nothing left to protect it, and it falls a prey to spiders and the mud-wasp, whereas, in the downy leaved varieties there is a covering left to protect it."

Letters were read from YARDLEY TAYLOR, of Virginia, BENJAMIN HODGE, of Buffalo, New York, Dr. V. H. SHEREDER, of Bloomfield, Ill., JOSHUA PIERCE, of District of Columbia, and other absent members.

#### LOCATION OF NEXT MEETING.

Invitations were tendered the Society from St. Louis, Cincinnati, New York and Indianapolis. After listening to the claims of the advocates of different localities, the Society, by unanimous vote, decided to hold its next biennial meeting in St. Louis.

Wm Muir, of Missouri, offered the following resolution, which was adopted:

*Resolved*, That a committee be appointed for the purpose of corresponding with State and District Horticultural Societies, to direct their attention to the importance of showing that it is the direct interest of, and a duty devolving upon every Railroad company, to encourage the meetings and exhibitions of such Societies, by passing the members and delegates over their roads at half fare, for the purpose of attending meetings for the promotion of these interests.

## THE WORK OF KINDRED SOCIETIES.

Dr. B. F. EDWARDS presented the Society with copies of the Transactions of the Missouri and Illinois State Horticultural Societies, and suggested that the different State organizations be requested to forward copies of their transactions to the Committee on the Revision of Fruit Lists, to aid the said Committee in the discharge of its duties. The following resolution was offered and adopted:

*Resolved.* In order that this Society may be enabled to compile a catalogue of fruits for the whole country, it is requested that the several State Pomological or Horticultural Societies compile lists for their own States, after the model printed by this society in 1862, or as modified by the Ohio Pomological Society, dividing the states into several districts if thought necessary—copies of such catalogues to be furnished to the Secretary of this Society by the time of its next meeting.

The Committee to which was referred the preparation of resolutions expressive of regard for the memory of members deceased since its last session, offered the following:

*Resolved.* That the services to Pomology of our deceased friend, WILLIAM REID, of New Jersey, deserve our warmest acknowledgments; and although he has passed forever beyond the reach of praise or blame, and stands where we soon must, in the dread presence of his Maker; yet our affection for his person, regard for his character, and gratitude for his services, impel us still to cling to his memory, and give utterance both to our grief and praise.

In social intercourse, kind and genial; in the search for truth, earnest and indefatigable; in the Science of Horticulture most learned and skillful, he brought to our aid faculties of mind which make his loss irreparable. His native caution preserved him from expressions of judgment which might mislead, and his excellent memory stored up for his own and our use the world of facts which, to us, are forever lost; and while we grieve for the loss of our friend and brother, we are proud to recall his valuable services to our great cause, and fondly place upon the records of this Society this faint memorial of his life and character.



*Resolved*, That the members of this Society desire also to preserve green in their memories and affections, the name of Dr. JOHN A. KENNICOTT, of Illinois, whose character, in the love of Horticulture and of his fellows, combined to form a man whom we knew not whether most to love or admire. And while his services to Horticulture demand our most grateful testimonials to their value, we can not withhold our expressions of esteem for him as a philanthropist, nor our affection and grief for the loss of a friend.

*Resolved*, That, as side by side these two men, eminent for their love of Nature and their knowledge of her mysteries, have parted the veil which separates time from eternity, and now view the sublimer mysteries of that life which has no grave, so we, side by side engrave their names upon the tablets of our memories, and on the records of our and their labors preserve for future generations of Horticulturist, this testimony of our affection and respect.

*Resolved*, That the name of W. D. BRINCKLE, of New Jersey, deserves most grateful preservation in the hearts of all lovers of Horticulture. Nether the labors and fatigue of the faithful practice of his profession, nor the sufferings of an enfeebled and diseased body, could detract from his zeal for the promotion of Horticultural knowledge. His value to our society can not be measured by the results of his Horticultural experiments, nor the contributions of his great store of knowledge to our discussions and reports; but to estimate our loss we must remember the mild and Christian temper with which he reproved momentary unkindness and restored harmony to our deliberations.

With DOWNING and WALKER and REID and KENNICOTT, we place the name of BRINCKLE upon the roll of the benefactors of his kind, confident that those who love virtue, usefulness and zeal for science, will not willingly forget our deceased friend.

All of which is respectfully submitted.

THOS. W. FIELD,  
GEO. HOADLEY,

I. D. G. NELSON,  
PETER B. MEAD.

The report was unanimously adopted.

## REPORT OF COMMITTEE ON NEW NATIVE FRUITS.



Your committee beg leave to report, that they have given to New Fruits presented to their consideration, all the time and attention that circumstances would permit; and submit the following statement:

## P E A C H E S.

*Seedling of the Early Crawford*, by Dr. Ware Sylvester—Represented to be later and sweeter; which is found to be the case. The stone is small, and the fruit is considered an improvement.

A *Seedling Yellow Freestone Peach* was presented by A. G. Percy, of Newark, N. J., which he represents as a great bearer. Neither their quality, size, nor appearance make them worthy of being named. If, however, possessed of the hardiness and productiveness represented, it may be worthy of further notice.

## A P P L E S.

Edm. Willis, of Long Island, presented the *Willis Sweet*, called also *Pear-Tree Lot*.—A large red, fine-looking apple; which has proved itself very valuable. This, though an old variety, is of excellent quality and merits further propagation.

Doctor Howe, of Westchester County, N. Y.—An apple, without name; large, oblate, yellowish green, slightly blushed, smooth. Recommended for cooking. Season, August and September. Not first-rate.

*Lippincott Sweet*, from William Parry, of New Jersey.—A winter-keeping apple. Not ripe.

*Bachelor's Blush*.—Similar to *Maiden's Blush*, but thought to be of superior quality and of good appearance. Said to be a regular bearer.

P. B. Mead—A handsome red apple, called *Choney*, from the name of the originator in South Manchester, Conn. Ripens September and October. This appears to be a good fruit; not fully ripe.

#### PEARS.

*Edmond's Pear*, from Ellwanger & Barry.—New; originated in Monroe County, near Rochester; very fine-grained, melting, and rich, with high flavor.

*Beurré Superieur*.—A new Foreigner; fine-grained, melting, juicy; medium size, and of great promise.

#### GRAPES.

*Iona*, from Dr. Grant.—This grape is attracting considerable attention from its beauty, color, transparency and size. It holds well to the bunch, requiring considerable effort to remove it. The texture of the pulp is very fine, almost fleshy, and the flavor is very sprightly and rich.

*Muscat Autumnal*, from Ellwanger & Barry.—A new Foreign grape, of great beauty, and very high, rich flavor.

*Johnson's California*.—A grape is exhibited under this name by Mr. Hurst, of Albany, N. Y. It was grown from a cutting sent from California, and is evidently one of the foreign grapes introduced into that country by the Spanish missionaries.

A *Seedling* by Mr. J. Moore, of Rochester, N. Y., reported to be a hybrid between the *Diana* and the *Black Hamburg*, is not yet ripe, but in bunch and berry it is large and handsome. It is not now in condition to test its qualities. The foliage, as exhibited with the specimen, has a foreign aspect, and the Committee is not satisfied as to its hardiness.

CHARLES DOWNING,

*Chairman.*

## REPORT OF COMMITTEE ON NEW GRAPES.

*The Committee on Grapes respectfully submit the following Report:*

Your Committee could not clearly understand the purpose for which they were appointed, a Committee having already catalogued the grapes on exhibition. They, however, made a cursory examination of the grapes on the table, especially the Seedlings. The Adirondac was presented at the last meeting, and has already been reported upon.

Among those not reported upon, the following may be noticed: The Iona, from Dr. Grant, an excellent grape, ripening about the time of the Delaware. The Israella, ripening it is supposed, before the Hartford; sweet, tender and good. A seedling from Mr. Bergen, said to be from the Traminer, but there can be little doubt that it is from the Diana,—it is very promising. Another seedling from Mr. Moore, a cross between the Diana and Black Hamburgh, presents some interesting points, and should be sent to the Fruit Committee ripe. There were a number of other seedlings, but the above would seem to be the only ones worthy to be noted.

We would not omit, however, to note a bunch of the Yeddo grape, presented by Mr. Saunders. It is not ripe, but is sweet, and would seem to be a good grape. It should receive further trial. It may prove to be of value for hybridizing.

All of which is respectfully submitted.

PETER B. MEAD,	} <i>Committee.</i>
CHAS. DOWNING,	
GEO. M. BEELER,	
J. S. HOUGHTON,	
B. F. EDWARDS,	

## REPORT OF COMMITTEE ON FRUITS ON EXHIBITION.

The committee appointed to examine the fruits on exhibition respectfully report, that they found on the tables:

From ELLWANGER & BARRY, Rochester, N. Y., 155 varieties of pears, and 36 varieties of plums.

From FROST & Co., Rochester, N. Y., 9 varieties Roger's Hybrid, and 14 other sorts of grapes; 8 varieties crab apples, one seedling apple, and one seedling grape.

From HOOKER, FARLEY & Co., Rochester, N. Y., 43 varieties of pears.

From C. J. RYAN & Co., Rochester, N. Y., 10 varieties pears, 48 varieties apples, 10 varieties grapes.

From C. W. SEELYE, Rochester, 32 varieties grapes.

From H. N. LANGWORTHY, Greece, N. Y., two varieties grapes.

From H. E. HOOKER & Co., Rochester, 50 varieties pears, 8 of native grapes.

From J. KNOX, Pittsburgh, Pa., 15 varieties grapes.

From GODFREY ZIMMERMAN, Buffalo, N. Y., 22 varieties apples, 20 varieties pears, 5 varieties grapes.

From E. W. SYLVESTER, Lyons, N. Y., 2 varieties seedling peaches, 3 varieties peaches, 2 varieties pears, 2 varieties grapes.

From GEO. W. CAMPBELL, Delaware, O., samples of Delaware grapes.

From BRONSON, GRAVES, & SELOVER, Geneva, N. Y., 17 varieties apples, 47 varieties pears, 2 varieties plums, 11 varieties native grapes, 19 varieties foreign grapes.

From T. C. MAXWELL, Geneva N. Y., 13 varieties grapes.

From J. M. PAUL, North Adams, Mass., 31 varieties of apples.

From STORRS & HARRISON, Painesville, O., by M. B. Bateham, 4 varieties grapes.

From L. B. MARSHALL, Massillon, O., 4 varieties of apples.

From J. W. MANNING, Reading Mass., 2 varieties grapes.

From JOHN G. BERGEN, Brooklyn N. Y., 8 varieties grapes.

From DANIEL HARKENS, Wilkesbarre, Pa., 3 var. grapes.

From WM. BROCKSBANK, Hudson, N. Y., 18 varieties grapes.

From Dr. C. W. GRANT, Peekskill, N. Y., samples of Iona and Israella grapes.

From Dr. J. K. Eshelman, Downington, Pa., 2 varieties of apples and one of pears.

From HOVEY & Co., Boston, Mass., 4 varieties of pears.

From S. MOORE, Providence, R. I., 1 variety pear.

From J. W. BAILEY, Plattsburgh, N. Y., samples Adirondac grape.

From ROBERT DOUGLAS, Wankegan, Ill., 23 varieties pears.

From WM. PARRY, Cinnaminson, N. J., 6 varieties apples.

From Department of Agriculture, Washington, D. C., 1 sample of Yeddo grape.

From E. P. TAFT, of Rhode Island, 3 varieties pears.

From C. B. MANCHESTER, 1 variety peach.

From Mr. BOARDMAN, Rushville, N. Y., 3 varieties grapes.

E. W. HERENDEEN, *Chairman*.

On motion of D. W. BEADLE, seconded by P. BARRY, the following resolution was adopted unanimously:

*Resolved*, That the thanks of the Society be tendered to Dr. TRIMBLE, of New Jersey, for his very able and interesting address on entomology, and that he be requested to continue his investigations of the habits of those insects which are injurious to our fruits, and report the results of his labors at the next meeting.

It was also resolved by unanimous vote, that the thanks of this Society be tendered to the Fruit Growers' Society of Western New York, and to the citizens of Rochester, for the ample provision made for the accommodation of the American Pomological Society, and for their kind attentions which have made our sojourn in this beautiful city so profitable and pleasant.

Adjourned *sine die*.

A

# CATALOGUE OF FRUITS,

FOR

CULTIVATION IN THE UNITED STATES AND CANADAS;

IN TWO DIVISIONS.

DIVISION FIRST—EMBRACING THOSE STATES LYING NORTH OF THE SOUTHERN LINE OF VIRGINIA, TENNESSEE, MISSOURI, &C., AND EAST OF THE ROCKY MOUNTAINS, INCLUDING THE CANADAS.

DIVISION SECOND—THE STATES SOUTH OF THE LINE ABOVE NAMED, AND WEST OF THE ROCKY MOUNTAINS.

COMPILED UNDER THE DIRECTION OF THE

AMERICAN POMOLOGICAL SOCIETY,

FROM THE

*Reports of State and District Committees,*

INTENDED TO EXHIBIT IN A FORM CONVENIENT FOR REFERENCE, THE VARIETIES OF FRUITS BEST ADAPTED TO THE DIFFERENT STATES AND LOCALITIES: SUBJECT TO FUTURE REVISION AND CORRECTION, AS EXPERIENCE MAY RENDER NECESSARY AND PROPER.

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REVISED EDITION.

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ROCHESTER, N. Y :  
BOOK AND JOB PRESS OF BENTON & ANDREWS.  
1864.

# REPORT OF SPECIAL COMMITTEE ON REVISION OF CATALOGUE.

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The undersigned, Committee appointed by the American Pomological Society at its eighth session, held in Philadelphia in 1860, to revise its Catalogue of Fruits, respectfully report, that immediately after the adjournment of that session, they addressed a circular to the various State and District Committees, requesting them to prepare and forward their reports at as early a day as possible.

Fifteen State Committees responded, furnishing reports. Several promised reports but were unable to prepare them, owing to our national troubles. From these reports, and others previously made to the Society, and published in its transactions, the Committee have compiled the annexed Catalogue, the plan of which is fully explained on page 3.

The columns represent 24 States, besides the Canadas. Several of the States are divided into two or three districts, so that in all there are 35 districts. Of these we had no reports from Canada East, Kansas, Minnesota, Northern Michigan, New Hampshire, Nebraska, and Wisconsin. Several of these States have, as yet, no experience in fruit culture upon which to base reports, but we expect that all of them will report progress at our next meeting.

The Committee are aware that this Catalogue contains errors and imperfections, but through the united efforts of the Society and its Committees, these will gradually be corrected, and it will become alike creditable to the Society and useful to the country.

All of which is respectfully submitted.

P. BARRY,	} Committee.
J. S. CABOT,	
J. A. WARDER,	
CHAS. DOWNING,	
C. M. HOVEY,	
WM. REID,	
MARSHALL P. WILDER,	<i>Ex-Officio.</i>

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NOTE TO REVISED EDITION OF 1865.—Very few reports were received at the Session of 1864. Those of Pennsylvania, New York, and Ohio were the principal. The lists of Illinois, Iowa, and Missouri have been corrected by the aid of reports made by the local societies of those states.

The lists of Canada West have also been corrected by the latest reports of the Fruit Growers' Society of that district.

The Committee hope that a general response will be made by all State Committees and Societies, to the resolution adopted at the late Session, inviting reports in 1866, so that the Catalogue may be made as perfect, and hence useful, as possible.

P. BARRY, *Chairman.*



## PLAN OF THE CATALOGUE.

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THE arrangement of the varieties is alphabetical, according to the nomenclature adopted by the Society. Synonyms are given in a few instances only, where it seemed necessary, and these are placed under the adopted name, in italics. The tabular arrangement has been adopted to obviate the necessity of repeating the names of varieties several times, as would be required if a separate Catalogue were made for several sections.

It has been decided by the Committee not to attempt, at this time, to give descriptions of the fruits recommended, but simply to indicate the season of maturity, use, and a few other particulars of importance, which require but little space. In regard to the season, it will be observed, that instead of naming the month or months in which fruits mature, the general terms *Summer*, *Autumn* and *Winter* have been used; the peculiar arrangement of the Catalogue renders it impracticable to be more exact in this particular. For example: the Early Harvest Apple is reported as succeeding in almost every State and Territory in the Union, in one locality ripening in May, and in another in July or even August, a difference of two months or more, and yet in every locality it is strictly an *early summer apple*.

The columns are arranged thus: first, the names of varieties; next, the season, use, &c., and then the states or districts, the names of which stand at the head of the columns.

The state or district in which any variety is recommended, is designated by a star (\*); and in cases where a variety is recommended as being of great superiority and value in any locality, the indication is two stars (\*\*).

It being necessary to carry the column arrangement across two pages, numbers are used on the margin of each page, to prevent errors in following lines.

### DIVISION FIRST.

Embracing those states north of the Southern line of Virginia, Tennessee, Missouri, &c., and East of the Rocky Mountains, including the Canadas.



## I.—APPLES.

EXPLANATION OF COLUMNS.—The first column on the right of the name gives the season of maturity. The second, the particular uses for which the variety is best adapted; and the remainder the districts in which the varieties are recommended.

EXPLANATION OF ABBREVIATIONS.—Seasons—S. summer; A. autumn; W. winter; E. early; L. late. Those not designated as early or late of their season, may be regarded as medium.

USE.—K. designates varieties recommended only for kitchen purposes. C. those specially for cider. Those not marked K, or C. may be regarded as dessert or table sorts. M. designates those most valued for market.

\* Star opposite a variety indicates that such a variety succeeds well in the district named at the head of the column.

\*\* Two stars distinguish those most highly recommended.





VIII.

No.	NAME.	SEASONS.	USE.	Canada West	Canada East.	Connecticut	Delaware.	Dist. of Columbia.	Indiana, North	Indiana, South.	Illinois, North.	Illinois, Central.	Illinois, South.
32	Cole's Quince.....	A.											
33	Cornell's Fancy..... <i>Cornell's Favorite.</i>	A.	K.										
34	Cullasaga.....	L. W.											
35	Danver's Winter Sweet.....	W.	K.			*							
36	Dominic..... <i>Wells.</i>	W.									*	*	*
37	Drap d'Or..... <i>Early Seamer Pippin.</i>	E. A.											
38	Dutch Mignonne.....	W.				*							
39	Duchess of Oldenburg..... <i>Borovitsky.</i> <i>Carlowski.</i>	E. A.	K. M.	*				*	*	*	*	*	*
40	Dyer, or Pomme Royal..... <i>Pomme Water.</i> <i>Tompkins.</i> <i>Spice Apple.</i> <i>Beard Burden</i>	A.									*	*	*
41	Early Harvest..... <i>Yellow Harvest.</i>	E. S.	M.	*	*	*	*	*	*	*	*	*	*
42	Early Penneck.....	S.						*	*	*	*	*	*
43	Early Red-Streak.....	S.						*	*	*	*	*	*
44	Early Joe.....	S.						*	*	*	*	*	*
45	Early Strawberry..... <i>American Red Juuicating.</i>	S.				*	*	*	*	*	*	*	*
46	Early Red Margaret..... <i>Red Juuicating.</i> <i>Striped Juuicating.</i>	E. S.						*	*	*	*	*	*
47	English Russet..... <i>Poughkeepsie Russet.</i>	L. W.	M.	*	*	*	*	*	*	*	*	*	*
48	Ewalt.....	W.	K. M.										
49	Excel.....	W.				*							
50	Fallowater..... <i>Forwadder.</i> <i>Tulpehocken.</i>	W.											
51	Fall Pippin..... <i>Holland Pippin erroneons.</i>	L. A.	M.	*	*	*	*	*	*	*	*	*	*
52	Fall Wine..... <i>Sharp's Spice, &amp;c.</i>	A.						*	*	*	*	*	*
53	Fall Queen of Ky..... <i>Winter Queen.</i> <i>Ladies' Favorite of Tenn.</i>	L. A.						*	*	*	*	*	*
54	Fall Jemmetting.....	L. A.	K. M.										
55	Fall Orange..... <i>Holden Pippin.</i>	A.											
56	Fameuse..... <i>Pomme de Neige.</i> <i>Snow Apple.</i>	E. W.	M.	*	*	*	*	*	*	*	*	*	*
57	Fenner Sweet.....	W.	K.										
58	Fenley.....	S.						*					
59	Fulton.....	W.								*	*	*	*
60	Garden Royal.....	A.									*	*	*



No.	NAME.	SEASON.	USE.	Canada West.	Canada East.	Connecticut.	Delaware.	Dist. of Columbia.	Indiana, North.	Indiana, South.	Illinois, North.	Illinois, Central.	Illinois, South.
61	Gilpin, ..... <i>Cart House.</i> <i>Red Romanite of the West.</i> <i>Little Romanite.</i>	W.	C.				*				*	*	
62	Golden Russet of W. N. Y. ....	L. W.	M.	*									
63	Golden Russet of Mass. ....	W.	M.		*								
64	Golden Sweeting, ..... <i>Orange Sweeting.</i> <i>Trenton Early, of some West-</i> <i>ern collections.</i>	E. A.	K. M.	*	*	*					*	*	*
65	Gravenstein, ..... <i>Green Cheese.</i>	E. A.		*	*	*	*	*	*	*			
66	Green Sweet, ..... <i>Honey Greening.</i>	L. W.											
67	Hawthornden, ..... <i>Hartford Sweeting.</i>	W.	K.										
68	Hartford Sweeting, ..... <i>Herefordshire Pearmain.</i>	E. A.	K.	*							*	*	
69	Herefordshire Pearmain, ..... <i>Royal Pearmain.</i>	W.			*				*	*	*	*	
70	Hewes' Virginia Crab, ..... <i>High-top Sweeting.</i>	A.	C.										*
71	High-top Sweeting, ..... <i>Sweet June.</i> <i>Summer Sweet.</i>	S.	K.		*	*			*	*	*	*	
72	Horse Apple, ..... <i>Summer Horse.</i>	S.	K.										*
73	Hocking, ..... <i>Holland Pippin.</i>	S.									*	*	
74	Holland Pippin, ..... <i>Summer Pippin.</i> <i>Pie Apple.</i>	L. S.	K.								*	*	
75	Holladay's Seedling, ..... <i>Holden Pippin (see Fall Orange).</i>	W.						*					
76	Holden Pippin (see Fall Orange) ...												
77	Hubbardston Nonsuch, ..... <i>Hurlbut.</i>	E. W.	M.	*	*	*		*	*	*	*	*	
78	Hubbardston Nonsuch, ..... <i>Jersey Sweeting.</i>	E. W.			*	*					*	*	
79	Hurlbut, ..... <i>Jonathan.</i>	E. A.	K.								*	*	
80	Jersey Sweeting, ..... <i>King Philip.</i>	W.	M.		*	*	*	*	*	*	*	*	
81	Jonathan, ..... <i>Jefferis.</i>	E. A.											
82	Jefferis, ..... <i>Jewett's Fine Red.</i>	E. A.											
83	Jewett's Fine Red, ..... <i>Nollhead.</i>	E. W.											
84	Knowles' Early, ..... <i>Kane.</i>	S.				*							
85	Kane, ..... <i>Keswick Codlin.</i>	A.											
86	Keswick Codlin, ..... <i>King of Tompkins Co.</i>	S.	K.	*	*	*		*	*	*	*	*	*
87	King of Tompkins Co., ..... <i>Large Yellow Bough.</i>	E. W.	M.		*	*		*	*	*	*	*	
88	Large Yellow Bough, ..... <i>Sweet Bough.</i> <i>Sweet Harvest, &amp;c.</i>	S.	K. M.	*	*	*	*	*	*	*	*	*	
89	Lady Apple, ..... <i>Pomme d'Api.</i>	W.			*	*	*	*	*	*	*	*	
90	Ladies' Sweeting, ..... <i>Late Strawberry.</i>	W.	K.		*	*			*	*	*	*	
91	Late Strawberry, ..... <i>Autumn Strawberry.</i>	A.									*	*	
92	Limber Twig, ..... <i>James River.</i>	L. W.	M.					*	*	*	*	*	*



No.	Iowa.	Kentucky.	Kansas.	Maine.	Minnesota.	Michigan, North.	Michigan, South of Saginaw Bay.	Missouri.	Maryland.	Massachusetts.	New Hampshire.	Nebraska.	New York, East.	New York, West.	New Jersey.	Ohio, North.	Ohio, Central.	Ohio, South.	Penn., East.	Penn., Central.	Penn., West.	Rhode Island.	Vermont.	Virginia.	Wisconsin.	
61		*																								
62							*						*	*		*	*	*		*						
63										*			*	*		*	*	*		*						
64	*						*	*					*	*		*	*	*		*			*			
65							*			*			*	*	*	*	*	*		*	*		*	*	*	*
66									*	*			*	*	*	*	*	*		*	*		*	*	*	*
67									*	*			*	*	*	*	*	*		*	*		*	*	*	*
68							*						*	*	*	*	*	*		*	*		*	*	*	*
69													*	*	*	*	*	*		*	*		*	*	*	*
70	*						*						*	*	*	*	*	*		*	*		*	*	*	*
71		*															*	*		*	*		*	*	*	*
72	*	*							*								*	*		*	*		*	*	*	*
73								*																*	*	*
74																								*	*	*
75													*	*	*	*	*	*		*	*		*	*	*	*
76																								*	*	*
77																								*	*	*
78							*	*		*			*	*	*	*	*	*		*	*	*	*	*	*	*
79							*	*		*			*	*	*	*	*	*		*	*	*	*	*	*	*
80	*	*					*	*	*	*			*	*	*	*	*	*		*	*	*	*	*	*	*
81	*	*					*	*	*	*			*	*	*	*	*	*		*	*	*	*	*	*	*
82													*	*	*	*	*	*		*	*	*	*	*	*	*
83													*	*	*	*	*	*		*	*	*	*	*	*	*
84													*	*	*	*	*	*		*	*	*	*	*	*	*
85													*	*	*	*	*	*		*	*	*	*	*	*	*
86							*	*		*			*	*	*	*	*	*		*	*	*	*	*	*	*
87	*	*		*			*	*	*	*			*	*	*	*	*	*		*	*	*	*	*	*	*
88				*			*	*	*	*			*	*	*	*	*	*		*	*	*	*	*	*	*
89							*	*		*			*	*	*	*	*	*		*	*	*	*	*	*	*
90							*	*		*			*	*	*	*	*	*		*	*	*	*	*	*	*
91	*	*					*	*	*	*			*	*	*	*	*	*		*	*	*	*	*	*	*
92													*	*	*	*	*	*		*	*	*	*	*	*	*

No.	NAME.	SEASON.	USE	Canada West.	Canada East.	Connecticut.	Delaware.	Dist. of Columbia.	Indiana, North.	Indiana, South.	Illinois, North.	Illinois, Central.	Illinois, South.
93	Lyman's Pumpkin Sweet, <i>Pound Sweet.</i>	L. A.	K.			*							
94	Lowell, <i>Orange.</i> <i>Tallow Apple.</i> <i>Greasy Pippin.</i> <i>Queen Anne.</i> <i>Mich. Golden Pippin.</i>	A.	K. M.								*	*	
95	Lyscom, <i>Osgood's Favorite.</i>	A.											
96	Maiden's Blush,	A.	K. M.			*	*	*	*	*	*	*	*
97	Mackinlay,	W.				*	*	*	*	*	*	*	*
98	Manomet,	A.											
99	Melon,	E. W.				*							
100	Minkler,	W.									*		
101	Minister,	W.				*							
102	Milam,	W.									*		
103	Michael Henry Pippin,	L. W.									*		
104	Monmouth Pippin, <i>Red Cheek Pippin.</i>	L. W.	M.			*							
105	Mother,	E. W.									*		
106	Munson Sweet,	A.	K.										
107	Myers' Nonpareil, <i>Ohio Nonpareil.</i>	A.								*	*		
108	New York Pippin (see Ben Davis),	L. W.	M.										
109	Newtown Pippin, <i>Green Newtown Pippin.</i>	L. W.											
110	Newtown Pippin Yellow,	L. W.					*		*	*	*	*	*
111	Northern Spy,	L. W.	M.	*	*	*		*	*	*	*	*	*
112	Northern Sweet, <i>Northern Golden Sweet.</i>	A.	K.								*		
113	Oglesby,	W.											
114	Ortley, <i>White Bellflower.</i> <i>White Detroit.</i> <i>Woodman's Long.</i>	W.	M.							*	*	*	*
115	Paradise Winter Sweet,	W.	K.								*		
116	Paragon,	A.	K.										*
117	Peck's Pleasant,	W.			*	*		*	*	*	*	*	*
118	Pennsylvania Red Streak,	W.							*	*	*	*	*
119	Porter,	A.	M.			*					*		*
120	Pomme Grise,	L. W.			*					*	*	*	*
121	Primate, <i>Rough and Ready.</i>	L. S.				*				*	*	*	*
122	Progress, <i>Esquire Miller's Best.</i>	W.				**							
123	Pryor's Red,	W.	M.					*	*	*	*	*	*



No.	NAME.	SEASON.	USE.	Canada West.	Canada East.	Connecticut.	Delaware.	Dist. of Columbia.	Indiana, North.	Indiana, South.	Illinois, North.	Illinois, Central.	Illinois, South.
				*	*	*	*	*	*	*	*	*	*
124	Rambo, ..... <i>Romanite,</i> <i>Seek-no-further,</i> <i>Bread and Cheese Apple,</i> } of N. J.	W.		*	*	*	*	*	*	*	*	*	*
125	Rambour Franc. .... <i>Summer Rambo,</i> <i>Rambour d'Ete.</i>	S.	K.										
126	Ramsdell's Sweet. .... <i>Ramsdell's Red Pumpkin Sweet,</i> <i>Red Pumpkin Sweet,</i> <i>English Sweet.</i>	W.	K.			*					*		
127	Rawles' Janet. .... <i>Neverfail,</i> <i>Jennetting,</i> <i>Rochermain,</i> <i>Rockrimmon.</i>	L. W.	M.				*	*	*	*	*	*	*
128	Republican Pippin. ....	A.											
129	Red Canada. .... <i>Old Nonsuch of Mass,</i> <i>Richfield Nonsuch,</i> <i>Steele's Red Winter, of some</i> <i>collections in Mich.</i>	W.		*								*	
130	Red Ingestrie. ....	A.											
131	Red Sweet. .... <i>Red Winter Sweet.</i>	W.	K.										
132	Red Cathart. ....	W.											
133	Reinette Canada. .... <i>Canada Reinette.</i>	W.		*									
134	Rhode Island Greening. ....	W.	M.	*	*	*			*				
135	Ribston Pippin. ....	E. W.		*	*	*							
136	Ridge Pippin. ....	L. W.	M.										
137	Roman Stem. ....	W.								*	*		
138	Roxbury Russet. .... <i>Boston Russett,</i> <i>Potomac Russell, of some</i> <i>Western collections.</i>	L. W.	M.	*	*	*			*	*	*	*	*
139	Rome Beauty. .... <i>Gillett's Scrolling.</i>	W.	M.						*	*	*	*	*
140	Robey's Seedling. ....	W.											
141	Robertson's White. ....	E. W.											
142	Saint Lawrence. ....	A.		*									
143	Sheppard's Sweet. ....	A.	K.										
144	Sine qua non. ....	S.											
145	Smith's Cider. ....	W.	K. M.						*	*	*	*	*
146	Smoke-house. .... <i>Mill Creek Vandevere,</i> <i>English Vandevere.</i>	E. W.	M.		*	*	*	*	*	*	*	*	*
147	Sops of Wine. .... <i>Pie App'e,</i> <i>Washington.</i>	S.	K.							*			
148	Spice Sweet. ....	A.	K.						*	*	*	*	*
149	Spitzenburg Esopus. ....	W.	M.	*	*	*			*	*	*	*	*



No.	NAME.	SEASON.	Use.	Canada West	Canada East	Connecticut	Delaware.	Dist. of Columbia.	Indiana, North	Indiana, South.	Illinois, North.	Illinois, Central.	Illinois, South.
150	Summer Queen,.....	S.							*	*	*	*	
151	Summer Rose,..... <i>Woolman's Harvest.</i> <i>Lippincot.</i>	S.			*	*	*				*	*	
152	Summer Hagloe,.....	L. S.	K.										
153	Summer Sweet Paradise,.....	S.	K.										
154	Strawn's Seedling,.....	W.											
155	Swain,.....	A.						*					
156	Swaar,.....	W.			*			*	*	*	*	*	
157	Petofsky,.....	S.											
158	Finn outh,..... <i>Trigunmouth.</i>	W.											
159	Tolman's Sweeting,.....	W.	K. M.	*	*						*	*	
160	Powne,.....	A.											
161	Pownsend,.....	E. A.											
162	Pwenty Ounce Apple,..... <i>Eighteen Ounce Apple.</i> <i>Cayuga Streak.</i>	E. W.	M.		*								
163	Vandevere, of N. Y.,..... <i>Newtown Spitzenburg.</i> <i>Ox Eye.</i> <i>Joe Berry.</i>	W.	M.		*	*		*			*	*	
164	Wagener,.....	W.	M.	*				*	*	*	*	*	
165	Waugh's Crab,.....	W.	C.										
166	Watch Willow,.....	L. W.											
167	Wellford's Yellow,.....	W.											
168	Westfield Seek-no-further,..... <i>Conn. Seek-no-further.</i> <i>Seek-no-further.</i>	W.	M.		*			*			*	*	
169	White Juneating,..... <i>Juneating.</i>	S.			*				*				
170	White Pippin,..... <i>Canada Pippin.</i>	L. W.	M.						*	*	*	*	*
171	White Winter Pearmain,.....	L. W.	M.						*	*	*	*	*
172	White Rambo,.....	A.											
173	Wine Sap,..... <i>Wine Sap.</i>	L. W.	M.		*	*	*	*	*	*	*	*	*
174	Willow Twig,.....	L. W.	M.							*	*	*	*
175	Williams' Favorite,.....	S.			*								
176	Wine Apple or Hays,.....	W.	M.		*	*	*					*	
177	Yellow Ingestrie,.....	A.											
178	Yellow June,..... <i>Kirkbridge White, of Downing</i>	S.									*		

No.	Iowa.	Kentucky.	Kansas	Maine.	Minnesota.	Michigan, North.	Michigan, South of Saginaw Bay.	Missouri.	Maryland.	Massachusetts.	New Hampshire.	Nebraska.	New York, East.	New York, West.	New Jersey.	Ohio, North.	Ohio, Central.	Ohio, South.	Penn., East.	Penn., Central.	Penn., West.	Rhode Island.	Vermont.	Virginia.	Wisconsin.
150																									
151						*	*	*	*	*			*	*	*	*	*	*	*	*	*	*	*	*	*
152																									
153													*	*	*	*	*	*	*	*	*	*	*	*	*
154									*											*	*	*	*	*	
155																									
156							*	*					*	*	*	*	*	*	*	*	*	*	*	*	
157								*					*	*	*	*	*	*	*	*	*	*	*	*	
158													*	*	*	*	*	*	*	*	*	*	*	*	
159	*					*				*			*	*	*	*	*	*	*	*	*	*	*	*	
160						*				*			*	*	*	*	*	*	*	*	*	*	*	*	
161	*												*	*	*	*	*	*	*	*	*	*	*	*	
162						*							*	*	*	*	*	*	*	*	*	*	*	*	
163						*	*	*					*	*	*	*	*	*	*	*	*	*	*	*	
164						*							*	*	*	*	*	*	*	*	*	*	*	*	
165									*				*	*	*	*	*	*	*	*	*	*	*	*	
166													*	*	*	*	*	*	*	*	*	*	*	*	
167									*				*	*	*	*	*	*	*	*	*	*	*	*	
168						*							*	*	*	*	*	*	*	*	*	*	*	*	
169	*					*		*					*	*	*	*	*	*	*	*	*	*	*	*	
170								*					*	*	*	*	*	*	*	*	*	*	*	*	
171	*							*					*	*	*	*	*	*	*	*	*	*	*	*	
172	*							*					*	*	*	*	*	*	*	*	*	*	*	*	
173	*	*						*					*	*	*	*	*	*	*	*	*	*	*	*	
174	*							*					*	*	*	*	*	*	*	*	*	*	*	*	
175	*							*		*			*	*	*	*	*	*	*	*	*	*	*	*	
176						*		*		*			*	*	*	*	*	*	*	*	*	*	*	*	
177	*							*					*	*	*	*	*	*	*	*	*	*	*	*	
178													*	*	*	*	*	*	*	*	*	*	*	*	





## II.—PEARS.

The columns indicate—1st. The Season; 2d. Use; 3d. Stock; and the remainder the districts in which the varieties are recommended.

The abbreviations are—

SEASON—S. Summer; A. Autumn; W. Winter; E. Early; L. Late.

USE—K. denotes those recommended *only* for kitchen purposes. M. those most profitable for market.

STOCK—Q. those which are known to succeed well on the Quince stock.

No.	NAME.	SEASON.	Use.	STOCK.	Canada West.	Canada East.	Connecticut.	Delaware.	Dist. of Columbia.	Indiana, North.	Indiana, South.
1	Abbott, .....	A.									
2	Adams, .....	E. A.									
3	Alexandrina, .....	E. A.									
4	Ananas d'Été, .....	E. A.									
5	Andrews, .....	E. A.									
6	Bartlett or Williams' Bonchretien, .....	E. A.	M.								
7	Belle Lucrative, .....	E. A.		Q.	*	*	*	*	*	*	*
	<i>Fondante d'Automne.</i>				*	*	*	*	*	*	*
8	Belle Epine Dumas, .....	E. W.					*	*			
	<i>Épine Dumas.</i>						*	*			
	<i>Duc de Bordeaux, &amp;c.</i>						*	*			
9	Beurré Benoist, .....	A.					*	*			
	<i>Auguste Benoit.</i>						*	*			
	<i>Benoits.</i>						*	*			
10	Beurré Bosc, .....	A.					*	*			
11	Beurré Clairgeau, .....	L. A.	M.				*	*			
12	Beurré d'Anjou, .....	L. A.	M.	Q.	*	*	*	*	*	*	*
	<i>Ne plus Meuris, of the French</i>				*	*	*	*	*	*	*
13	Beurré d'Amaulis, .....	E. A.		Q.			*	*			
14	Beurré d'Arenberg, .....	E. W.					*	*			
15	Beurré de Brignais, .....	A.					*	*			
	<i>Des Noms.</i>						*	*			
16	Beurré Diel, .....	A.	M.	Q.	*	*	*	*	*	*	*
17	Beurré de Nantes, .....	A.					*	*			
	<i>Nantais.</i>						*	*			
18	Beurré Easter, .....	W.	M.	Q.			*	*	*	*	*
19	Beurré Giffard, .....	E. S.					*	*			
20	Beurré Golden of Bilboa, .....	A.					*	*			
21	Beurré Goubault, .....	E. A.					*	*			
22	Beurré Hardy, .....	A.		Q.			*	*			
23	Beurré Kennes, .....	A.					*	*			
24	Beurré Langelier, .....	L. A.		Q.			*	*			
25	Beurré Oswego, .....	A.				*	*	*			
26	Beurré Superfin, .....	A.		Q.			*	*			
27	Bezi de la Motte, .....	L. A.					*	*			
28	Black Worcester, .....	L. W.					*	*			
29	Bloodgood, .....	S.			*	*	*	*	*	*	*
30	Bonne d'Ezee, .....	A.					*	*			
31	Brandywine, .....	E. A.		Q.			*	*	*	*	*
32	Buffum, .....	A.	M.	Q.	*	*	*	*	*	*	*
33	Cabot, .....	E. A.					*	*	*	*	*
34	Capsheaf, .....	A.					*	*			
35	Catillac, .....	W.	K.	Q.			*	*			
36	Catinka, .....	L. A.					*	*			
37	Chancellor, .....	L. A.					*	*			
38	Chelmsford, .....	A.	K.				*	*			
39	Columbia, .....	E. W.			*	*	*	*	*	*	*
	<i>Columbian Virgalieu</i>				*	*	*	*	*	*	*
40	Conseiller de la Cour, .....	L. A.					*	*			
41	Cushing, .....	A.					*	*			
42	D'Albret, .....	A.					*	*			
43	Dearborn's Seedling, .....	S.					*	*	*	*	*
44	Delices d'Hardenpont d'Angers, .....	L. A.					*	*	*	*	*







No.	NAME	SEASON.	USE.	STOCK.	Canada West.	Canada East.	Connecticut.	Delaware.	Dist. of Columbia	Indiana, North.	Indiana, South.
82	Knight's R. I. Seedling.....	A.									
83	Lawr. nec.....	E. W.	M.				*	*		*	*
84	Limon..... <i>Beurre Haggerston.</i>	S.									
85	Lodge..... <i>Smith's Bordenav.</i>	A.						*			
86	Louise Bonne de Jersey.....	E. A.	M.	Q.	*		*	*		*	*
87	Madeleine..... <i>Citron des Carmes.</i>	E. S.					*	*		*	*
88	Marie Louise.....	A.									
89	McLaughlin.....	E. W.									
90	Merriam.....	A.									
91	Moyamensing.....	E. A.									
92	Moore's..... <i>Moore's Pound.</i>	A.									
93	Napoleon.....	L. A.		Q.			*				
94	Nouveau Poiteau.....	L. A.		Q.			*				
95	Onondaga..... <i>Swan's Orange</i>	A.	M.		*		*			*	*
96	Osband's Summer.....	S.									
97	Oswego Beurré (see Beurré Oswego)										
98	Orléans.....	L. S.					*	*			
99	Paradise d'Automne.....	A.					*	*			
100	Passe Colmar.....	E. W.					*	*		*	*
101	Pinneo or Boston.....	S.									
102	Pratt.....	A.									
103	Pound (see Uvedale's St. Germain)										
104	Rousslet Stuttgart.....	S.		Q.							
105	Rostiezer.....	S.					*				
106	St. Ghislain.....	E. A.									
107	St. Michel-Archange.....	A.					*	*		*	*
108	Seckel.....	A.	M.		*	*	*		*	*	*
109	Sheldon.....	A.	M.		*	*	*		*	*	*
110	Sterling.....	L. S.		Q.							
111	Stevens' Genesee.....	E. A.			*				*	*	*
112	Supreme de Quimper.....	S.							*	*	*
113	Tyson.....	S.			*	*	*	*	*	*	*
114	Urbaniste..... <i>Beurre Picquery.</i>	A.	M.	Q.	*	*	*	*	*	*	*
115	Uvedale's St. Germain..... <i>Pound.</i> <i>Winter Bell.</i> <i>Anyara.</i> <i>Bolivar, &amp;c.</i>	L. W.	K.			*					
116	Van Mons Leon le Clerc.....	L. A.									
117	Vicar of Winkfield..... <i>Le Cure.</i>	E. W.	M.	Q.	*	*					
118	Washington.....	E. A.							*	*	*
119	White Doyenne (see Doy. White).								*	*	*
120	Wilbur.....	E. A.									
121	Winter Nelis.....	E. W.			*	*			*	*	*
122	Windſor..... <i>Summer Bell, &amp;c.</i>	S.	K.		*	*			*	*	*







### III.—CHERRIES.

The columns explain—1st. The season of maturity ; 2d. The class to which the variety belongs ; and the remainder the districts in which the varieties are recommended.

The abbreviations are—

SEASON—E. Early, as Early Purple Guigne, Belle d'Orleans, Kentish, &c., which usually ripen at Rochester, lat. 43 deg., from the 10th to 20th of June, according to the season. M. Medium season, those ripening between 20th of June and 20th of July ; and L. Late, those ripening after that time.

CLASS—H. Hearts or tender-fleshed, sweet Cherries, such as Black Heart or Gov. Wood. B. Bigarreau or firm-fleshed, sweet Cherries, like Grafton, Napoleon, &c. D. Dukes, having more or less acidity, as May Duke. M. Morellos, having generally acid fruit used chiefly for kitchen or confectionary purposes.



No.	State
1	Iowa.
2	Kentucky.
3	Kansas.
4	Maine.
5	Minnesota.
6	Michigan, North.
7	Michigan, South of Saginaw Bay.
8	Missouri.
9	Maryland.
10	Massachusetts.
11	New Hampshire.
12	Nebraska.
13	New York, East.
14	New York, West.
15	New Jersey.
16	Ohio North.
17	Ohio, Central.
18	Ohio, South.
19	Penn., East.
20	Penn., Central.
21	Penn., West.
22	Rhode Island.
23	Vermont.
24	Virginia.
25	Wisconsin.
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## IV.—PEACHES.

The columns explain :

1st. The class, as Freestone or Clingstone, to which the variety belongs.

2d. The color of the flesh.

3d. The season of maturity, as Early, Medium, or Late. Those designated as Early ripen in lat. 43 deg., previous to or about Sept. 1st. Medium, those ripening from 1st to 15th of Sept., and Late, those after that period. A few of the very early and very late are so designated. The remaining columns denote the districts in which the varieties are recommended.

Abbreviations :

CLASS—F. Freestone ; C. Clingstone.

FLESH—W. White or pale-colored flesh ; Y. Yellow or yellowish flesh.

SEASON—E. Early ; V. E. Very Early ; M. Medium ; L. Late ; V. L. Very Late.

No.	NAME.	CLASS. FREE OF CLING.	COLOR OF FLESH.	SEASON.	Canada West.	Canada East.	Connecticut.	Delaware.	Dist. of Columbia.	Indiana, North.	Indiana, South.
1	Barnard,..... <i>Early Barnard.</i> <i>Yellow Barnard.</i>	F.	Y.	M.							
2	Barrington.....										
3	Bellegarde.....	F.	W.	M.							
4	Bergen's Yellow.....	F.	Y.	M.							
5	Cambridge Belle.....	F.	W.	M.							
6	Carpenter's White.....	F.	W.	L.							
7	Cole's Early Red.....	F.	W.	E.							
8	Columbia.....	F.	Y.	M.							
9	Coolidge's Favorite.....	F.	W.	E.							
10	Crawford's Early Melocoton.....	F.	Y.	E.					*	*	*
11	Crawford's Late Melocoton.....	F.	Y.	L.					*	*	*
12	Druid Hill.....	F.	W.	L.					*	*	*
13	Early Newington Freestone.....	F.	W.	E.							
14	Early Slocum.....	F.	W.	E.							
15	Early Tillotson.....	F.	W.	V. E.						*	*
16	Early York..... <i>Serrate Early York.</i> <i>Early Purple.</i>	F.	W.	V. E.					*	*	*
17	Fay's Early Ann.....	F.	W.	V. E.							
18	George the Fourth.....	F.	W.	E.					*	*	*
19	Grand Admirable.....	C.	W.	L.					*	*	*
20	Grosse Mignonne.....	F.	W.	E.					*	*	*
21	Haines' Early Red.....	F.	W.	E.					*	*	*
22	Hales' Early (from Ohio).....	F.	W.	V. E.					*	*	*
23	Heath Cling.....	C.	W.	L.					*	*	*
24	Hill's Madeira..... <i>Madeira Freestone.</i>	F.	Y.	M.							
25	Hyslop Cling.....	C.	W.	V. L.							
26	Jacques.....	F.	Y.	M.							
27	Kenrick's Heath..... <i>Heath Freestone.</i>	F.	W.	V. L.					*	*	*
28	La Grange.....	F.	W.	V. L.					*	*	*
29	Large Early York.....	F.	W.	E.					*	*	*
30	Large White Clingstone.....	C.	W.	M.					*	*	*
31	Late Red Rare-ripe.....	F.	W.	M.					*	*	*
32	Lemon Clingstone.....	C.	Y.	L.					*	*	*
33	Leopold Clingstone.....								*	*	*
34	Malta.....	F.	W.	M.					*	*	*
35	Molden's White.....	F.	W.	L.					*	*	*
36	Morris' White.....	F.	W.	M.					*	*	*
37	Noblesse.....	F.	W.	M.					*	*	*
38	Old Mixon Free.....	F.	W.	L.					*	*	*
39	Old Mixon Cling.....	C.	W.	L.					*	*	*
40	Rodman's Cling..... <i>Red Cling.</i>	C.	W.	V. L.					*	*	*
41	Royal George.....	F.	W.	E.							
42	Scott's Nonpareil.....	F.	Y.	L.					*	*	*
43	Smock Freestone.....	F.	Y.	L.					*	*	*
44	Snow.....	F.	W.	M.					*	*	*

No.	Illinois, North.	Illinois, Central.	Illinois, South.	Iowa.	Kentucky.	Kansas.	Maine.	Minnesota.	Michigan, North.	Michigan, South of Saginaw Bay.	Missouri.	Maryland.	Massachusetts.	New Hampshire.	Nebraska.	New York, East.	New York, West.	New Jersey.	Ohio, North.	Ohio, Central.	Ohio, South.	Penn., East.	Penn., Central.	Penn., West.	Rhode Island.	Vermont.	Virginia.	Wisconsin.	
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No.	NAME.	CLASS. FREE OR CLING.	COLOR OF FLESH	SEASON.	Canada West.	Canada East.	Connecticut.	Delaware.	Dist. of Columbia.	Indiana, North.	Indiana, South.
45	Stump the World.....	F.	W.	L.							
46	Sturtevant, of Ohio.....	F.	Y.	M.							
47	Susquehanna.....	F.	Y.	M.							
48	Tippecanoe Cling.....	C.	Y.	L.							
49	Troth's Early.....	F.	W.	E.					*		
50	Van Zandt's Superb.....	F.	W.	E.							
51	Ward's Late Free.....	F.	W.	V. L.				*		*	*
52	W. re.....							*			
53	White Imperial.....	F.	W.	E.				*			
54	Yellow Alberge.....	F.	Y.	E.							
55	Yellow Rare-ripe.....	F.	Y.	M.				*			

## V.—NECTARINES.

Explanation of columns and abbreviations same as Peaches.

No.	NAME.	CLASS. FREE OR CLING.	COLOR OF FLESH	SEASON.	Canada West.	Canada East.	Connecticut.	Delaware.	Dist. of Columbia.	Indiana, North.	Indiana, South.
1	Boston.....	F.	Y.	M.							
2	Downton.....	F.	W.	M.							
3	Early Newington.....	C.	W.	M.							
4	Early Violet..... <i>Violette Hative.</i>	F.	Y.	E.						*	*
5	Elruge.....	F.	W.	M.						*	*
6	Stanwick.....	F.	W.	L.							





## VI.—APRICOTS.

Explanation of columns and abbreviations same as Peaches and Nectarines.

No.	NAME.	CLAS. FREE OR CLING.	COLOR OF FLESH.	SEASON.	Canada West.	Canada East.	Connecticut.	Delaware.	Dist. of Columbia.	Indiana, North.	Indiana, South.
1	Breda.....	F.	O.	M.							
2	Early Golden.....	F.	Y.	E.							
3	Large Early.....	F.	O.	E.							
4	Large Red.....	F.	O.	M.							
5	LaFayette.....										
6	Moonraker.....	F.	O.	M.							
7	Orange.....	C.	O.	E.							
	<i>Royal Orange.</i>										
8	Peach.....	F.	Y.	M.							
9	Red Marseulme.....	F.	Y.	E.							
10	St. Ambroise.....	F.	Y.	E.							
11	Turkey.....	F.	Y.	L.							





## VII.—PLUMS.

The columns indicate—1st. Color of Fruit ; 2d. Whether Freestone or Cling ; 3d. Uses to which best adapted ; 4th. Season of maturity ; and the remainder the districts in which the varieties are recommended.

The abbreviations are as follows :

COLOR OF FRUIT—D. Dark, including all red, purple, blue, and other dark colored varieties ; P. Pale, including the green, yellow, &c.

STONE—F. Freestone ; C. Clingstone.

USES—T. Table ; K. Kitchen ; D. Drying ; M. those most profitable for market.

SEASON—E. Early ; M. Medium ; L. Late ; V. E. Very Early ; V. L. Very Late.

The divisions of season for Peaches apply also to Plums.

No.	NAME.	COLOR OF FRUIT.	CLASS, FREE OR CLING.	USE.	SEASON.	Canada West.	Canada East.	Connecticut.	Delaware.	Dist. of Columbia.	Indiana, North.	Indiana, South.
1	Bleeker's Gage,											
2	Bradshaw,	D.	C.	M.	E.							
3	Coe's Golden Drop,	P.	C.		L.	*		*	*	*	*	*
4	Columbia,											
5	Damson, <i>Common Damson,</i> <i>Black Damson,</i> <i>Blue Damson,</i>	D.		K.	L.	*						
6	Duane's Purple, <i>Purple Magnum Bonum, Am.</i>	D.	C.		M.							
7	Early Favorite (Rivers')	D.	F.		V. E.							
8	Fellenberg, <i>Italian Plum,</i> <i>Quetsche d'Italie,</i> <i>Prune d'Italie,</i>	D.	F.	D.	M.							
9	German Plum, <i>Quetsche,</i>	D.	F.	K & L.	M.							
10	General Hand,	P.	F.		M.							
11	Green Gage, <i>Reine Claude</i>	P.	F.		E.	*		*	*	*	*	*
12	Goliath, <i>Carolinian,</i> <i>Nectarine, by error,</i>	D.	C.	K.	M.							
13	Huling's Superb,	P.	C.		E.							
14	Imperial Gage, <i>Prince's Imperial Gage,</i> <i>Flushing Gage,</i>	P.	F.		M.	*		*	*	*	*	*
15	Jefferson,	P.	F.		M.	*		*	*	*	*	*
16	Lawrence's Favorite, <i>Lawrence's Gage,</i>	P.	F.		M.	*		*	*	*	*	*
17	Lombard, <i>Beckwith's Scarlet,</i> <i>Bleeker's Scarlet,</i>	D.	C.		M.	*		*	*	*	*	*
18	McLaughlin,	P.	C.		M.							
19	Monroe, <i>Monroe Gage,</i>	P.	F.		M.							
20	Orleans, Smith's,	D.	C.		M.	*		*	*	*	*	*
21	Peach Plum,	D.	F.		E.							
22	Prune d'Asen, <i>P. Asen,</i> <i>Robe de Serpent,</i>	D.	F.		M.							
23	Purple Gage, <i>Reine Claude Violette,</i>	D.	F.		M.							
24	Purple Favorite,	D.	F.		E.							
25	Reine Claude de Bavay,	P.	C.		L.							
26	Royale Hative,	D.	C.		E.							
27	Royale de Tours,	D.	C.		E.							
28	St. Catharine,	P.	C.		L.							
29	St. Martin's Quetsche,	P.	F.		V. L.							

No.	Illinois, North.	Illinois, Central.	Illinois, South.	Iowa.	Kentucky.	Kansas.	Maine.	Minnesota.	Michigan, North.	Michigan, South.	of Saginaw Bay	Missouri.	Maryland.	Massachusetts.	New Hampshire.	Nebraska.	New York, East.	New York, West.	New Jersey.	Ohio, North.	Ohio, Central.	Ohio, South.	Penn., East.	Penn., Central.	Penn., West.	Rhode Island.	Vermont.	Virginia.	Wisconsin.
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25	*	*						*		*								*	*	*	*	*	*	*	*	*	*	*	*
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27	*	*																*	*	*	*	*	*	*	*	*	*	*	*
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29																		*	*	*	*	*	*	*	*	*	*	*	*

No.	NAME.	COLOR OF FRUIT.				SEASON.	Canada West.	Canada East.	Connecticut.	Delaware.	Dist. of Columbia.	Indiana, North.	Indiana, South.
		CLASS.	FREE OF CLING.	USE.									
30	Victoria, ..... <i>Alderton.</i> <i>Denyer's Victoria.</i>	D.	F.	K.	M.								
31	Washington, ..... <i>Bolmar's.</i>	P.	F.		E.			*	*		*	*	
32	White Magnum Bonum, ..... <i>Yellow Magnum Bonum.</i> <i>Yellow Egg.</i>	P.	C.	K.	M.	*					*	*	
33	Yellow Gage (Prince's), ..... <i>Yellow Egg.</i>	P.	F.		E.	*		*					

VIII.—QUINCES.

No.	NAME.	Canada West.	Canada East.	Connecticut.	Delaware.	Dist. of Columbia.	Indiana, North.	Indiana, South.	Illinois, North.	Illinois, Central.	Illinois, South.
		1	Orange or Apple, ..... 2 Portugal, ..... 3 Rea's Seedling, ..... <i>Rea's Mammoth.</i> <i>Van Slyke.</i>						*	*	



No.	No.
*	Illinois, North.
*	Illinois, Central.
*	Illinois South.
*	Iowa.
*	Kentucky.
*	Kansas.
*	Maine.
*	Minnesota.
*	Michigan, North.
*	Michigan, South of Saginaw Bay.
*	Missouri.
*	Maryland.
*	Massachusetts.
*	New Hampshire.
*	Nebraska.
*	New York, East.
*	New York, West.
*	New Jersey.
*	Ohio, North.
*	Ohio, Central.
*	Ohio, South.
*	Penn., East.
*	Penn., Central.
*	Penn., West.
*	Rhode Island.
*	Vermont.
*	Virginia.
*	Wisconsin.

VIII.—QUINCES.

3	No.
1	Iowa.
2	Kentucky.
3	Kansas
4	Maine.
5	Minnesota.
6	Michigan, North.
7	Michigan, South of Saginaw Bay.
8	Missouri.
9	Maryland.
10	Massachusetts.
11	New Hampshire.
12	Nebraska.
13	New York, East.
14	New York, West.
15	New Jersey.
16	Ohio, North.
17	Ohio, Central.
18	Ohio, South.
19	Penn., East.
20	Penn., Central.
21	Penn., West.
22	Rhode Island.
23	Vermont.
24	Virginia.
25	Wisconsin.





X.—FOREIGN GRAPES.

As the Foreign Grapes are for cultivation under glass, they are not subject to those variations induced by climate or soil, and therefore they may be regarded as equally adapted to all localities. Very few of the local committees have made any report in reference to these Grapes. The list below contains such as have been already adopted by the Society, with a few others very generally esteemed.

The columns explain—1st. The color of the fruit; 2d. Flavor; 3d. Season of maturity. In flavor the only distinction is between those that are simply sweet, as the Chasselas or Hamburgs, and those having a distinct musky aroma, as the Muscats.

No.	NAME.	COLOR.	FLAVOR.	SEASON.
1	Barbarossa, ..... <i>Prince Albert.</i> <i>Brizzola.</i>	Black.	Sweet.	Very Late.
2	Black Damascus,.....	Black.	Sweet.	Late.
3	Black Frontignan.....	Black.	Muscat.	Late.
4	Black Hamburg,.....	Black.	Sweet.	Medium.
5	Black Prince,.....	Black.	Sweet.	Medium.
6	Bowood Muscat,.....	White.	Muscat.	Medium.
7	Buckland Sweet Water,.....	White.	Sweet.	Medium.
8	Calabrian Raisin,..... <i>Raisin de Calabre.</i>	White.	Sweet.	Late.
9	Cannon Hall Muscat,.....	White.	Muscat.	Late.
10	Chasselas Musquée, or Joslin's St. Alban's,..... <i>Muscat blanc Hative?</i>	White.	Muscat.	Early.
11	Golden Hamburg,..... <i>Stockwood G. Hamburg.</i>	White.	Sweet.	Late.
12	Grizzly Frontignan,..... <i>Red Frontignan.</i> <i>Red Constantia.</i>	Red and Yellow.	Muscat.	Medium.
13	Lady Down's Seedling,.....	Black.	Sweet.	Very Late.
14	Muscat of Alexandria,.....	White.	Muscat.	Late.
15	Muscat Hamburg,.....	Black.	Muscat.	Medium.
16	Red Chasselas,..... <i>Rose Chasselas.</i>	Red.	Sweet.	Medium.
17	White Nice,.....	White.	Sweet.	Late.
18	West St. Peter's,.....	Black.	Sweet.	Very Late.
19	Wilmot's Black Hamburg,..... <i>Dutch Hamburg.</i>	Black.	Sweet.	Medium.
20	White Sweet Water,..... <i>Dutch Sweet Water, &amp;c.</i>	White.	Sweet.	Early.
21	White Frontignan,..... <i>White Constantia.</i> <i>Muscat Blanc.</i>	White.	Muscat.	Medium.
22	Zinfindal,.....	Black.	Sweet.	Medium.



XI.—CURRANTS.

No.	NAME.	Color.	Canada West.	Canada East.	Connecticut.	Delaware.	Dist. of Columbia.	Indiana, North.	Indiana, South.	Illinois, North.	Illinois, Central.	Illinois, South.
			*	*	*	*	*	*	*	*	*	*
1	Attractor.....	White										
2	Black Naples.....	Black.	*									
3	Champagne.....	Flesh.										
4	Cherry.....	Red.	*									
5	Common Black.....	Black.	*		*		*	*	*	*		
	<i>Black English.</i>											
6	Fertile de Palluau.....	Red.			*		*	*	*	*		
7	Fertile d'Angers.....	Red.			*		*	*	*	*		
8	Gondouin Red.....	Red.			*		*	*	*	*		
9	Gondouin White.....	White					*	*	*	*		
10	Knight's Large Red.....	Red.					*	*	*	*		
11	La Versailles.....	Red.			*	*	*	*	*	*		
12	May's Victoria.....	Red.	*		*	*						
13	Prince Albert.....	Red.	*		*	*						
14	Red Dutch.....	Red.	*		*			*	*	*		
15	Red Grape.....	Red.	*		*			*	*	*		
16	Transparent White.....	White					*	*	*	*		
17	White Dutch.....	White	*	*	*	*	*	*	*	*		
18	White Grape.....	White	*	*	*	*	*	*	*	*		

XII.—GOOSEBERRIES.

No.	NAME.	Color.	Canada West.	Canada East.	Connecticut.	Delaware.	Dist. of Columbia.	Indiana, North.	Indiana, South.	Illinois, North.	Illinois, Central.	Illinois, South.
			*	*	*	*	*	*	*	*	*	*
1	American Seedling.....	Red.										
2	Champagne.....	Red.										
3	Crown Bob.....	Red.										
4	Downing's Seedling.....	Green.			*							
5	Early Sulphur.....	Yellow.										
6	Green Gage.....	Green.										
7	Green Walnut.....	Green.										
8	Houghton's Seedling.....	Red.			*							
9	Ironmonger.....	Red.										
10	Laurel.....	Green.										
11	Mountain Seedling.....	Red.			*							
12	Warrington.....	Red.			*							
13	Woodward's Whitesmith.....	White.										

NOTE.—The varieties not recommended for any particular locality are those which have been placed on the list for "general cultivation" in the Society's Catalogue of 1860.

XI.—CURRANTS.

No.	No.
1	Iowa.
2	Kentucky.
3	Kansas.
4	Maine.
5	Minnesota.
6	Michigan, North.
7	Michigan, South of Saginaw Bay.
8	Missouri.
9	Maryland.
10	Massachusetts.
11	New Hampshire.
12	Nebraska.
13	New York, East.
14	New York, West.
15	New Jersey.
16	Ohio, North.
17	Ohio, Central.
18	Ohio, South.
19	Penn., East.
20	Penn., Central.
21	Penn., West.
22	Rhode Island.
23	Vermont.
24	Virginia.
25	Wisconsin.

XII.—GOOSEBERRIES.

No.	No.
1	Iowa.
2	Kentucky.
3	Kansas.
4	Maine.
5	Minnesota.
6	Michigan, North.
7	Michigan, South of Saginaw Bay.
8	Missouri.
9	Maryland.
10	Massachusetts.
11	New Hampshire.
12	Nebraska.
13	New York, East.
14	New York, West.
15	New Jersey.
16	Ohio, North.
17	Ohio, Central.
18	Ohio, South.
19	Penn., East.
20	Penn., Central.
21	Penn., West.
22	Rhode Island.
23	Vermont.
24	Virginia.
25	Wisconsin.





XIII.—RASPBERRIES.

No.	State.
1	Iowa.
2	Kentucky.
3	Kansas.
4	Maine.
5	Minnesota.
6	Michigan, North.
7	Michigan, South of Saginaw Bay.
8	Missouri.
9	Maryland.
10	Massachusetts.
11	New Hampshire.
12	Nebraska.
	New York, East.
	New York, West.
	New Jersey.
	Ohio, North.
	Ohio, Central.
	Ohio, South.
	Penn., East.
	Penn., Central.
	Penn., West.
	Rhode Island.
	Vermont.
	Virginia.
	Wisconsin.

XIV.—BLACKBERRIES.

No.	State.
1	Iowa.
2	Kentucky.
3	Kansas.
4	Maine.
5	Minnesota.
6	Michigan, North.
7	Michigan, South of Saginaw Bay.
8	Missouri.
9	Maryland.
10	Massachusetts.
11	New Hampshire.
12	Nebraska.
	New York, East.
	New York, West.
	New Jersey.
	Ohio, North.
	Ohio, Central.
	Ohio, South.
	Penn., East.
	Penn., Central.
	Penn., West.
	Rhode Island.
	Vermont.
	Virginia.
	Wisconsin.

## XV.—STRAWBERRIES.

The columns indicate—1st. The Sex, as Hermaphrodite or Pistillate; 2d. The origin, American or Foreign; and the remainder the districts in which the varieties are recommended.

The abbreviations are: SEX—P. Pistillate; all others are Hermaphrodite. ORIGIN—A. American; F. Foreign.

No.	NAME.	SEX.	AMERICAN OR FOREIGN.		Canada West.	Canada East.	Connecticut.	Delaware.	Dist. of Columbia.	Indiana, North.	Indiana, South.	Illinois, North.	Illinois, Central.	Illinois, South.
			A.	F.										
1	Alice Maude,.....	F.							*					
2	Brighton Pine,.....	A.												
3	British Queen,.....	F.												
4	Boston Pine,.....	A.												
5	Burr's New Pine,.....	P.	A.							*	*			
6	Crimson Cone,.....	P.	A.											
7	Downer's Prolific,.....	A.							*					
8	Fillmore,.....	A.												
9	Genesee,.....	A.												
10	Hooker,.....	A.							*	*	*			
11	Hovey's Seedling,.....	P.	A.				*		*	*	*	*		
12	Iowa,.....	A.												
13	Jenny's Seedling,.....	P.	A.											
14	Jenny Lind,.....	A.	*				*		*					
15	La Constante,.....	F.												
16	Large Early Scarlet,.....	A.												
17	Longworth's Prolific,.....	A.					*		*	*	*			
18	McAvoy's Superior,.....	P.	A.				*		*	*	*			
19	Montro's Scarlet,.....	P.	A.				*		*	*	*			
20	Movamensing,.....	P.	A.				*		*	*	*			
21	Scott's Seedling,.....	A.					*		*	*	*			
22	Triomphe de Gand,.....	F.	*		*	*	*		*	*	*			
23	Trollope's Victoria,.....	F.	*		*	*	*		*	*	*			
24	Walker's Seedling,.....	A.	*		*	*	*		*	*	*			
25	Wilson's Albany,.....	A.	*		*	*	*		*	*	*			

## XV—STRAWBERRIES.

The columns indicate—1st. The Sex, as Hermaphrodite or Pistillate; 2d. The origin, American or Foreign; and the remainder the districts in which the varieties are recommended.

The abbreviations are: SEX—P. Pistillate; all others are Hermaphrodite. ORIGIN—A. American; F. Foreign.

No.	Iowa.	Kentucky.	Kansas.	Maine.	Minnesota.	Michigan, North.	Michigan, South.	of Saginaw Bay.	Missouri.	Maryland.	Massachusetts.	New Hampshire.	Nebraska.	New York, East.	New York, West.	New Jersey.	Ohio, North.	Ohio, Central.	Ohio, South.	Penn., East.	Penn., Central.	Penn., West.	Rhode Island.	Vermont.	Virginia.	Wisconsin.	
1																											
2																											
3																											
4																											
5																											
6								*																			
7																											
8																											
9																											
10				*																							
11						*			*	*	*			*	*	*	*										
12						*			*	*	*			*	*	*	*										
13																											
14						*																					
15																											
16						*																					
17				*		*								*	*	*	*										
18						*			*	*	*			*	*	*	*										
19						*			*	*	*			*	*	*	*										
20				*		*			*	*	*			*	*	*	*										
21						*			*	*	*			*	*	*	*										
22				*		*			*	*	*			*	*	*	*										
23				*		*			*	*	*			*	*	*	*										
24				*		*			*	*	*			*	*	*	*										
25				*		*			*	*	*			*	*	*	*										

NOTE.—In consequence of the distracted state of the country since the last meeting of the Society, the Committee have not been able to collect a sufficient amount of information to justify them in attempting to prepare the Second or Southern Division of this Catalogue.

## TABLE OF MEAN TEMPERATURES.

STATE.	STATION.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
		Deg.	Deg.	Deg.	Deg.	
British America.	St. John's,.....	32	51	43	23	38
"	Halifax,.....	39	60	48	24	43
"	Montreal,.....	43	70	46	17	44
"	Toronto,.....	41	61	46	24	44
Maine,.....	Bath,.....	41	61	47	23	44
"	Portland,.....	40	63	46	21	42
New Hampshire,	Concord,.....	42	65	47	22	44
"	Hanover,.....	38	62	43	16	40
Vermont,.....	Williamstown,.....	38	61	41	16	39
"	Burlington,.....	42	67	47	21	45
Massachusetts,...	Andover,.....	41	68	49	26	47
"	Salem,.....	46	70	51	27	48
"	Boston,.....	45	69	50	28	48
"	Williamstown,.....	41	66	48	22	44
Rhode Island,...	Providence,.....	44	68	50	28	47
"	Newport,.....	45	67	53	31	49
Connecticut,....	New London,.....	46	69	52	29	49
New York,.....	Jamaica, L. I.,.....	47	68	51	30	49
"	Fort Hamilton,.....	46	71	55	32	51
"	Albany,.....	46	70	50	26	48
"	Utica,.....	41	66	47	24	45
"	Rochester,.....	41	67	48	27	47
"	Fredonia,.....	46	68	51	29	48
Pennsylvania,...	Pittsburgh,.....	50	71	51	31	50
"	Lancaster,.....	50	71	52	31	51
"	Philadelphia,.....	50	71	52	32	51
New Jersey,....	Lambertville,.....	49	72	52	30	51
"	Trenton,.....	49	70	52	32	51
Maryland,.....	Baltimore,.....	50	73	55	32	53
"	Frederick,.....	52	75	55	32	54
"	Annapolis,.....	53	75	57	34	55
Virginia,.....	Charlottesville,.....	52	71	57	37	55
"	Richmond,.....	55	75	56	37	56
"	Williamsburg,.....	58	79	57	38	58
South Carolina,...	Camden,.....	63	78	62	46	62
"	Charleston,.....	68	79	62	52	65
Georgia,.....	Augusta,.....	64	80	63	48	64
"	Athens,.....	62	76	61	47	62
Missouri,.....	Jefferson Barracks,.....	56	76	55	33	55
"	St. Louis,.....	54	76	55	32	54
Tennessee,.....	Nashville,.....	59	77	57	39	58
"	Memphis,.....	61	78	61	42	60
"	Knoxville,.....	55	73	56	39	55
Kentucky,....	Louisville,.....	55	70	54	36	54
Ohio,.....	Cincinnati,.....	54	73	55	32	53
"	Marietta,.....	52	71	52	33	52
"	Oberlin,.....	46	70	51	29	49
Michigan,.....	Detroit,.....	45	67	48	26	47
"	Battle Creek,.....	45	71	51	26	47
Wisconsin,.....	Milwaukee,.....	42	67	50	26	46

STATE.	STATIONS.	SPRING.	SUMMER.	AUTUMN.	WINTER.	YEAR.
		Deg.	Deg.	Deg.	Deg.	Deg.
Wisconsin,.....	Beloit,.....	45	70	50	24	47
Illinois,.....	Chicago,.....	44	67	48	25	46
"	Ottawa,.....	50	73	52	24	50
Iowa,.....	Fort Madison,.....	53	78	55	26	53
"	Muscatine,.....	46	68	48	22	46
"	Dubuque,.....	50	72	52	22	49
Kansas,.....	Fort Leavenworth,.....	53	74	53	29	52
Nebraska,.....	Fort Kearney,.....	46	71	49	23	47
Oregon,.....	Fort Hall,.....	.....	.....	47	23	.....
"	Oregon City,.....	54	70	54	40	54
"	Astoria,.....	51	61	53	42	52
California,.....	Sacramento,.....	59	73	62	48	60
"	San Francisco,.....	57	60	60	51	57
"	Los Angeles,.....	.....	74	67	56	.....

NOTE.—As temperature is one of the most important agencies in determining the pomological character of every district, it has been thought that a table showing the mean temperature of each season, and of the whole year, at a number of points within the region embraced in this catalogue, might be useful, hence the Committee add this table, compiled mostly from BLODGET'S valuable work on Climatology.



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