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Report of the Wisconsin State Horticultural Society for the years 1864-5-6-7-8 ; with a short historical sketch since its organization. 1868 [covers 1864/1868]

Wisconsin State Horticultural Society

Madison, Wisconsin: Atwood and Rublee, State Printers. Journal Block, 1868 [covers 1864/1868]

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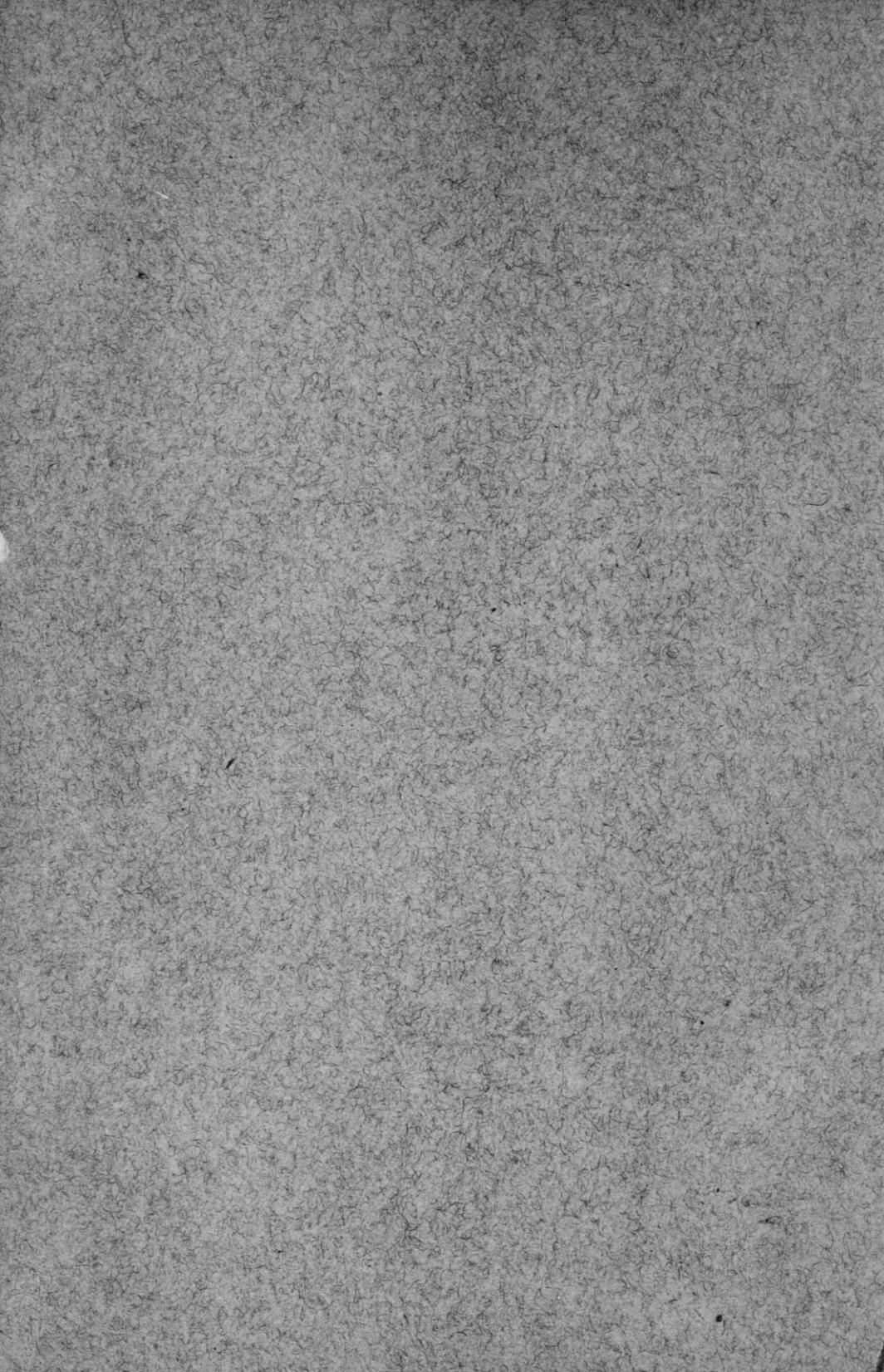
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REPORT

OF THE

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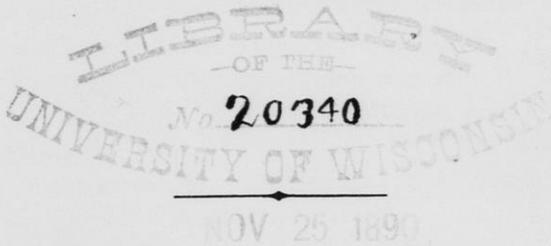
HORTICULTURAL SOCIETY

FOR THE YEARS 1864-5-6-7-8;

WITH A SHORT

HISTORICAL SKETCH

SINCE ITS ORGANIZATION.



MADISON, WIS.:

ATWOOD & RUBLEE, STATE PRINTERS. JOURNAL BLOCK.

1868.

REPORT

WISCONSIN STATE

HISTORICAL SOCIETY

FOR THE YEARS 1892-3-4-5

1895

HISTORICAL SOCIETY

WISCONSIN STATE

1895

MADISON, WIS.

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STATE HORTICULTURAL SOCIETY

OF WISCONSIN.

HISTORIC ACCOUNT.

The Legislature having provided for the publication of the Report of the State Horticultural Society, in connection with the Transactions of the State Agricultural Society, since the date of the last publication, it seems a fitting time to give a brief historic account of this Society since its origin. The materials for this work are already fast disappearing. Even now a small pamphlet of Transactions published in 1855, by the "Wisconsin Fruit Growers' Association," cannot be found, and the written records may be considered as lost.

THE WISCONSIN FRUIT GROWERS' ASSOCIATION was organized in November 1853, at Whitewater, and Hans Crocker, Esq., of Milwaukee, seems to have been elected President, Mark Miller, of Janesville, Recording Secretary, D. J. Powers, Corresponding Secretary, R. M. Parker, Treasurer, and Chas. Gifford Chairman of the Executive Committee.

The first Fair of the Association was held in the city of Milwaukee on the 5th and 6th of October, 1854, in Young's Hall, during the time of the Fair of the State Agricultural Society in the same city. In the November number of the *Wisconsin Farmer* it is stated:

"This exhibition of the fruits of Wisconsin exceeded the expectations of every one who looked in to see it. It is no exaggeration to say that the show of apples, as a whole, taking into account the number of varieties, size, fairness and perfectness of maturity, could not be beaten, by any other State. A visitor remarked that he had attended like exhibitions in New York, but that this show of apples far surpassed any he had ever seen before. Over 100 varieties were on the tables. The show of pears and grapes was excellent, and could not be beaten in quality. There were also some good specimens of peaches and quinces."

There were thirty-three entries by different persons of apples, varying from one to fifty-four. Sixteen entries of pears,

four of peaches, seven of plums, three of quinces and fourteen of grapes. The premiums, twenty-five in number, amounted to \$103. But though the fair was a success for the Association, yet being held at the same time as the fair of the Agricultural Society, it operated injuriously to the latter by removing nearly all fruit from its tables.

The second annual exhibition was held at Milwaukee on the 18th, 19th and 20th of September, 1855, in connection with the Milwaukee Horticultural Society; and a premium list prepared for apples, pears, plums, peaches, grapes and quinces, was published in the *Farmer* of that year. The exhibition was said to be a success, and to fully confirm the anticipations of the preceding year. There is no record of any meetings of the society, published, and the officers were probably the same as for the preceding year.

The annual meeting of 1855 was held at Janesville on the 27th of November, at which H. J. Starin of Whitewater was elected president, C. Hawley of Milwaukee, D. Worthington of Delafield, and T. Drake of Racine County, vice-Presidents, Mark Miller of Janesville, Recording Secretary, Chas. Gifford, of Wauwatosa, Corresponding Secretary, R. W. Parker of Milwaukee, Treasurer, and J. C. Brayton of Aztalan, A. L. Castleman, and A. G. Hanford of Waukesha County, Executive Committee for the ensuing year. The time of the meeting was mostly occupied in discussing the quality and adaptability of the various fruits to the climate and soil of this state. This meeting was attended by E. W. Edgerton, President of the State Agricultural Society, who made a proposition, that the next fair of the Association be held in connection with the Agricultural Society; and Messrs. Castleman, Miller and Gifford were appointed a committee to make the arrangements. No arrangements were however made.

In the *Wisconsin Farmer* for October, 1856, is a notice signed by the Executive Committee, stating that "a meeting and exhibition of fruits of this Association will be held at Whitewater, on Wednesday and Thursday, the 24th and 25th of September, 1856." The Farmers and Mechanics' Club held

their Fair at the same time and place. This exhibition was very limited, and confined to apples shown mostly by Messrs. Hanford, Starin and a few others, with "grapes grown on the bank of the Geneva Lake," by Mr. Russel. The show of Fruits made the same year at the fair of the Agricultural Society held at Milwaukee, on the 8th, 9th and 10th of October, mostly by members of the Association was very fine, their premiums amounting to \$124.

The officers elected in 1856 were Chas. Gifford, President; C. Hawley, A. Slocum, and H. T. Woodward, Vice-Presidents; Andrew Child, Recording Secretary; Chas. Colby, Corresponding Secretary; R. W. Parker, Treasurer, and J. C. Brayton, H. J. Starin and A. G. Hanford, Executive Committee. It does not appear that any meetings for discussion were held this year. But it would seem that during the year it was decided to accept the proposition made made by the Agricultural Society, and on the 29th and 30th of September and the 1st and 2d of October, the Association held their fair in connection with the State Agricultural Fair, at Janesville; and then fitted up and filled over 300 feet of tables with Apples, Pears, Grapes and Plums. This Fair seems from the report made by Mr. Brayton to the Agricultural Society, and found in the *Transactions of the State Agricultural Society*, page 499, of that year, to have been a complete success.

[There seems to be no record of 1857.]

The annual meeting of the Association for 1858, was held at Milwaukee Feb. 9. The following is the list of officers:

President—A. G. Hanford, of Waukesha.
Vice Presidents—Hans Crocker, Milwaukee; D. J. Powers, Madison;
 D. Mathews, Burlington.
Secretary—Charles Gifford, Milwaukee.
Treasurer—C. C. Olin, Waukesha.
Executive Committee—H. J. Starin, Whitewater; J. C. Brayton, Aztalan;
 Thomas P. Turner, Waukesha.

Messrs. Powers and Gifford were appointed a committee to procure the passage of a law similar to that of Massachusetts, for the protection of fruit trees, and trees planted for shade or ornament, and Messrs. Olin, Starin and Crocker were ap-

pointed a committee to ask for an appropriation from the State to promote the objects of the Association.

In the *Wisconsin Farmer* for October of that year, page 388, is an editorial stating that:

"The Wisconsin Fruit Grower's Association will exhibit in connection with the State Agricultural Society, the same this year as last, at the State Fair. By an arrangement between the parties, members of the Fruit Growers' Association can exchange tickets of membership for those of Agricultural Society, on application at the office of the Secretary of the latter Society, either before or during the Fair."

The reports of the judges on fruits at the Agricultural Fair, show that the expectations of the Association were fully met. The premiums then awarded amounted to \$77.00 for apples, \$22.00 for pears, \$10.00 for grapes, \$8.00 for plums, \$8.00 for peaches, \$63.00 for flowers and \$30.00 for preserves, jellies and pickles. The committee on fruit say:

"The exhibition was very large and beautiful, completely covering the tables which had been provided around one of the tents, and large spaces left in the center. This tent, if we are to judge by the immense crowd constantly filling it, seemed to be one of the great centers of attraction, and indeed, it is no wonder that it should have been so. In quality and beauty, as well as in quantity of fruit, the exhibition was far superior to what your committee had dared to anticipate; showing conclusively, that in spite of repeated failures, we need not despair of seeing plenty of good fruit in our noble state."

The winter previous had destroyed the quince trees, and consequently, there were none on exhibition that year.

In the November number of the *Wisconsin Farmer*, page 410, is a notice for a meeting of the Association at Milwaukee, on the 16th of November, for discussion. This meeting took place, but appears to have been very thinly attended, partly owing to there being some exciting political meetings then in session in Milwaukee. The Secretary, as appears by a note in the January number of the *Farmer*, promised to write out the proceedings of that meeting, and have it printed in the *Agricultural Transactions* of that year, but for some cause he did not do so, nor is any notice taken of the meeting by the city papers.

No minutes have been published of the annual meeting of the Association in 1859, and the original records are not with the Secretary of the Horticultural Society.

In 1859 the Association held its fair in connection with the Agricultural Society at Milwaukee; and in January, 1860, the annual meeting was held at Whitewater, and the discussions there had are printed in the Transactions of the Agricultural Society for 1859, at the end of the volume. This seems to have been the last meeting held by the Association. The exhibition of that year was held in connection with the Agricultural society, at Madison.

The following is the list of officers for that year :

President—J. C. Brayton, Aztalon.

Vice-Presidents—F. W. Loudon, Janesville; J. L. Judd, Waupun.

Rec. Secretary—O. S. Willey, Janesville.

Cor. Secretary—A. G. Hanford, Waukesha.

Treasurer—O. P. Dow, Palmyra; J. C. Plumb, Madison.

Executive Committee—H. A. Congar, Whitewater; James Ozane, Jr., Sumner.

WISCONSIN STATE HORTICULTURAL SOCIETY.—The breaking out of the rebellion, which for the time being put a stop to nearly all meetings of agriculturists, and especially in Wisconsin, not only closed the meetings and exhibitions of the Fruit Growers' Association, but also led to its disorganization. Thus matters stood until the meeting and exhibition of the Wisconsin State Agricultural Society at Janesville, which was held September 25 and 29, of 1865; when the fruit growers again rallied in force, and made a greater show than had ever been made before in Wisconsin, carrying off in premiums \$165 for apples, pears, grapes, plums and quinces, \$20 for wine, \$20 for delicacies, \$55 for flowers and \$16 for water-melons, besides large premiums for other products of the garden. There were also awarded as premiums, 18 volumes of the Transactions of the Wisconsin State Agricultural Society. During that fair a meeting was held of which F. C. Curtis of Columbia County, was Chairman, and O. S. Willey, Madison, Secretary.

On motion a Committee was appointed to devise measures to re-organize the Association; and the meeting adjourned to the evening of the 29th of September to hear and act upon the report of the Committee.

The adjourned Horticultural meeting met at the Court Room, in Janesville, Thursday evening, Sept, 29, F. C. Curtis in the chair, and George J. Kellogg acting as Secretary *pro tem*.

The Committee appointed at a former meeting on the organization of the Association, made the following report :

"The committee on re-organization of the Fruit-growers Association, after such consultations as our limited time would allow, respectfully submit the following: That we cannot without further consultation present a well prepared constitution and by-laws for the government of the Association, but we suggest that the organization be now so far effected as to adopt a title for the Association, and elect the officers, viz., a President, one Vice-President from each County in the State, a Secretary and Treasurer, and an Executive Committee, to consist of the President, Secretary, Treasurer and such two Vice-Presidents as may be elected for that purpose; and we propose for a name, 'The Wisconsin State Horticultural Society;' and nominate the following officers, viz.: President, Hon. B. F. Hopkins; Vice-Presidents, one in each County named; Secretary, J. C. Plumb, Madison; Treasurer, F. C. Curtis, Columbia; Executive Committee, Geo. J. Kellogg, Rock, and L. P. Chandler, Dane."

The report was adopted, and the persons named elected.

Considerable discussion on various subjects took place at these meetings, of which no minutes have been preserved.

Appropriate resolutions were also adopted concerning the death of Mr. A. G. Hanford, formerly President of the Association and widely known as one of the leading horticulturists of the North-west; who died in Columbus, Ohio, September 3, 1864. But unfortunately the record of those resolutions cannot be found in time for their publication here. During the many years of his residence in Wisconsin, which continued until 1861, (when he became proprietor of extensive nurseries in Columbus, Ohio, and removed to that State,) his chief attention was given to the cultivation of fruits, to the introduction of approved varieties, among the people of the north-west, and to the dissemination of a knowledge of the established principles of his possession.

In the language of the Editor of the *Wisconsin Farmer*, "No horticulturist of the West has ever been more successful in actual practice, none has established a better reputation for correctness of knowledge and integrity in all business transactions, and none has made his pen more useful in the diffusion of valuable information derived from laborious and carefully conducted experiments."

PROCEEDINGS.

ANNUAL MEETING—1866.

MADISON, February 6, 1866.

2:30 P. M.

The Annual Meeting of the Society convened in the parlor of the Wisconsin Mutual Insurance Company, at Madison, Feb. 6, 1866, Vice-President L. P. Chandler in the chair. Short but excellent congratulatory speeches were made by Messrs. Plumb, Kellogg and Judd.

It was unanimously resolved to invite the members of the Horticultural Societies of the city of Madison, to attend the meetings of this Society, and to participate in its proceedings in the character of honorary members.

Strawberries.—The discussion upon Strawberries, being first in order under the programme previously announced, Dr. Hobbins moved that the *Wilson* be recommended for general culture. Upon this, considerable discussion took place, principally on a comparison of the *Wilson* with the *Agriculturist*, which had just then been introduced, and of which the plants had proved weak, and but few had grown.

Dr. Hobbins grew the *Wilson* in hills, on clayey land, which he had trenched two feet deep and filled with composted manure; and from 450 square yards he had procured 250 quarts of berries.

Burr's New Pine, Boston and Brighton Pines, were recommended for amateur culture; and the Russell, Monitor, Rives, Eliza, Victoria and *Agriculturist* were recommended for further trial by amateurs.

For field culture, it was recommended to plow the ground into two feet beds, and alternate them so that one-half shall be in new plants each year. All agreed as to thorough manuring of the soil, and especially deep trenching; though Mr. Kellogg said he had procured good crops of *Wilson* from gravel knolls, where it was supposed only white beans would grow. He was growing them on all kinds of ground. On ordinary soil he had picked 240 bushels from the acre without special manure.

Clean culture in summer, with good mulchings with clean straw and coarse litter, or cornstalks, for winter was recommended.

Gooseberries.—The Houghton and American only were recommended for general cultivation.

Raspberries—Mr. Kellogg moved that the Society recommend the Doolittle Black Cap, as the best and a hardy variety without protection, for general culture, which was agreed to.

For amateur culture and further trial, the Purple Cane, Yellow Cap, Ohio Everbearing, Catawissa, Brinckle's Orange, Cincinnati, Red Antwerp and Fastolf were recommended, most of which required protection.

The planting of raspberries in orchards was suggested and met with much approbation.

Blackberries—Mr. Pepper would give the Lawton berry a further trial; but all agreed that the the culture of this fruit was nearly a failure.

Grapes—The Concord was placed first on the list, Delaware second, Hartford third, Diana fourth and Isabella fifth.

Dr. Hobbins had fruited last year seventeen varieties of grapes, and was ready to pronounce them all a success. He, however, considered the Concord best for everybody. It was hardy, free from diseases, fruited well, had most vinous flavor and ripens early. It should take the same rank among grapes that the Wilson does among strawberries.

Mr. Greenman agreed with the Doctor in the high rank he gives to it. The Concord should be placed first on the list.

Mr. Kellogg moved to place the Delaware second on the list. It had made with him, under good culture, a growth of twelve feet on a vine of the second year out.

Mr. Greenman thought the Delaware should be closely pruned to induce full bearing. He had seen no mildew or other disease on the Delaware on his grounds.

Mr. Judd always cut back his Delawares to get fruit, and had no mildew, in Wisconsin.

Before the question was taken the meeting adjourned.

MORNING SESSION.

February 7th, 1866.

The Society met pursuant to adjournment, Vice President Chandler in the chair; the question being on the motion to place the Delaware second on the list of grapes.

Mr. Atwood was conscious that the opinion existed that the Concord, was preferable as a grape for all purposes, but he considered the Delaware a finer grape than the Concord.

After further remarks by others, the motion prevailed.

Mr. Greenman moved to place the Hartford third on the list, and said he preferred this to the Delaware.

The motion prevailed without dissent.

Mr. Stevens moved to place the Diana as fourth on the list. It was satisfactory with him, even preferable to the Hartford. It ripens early, and was good as soon as it turns. The motion was adopted.

The Isabella was named as No. 5 ; but with many dissenting voices.

For amateur culture, Allen's Hybrid, Rogers' Nos. 15, 4 and 9, Creveling and Union Village, were recommended.

The soil and culture were briefly discussed, and it was concluded that grapes were adapted to more soils and locations than any other fruit, growing in sand, gravel and stiff clays.

Judge Knapp being present, and called upon, gave a brief account of the grapes and grape culture on the Rio Grande. The soil was sand and river mud, largely charged with salts, formed by the wash from the mountains. The vineyards were planted almost on a level with the river, and watered by irrigation every ten days during the periods of the growth of the grapes. The vines were hilled up, not laid down, for winter protection, and cut back to within eighteen inches of the ground, and had no stakes or trellis. Their yield was enormous, and the grapes far superior to any grown in the Eastern States.

He showed a specimen of the grapes, preserved in sugar, grown at Mesilla and wine from El Paso, Mexico, which were pronounced superior to anything presented before.

The Society then took up, considered and adopted the constitution for the Society, which had been prepared by a committee appointed at the Janesville meeting ; and then proceeded to the election of officers for the ensuing year, which resulted as follows :

President—Dr. Joseph Hobbins, Madison.
Vice President—L. P. Chandler, Madison.
Secretary—J. C. Plumb, Madison.
Treasurer—F. C. Curtis, Rocky Run.

The county Vice Presidents were authorized to be filled by appointments by the officers already elected.

SPECIES AND VARIETIES OF FRUIT.

Apples.—The Society, after discussion, agreed upon the following varieties as worthy of general cultivation, and as hardy in this climate, viz.: Red Astrachan, Fall Stripe, Duchesse of Oldenburg, St. Lawrence, Fameuse, Cider, Sweetwine, Golden Russet, Tallman's Sweet, Red Romanite, Rawle's Janet, Willow Twig, Fall Queen, Perry Russet, and Northern Spy.

In discussing the hardy varieties, the following were especially considered :

Early Sweet.—Mr. Peffer said he considered this a good early apple, tree hardy, and abundant bearer.

Mr. Chandler objects to its being placed on the list of hardy trees.

Sweet June.—Mr. Kellogg could not recommend this tree, and moved to strike it from the list of hardy trees ; and it prevailed.

Cider, (local name.)—Mr. Peffer thinks highly of this apple, and can recommend it. Mr. Kellogg says it answers well as a pie apple, and keeps up to this time. It was retained.

Golden Russet was added to the list.

Perry Busset.—Mr. Peffer objected to this, but would not press his objection. It was retained.

Canada Black.—Mr. Plumb said this was a strong grower, a hardy tree, and a good marketable apple, and hoped it would be added to the list. Mr. Peffer calls it a third rate apple, and would not raise it. It was rejected.

Yellow Belle Fleur and Pomme Grise were rejected as not hardy.

Red Romanite.—Mr. Kellogg said the tree was hardy. It was a good keeping apple, better for growing than for buying. Mr. Peffer considered it a good apple, and hardy productive tree. Mr. Plumb objected to it as unworthy. It was retained.

Rawle's Janet was objected to as being tender; but Mr. Plumb said it had stood well with him, and as it was so good an apple he was in favor of retaining it on the list.

Mr. Kellogg said it would stand in some localities, and he would not press his objection.

Colvert was proposed to be added to the list by Mr. Chandler, but was rejected.

Willow Twig was added on motion of Mr. Kellogg.

Fall Stripe.—Mr. Peffer thinks highly of this apple. Mr. Chandler had no objection to the fruit; but thought the trees would not stand in some localities. Generally they did well, would not press his objection, was in favor of adding it to the list. It was adopted.

Fall Queen. Mr. Kellogg said it was perfectly hardy, an early and abundant bearer. It was added.

Perry Russet was proposed by Mr. Kellogg. Mr. Plumb objected, that it was not productive. It was added.

Northern Spy.—Mr. Chandler said he knew trees near Madison more than twenty years old. It stands better in the orchards than in the nursery. The tree is an early and perpetual bearer. Mr. Kellogg objected on account of its tenderness. It was retained.

Plums.—The following list was recommended: Lombard, McLaughlin, Jefferson, Imperial Gage, Green Gage, and Bleeker's Gage.

Cherries.—The following list was recommended: Early Richmond, Donna Maria, Red English, and Early May.

A list of tender Apples was made out, to be experimented upon in favorable locations.

Several communications were received, which will be noted under the proper head.

The exhibition was held that year in connection with the Agricultural Society's, and was of the most creditable kind. The premiums were generally given in silver plate and choice books. 26 were awarded for apples, 12 for grapes, 6 for pears, 8 for plums, 1 for peaches, 1 for cranberries, and 7 for miscellaneous fruits, 44 for flowers and plants, 6 for Wisconsin wines, and 27

for delicacies, making a total of 133 premiums, nearly or quite all of which must have had many competitors. There are no notes of any meeting or discussions at this Exhibition.

 ANNUAL MEETING—1867.

JANUARY 22, 1867.

The annual meeting convened in the Agricultural Rooms, in the Capitol, President Hobbins in the chair, who strongly urged on the Society the propriety of assuming the entire control of the subject of Horticulture, in the exhibitions with the Agricultural Society, or of cutting entirely loose from that Society. A goodly number were present and after the usual congratulations the special committees were appointed, viz.:

Nominations—Messrs. Tuttle, Kellogg and Lawrence.
Public Exhibitions, &c.—Messrs. Plumb, Benedict and Erkton.
Nomenclature—Messrs. Plumb, Kellogg, Tuttle.
Seedlings—Messrs. Lawrence, Stickney, Curtis.
Essays—Messrs. Knapp, Nichols and Smith.
Fruits—Messrs. Bogan, Adams and Nichols.
Publishing Report and Memorializing Legislature—Messrs. Lawrence, Hobbins, and Nichols.

On motion, the subject of "Protection against swindling Tree Pedlars" was made the order of the hour and experience was called for. Many had grievous stories to tell—and the way was shown by which the people of this city were recently swindled in a most outrageous manner by a desperate man, who purchased without regard to variety, and sold anything the people wanted. The subject was referred to a special committee, consisting of Messrs. Lawrence, J. Y. Smith and Hobbins.

The Society adjourned to 9 o'clock A. M. to-morrow.

 WEDNESDAY, Jan. 23, 1867.

The Society met pursuant to adjournment. The President in the chair.

On motion, delegates from local Societies and other States, present, were invited to sit with us, as follows:

Mason Horticultural Society—Messrs. W. T. Leitch and Dr. Wm. Hobbins.
Janesville Horticultural Society—Messrs. F. S. Lawrence and Geo. J. Kellogg.
Appleton Fruit Growers' Association—Mr. H. P. Bogan.
Northern Iowa—Mr. D. W. Adams.

On motion, Mr. F. S. Lawrence was appointed a committee to examine the records of State, to ascertain the amount and value of fruit returned by the assessors.

In regard to the amount of fruit imported, it was thought very desirable, but almost impossible to obtain any accurate estimate of it.

At 10 A. M., President Hobbins delivered a spirited address, which elicited considerable discussion, especially that portion which referred to the

"Future of the Society"—recommending the total severing of all connection with the State Agricultural Society so far as regards exhibitions.

The address was referred to three several committees, as follows:

"The future of the Society," to Messrs. F. S. Lawrence, J. C. Plumb and O. S. Willey.

"The proposition to use five acres of State land for Horticultural experiments," to Messrs. Geo. T. Kellogg, F. S. Lawrence and W. T. Leitch.

The part "relating to the death of Mr. L. P. Chandler," to Messrs. J. C. Plumb, Wm. Hobbins and J. Y. Smith.

The Society then adjourned to 2 o'clock P. M.

AFTERNOON SESSION.

TREE PLANTING.

On this subject much interesting discussion was had, concerning the causes of failure of late years in fruit bearing, both east and west, and its apparent relation to the growing scarcity of timber.

On motion of Mr. Willey, it was resolved that the Society offer a premium of \$100 for the best 10 acre plantation of timber, and \$50 for the best five acre plantation in the State—all to be planted next spring and awards to be made at the expiration of three years.

Mr. Smith thinks the growing of natural timber should be encouraged. Thinks that Grant county has as much timber as she had twenty years ago. Twenty years' growth from the brush, will now cut twenty-five cords per acre of wood—thinks once in twenty years the time to cut off clean.

Mr. Plumb would suggest that young and growing timber should be thinned out half every year, after it attained sufficient size for hop poles or fire wood, provided there was a good thick growth to start with. The balance left every year would grow enough better, that no loss would result.

The subject of varieties of natural timber trees was fully discussed and the following were recommended as most valuable:

1st. *Deciduous Trees*.—Oak, in variety; Ash, white; Maple, sugar; Maple, Silver leaf; Butternut, Black Walnut, Hickory, Elm, in variety; Cherry, black.

2d. *Evergreens*.—Red Cedar, White Cedar, White Pine, Yellow Pine.

Of foreign trees, the Norway Spruce and European Larch were recommended.

On motion, Judge Knapp was requested to prepare an article upon the subject of timber-growing, for our Report. [Nothing was ever done under this resolution, on account of the result of the next motion.]

On motion, a committee was appointed to confer with others, and present our views to the Legislature, and urge upon that body, the propriety of offering premiums for planting and growing timber in Wisconsin, consisting of Messrs. J. G. Knapp, J. Y. Smith and C. H. Greenman.

LOCATION OF ORCHARDS.

Mr. Tuttle, of Baraboo, wondered why any should think the hill the best place, and stated the case of an orchard situated in the valley, with close protection—where “tender varieties” do well—but admitted the orchard to be well drained by gravel subsoil, and also admits there is a difference of 10 to 15 degrees of heat in favor of the hill, in extreme cold weather, and that the hill soil is generally better for the trees.

Mr. Lawrence thinks that sandy soil will grow trees more hardy, as they will receive more silica.

Mr. Curtis, of Columbia county, thinks it is not the degree of cold, but the unseasonableness of it, and claims that on high ground the temperature is more equal, and not subject to such extremes, and therefore the tree winters better. His orchard is on the north side of a hill, seventy or eighty feet above water, rich soil; trees doing remarkably well, ten to twenty years planted, some varieties called tender, as Greening, are good trees.

Mr. Smith thinks exposure to the sun on the southwest side, the cause of death to trees, also extremes of heat and cold. The extremes are from the southwest Remedy: protect southwest side of the tree.

Mr. Plumb thinks orchards winter best where grown upon bleak hilltops, and cool aspects, all old theories to the contrary notwithstanding. The facts can be seen by any careful observer, by comparison of the different orchards in his vicinity. The wind is an equalizer of temperature, summer and winter, and renders the tree hardy by its continual blowing. More equal temperature is the real want of our trees. Those who protect from the autumn winds must protect from the winter's sun. Protections from both in winter would be desirable.

REPORTS OF COUNTY VICE-PRESIDENTS.

These reports brought some interesting facts concerning the success of fruits in the several localities.

Rock county has a live horticultural society, organized within the past year, and though not as much good soil for fruit as some other counties, some ten to fifteen varieties of apples are doing finely. Their society had recommended two varieties as succeeding well, which were sometimes rejected—viz: Northern Spy and Yellow Bellflower. West of Rock River it is underlaid with limestone; fruit trees there are very successful.

Dane county has given comparatively little attention to the subject of fruit, growing. But the influence of the horticultural societies had been felt in the great advance in fruit and flower culture during the last two years, especially in the vicinity of Madison, where fruit was eminently successful. The western part of the county, in the vicinity of the Wisconsin river, is becoming famous for its vineyards, the bluffs affording the soil and shelter desirable.

Outagamie county reports great discouragements by the loss of fruit trees planted on their strong, moist clay soil; late growth and tender varieties

seem the rule. Has a Fruit-Grower's Association, which tried to find a remedy, and have found that trees they bought for Astrachan, Golden Russet, &c., as hardy, proved to be spurious, and the trees have died. D. Huntley, of the same county, reports much discouragement, but some varieties all right, as Tallman, Saxton, (or Fall Stripe), Golden Russet, Astrachan, Duchesse, Fameuse. The first four especially fine, smooth, no black limbs, and answer all the conditions of a perfect tree.

Vernon county (report by Charles Waters,) says the first effort was by planting seed in 1848, not one-tenth now in healthy condition, and few of good fruit. Of a lot of choice trees planted in 1860, Illinois trees, but few left. Then Rochester trees came in favor; but now they want *home grown* trees. On the high lands, above the early and late frost line, are the best fruit trees, in fact a success there.

Pierce County—by M. D. Proctor, River Falls.—Many trees set, but few succeed. The Crabs do well, also the Duchesse, Fameuse, Astrachan, St. Lawrence and Sweet Pear. No success with the pear, plum or cherry yet. Two seedling apples standing on the northwest side of a mound have borne well the last two years, seem hardy, fair fall apples, soil sandy loam on white sand. The small fruits do well.

Green Lake County—by M. H. Powers, Dartford.—No large cultivators of fruit, or especial care of trees outside of the villages; but the healthy appearance and large size of our trees is often the subject of remark by visitors from other parts of the State. The grape does remarkably well, and the marsh cranberry is receiving great attention at present.

Mr. G. N. Smith, of Berlin, says the valley of the Fox is probably as well adapted to fruit growing as any portion of the State. Soil generally sandy loam, resting on red clay sub-soil, which seems just right for the different species of fruit. A top-dressing of this clay renders the lightest sand very productive. The list recommended by the Society all do well, and some others. The Flemish Beauty Pear is partially successful.

The grape is very successful. The Concord has been considered the grape for this region, but in the past two years the Delaware has ripened sufficiently to make good wine. It is undoubtedly the best wine grape, and will yield per acre equal with the Concord; yet the latter will hold in public favor, from its vigor and early bearing. I grow good Catawbias by protection from early frosts, and letting them hang on the vines. We count the Iona, Disraeli, and Allens, about ten days later than the Delaware, and rather tender. Latitude about 44. Average temperature for June, July and August, 66° the past year, probably six to ten degrees below the average of seasons.

Mr. E. A. Roby, Burlington, Racine County—Fruit trees have been largely planted and through many discouragements the interest is increasing, and it is found a paying business. In 1865 one man refused \$3,000 for his apple crop, but sold them at an advance on that. Orchards bear as well as in New

York or Massachusetts; cannot too strongly recommend drainage as a preventive of drought, and to equalize the temperature of the soil. Have north-east and south exposure, but don't see much difference in that respect. Soil sandy loam. Best grape is Diana.

From Mr. S. S. Stickney, Milwaukee Co.—Naming the William Favorite (Sops of Wine), Keswick Codlin, Fameuse, Fall Orange, Tallman Sweet and Flushing Spitzenburg, as successful there; suggesting the Barberry for hedging, north of the Osage limit, and the propriety of planting largely of Sugar Maple, Ash and the nut bearing trees for timber on the prairies.

GRAPES, SOIL, ETC. APPLES, PLUMS, CRABS, AND THE SMALL FRUITS.

Grapes.—Mr. Lawrence thinks we have been misled by eastern men into too much manure and digging. If we manure at all it should be by top dressing. His neighbor prepared by simply ridging with the plow, planting on the ridge, and was getting fine crops, while others who dug deep and manured, lost their vines—lost largely by late growth. Would plant upon the surface.

Mr. Adams said his vines did well on common prairie soil—high ground, northern aspect, simply plowed—seem to mature well, and winter well, generally. Thinks nature has done enough for our soils on the prairie. His neighbor thought to do better by trenching and manuring, but lost all his vines last winter.

Mr. Plumb thinks he can ripen the grape here as well as in northern Ohio, where they have trouble to ripen the Catawba, and in wet seasons like the past, to ripen any grape well. They find it absolutely necessary to under-drain these clay lands, while we have any amount of lands fitted by nature with a porous subsoil. Was informed by a prominent grape grower of Sandusky, that in his visit to the vineyards, and at the meetings of the "Grape Growers' Association," the finest grapes he saw were grown on the lake ridges—the drift formation of calcareous gravel and sand. Our summer temperature is the same as their's, and winter only about two degrees less, with less damp, foggy weather, and our warm autumns are very favorable to the ripening of the fruit, provided we can escape the late and early frosts.

Mr. Adams would grow the Delaware on a cool aspect, as it is very sensitive to too much heat. Great complaint in Southern Ohio of too much heat. His own grounds are nearly level, sloping to the northwest. Delaware grows rapidly, and side by side with Concord, bears more pounds of fruit to the vine. Thinks the cool aspect will prevent sun scald.

Mr. Willey suggested "bad drainage" as the cause, which was concurred in by several.

President Hobbins would prefer either southeast or southwest exposure; clay soil, and the nearer to nature, so far as manure is concerned, the best. Would prefer cutting-made plants always.

Mr. Kellogg said his vineyard was deeply plowed; subsoil sand and gravel; all suffered alike except Concord. Would plant Concord first, and next, and next, then Delaware, if he wanted more. Don't see how the northern aspect

is going to cure the sun scald, yet says the worst cases he saw the past season were on vines in a sheltered south-eastern exposure. He offered the following resolution, which was carried, to wit: That we recommend for the grape, a warm exposure, moderately deep preparation of soil, no manure, good underdrainage, protection from south-west winds and winter protection with earth or marsh hay.

Varieties.—Pres. Hobbins said out of 40 varieties he could recommend only about ten; regards Concord as king of grapes for us. It is a free grower, good bearer, fine branches, free from disease, and you cannot get anything better.

Mr. Adams said Concords will stand grief, but the latitude of Missouri requires a different grape from ours. Would not place much confidence in their recommends.

The Iona was discussed freely. Nearly all lost their last year's planting, and would be very cautious how they planted again.

Mr. Greenman suggested that as all varieties of young vines succeed last we could not judge of new varieties by last year's trial.

Pres. Hobbins likes Allen's as well as any grape he grows, wants plenty of room.

Mr. Greenman coincided.

The Society recommended the following list of grapes for general cultivation:

Concord, Delaware, Hartford, Diana.

Amateur List.—Allen's, Rogers, Nos. 3, 4, 9, 15, 19; Northern Muscadine; Isabella.

For trial.—Creveling, Iona, Union Village, Adirondac.

Apples—It was agreed to recommend a list of five varieties to which no one should object, and they were the Astrachan, Duchesse of Oldenberg, Fameuse, Tallman and Golden Russett. This list was discussed thoroughly, and objections made to some of them, but finally withdrawn.

Mr. Walters said the Tallman had failed badly in Grant County the past year or two.

Mr. Tuttle said he would not plant more than ten Duchesses out of a thousand trees, for it ripened at the season when fruit was plenty. For this reason he could get two dollars per bushel for the Astrachan, when he could get only one dollar for the Duchesse.

Mr. Plumb noticed the fact that the autumn fruits, when plenty, were almost unsalable, even those of high quality. It would be poor policy to plant largely of any variety that is not very early or good for winter. The Fall Stripe had been so plenty as to bring only fifty cents per bushel, but it is a good variety for new countries, being an early and prolific bearer, but not advisable to plant largely of it because it ripened when the wind-falls were plenty; so of Duchesse.

Second list of five recommended: Fall Stripe, St. Lawrence, Perry Russett, Red Romanite, Willow Twig. The last variety was objected to as proving tender, and of poor quality in this latitude. Third list recommended: Sweet June, Sops of Wine, Fall Queen, Bailey Sweet, Blue Pearmain, Autumn Strawberry, Early Joe, Yellow Bellefleur, Northern Spy.

Plums—In a rambling discussion on this fruit, all concurred in the opinion that we must often renew our trees, but can get plenty of fruit.

Mr. Adams thought we must rely on some variety of the wild type for a hardy, productive and reliable fruit.

The following varieties were recommended for general cultivation: Lombard and Imperial Gage.

Concerning the Miner plum, opinions expressed show it to be a southern wild plum; late ripening its chief merit.

On motion of J. C. Plumb it was

Resolved, That we recommend selecting our finest native plums, and the seeds of the same, and cultivating them with the view of procuring varieties of especial hardiness, productiveness, and of good quality.

Crabs.—The Transcendent and Hislop Crabs were recommended for general cultivation; Soulard and Sweet Crabs for trial. Concerning Crabs a resolution was offered by Judge Knapp, cautioning the people against buying the Tetofsky Apple under the name of "Russian Crab" at exorbitant prices, which was concurred in.

Cherries.—Recommended the Early May, or "Richmond," and the large English Morrello, for general cultivation.

Pears.—Flemish Beauty for general cultivation and the Early Bergamot, White Doyenne, Belle Lucrative, Winter Nellis and Onondaga for amateurs.

Currants.—The White Grape, Victoria, Knapp's Madison, Black Naples, Red and White Dutch.

Strawberries.—Wilson for general cultivation, and Russells, Monitor, Brooklyn, Burr's New Pine—Fillmore and Agriculturalist, for amateurs.

Raspberries.—Doolittle and Purple Cane, without protection, and Orange, Philadelphia, Vice President and Franconia, with protection.

Judge Knapp addressed the meeting on the subject of the wild fruits of the West, and said we might expect choice additions to our list of small fruits which are hardy, from the Rocky Mountains.

Blackberries.—It was recommended to mark the choicest wild blackberries, and transplant for cultivation.

ESSAYS, COMMUNICATIONS, AND REPORTS OF COMMITTEES.

Essays were presented by A. G. Tuttle, on "Causes of Disease, and Protection Necessary to Orchards." J. C. Plumb, on "Adaptation of Fruits and Fruit Soils of the Northwest." G. J. Kellogg, on "The Grape." C. S. Abbot, on "Geological Adaptation of Fruits and Soils of the Northwest." E.

R. Heisz, Floyd county, Iowa, on "On Practical Fruit-growing in the Northwest."

Communications, which were referred to the proper committee, were read from P. Barry, Rochester, N. Y., urging the Society to report to the American Pomological Society. From Dr. Geo. W. Miner, Mackinaw, Ill., interesting items of personal experience in grape culture. From Samuel Edwards La Moille, Ill., an instructive paper on his favorite topic, "evergreens," and a note from W. B. Davis, publisher of the *Wisconsin Farmer*, offering the Society the free use of the columns of his paper as our medium of communication, individually and collectively, on horticultural subjects.

The committee on the decease of L. P. Chandler, reported the following:

Resolved, That in the death of L. P. Chandler, in the early part of the past year, we have lost from our ranks an active member and a devoted lover of horticultural pursuits, and the nursery profession, a reliable and upright representative, whose frank, open-hearted manner of dealing is worthy of imitation, and commendable to the brotherhood.

Resolved, That we tender to his family our deepest sympathies in their irreparable loss, and assurance that we shall ever cherish the memory of his virtue in our heart, and his name in our record.

Resolved, That our President is hereby instructed to appoint a committee to prepare a record of so much of the biography of the deceased as may be desirable for our published report.

The exhibition was a pleasant entertainment, in the rooms of the Gymnastic Society, and well attended by citizens of Madison.

The show of fruit was small, but with the display of sealed and preserved fruits, winter bouquets, and wreaths of evergreens, all most tastefully arranged, it proved an attractive feature, and it was easy to see that by a general effort on the part of members from abroad to bring in fruits, this new feature in the programme, could be made a most brilliant and paying department.

There were five collections of apples on exhibition.

Report of Committee on Fruit.—The committee on fruit would report that they have carefully examined the several collections submitted, and make awards as follows:

1st premium—"Best ten varieties," to collection No. 2.

3d.—These collections are all that come within the requirement of the premium list.

Collection No. 1, by C. M. Plumb, of Lake Mills, consists of twenty-two varieties, viz: Seeknofurther, Northern Spy, Red Romanite, Perry Russet, Golden Russet, Edgar Russet, Sweet Wine, Dumelows, Yellow Bellflower, Canada Black, Vandevere, Fall Pippins, Pennoc, Jersey Black, Jersey Pippin, Rhode Island Greening, Flushing Spitzenburg, Lake, Black Detroit, Blue Pearmain, Newark Pippin, Dominic.

Collection No. 2, by same, consists of twelve varieties, viz: Northern Spy, Golden Russet, Pennoc, Seeknofurther, Pound Sweet, Winter Golden Sweet, Willow Twig, Black Detroit, Blue Pearmain, Greening, Sweet Wine, Fameuse.

There were offered by Geo. J. Kellogg, of Janesville, several varieties of apples named. Some specimens from J. S. Stickney, of Wauwatosa—a sweet winter called "Weaver," new and promising, and "Southern specimens of the Ben. Davis"

Mr. Tuttle presented specimens of a "Seedling Russet," very like the Golden Russet, of fine quality.

Mr. Libby presented specimens of a new and beautiful seedling early winter apple, called "Lincoln"—too much impaired to judge of its quality.

Mr. Geo. W. Huntley showed a fine collection of Southern apples, which were hardly recognized, from their evident growth upon a soil full of humors or an atmosphere of fogs.

Mrs. J. C. Plumb, exhibited a fine collection of sealed fruits, pickles and jellies.

Mrs. Stevens exhibited an orange tree in fruit, which was a pleasing novelty.

The decorations of "winter boquets," composed of eternal flowers, grasses and evergreen sprigs, were well arranged to give finish to this exhibition.

M. H. P. HOGAN,
D. W. ADAMS,
JOHN NICHOLS,
Committee.

Resolutions on Exhibitions.—It was resolved to hold a summer exhibition at such time and place as may be determined by the executive committee, provided any local society will offer reasonable inducements.

The committee on next fall's exhibition reported follows:

"That the executive committee be instructed to confor with the State Agricultural Society, in regard to holding our annual exhibition in conjunction with them, but that said committee be instructed to make no arrangements with them that will not bring into our treasury at least one thousand dollars; our society making its own premium list, and paying the same out of funds received as above; and in case of failure to make the above arrangements, the committee are to arrange for an independent exhibition.

F. S. LAWRENCE,
O. S. WILLEY.

A minority report was submitted by J. C. Plumb of said committee, which provided for leaving the matter of exhibition in the hands of the executive committee, to arrange on best possible terms for the interest of the society. The majority report was adopted.

University Lands.—The committee on the use of "five acres of state University land," reported by Geo. J. Kellogg, Chairman, "that the application for said land be referred to the executive committee for the ensuing year.

Fraudulent Exhibitors.—A resolution was adopted, "that any member of this Society offering fruits for premiums, except in the name of the grower, the whole collection so offered shall be rejected, and the offense be such as to reject such members from the society."

Honorary Members.—The following gentlemen were elected honorary members, viz: W. B. Davis, of the *Wisconsin Farmer*; Messrs. Emory & Corbet, *Prairie Farmer*; Mark Miller, *Iowa Homestead*; Dr. Wm. Kendrick, author of the *American Orchardist*; and D. W. Adams, of Iowa. Also the editors of all the horticultural, agricultural and local papers that have published liberal notices of our meeting.

Constitutional amendments were made, but as they relate to a constitution now obsolete, we omit them. See present constitution at the end of this olume.

A resolution of thanks was adopted: "In behalf of those from abroad attendance on this meeting, we would tender our acknowledgements to the Madison Horticultural Society for their noble hospitality and brotherly welcome, and to the citizens and hotel keepers that have so liberally opened their doors for our comfort."

The committee on nominations, reported the following list of officers for 1867:

President—Joseph Hobbins, M. D., Madison.
Vice-President—J. C. Plumb, Madison.
Recording Secretary—O. S. Willey, Madison.
Corresponding Secretary—F. S. Lawrence, Janesville.
Treasurer—Geo. A. Mason, Madison.

All of whom were elected.

And the Society adjourned to meet at the fall Exhibition.

WISCONSIN STATE HORTICULTURAL SOCIETY,
 ASSEMBLY HALL, Sept 26, 1867.

During the fall Exhibition of the State Societies, a meeting was held in the Assembly Hall of the Capitol, for discussion. The President being absent the Secretary called the Meeting to order, and Corresponding Secretary, F. S. Lawrence, was called to the chair.

The discussion turned upon the subject of

Grapes.—The question being whether the Concord should stand first on the list, or should be displaced by the Delaware.

Mr. Adams of Iowa, could raise more pounds on the Delaware than on the Concord; with him it was a strong vine, and often bore the first year after planting. The Concord was more successful with careless handling, and therefore was preferable.

Mr. Lawrence thought the Delaware would yield as much or more than the Concord. It requires very rich soil. The joints of his vines are at least nine inches, while the Delaware are but two or three; though the vines often grow fifteen feet, and mature as well as the Concord.

Mr. Townsend had Delawares three years out, and had cut fifteen pounds of fruit from one-half a vine, while the other half was used for layering. The fruit is better in flavor and in every other respect.

Mr. J. Y. Smith inquired if it was difficult to propagate. He had heard it so stated,

Mr. Lawrence said these were more difficult than some others.

Dr. Hobbins, the President, who had come in a few moments before, agreed that it was more difficult to propagate. But to prove the comparative value of the two plants, he would place at the disposal of gentlemen two plates of each, and appealed to their tastes, as his argument on that point.

(He offered about a dozen sorts, and an informal recess was taken for the benefit of the tasting committee.)

The conclusion seemed to be in favor of propagating the Delaware by single eyes in layers. A majority of the voices were in favor of allowing the Concord to stand as first on the list

The Delaware being called for the second place, Mr. Plumb said he had voted to place this first. It was a grape just as easy to grow as the Concord, even if as a rule one did have to wait a little longer, but when grown, one had a grape worthy the care bestowed upon it. He advised everybody to plant it.

Dr. Hobbins had heard it objected that the birds eat it. That, with him, was a recommendation—birds had good taste.

Mr. Lawrence thought the time was near when the Concord would be left off the lists.

After considerable more discussion, and an attempt to reconsider the vote placing the Concord first, the Delaware was passed as second, and the Diana as third.

Strawberries.—Mr. Kellogg moved that Wilson's Albany be placed first on the list of strawberries for general cultivation.

Mr. Lawrence objected to such action by the Society. There were other strawberries just as productive, and of much better flavor. People are beginning to distinguish between poor and good flavored berries, and it is time, he thinks, that horticultural societies made an effort to keep pace with the progress of the people. He thought that the Agriculturist in all other respects as good as the Wilson's Albany, and in point of flavor, better.

President Hobbins agreed with Mr. Lawrence in theory. He could recommend the Agriculturist first, because it yields well, is of good flavor, and hardy. He would put Russell's Prolific second on the list. It, too, is hardy, prolific, and of superior flavor. Third, he would put Wilson's Albany, which yields well, and is good for preserves, and that it is all it is good for.

Mr. Lawrence thought the Society, if it put Wilson's first on the list, would get ashamed of its action within five years, and members who voted for it would be unwilling to acknowledge the fact. In Boston it was discarded, and scarcely known in the market. In New York, Knox's Jucunda, grown in Pittsburgh, out-sells it three to one.

Mr. Kellogg said if he got ashamed of his vote in five minutes he would then change it; but now it is popular, prolific, and profitable. It sustains much the same relation to other strawberries that the Concord grape does to other grapes. It grows well everywhere almost, while the Agriculturist fails in many localities.

Mr. Manning, of Massachusetts, said he desired to correct the gentleman who said the Wilson was scarcely known in the Boston market. The Wilson was more grown in the vicinity of Boston than any other variety, and he believed he was safe in asserting that more Wilson's Albany strawberries are sold in the Boston market than of all other varieties put together. Planters

who have clung tenaciously to Hovey's Seedling and other varieties, are now planting largely of the Wilson, because of the popularity and profit.

Judge Knapp moved to amend Mr. Kellogg's motion, and substitute the Agriculturist in place of the Wilson. The Agriculturist he called superior to the Wilson in favor, more, at least quite as prolific, bears a second crop the same season, and has strength of plant to take care of it. He regards the Agriculturist as much superior to the Wilson, in point of flavor, as the best Delaware grape is superior to the common frost grape.

Mr. Plumb said he had no doubt that Judge Knapp and others recommend the Agriculturist honestly, but we generally know too little of it to recommend it for general cultivation. We do know the Wilson's Albany, and it hardly requires our indorsement.

Mr. Knapp said everybody is disgusted with the Wilson. Why recommend it all? it is sour and has no flavor. The Agriculturist is as hard and carries as well as the Wilson to the market. We shall never advance in the way of better fruits at this rate of progress. This Society should lead the people.

Mr. Lawrence said that at Janesville the past season, the Wilson had sold at ten cents per quart, when other varieties were selling at fifteen and eighteen cents.

President Hobbins said these varieties had been on exhibition by the local Horticultural Society here, and in the judgment of experienced men the relative merits of these fruits were as named in their respective order; 1st, Agriculturist; 2d, Russell's Prolific; 3d, Wilson's Albany. The Jucunda was devoid of flavor, hollow, and he would not have it in his garden.

Mr. Willey could not consent to place the Agriculturist ahead of the Wilson. It (the Wilson) does well everywhere. More berries were obtained from it on the same ground than from any other strawberry. Agriculturist plants were hard to propagate. He was not prepared to place the Agriculturist at the head of the list. He regarded the Wilson a good flavored berry when ripe. It required a little more sugar than some others but it does not lack strawberry flavor.

Mr. Lawrence did not agree with the last speaker as to the difficulty of propagating the Agriculturist. From a single plant in his possession two or three years ago, he had supplied the whole city of Janesville with plants.

Mr. Willey said he knew the Agriculturist to be a good fruit, but we did not know enough about it to recommend it for general planting for profit throughout the State.

Mr. Kellogg—The Agriculturist is not enough known in this state to warrant us in placing it upon the list.

The amendment putting the Agriculturist in place of Wilson's Albany on the list for general cultivation was lost, and the original motion prevailed.

Raspberries.—Judge Knapp moved to recommend the cultivation of the Fastolf raspberry for general cultivation. By laying down the canes in winter he had found he could grow four times the quantity of berries that he

could get from any strawberry. It is a soft fruit, and will not carry well; but as a family fruit is quite worthy of more extended cultivation.

Mr. Willey said Fastolf was an excellent raspberry, but because of its tenderness it ought not to be placed first upon the list. We must look for a hardy and productive fruit first in every class, and then consider the quality. It will not answer for nurserymen to fill orders for good raspberries with the Fastolf; for if it should happen to get into hands that would not properly care for it, it would destroy his reputation in that neighborhood. The way must be paved with something sure to bring results.

Mr. Manning, of Massachusetts, said black raspberries do not sell well in Boston. No raspberry endures the winters there except Philadelphia and Doolittle's black cap, without covering.

Mr. Kellogg moved to place the Doolittle first on the list of black caps, and the Purple Cane first on the list of red raspberries.

Mr. Plumb—The Purple Cane is not a red raspberry. It is a purple cap berry.

Mr. Smith said that the Fastolf was hardy and productive with him. It is an excellent flavored berry. Black caps do not amount to anything with him. The Fastolf will not stand the winter in all localities; and it should be transplanted to new grounds every third year.

Mr. Knapp said the black cap berries might be good in Pennsylvania, where they have five feet of rain, but in Wisconsin they do not do well. He has seen as good black caps in the woods as the Doolittle. In this climate the black cap berries are not pulpy and juicy; they are all seeds; and you cannot get good berries of them unless you water them profusely.

Mr. Plumb said a neighbor of his in Rock county sold the past season, from one-tenth of an acre, \$60 worth of Doolittle's black cap in the Milwaukee market, at 28 cents per quart. Too much could not be said in praise of the Fastolf, if it was properly taken care of; but it requires care and protection. Climate may affect the profit of the culture of the black caps, but there is no question as to their profit in Wisconsin.

Mr. Kellogg had grown the black cap for years. Has no difficulty in getting good fruit. It requires good culture.

Mr. Stickney grows and markets black caps, and finds it profitable to do so. He moved to amend previous motion, and recommend Doolittle's black cap for general planting, because of its hardiness and productiveness; and Fastolf, because of its flavor and productiveness, with protection. The motion was adopted.

A gentleman said he was surprised not to hear the White Antwerp mentioned. It was a most productive and excellent fruit, and has the merit of keeping in the place where you put it—not running, like the Fastolf, all over a ten acre lot in two or three years.

President Hobbins said the calling up of the White Antwerp was timely and proper. He had hoped the Black Cap would not be put front on the list. Hudson's Orange, Philadelphia, and others ought not to be ignored. The

Philadelphia is very productive, but for quality he likes the White Antwerp the best; does not regard Black Caps, as grown in Wisconsin, worth eating.

A gentleman asked if any one knew a hardy red raspberry.

Dr. Hobbins said he did—a seedling which originated in Mr. Carpenter's garden, in this city. It is a very good berry too.

Mr. Stickney had not heard the Hornet named. He had grown it a single year, and found it productive, large and of good flavor.

Mr. Kellogg had had it for four years, and never got any berries from it and did not expect any. He has also the Cincinnati Red, whose crop will pay the second season for all the care and cost of cultivation the two seasons.

The meeting then adjourned the further discussion till the annual meeting in January, 1868.

EXHIBITION OF FRUIT AT THE STATE FAIR.

The show at the Fair was one of unusual attraction, in all respects, and exhibited a steady and determined progress in Horticulture. Nineteen premiums, amounting to \$41 were given for garden vegetables, and four were honorably mentioned where no premiums were offered. For fruits, flowers and delicacies premiums were given in silver plate, of which 55 were as follows, viz: 27 for apples, 6 for pears, 12 for grapes and 8 for other fruits. Thirty-nine pieces of plate were given for flowers, 5 for Wisconsin wines, and 39 pieces for delicacies, &c. The German Horticultural Society of Madison received \$50; the Madison not entering for competition, and the Kenosha Co. Agricultural Society took \$30.

Mr. Samuel Marshall had a very fine collection of grapes, well ripened and bunches very large.

C. H. and J. H. Greenman, of Milton, had a very superior collection of grapes—19 varieties, including "The Janesville," his new seedling.

Mr. Atwood, of Lake Mills, had a good show of grapes, well ripened.

The most remarkable specimen of grapes was some enormous bunches of Black Hamburgs, raised by Mr. J. Stevens, in open ground.

Apples.—The show of apples was very fine, both in respect to variety and quality. Mr. Kellogg, of Janesville, had a fine assortment. He took three premiums.

Mr. A. G. Tuttle of Baraboo, had about sixty varieties, with six varieties of very large beautiful crabs—all seedlings from the small, cherry-Siberian crab. Three premiums were awarded to him.

Judge Clark, of Baraboo, had a very large and fine assortment. He received the first premium.

Mr. Peffer of Pewaukee, had 12 varieties of plums, 23 varieties of pears, and a large assortment of fine apples, several varieties of grapes, among which was the white Muscatine.

Mr. Thomas Howland, of Pleasant Prairie, had a very large variety, 120, made up by different individuals of that town, and which helped to make up the collections of Kenosha county exhibitors.

Mr. L. Woodworth had charge of 150 varieties from the town of Bristol, Kenosha county, 65 of which were of his own raising; and seven varieties of pears.

Among the grapes were fourteen varieties from Fond du Lac, including good specimens of Ionas and Isabellas, showing that grapes can be grown very far north.

ANNUAL MEETING—1868.

FEBRUARY, 4th, 1868.

The Annual Meeting of the State Horticultural Society, convened in the Supreme Court room at 7½ o'clock P. M. The meeting was called to order by the president, Dr. Joseph Hobbins, who delivered his annual address, as follows, viz:

WELCOME.

Gentlemen of the State Horticultural Society:—It is very gratifying to see so many familiar faces at this our Annual Meeting. There is, indeed, at all times a personal and peculiar pleasure in meeting with others of similar tastes, the same sympathies and pursuits. But beyond and above the mere social gratification of such meetings, there is a sort of "higher pleasure," a deeper satisfaction in meeting from time to time men from various parts of the state and from abroad, whose lives are devoted to doing a good work; I mean to the introduction and cultivation of a taste for Horticulture.

You, gentlemen, regarded from a proper stand-point, are not mere nursery-men, fruit-growers or gardeners. You are among the pioneers not only of civilization, but you are *THE pioneers* of almost all that makes a new state beautiful and pleasant to live in. The work you have commenced in this, as yet comparative wilderness of the Northwest, seems lowly and humble, but as sure as you now live, the fruits of your labors will follow, and our valley and hills shall laugh with the gladness that you have made them to know.

Besides, gentlemen, your work is not confined to the beautiful alone. Horticulture is something more than a beautiful art. It ranks with those arts the most useful, and not only ranks with them, but is indeed, historically considered, the mother of all other arts. That which God initiated and indicated as the occupation of the first man needs no praise. We cannot exalt it, nor is it in the power of man to abuse it. The day will come, gentlemen, when our heads shall be low beneath that green sod we are now so devoted to, but the earth is full of gratitude to those who know her, and what better or more grateful memento could be wished for than the pleasant places we leave behind us for our country and those we love? What can give us more delightful satisfaction than the consciousness that we have been, in our day, the humble imitators of them who set us the first example and gave us the first lesson in this, our beautiful science and art of horticulture.

Gentlemen, with these few and unstudied expressions concerning our pursuit and ourselves, I would tender you a sincere welcome and express the hope that our meeting will not only be a very pleasant one, but profitable to all who may take part in it.

Having thus performed part of a pleasant duty and finding that our Secretary, Mr. Willey, is prepared to do another part, formally giving you a full report concerning our society doings, its policy and prospects, I have only to acquit myself of the remaining part, by redeeming the promise I made you at the State Fair, to the effect that I would give you my views of and experience in grape growing in Wisconsin, and will now address you on this subject, if agreeable.

GRAPE GROWING IN WISCONSIN.

Gentlemen, you who are acquainted with me know that I have a "hobby," and that my hobby is experimenting in grape growing—with mode of culture, for this state. That I have ridden my hobby pretty well and pretty faithfully needs no other evidence than the position I occupy here to night, as your president, a position unsought and unexpected, and which, though it has given me some labor and occasionally encroached upon my time, has given me also much pleasure.

I allude, gentlemen, to my position and to my hobby only for the purpose of showing to those who are unacquainted with me, or who may, hereafter, feel any interest in what I shall say, that if not to the "manor born," that is, if not a professional vineyardist, I at least know of what I speak, and that you were in some measure, if not justified, at least not blameworthy in asking me to give you this address.

Some nine or ten years ago, after having become tolerably well acquainted with our climate, our soil, its surroundings and indigenous vines, I became firmly impressed with the belief that this could be made a grape-growing and a wine-producing state. I then began to plant a few varieties of vines—or rather the same variety of vines with quite a variety of names—(such were the many modes of doing business in those days), in order to test my opinion. Soon after, I visited Peter Kehl's vineyard of Isabella and Catawbas, at Sauk, (sent him his first Concord) and came back established in the belief that my opinion was correct. From that time to this I have planted in my garden, probably some 129 to 130 of what have been considered the best varieties. Now, I make it a rule never to plant a vine *because it is a vine*, but only after learning something good of it, or receiving it from those, whose sending is a guaranty for its trial. Every fall I continue to throw out a number and to replant with other varieties—retaining none that are not good, good in ripening wood in due season, *good* in fruit and in bearing, and *good* in being free or comparatively free from disease. Under this mode of acting I still have 72 varieties left. Not that I mean that I have tested all these—for some are still undergoing their trial—but a sufficient number for eating and wine-making I have tried, proved, and shall give you some account of presently.

With these preliminary remarks—for it seems to me only proper that he who undertakes to teach others should show (modestly it may be), his qualifications—I will at once address myself to my task.

Climate.—Pick up any treatise you like on grape growing, and you find where spoken of at all, that the climate of this North-west is written down as unfit. And the opinion would no doubt be perfectly correct, if the controverting facts were less stubborn things. The isothermal character of our State, as written, is bad for us grape men, but as proven, is not bad at all. Grapes, at least the best varieties, ought not to grow here according to those who write of our climate in connection with grape-growing. But grow they do, and that too of the best kinds, and to perfection in quality, quantity and size, as you have all seen, particularly at the State Fair of 1867 and 1868.

Our summers, though short, are fierce, and what they lack in length is amply made up in intensity and the warm character of our soil. With the soil of Massachusetts, our grape-growing would be something like theirs—almost a failure. Hence it is that Eastern, and Southern, and Middle State men, judging by our latitude, are fully impressed with the belief that we cannot grow grapes in Wisconsin. Two years ago a party of gentlemen, amateur grape-growers, from St. Louis, visited my garden in the grape season. They came, believing that our grape-growing was a pretension, an absurdity, and after trying with considerable diligence to find out in what way I had tied my bunches to the vine, they went away wondering how the thing was done in such a climate as ours. Even eating of the fruit did not seem to quite convince them that it was genuine and grown in a legitimate manner. Seeing with their eyes, they saw not; yet the grapes were true grapes.

We might, gentlemen, have a better climate, *i. e.*, one that would give us less trouble in protecting our vines in the winter, but we might also have one that would give us—what we know very little of—about as large an amount of disease as our neighbors in the East, in the Middle and Southwestern States complain of. Our State, in respect to grape-growing, is only another illustration of the wonderful and beautiful law of compensation, which we seldom fail to find in nature. What we lack in season is made up to us in soil. Our soil is suited to the character of our climate. I can say, with truth, and without fear of contradiction, that our climate inflicts less injury upon our grape vines than upon anything else that we grow in our gardens or orchards.

Soil.—According to almost every practical grape-grower, who writes upon grape-growing, a stiff clay, with sand enough for disintegration and plenty of lime washings, is the very best soil of any other for the vine; and this is the soil that we have so much of in this State. My own experience is confirmatory of this opinion, which seems to be generally admitted as true. I know that our old friend, Isaac Atwood, (as good authority as any we have in Wisconsin,) says that the vine will grow anywhere and everywhere in the State,

in any soil, in any part, high or low. This may be, and undoubtedly is, true to some extent, of some vines, but the question should rather be, in what soil they can grow to the greatest advantage. The vine would seem to be, in Mr. Atwood's opinion, a moral philosopher, with a taste for poetry, finding "good in everything," but it has, as we know, its favorite habitats, and among these none seem to suit it better, and scarce any so well, as our rich, warm, stimulating and generous lime-washed clay.

Treatment of the soil.—I know of no other proper treatment of such a soil as now spoken of than that of breaking it up thoroughly—pulverizing it to a depth of twenty-two to twenty-four inches. This is exactly what I did with my garden, trenching it two feet deep by measure. The digging of holes, or pits, or conversion of your land into a sort of grave yard, a place for bones and dead animals, or, as some do, into a kind of limestone or rock quarry, for the vine, is mere nonsense. I have tried all these methods of soil preparations, and others too absurd for consideration, and the simplest—the one I have recommended—the only one recommended by practical men, by experience and by science, is the best. I repeat, for where so much importance attaches, repetition is admissible: the *only* preparation the soil requires for grape growing is simple, thorough breaking up to a depth of twenty-two to twenty-four inches. But what of manure? some one may ask, and the answer is, *none in the preparation* of the soil. There are many reasons for being thus apparently dogmatic on this point, but the reasons are as sound and scientific as they are numerous. To discuss them, however, at this time would occupy too much space; otherwise they are as interesting as they are useful to know. As to after-treatment of the soil, after the first or second year, when the vines are thoroughly rooted, if it is thought that the soil requires any enriching, it should be treated with surface manuring very sparingly laid on. I give mine scarcely any, but when the vines are bearing well I scatter over and around the borders, during the winter, a rather plentiful supply of wood ashes, lightly forking them in when spring comes.

Aspect.—The best aspect for grape growing in our climate is, by reason of the shortness of the summer, that where the vine can get the sun all the day long. The next best, the southeast or southwest. Some vines, like those which are rather late, want the most sunny situations, while others, like those which have but a scant foliage, require a situation more sheltered from the sun. There are, however, a variety of ways of adapting your vine to the situation you plant in. As for instance, if you wish shelter for a tender vine, like the Rebecca, which is planted where it is exposed to the sun all day, supposing your vine in any open space, plant at its back a vine of heavier foliage; or, if like the Catawba or Anna, needing more warmth, plant against a tight fence, facing south or southwest.

Elevation.—The elevation of the ground you plant on, is almost, if not quite immaterial, provided it is sufficiently *drained*, and protected from the

cold moist air and early and late frosts, drifting from still lower and undrained lands. I should, however, prefer an elevated situation, where protection could be had from our strong southwest wind which I find is the worst enemy to grape-growing we have.

Modes of Propagating.—As to the best method of propagating the grape vine, there is every variety of opinion, some arising in uncommon sense and some in very common selfishness. I am not disposed to discuss conflicting opinions just at this time, but shall content myself by saying what I find, and therefore what I know to be the case, that for the *buyer* there is but *one* kind of propagated vine worth buying and that is the *cutting*; not the poor, half grown cutting, but the cutting that is *thick* and *strong*, made not only for growing wood but for bearing fruit in abundance and of good quality. The man who buys a poor cutting, a small straw-like thing, is a fool, and he who sells one is no true nurseryman.

I know of no other guaranty that we can have for a good vine, other than a strong cutting. This raising from single eyes is a very paying plan for those nurserymen in the East, who live in glass houses, have plenty of money and an equally plentiful lack of conscience. For them they can afford to ignore nature and apply steam to vegetation that knew no existence during the steamy days of creation. My experience with vines raised from single eyes is just what one might naturally expect. They are weak, and like all other weak organisms, are very subject to disease. Weakness means want of life and also a strong tendency to death. I care not, however, how the vine looks, since I know that it is as impossible in vegetable as in animal life to get good fruit where there is a lack of vitality. So too with propagation by layering, so commonly practiced by our nurserymen in the West, only however for want of capital to build glass houses. It is held and I think with justice, that such a mode of propagation is injurious to the parent vine, and that it is impossible to continue this system with any vine, without weakening its plants. Besides, there is another objection which is said to apply here. I mean the *sporting* of vines. A layer does not always follow the habits of its parent, and therefore is not always to be depended upon. In making these remarks however on layering it is always proper for me to say, that I have had but little experience in the system, nor have I any experience in raising vines from seed. In raising from cuttings, I select none but perfectly ripened wood, of good size, cut them, in the middle of November, to three or four eyes, or if the joints are long, but to two eyes, and a piece of light soil having been prepared for them on the same day, with the garden fork, I run a line the length of the bed and then forcing a spade into the earth about four or six inches, as the cuttings may require, from end to end of the line, opening the earth some ten inches at the top. I have a narrow trench in which I place the cuttings, four inches apart, for the convenience of digging up again, placing them in the trench obliquely. The row being completed, the trench is carefully closed by slowly treading it together, a foot on either side of the row, leaving an inch or so of the cut-

ting with the eye above the ground. So soon as this is done, I cover over with four inches of loose stable litter and it so remains until spring. My cuttings are planted about eighteen inches apart in the rows.

I do not know that this plan has any advantage over that of bringing the cuttings in bundles for the winter and planting in the spring. But as it seems to me it is much more convenient. The soil is in a finer state. There is more spare time than in the spring, and while the cuttings are in your hand it makes but one trouble to plant them. Having always pursued this method I cannot draw any comparison between the success that attends it and that of spring planting. But I have no reason to complain. I know that it is customary in milder latitudes to plant out-cuttings in the spring. For them, where they give no protection, their plan seems best, but for us where we must give protection, I think the fall planting equally good. But a question of some interest may be raised here, whether the cuttings of all varieties can be successfully trusted to this mode of treatment. So far as I know, they can, though there is a different amount of success attending the different varieties of vines. I shall, however, be better able to meet such a query another year, as I have planted just fifty varieties of cuttings last fall. The success seems to me to depend rather upon the character of the soil and protection than upon the vine itself. The great desideratum being a light and sandy soil.

Planting.—I prefer to plant in the fall, and for many reasons I would recommend fall planting in preference to planting in the spring. To those not conversant with vines, I would recommend the purchasing of what are called two-year old vines, and would say to them by way of caution, that if occasionally they find a vine is not doing well the first year—for instance, that it is mildewed to some extent, or does not make a vigorous growth as promised by its habit or by the nursery man—they are not to pluck it out, as I have been accustomed to do, the first year, and throw it away. Vines are subject to accident, and in such a case, if the vine is of a valuable or rare variety, I would say, have patience with it another year, and very generally you will find your patience rewarded with success. It was my rule for several years, on finding that a young vine planted in the fall or spring had not made a pretty good growth and ripened a fair share of wood by the following fall, to throw it out as worthless or too tender for this climate. Such a practice, as experience has taught me, is injudicious and determines nothing. I now invariably give a two years' trial, and have been rewarded by raising some of the finest and best vines in my garden.

The operation of planting, though one of such common practice and apparently so simple in its performance, is, in reality, an art that few possess. Probably one half of the failures in the growing of vines arises from the careless and ignorant manner of planting. How common a thing it is to hear one man declare that almost everything *he* plants fails to grow, while another with equal truth will report that everything *he* plants is sure to grow. Now is there any accident in the matter in either case? It is only a case of ob

servance and non-observance of the great law of compensation, alluded to before, as governing so many of our horticultural operations. *The secret of success lies in this, in giving to the vine just taken up the same condition of things as it possessed before removal.* The same depth, the same direction of its roots, the same kind of fine particles of earth about its rootlets, and protection for a time against drouth and cold.

In planting my vines, I use no spade, I dig no grave, no hole, but the soil just prepared and in good condition, with my hand if the roots are small, or with my trowel if the roots are large, I scoop or gently push on one side, the earth to a depth of from four to five inches; and over a space large enough for the natural spread of the roots. I now put in a stick which is to support the vine in its growth and then the plant. The stock occupies the highest part of the cavity, its neck being nearly on a level with the surface of the ground, and the roots are inclined downwards to a depth of four or five inches, being made, by the careful manipulation of an assistant, to assume their original direction, while the fresh earth is sifted through the hands over them. The earth removed is now pushed in and over this a proper amount of mulch, heavy for the winter and light for the summer; the summer mulch being allowed to remain around the plant for the first two years. With this mode of planting, giving it as near as may be, the same conditions it was before possessed of and conducting the whole operation with a sort of kindly care, I very rarely fail.

The distance at which vines should be planted from each other, is usually governed in a very arbitrary manner. In vineyards of course where the vines of one variety are planted over a given space, one and the same law may with propriety obtain. But in gardens where it is customary to grow several or many varieties, such a system is not proper. I know the books say plant so many feet apart, two or four or more, but when you consider that vines differ in their nature and habits, one being a rampant and the other a shy grower, one having a dense foliage and another scarcely enough, one requiring to be almost constantly thinned out and the other very little thinning, one wanting manure—high living, and another moderate, and still another poor fare, then I doubt not you will agree with me that it is not wise or philosophical to attempt to govern all by one law. There is, gentlemen, as much difference in the nature, character and habits of our vines as among our children or ourselves, and it is only by the careful, the watchful study and knowledge of these peculiarities, that we can or ought to expect to lay down laws for proper government.

Besides, even vines of the same variety will sometimes differ in their habits. Circumstances, not always easy to detect or determine, make it necessary to give to a particular vine a little more latitude, though its fellows of the same variety, may, as a rule, do best with less. And so, with another, that should be a strong grower, you will find some seasons that it has not done so well. That is, that it has not made so much wood, or such large canes, or ripened its wood so early or so thoroughly, or borne so much fruit, or such

large bunches, or has not ripened its fruit so equally or so early as usual. In this case I cut away an adjusting proportion of the arms, in the fall, and giving the vine less to do, it requires less space, while in the other case I give more length of area and more space, and where I find I have not yet given space enough, I allow a safety valve cane or two. It is very important in *grape-growing to ascertain how much work your vines will do well and continue to do*, in order to avoid the evils and diseases from overbearing and consequent exhaustion, as well as to avoid an insufficient yield.

I plant my vines, for the most part, in accordance with the views just expressed, some of them four feet, some six and some eight or more feet apart, giving myself room to treat each vine according to its own particular requirements. And until the individual character of our manifold varieties can be *locally* ascertained, and we have as it seems to me very little of such knowledge yet, I think it is absurd to be governed by any other practice.

Training the Vine.—Among all the manners of training the vines, so far as I have tried them, or seen them tried, I prefer, especially for this State, and use the double-arm system. It is convenient for culture and care, being most easily and completely attended to. And as I carry my vines only five feet high, it is not liable to injury from our high winds—keeps the fruit near the ground, where it ripens better; where it is less likely to be injured by those strong frosts which occasionally visit us out of season—and as another recommendation, in gardens it requires but little space. It yields as much if not more and finer fruit than any other method, and as yet I know of no objection to it. It is unnecessary for me to dwell upon the manner of training the vine by this system or to describe the system itself, as it is to be found in every book on grape growing and probably in most of our grape gardens.

Pruning.—Nor do I believe it is necessary for me to say more about pruning than that I prune about the middle of November, believing, as I have found, any other time to be ruinous to the vine.

I know the German prejudice in favor of spring pruning, and I have tried it as well as seen it tried by others. I cut back a good, strong, three year old Northern Muscadine, upon one occasion, in the spring, and the bleeding and shock to it was so great that it did not fruit until the third year afterwards, and I have seen the same consequence to a remarkably fine Catawba or Isabella—I don't just remember which—large enough to cover the front of the house, although treated by its German owner, who advocated spring pruning; and while I would not be understood as asserting that such ruinous consequences always followed spring pruning, I do not hesitate in saying that while no objection, so far as I know, can be urged against fall pruning, very strong objections are raised to pruning the vine in the spring.

The vine, as we know should be covered for a week or ten days after pruning. It ought to be exposed to some cold weather—a sharp frost or two—otherwise it is apt to bleed in the spring.

Laying Down.—In connection with pruning there is a matter I would say a word or two about, for the benefit of beginners in grape growing, and that is on laying down the vine. Begin by laying down in the direction you mean to confine laying down, and you will find after the first year you will have little or no trouble in bringing your vine, however thick it may be in the stock, almost close to the ground. *Lay down in the same direction every year.* This to be done easily and without injury to the vine, or inconvenience to yourself from bad weather, should be done at the time of pruning. At such a time the vine bends more freely. With the stocky and older vines I sometimes use forked sticks, which are driven into the earth, forcing down the vine as near the surface as possible, which practice saves both labor and material in covering. Winter protection is afforded, where there is plenty of space, by earth, and, where things grow pretty close to each other, by loose stable litter. I use the latter, putting it on from three to five inches, according to the exposure, or the more or less hardy character of the vine.

Diseases.—With regard to the diseases to which the vine is subject, I know too little to be able to speak with authority. The little that I do know, however, (for here we have not so much opportunity to learn, as we find so little of the disease that prevails in other states,) I say the little that I do know, has led me to think that rot, and mildew, and yellow leaf are not at all owing to our climate, but simply and certainly to the purchasing of vines propagated from single eyes by steaming and artificial heat, as is the case with nearly all the vines I have received from the East. In them, as I say, mildew, for the first year especially, generally shows itself, and sometimes yellow leaf, even when the vine is old enough to bear or is bearing, I have observed in similar vines in other gardens, but not in my own. The fruit too, I have seen become diseased from neglect at the right time to pinch off the laterals, letting them run until they were a foot or so long, and then stripping them off in a sudden and wholesale manner. After such treatment the grapes sometimes rot, at other times fall off singly or in bunches. These are diseases of debility, and time and care, the proper strengthening of the vine is all that is necessary to remove and prevent them. I have also reason to think that much disease is incited by over-manuring. For, reasoning from analogy, over-feeding should be as bad for vegetable as it is for animal life, and equally productive of disease, as is under-feeding. The only vines which I know that require a little good feeding are the Rebecca, Allen's Hybrid and the Delaware.

Again, disease has seemed to me to occur from over crowding. The heavy foliaged vine should be grown where the air can blow well through it, and the laterals in such vines should be kept well pinched off. A mass of foliage which neither wind nor sun can penetrate is sure to become diseased.

Insects which prey upon the Vines.—Of these we have the thrip. I find it every year in abundance upon a Clinton that I grow for shade, but upon no other vine in my garden, and as I do not care for the fruit I let the thrip alone.

The aphid I also meet with, but to a very trifling extent, but as I do not like it, I always pinch off the ends of the canes where I find it, put them under my foot and carefully rub them out of existence. The grape-vine sphynx also visits me occasionally, but is easily detected, picked off and destroyed.

There are many other interesting matters in the treatment of the vine, to which I would like to refer, but find that it is impossible in a single paper to embrace all that should be discussed, and will, therefore, enter upon the consideration of some of the varieties.

From notes made in my garden on September 30, 1867, you will not only see what was growing at that time, but the character of the vines as grown there; after which, and by way of closing, I will make a remark or two about the comparative merits of the vines grown in this vicinity.

NOTES ON VARIETIES.

Clinton—Grown for shade—every year affected with thrip—and what is worthy of observation, the only vine in my garden ever so affected; also every year more or less affected with mildew. It grows in the west part of my garden, in the mellowest kind of material, on the north-west side of the house. Is very large, people being able to sit under it, and has a foliage so dense that the sun does not penetrate through it, of course it does not bear well. The branches are not complete—are small—the berries mildew and drop, and the fruit is worthless. I propose, however, as the young vines planted along side of it, grow up, to restrain to a great degree, its growth, enrich the soil, and have no doubt of making a grape vine of it, as soon as I am ready. I said that it was worthy of observation, that this vine is the only one in my garden affected with the thrip, and it is equally worthy of remark, that it is the only one that is visited regularly from year to year with a general attack of mildew, leaf and fruit, nor is it less worthy of remark, that the aphids and the sphyroxes are about exclusively found upon it—more upon this one vine than upon all my other vines put together. I have already pointed out the reason. The example is full of information and suggestion. The Clinton is a vine that does remarkably well in this climate under ordinary circumstances, and is still held by some men who ought to be judges, to be worthy of a place in a garden—in my opinion about as worthy as is a wild crab.

Isabella—Grown on the southwest side of the Clinton, forming part of the shade of the arbor, but neither affected with thrip nor mildew. Treated the same as the Clinton, *i. e.* allowed to run wild, laterals not touched, as they are wanted for shade at the present—bears well, bunches long and loose and irregular, and fruit good. The freedom of this vine (interlacing as it does with the Clinton), from disease in leaf and fruit, is owing, as it seems to me, to its being a much younger vine; to its not having overgrown itself; to its having a better aspect—more sun and air passing through it—and perhaps to being better drained as it is close to the well. The soil is the same as that of the Clinton. The *Isabella* thrives here.

Catawba.—Fruit not much colored, most of it green; bunches smaller than usual and somewhat loose; the poorest crop I have ever had. The vine seems to have exhausted itself two years ago, when its bearing and size of its bunches astonished all who saw it. We do not sufficiently attend to overbearing. The Catawba is not suited to this vicinity; it ripens too late, or rather, I question if it ever in reality does thoroughly ripen. The only place favorable to its maturing here seems to be on one almost naked limestone bluff.

Creveling.—Planted April, 1864. Raised by myself; has done well, borne well and grown well. I like the Creveling better and better, and place it, for growing, bearing, freedom from disease and quality of fruit, in the *first rank*. Every man who wants a grape for the palate should grow a Creveling.

Delaware.—I have nothing more to say of this than is already known. Has done remarkably well; free from disease in leaf and fruit.

Concord.—The same good grape as usual. Wood well ripened. Fruited well, but not ripened its fruit so early as it generally does, nor are the bunches so large this year, but still very fine. Free from disease.

Allen's Hybrid.—Has borne well and fruited well; branches very large and too many of them, but both the leaf and fruit, for the *first time*, somewhat affected with mildew, and a number of the berries with black rot, the first I have had in my garden. Still, I like this vine and its fruit better and better the older it grows. It is the largest vine I have, excepting the Clinton, grown for shade, and I strongly suspect that I have, in my desire to see what it would do, let it overgrow itself and hence become diseased. In accordance with this view I shall cut back both arms to a liberal extent, and shall give it fewer canes.

Union Village.—Planted May 1864. Bears well for a first bearing. A splendid grower requiring plenty of space. Canes ripe between five and six feet high, leaf and fruit healthy. Would so far strongly recommend this vine for trial.

Iowa.—Planted fall 1866, from Mr. Kellogg. Has made a strong, thick cane, but ripened only a foot high, leaf slightly touched with mildew. I have tried a dozen of these plants before, raised by myself from cuttings, and all died. From all I have seen of its doings here, I have my fears of its success.

Northern Muscadine.—Vine eight years old, has never done so well as this year. Its crop, excellent, has never been surpassed by any other variety. I think more and more of the N. M. every year. I eat more and more of its fruit every year, and I cannot help thinking that this vine is greatly underrated. I know its history; it is a lowly one. I know the opinion concerning it, entertained by men called the best judges. I know also about its proneness to drop—"the ripest fruit first falls"—and its peculiar flavor, but all

this does not prevent me speaking of it as I find it, and I could strongly and confidently recommend the general planting of it, in this State. The Concord was the abused grape, the N. Muscadine is now the abused. I am not afraid nor ashamed to predict their increasing reputation in Wisconsin.

Josephine.—A hardy, strong, vigorous grower, and good bearer of good fruit, berry and bunch fair size, rather Isabella-like in shape and color. This is a seedling, raised by myself, I am propagating it from cuttings, and believe it is a desirable grape. It has been examined by Isaac Atwood, by the late Mr. Chandler, and by other equally good judges, and pronounced a distinct variety. I have compared it again and again with all the varieties I have or could find in this city, and there is none like it. Healthy.

Rogers No. 9.—Has done splendidly in berry and bunch; large crop; long but not over compact bunches, here and there shouldered; a good grower, leaf and fruit healthy.

Rogers No. 11.—Has not done so well as last year. Has not ripened its fruit as well or so regularly, though the bunches are very large. Has made good wood, but suffered from mildew; grows north of an apple tree, is much shaded, and has too much latitude. Shall give more exposure and cut back the arms.

Hartford Prolific—Has done well, borne an excellent crop, ripened a little late on account of season; branches large and most beautiful; healthy in leaf and fruit. When I read the glowing accounts of this vine in eastern reports, I can scarcely believe that I have the vine; for in flavor, it is as far inferior to the Northern Muscadine as is the Clinton to the Delaware. It is, in my opinion, though a hardy, a healthy, handsome and prolific vine—perfectly insipid.

Rebecca.—Has done better than ever before, both in the size and number of its branches, wood ripe and leaves healthy. I ran into it this year, a stronger growing vine, on each side, and another at its back, thus giving it plenty of foliage, and it is, to thus giving it shelter, that I attribute its well doing.

Rogers' No. 15.—No vine could do better than this from year to year. A splendid crop—the largest-sized branches and berries; healthy.

Rogers' No. 3.—Has not done so well as before. Berries and bunches smaller and the latter not well filled—as I think from allowing it *too much wood*. It is a weaker-growing vine than No. 4 or No. 15, and should have shorter arms.

* * * * *

Having already occupied so much of your time, I will close, though I had intended to discuss to some extent the comparative merits of grapes, by saying that, I think at this early day of our grape-growing history, it would be injudicious to attempt the making of a list of those vines which

will or will not grow to advantage in this State. It seems to me to be a wiser course, to give our individual experience from various parts of the State; to compare notes from year to year, and to wait for some years before we attempt to lay down laws for what shall or shall not be grown. In the meantime we are assured of this—that there is scarcely a good vine known in the Eastern or Middle States, and very few in the South-west, but what we can grow and are growing, as it seems to us, in perfection, a fact as gratifying as it is encouraging for the future. If, in Wisconsin, we may not sit under our own fig tree, we have at least an abundance of vines, luxurious, beautiful and excellent.

REPORTS.

The secretary, Mr. Willey, then read the following report:

Mr. President and Gentlemen of the Society—It becomes my duty as well as pleasure to report to you the progress horticulturally of your Society, and in a degree of the State at large, for the past year.

It may be said with much truth and earnestness that the year 1867, has been one of great progress. Pomology has reigned triumphantly and brought forth bountifully every class of fruits and the fairest products of the earth. *So fair* that the recipients everywhere called it not only very "good" but the *best*. Eastern pomologists have viewed the fruits of the west with wonder and satisfaction, and oft times been nonplussed, at *such* specimens as we out west bring forth, while we assured them it was no prodigy, but only an every day affair. I repeat, Fruit has been abundant, so much so that nearly or quite our home supply was furnished from our own orchards, and for the first time that sage old fellow, the "oldest inhabitant" saw apples brought into the market by the wagon box full and shoveled out like so many potatoes. Such, pomologically, is our progress, and such too, that the faint hearted take courage, are rallying around the strong and more resolute, assisting them in forming societies for more thorough development, and the mutual benefit that may arise by frequent discussions.

Already we have a Society in successful operation in each of the following places, viz: Milwaukee, Janesville, Plattville and two in Madison, and there may be and probably are others of which we are not advised but with which we would be glad to correspond. May we not call these all children of the parent Society, at least greeting their members as heroes and the representatives of progress, intelligent laborers, men who are toiling vigilantly to sustain that which, but a few years since, was well nigh driven from our soil, and *almost* from the popular opinion, viz.: that fruit-raising was practicable here. This assertion, Mr. President, it is your mission, aided by your colleagues present and the members of local societies every where, to establish, and with a moderate enthusiasm it may be done, till every hill side as well as prairie farm shall bud and blossom, bringing forth fruits of its kind.

Exhibition rooms have been crowded with both fruits and visitors, to gaze upon the ruddy cheek of a Snow, the pale visage of a Talman and the rough coats of the Russets. Of the State Exhibition we may say, it was much the

largest ever held, filling with plants, flowers and fruit a building 32x80, or about 1,500 feet of table room, also occupying about 1,000 feet in addition to the above in the State Society's large tent.

To speak more minutely of the exhibition we would say that on March 22d, 1867, your Executive Committee met with the Executive Committee of the State Agricultural Society and after trying in vain to carry out the letter of your resolution of instructions, did agree upon a basis of uniting or holding a joint exhibition September 23d to the 27th, inclusive. The basis of this agreement is that this Society was to have control of the Horticultural Department, *not*, owing to the lateness of the day, changing in any particular the premiums offered, or committees as published, but *were* to fill all vacancies that might occur. The premiums, as offered, amounting in the aggregate to \$478, were to be paid our Society in money, the premiums to be purchased and distributed by this body. This is, in short, the substance of the understanding as made at the time, and which was carried out as best we could.

Of the future we are hopeful, believing that an amicable arrangement can and will be made with the State Agricultural Society, whereby we will be made the representatives of the Horticultural interest of the Fair, assuming the entire control of the same, making up the premium lists as also the committees, purchasing all premiums, and distributing the same; they to pay to the treasury of our Society a sum equal in amount to the premiums offered by them at the last Fair. This I trust will be satisfactory to the members present, and will be the source of a small income to this Society.

I say *this department belongs to us. The Wisconsin State Horticultural Society should be controlled, in this respect, by our members*, and it ought to be a source of a small income to our Association. During the last session of the legislature there was a bill introduced, known as bill 191, Assembly, relating to the growth of forest trees, which provided that the State Agricultural Society and the Wisconsin Horticultural Society shall each appoint a man, and they two a third man, which shall constitute a commission to report to the legislature upon the growth of forest trees, their effects upon the climate and health of the State as affected thereby. Hon. I. A. Lapham, of Milwaukee was so appointed by the Agricultural Society, and Judge J. G. Knapp, of Madison, by the Horticultural Society. (As the result of their labors we have, in a neat pamphlet form, this little volume of about one hundred pages, very complete in suggestions and descriptions of the forest trees well adapted to our climate and uses. All that it now lacks is to be numerously illustrated, showing the effects of tornadoes or currents of air, and to give a fuller description of the trees themselves, so that the inexperienced can trace the resemblance from the illustration to the forest. There should be an effort made to secure an appropriation for this purpose. Every member present should also make it a point to press upon his representative the necessity of publishing our report. If left for one or two to attend to, it may be lost, but if we unitedly and separately ask for it, there is not much doubt but it will be granted.

Here, Mr. President, digressing for a few moments from the train of thought thus far, I desire to draw your attention to the work and object of this Society, and the obstacles to its success.

The *greatest obstacle to our progress is the business itself, viz: the tree trade and how it is done.* It is time that every Horticultural body in the State raised a war-cry of extermination upon the reckless manner in which horticultural products are disseminated through the land. Nurserymen and tree peddlers alike are subjects of criticisms. The first are necessary evils, the last *immense hur-bugs.* The first cover up their sins by preying upon the shortcomings and sins of the latter. *Fruit trees, true to name should be the rule,* and the motto hoisted over the entrance of every garden. Too much care cannot be used in properly packing and labeling their trees in the nursery; for, first, it looks well; second, it gives confidence, and, third, *it avoids mistakes,* if done correctly. It is the first thing the writer looks for, and in the absence of these we say to ourselves, and would now say to your customers, Beware!

But what of the peddlers; who are they and from where? So numerous that "legion" hardly tells the tale. Once there might have been an excuse for thus tampering with men's patience, but with fruit-growing so well established and railroads at our doors, we have no farther use of these "guer-rilas," veritable vegetable ones at that—often not half-grown, or, perchance, over-grown, but not half-ripe. Nursery men will tell you their valuable sorts are all engaged, and if a peddler calls on you, *beware!* it is the nurseryman's trash he is offering you, and if, perchance, you live to ever learn your mistake, he has a cloak, yea, this very vegetable shields him from harm. We are glad to know that in many places this mammoth swindle is being frowned down, and is meeting only with that measure of success to which it is entitled. We would not accuse all of the trade as swindlers; far from it; but there is not sufficient care used by them and their assistants. Of the peddlers, is there one righteous found among them? Then repeat to him the story of poor Tray.

Our objects and labors are not alone to plant, though this should be done till our entire state does bud and blossom as the rose and the nurserymen's labors not prove in vain; but we are all scholars, as yet in the infant class, climbing the ladder, from which many rounds have been broken by frost and bad management. To find with what these rounds may be replaced, is a field for labor and experiment which will yield to the experimenter a vast amount of pleasure and satisfaction. The College Farm now offers us an opportunity for thus starting an experimental garden; to plant, care for and in every way possible encourage the growth of our horticultural products, under varied circumstances and make known the result to the State. We trust that some means may be devised for receiving the five acres tendered for your use, to cultivate and improve, and the time be not far distant when the members of this society may eat of their own fruit, resting from their labors under the vines their hands have planted.

For this and other purposes we need money. It will be a rallying point around

which your members will gather, and from which much good may result if the means are rightly used, and when our bodies have returned to the dust whence they came, and our labors are numbered among the things that were, then will those who come after us, mark the spot and say well done good and faithful servant. And while we may strive to be so over a few things, may we hope that it will be their lot to be faithful over many, and the little ball we may set in motion, in their hands grow larger and larger and become a mighty power.

Mr. J. Y. Smith, of committee appointed one year ago, for awarding a premium on essays, made verbal report, awarding the premium offered by the Society to Mr. A. G. Tuttle, of Baraboo.

Mr. Lawrence, from committee on Revision of Constitution, reported a new constitution and a code of by-laws, which report, on motion, was accepted.

The adoption of the constitution was postponed, and made the first order of business to-morrow morning.

DISCUSSION—GRAPES.

The culture of grapes being taken up; Mr. J. C. Plumb alluding to the President's address, said he feared that false impressions might be conveyed by it. He did not know of a grape grower who raised plants under glass. He knew there were some good plants grown in this city under glass but he did not want them.

Mr. Stickney thought nurserymen had no need to fear from anything said by the President. The public had been deceived long enough with over-fed plants, and they did not want any more of them. They had, by this, learned that 50 per cent. of such plants were sure to fail.

Mr. Atwood had bought and sold the steam-grown plants, but did not approve of them, and should no more deal in them. His preference was in favor of layering the vines. Had layered vines a number of years, and by allowing the mother plant to rest once in a while for a year, he had never perceived any damage to the old plant from the layering. He generally picks off the blossoms when he layers, but did not always do so, and he had had fruit on the layers without damaging them.

Mr. Ott had used both open air plants and glass grown, and can see but little difference. Both were grown in warm rich soil.

Mr. Greenman had grown plants artificially, or with bottom heat to start them, and as soon as started, planted them out in the open air. Thus far they promised well with him.

Mr. Lawrence thought this question of forcing plants one of great importance. He had the best and most satisfactory results from single eye plants, started by artificial heat.

The committee reported for order of business to-morrow: Varieties of fruits, commencing with apples, for discussion.

Communications were read from Samuel Edwards, President, and D. W. Scott, Corresponding Secretary Northern Illinois Horticultural Society, inviting the members to meet with them and participate in their meeting to be held in Freeport, on the 11th to 13th inst.

The invitation was accepted, and Messrs. Plumb, Kellogg and Stickney were appointed the committee on the part of this society.

The President and Secretaries of this Society were authorized to confer with the Executive Committee of the State Agricultural Society and make arrangements for a joint exhibition of the Societies in the fall of 1868.

Mr. Kellogg announced that the fruits for examination and exhibition would be arranged on the tables in this room on Thursday morning.

And then the Society adjourned to 9 A. M. to-morrow.

WEDNESDAY MORNING—9 A. M.

The Society met pursuant to adjournment, the President. Dr. J. Hobbins, in the chair.

The first business in order being the adoption of the Constitution and By-laws previously reported by the committee appointed for that purpose. And the questions being put, the Report was accepted, and the Constitution and By-laws were adopted, as reported: [See this constitution at the end of this volume.]

DISCUSSIONS—VARIETIES OF APPLES.

The next order of business taken up was the question of "Varieties of Apples."

On motion the Society reaffirmed its decision of last year, recommending the following five varieties as the best adapted for general cultivation, viz: Red Astrachan, Duchess of Oldenburg, Fameuse [Snow], Tallman Sweet and Golden Russet.

Mr. Kellogg moved to add to the foregoing list such varieties, as to which there shall be no more than two objections.

Mr. Plumb moved that the Sops of Wine be added to the list.

Mr. Stickney spoke very highly of the variety, as being hardy and profitable for leading family use and market purposes. This variety has been confounded with the Williams' Favorite.

Mr. Adams also endorsed this variety as being perfectly hardy and strong grown—thinks it ought not to be placed lower upon the list than second. Has raised the two, Sops of Wine and Williams' Favorite, and finds them to be separate and distinct varieties.

Mr. Tuttle's experience is the same with that of Mr. Stickney and Adams; thinks it cannot be excelled as an early apple if left upon the tree till perfectly ripe.

Mr. Greenman stated that this variety also succeeds well at Milton, in Rock County. Mr. Plumb stated that this variety is known in Rock County as the *Washington*, under which name it has been largely disseminated.

On motion of Mr. Plumb, the Sops of Wine was added as the first on the second list.

Mr. Willey moved that the action of the Society adopting the second list of five varieties be reaffirmed.

On motion of Mr. Tuttle, the Blue Pearmain was added to the list.

On motion, the "Cider" (known as "Plumb's Cider" in contradistinction to Smith's Cider of Illinois) was added to the list.

Mr. Tuttle spoke very highly of this variety, which was endorsed by Mr. Willey.

Mr. Willey then moved that hereafter this variety be known as "Plumb's Cider,"—in honor of its disseminator—which motion prevailed.

Mr. Dart recommended that the "Lowell," or "Greasy Pippin," be added to this list. After a discussion as to the merits of this variety, it was finally rejected, as it is not generally enough known throughout the State.

Mr. Stickney moved that the "Fall Orange" be added to the list, and Mr. Kellogg recommended that the "Yellow Bellefleur" be also added.

The list as amended and added to stands as follows: Sops of Wine, Fall Stripe, St. Lawrence, Perry Russett, Red Romanite, Willow Twig, Blue Pearmain, "*Plumb's Cider*," Fall Orange and Yellow Bellefleur.

On motion of Mr. Plumb, a committee was appointed on Fruits, now on exhibition for examination. Messrs. Plumb, Adams and Stickney were appointed as such committee.

On motion of Mr. Kellogg, each member present was requested to present a list of ten of the best paying varieties in their several locations.

Mr. Dart asked for information as to how far apart trees should be planted.

Mr. Plumb would, as a rule, plant twenty feet apart each way. Trees would be likely to grow till they filled the ground, and then, as they became cramped, they would commence to bear. Cramping tended to dwarf the trees and produce fruitfulness. And for this country he attached importance to the protection which the trees gave to each other.

Mr. Tuttle would make no difference in the variety of trees planted. Trees, might be set twenty feet apart, if properly mixed together, the upright and spreading alternate; while if all spreading trees were put together, such as the Tallman, there wout be sufficient room for them to grow.

Mr. Dart thought this a most important point. Trees, as all know, are apt to die out, and that tends to thin them out, and unless they are set close at first they become too far apart. To do this they trimmed their trees high, and plowed close, which injured the trees. On the other hand if trees were too close they tended to grow too high. In his opinion twenty feet was the best distance; and he would offer the following resolution, which was adopted:

Resolved, That we recommend planting apple trees twenty feet each way, and devoting the whole ground to the production of trees alone, to the exclusion of any grass or grain that shall rob the trees of their due share of nourishment.

Mr. Stickney offered the following, which were adopted :

Resolved, That we recommend planting trees with heads not over two feet from the ground, and also trees of two and three years' growth, as being better than older ones.

Resolved, That it will greatly add to the success of every planter, to carefully observe the varieties that are the most hardy and productive in his immediate vicinity, or similar localities, and to plant *largely* of those varieties, rather than those recommended by any pomologist or society.

Resolved, That we ask all fruit-growers in the State to make careful records of the relative merits of the fruits grown under their observation, and report the same to the Secretary of this Society, either at the Exhibition next fall or at the next Annual Meeting.

On motion, the Executive Committee were instructed to confer with the President of the University in relation to the use of five acres of land on the experimental farm.

DISCUSSION ON GRAPES RESUMED.

The discussion on grapes was then resumed, and Mr. Plumb moved to place the Delaware first on list, and said if only one kind was wanted, he should say this was that one. It would make more wine than any other, and bear more fruit.

Mr. Stickney was grieved to have it placed second to the Concord, but was in favor of both.

Mr. Kellogg wanted to place them in the order of Concord and Delaware.

Mr. Atwood wanted the Concord first by all means. He had made twenty-five barrels of Concord wine and sent it to Chicago, and had on hand all the orders he could fill, at highly remunerative prices. He would place the Concord in the hands of all farmers. The Delaware was a good grape but it was not worthy to be placed ahead of the Concord. He had marketed many sorts and could always sell four or five boxes of the Concord to one of any other.

Mr. Lawrence said the Delaware with him was much the best. The difference was two to one in its favor.

Mr. Ott said both were good grapes, but he wanted something better than either. Concords will not keep. They soften when they first ripen, and ripen on the outside first, and the pulp is sour.

The Concord and Delaware were retained on the list as last year.

The Creveling was placed as third on the list, as an early grape, though some preferred the Hartford. The Diana was recommended for its long-keeping qualities.

DISCUSSION ON APPLES RESUMED.

In the afternoon the Society again considered the several varieties of apples, when Mr. Willey proposed that the Society make a list of five varieties for trial; and named the Lowell, Fall Queen, Ben Davis, Tetofsky and Carolina Red June.

The Alexander was suggested. Objection being made that it was too tender, Mr. Tuttle said that with him on timber soil, and clay it did well, It was a Russian variety, large and showy, but would not be good for general culture; Still it ought to be tried.

Mr. Dart was opposed to recommending any variety which had not been fully tested, and was well known.

Mr. Finlayson had trees four years planted, that bore good crops last year, it never rotted on the tree.

Mr. Plumb had known it for years, would like a few trees, but the public would not choose it much, the fruit drops badly.

Mr. Kellogg would not have one.

Mr. Adams said that in a large orchard on prairie in his neighborhood, it was found desirable.

The motion to place it on the list failed.

The *Fall Wine* was proposed, and Mr. Greenman said it sold well in Rock county.

Mr. Plumb said that formerly it did well, but of late it had failed entirely. The motion was lost.

The *Ben Davis* was liked by Mr. Kellogg, and he could recommend it, and Mr. Plumb said that in his nursery it did well, and he prized it very highly, both as a nursery and orchard tree. It was adopted.

The *Westfield Seek-no-further* was spoken of, and Mr. Tuttle said that he had been growing it for fifteen years, and had never lost a tree. He considered it as hardy as the Golden Russet.

The list for trial was made up of the Bailey's Sweet, Rawle's Janet, Westfield Seek-no-further, Sweet June, (Carolina Red June,) and Northern Spy.

The Soulard Crab.—Mr. Kellogg offered a specimen of this apple, and inquired as to its quality. (As an apple it was universally condemned.)

Mr. Stickney thought it wouldn't do as a stock for apples, and enquired if any person had made any experiments upon the crab stocks. He had made a few experiments, but not sufficient to satisfy himself. He questions if the root won't greatly influence the stock.

Mr. Plumb thought undue weight had been given to this supposed influence. He thought it entirely immaterial as to the kind of stock used, as in his opinion the top had more influence on the stock, than the stock on the top.

Mr. Stickney favored testing this point thoroughly, and to do so he would plant seeds of the Siberian crabs, for that purpose.

Strawberries.—Mr. Lawrence moved to place the *Agriculturist* first on the list of strawberries.

Mr. Kellogg was willing to give it the second place, but he must insist on the Wilson being placed first, as it grew well on all kinds of soil, and with good culture, it would bear more than any other variety.

Mr. Lawrence said he had picked the second crop of berries from the *Agriculturist*, and had no doubt but it might be so grown as to produce the second crop at all times.

Burr's New Pine, Austin and Brooklyn Scarlet were recommended for trial, and Wilson, *Agriculturist*, and Russell were placed on the list for general culture.

The question was asked about soil and culture, and it was replied that depth of culture was considered of more account than richness, and that the runners should be kept off, if large and abundant fruit was wanted. The berry grew well on all soils in cultivation.

EXTRACTS FROM DR. PAUL A. CHADBOURNE'S ADDRESS.

In the evening, Dr. Paul A. Chadbourne, President of the University of Wisconsin, delivered an Address, from which the following are extracts:

Mr. President and Gentlemen of the State Horticultural Society:— * * The second point which I wish to make is, that the farmer's home is not always as attractive as he might make it. He does not care enough for beauty. This is a point to which I shall return when enforcing the claims of Horticulture.

But I ask, what man in the world can surround himself with all that is beautiful at so cheap a rate as the farmer, and where will you find the element of beauty so often disregarded as in the farmer's home. Why should not the most beautiful spot on the farm be chosen for the home? Why should not the money spent in building give a tasteful dwelling rather than a huge box with a roof upon it and a hole in its side?

But we will change the picture and look upon the bright side of the farmer's life. We will try to see what there is attractive in farming and how Horticulture can add to that attractiveness, and thus render important aid not only in giving us fruit and flowers, but in so adorning plain farming, that it may have new attractions for the young. * * *

Boys have been disgusted with the farm because they have been overworked and have been taught that such work would be needful all their lives, and also because they have not found on the farm that gratification of the love of the beautiful which God has implanted in every human being. We must invoke the aid of science to make the earth produce more bountifully. * * * We must in every way possible do all we can to add the element of beauty to our farms, that they may in all their surroundings, gratify the love of the beautiful. In no place in the world can this be more readily done than in this western country, than in Wisconsin. The work has been commenced. When I came here for the first time, last year, I was astonished. I knew Wisconsin was a new State, but as I looked out upon the farms of Wisconsin, clear of stumps, bordered with old oaks and young vigorous groves, the fields showing evidence of great fertility, I was reminded at once of old England; and when I returned to Berkshire county in Massachusetts, that looked to me like the new country in comparison with Wisconsin. In such a country as this, I say, where the soil is fertile and where the land is beautiful, even as it came from the Indian owners, there is no excuse for the want of beauty around every farmer's home. He has the means of securing it without the cost of a dollar, and even as a means of profit. *And to do this, he must mingle with plain farming no small element of Horticulture.* And right here, gentlemen,

do I think we find one of the greatest benefits of your Society, one of the greatest works it can accomplish. You think, no doubt, it is a fine thing to raise fruit, to secure a delicious but hardy apple or grape, and so do I. The more of these, the better. It is pleasant to eat such fruit without even seeing it upon the tree or vine. But if you can so favor the raising of fruits and flowers that a goodly number of the young men of Wisconsin may be induced to give themselves to farming, who might otherwise go into overstocked business or professions, you will do a great thing for the State. I do not think it possible for a man to become a good Horticulturist without becoming a true lover of the beautiful for its own sake. And when you have aroused in a man the love of the beautiful, I know not in what productive labor he can engage and that love be more fully gratified than in Horticulture. In a course of Agricultural education I should consider Horticulture and Æsthetic as being so closely united that both must be studied together. And I should consider the love of the beautiful and the capacity to appreciate it, quite as essential to a young man, if I wished to make sure of his being a farmer, as I should Geology or Chemistry. The latter may give him greater crops but the former will add more to his enjoyment and enable him with less means to make a more attractive home, and therefore, will be more likely to hold him to the farm—the very thing we wish to do.

The planting of trees and the training of the vine have been the delight of man in all ages of the world. According to the Bible account Adam was started in life as a farmer or rather as a Horticulturist. In that account, which represents man as in the most perfect state, he is put into a garden, not only to enjoy the fruits, but to dress it and keep it. "*And out of the ground made the Lord God to grow every tree that is pleasant to the sight and good for food.*" Utility and beauty were joined in the products, and the enjoyment of man came from the cultivation of fruits and flowers. Whatever may be our opinion as to the origin of the Bible, we cannot fail to see that this account is in exact accordance with the nature of man. He cannot fully enjoy the fruits and flowers of the earth, unless he does his part in producing them, and he cannot fail to be influenced by the element of beauty, if he would. The *beauty* of the fruit is something entirely distinct from its usefulness. We delight in the gold and crimson of the apple, the rich purple of the grape and plum. And beauty of form is never to be overlooked. Many a plant will be cultivated for beauty alone, though it never bear fruit or its fruits be as worthless as the apples of Sodom. We do not lose sight of this principle, even in the arranging of fruit when it is gathered; and in the clustered bouquet the highest skill may be manifested. When your President sent me a dish of fruit last fall, I enjoyed the flavor of the grapes and pears, but I have not half so distinct a recollection of that as I have of the picture of the fruit dish as I first saw it. It was worthy of the pencil of the finest artist, and I have no doubt the giver enjoyed the sight of it and expected to give me as much enjoyment through the sense of sight as through that of taste. Certainly he did, and had it been in my power to change the

clusters to stone and thus preserve their beauty, I should have done so without a moment's hesitation.

I do not believe at all, that men have left the farm because they are educated. They have left it because it has too often been carried on without the refinements of life which naturally belong to it, and which every man naturally desires. They have also left it, because so few men have been fully educated, that their services have been demanded in other pursuits. We want to have more men educated, and we want to see farming carried on as it should be and then we believe there will be no antagonism between education and farming. If any farmer will send his son to the University with the purpose of giving him a thorough education and then to take him back upon the farm again, we will warrant him that his son shall return to him loving the farm as well as when he left it, to say the least. But if he tells him he can go only two or three terms, because he is to be a farmer, then the son will most likely hate the farm, which robs him of the advantages which he sees the sons of other men enjoying. Or, if the farmer sends his son to the University, as is generally done by most farmers, who send their sons to college, having instilled into his mind that farming is a low and hard business, and that he is sent to college that he may make something else his business, so that mother and sisters, and all the neighbors expect that JOHN is to be a minister, or doctor, or lawyer, then it will probably take more than one University, Agricultural College and all, to make a farmer of that boy. And if he should have the good sense to return to the old homestead, do you not think that father, mother, sisters and neighbors would think that JOHN was not very smart after all, and that his college education was thrown away? The fault is not half so much in the college as it is in the farm and in the farmer's home. I should be glad just here to appeal to the Senior Class of the Wisconsin University. I believe not one of that class intends to be a farmer. But I should like to ask them the question if they do not have a higher opinion of farming, as an occupation, than they had a year ago—if they could not now go on to a farm with more comfort and satisfaction than they could then, and if they are not more likely to become farmers than they would have been without the instruction they have received? I believe every one of them would answer, yes. I contend that there is nothing antagonistic to farming, even in the College of Letters.

You can readily see from the view thus expressed what I think Horticulture is to do for Agriculture. It is not only to give us flowers in abundance, apples, peaches, grapes and other fruits; it is to adorn the farm, and give sources of enjoyment not possible from simple Agriculture. And we must join beauty with utility wherever we can. What act can a man perform more wonderful than to change dull clods into the petals and sweet odors of flowers, or into the apple or pear with their net work of cells filled with nectar? As a simple experiment it would be worth the trying, every year. But when we add to this the health and strength, and enjoyment which the fruits give, we have in Horticulture an employment worthy of the best man,

and a study worthy of a State Society. How wonderfully the fruits have been adapted to meet our wants both as physical and intellectual beings. To all our best fruits has been given the power of breaking up into varieties, a matter which we think little of, but one of vast significance. Were there no power in the plant of producing new kinds, we might obtain, perchance, every kind of apple growing upon the earth and then our work would be done. No improvement would be possible in that direction. But in the seed have been placed unbounded possibilities. You may now have the best apple or pear or the most delicious grape, but next year some experimenting Horticulturist may produce another better,—you in turn may surpass him. The law of improvement is ever saying, *Onward, Upward!* And so it will be forever. In all our fruits, are undeveloped varieties just adapted to all our states, without doubt. There are apples, and grapes, and strawberries and even blackberries, I doubt not, just fitted for the State of Wisconsin. When they will be reached we cannot tell. We must unroll them, so to speak, and when the right form appears, hold it for our use, as we can, and propagate it by bud or graft. This is delightful work in which all lovers of Horticulture can engage. Raise seedlings. We may draw a prize and we shall have the satisfaction of knowing that the prize will not be taken from our neighbor's pocket but will and to his enjoyment and profit as well as our own. It seems to me that the raising of seedlings, of all our prominent fruits, is a work that ought to be undertaken on a large scale and persevered in till valuable results are reached. Certain it is, that the Wisconsin climate is now hard upon fruit trees that flourish at the South or East. It is just as certain that it gives some as fine fruit as can be found in the world. I have never seen finer specimens of apples than I have seen in Wisconsin the past season. They had a perfection of form and beauty of tint that I have never seen equalled in any other place. This means something. It means that the apple-making power is here in its perfection. It will not manifest itself to the best advantage in the varieties most popular at the east, but there is a western and north-western apple somewhere rolled up in the apple species. It needs to be unrolled. Some little brown seed that we crush or destroy may have in it a germ, that, if developed, would change all the apple growing of the North-west.

But if we consider the varieties we now have, questions arise which it will take us a long time to satisfactorily answer. Prof. Agassiz remarked last year, that a scientific man could ask more questions in agriculture in ten minutes than all the agricultural colleges in the country could answer in a century. True undoubtedly. But questions must be asked before they are answered and we must begin to answer them by careful observation and experiment or the world will remain where it is. Two points for illustration now occur to me. One is the several growths of the fruit tree, respecting which much has been said the past year. I venture to predict that thorough mulching, which shall keep the ground moist through the season, will prevent this evil. Experiment may prove that it will make it worse. I shall not be-

lieve it till the trial is made. Another thing is the blight which has affected so many trees this fall. This may be a fungus, and it may be the effect of an insect. We must try to settle that next year if possible, if the disease appears. Whatever may be its cause, it would seem to be a difficult thing for us to control, because I notice it attacks the wild apple and so may hold its own in spite of us. The first step in any such case is to learn the cause, we can then judge of the means and prospect of cure.

Now, Gentlemen, I wish to call your attention to the University, for whatever I do for Agriculture or Horticulture in the State, I must do through that. A portion of ground has been set apart by the Regents for the use of this Society. As the Regents have no money to spare and I have made a little by farming in past days, I propose to present the land to you ready for planting. And if you will occupy that piece of ground and tell us what you would like to have done, I promise all the aid in my power in bringing out results that can be relied upon, so that every experiment shall be real progress. The aid of the chemist, in the analysis of soils or manures, shall be at your service. We want as a basis all that you know, and for experiment all that you "guess to be true" if Wisconsin people ever guess. I can fancy a vast benefit to flow from this to the University and to the State. * * *

But we ask you all, gentlemen, to send your sons to us with a love of farming, not despising it because they have been taught by word and deed that it is a hard life and that there is another and a better way for them. * * *

We intend to do all in our power to change all this. We do not purpose to lie to the student in order to change it because lying does not pay well, besides there is a prejudice against it among most people. We do not intend to tell him that a man half educated is as well off as one fully educated. But we do intend to give thorough instruction in Chemistry, Geology and Botany in their relations to Agriculture and Horticulture. * *

Now, gentlemen, having caught you by the button hole here, I have whispered to you, so that all might hear, what I think your mission is in respect to farming. It is to give the element of beauty as well as utility to all agricultural pursuits, and especially to lend a helping hand in promoting Agricultural Education. Although I had no hand in sending out the bills, I trust these topics will not be without interest to the Horticulturists of Wisconsin. Horticulture is to common agricultural pursuits like the blossoms and golden fruit that delight the eye and gratify the taste. While in our fertile soil, the grains and most other farm products give a certain yield and their cultivation is well understood, Horticulture is in that delightful state where much is known, but more is to be learned. To raise the new varieties best fitted for the State, and to learn the best methods for their cultivation will furnish abundant and delightful employment for the Society till its youngest member is venerable with age. And our children will find abundant room for improvement when we have left for them our best instructions. This is a work worthy of man, to labor to beautify the earth, to produce new means of rational enjoyment and leave the world better than he found it. In this noble

work I bid you God speed. But if you would make speed, you must work with system—gathering up all that has been done so that it need not be done over again, year after year, to the loss of time and money. We must, as your President told you last night, work and wait patiently until you know just what to recommend. This is the hardest thing for some men to do. If they hear that a man has set out an orchard, they expect him to sell apples the next day. We must set out healthy plants and watch them, and dress them, and prune them till they bear abundant fruit. If we adopt this sound sense principle the Agricultural Society, Horticultural Society and University together will do a work worthy of the State.

After the delivery of the address, the members again met in the Supreme Court room, and on motion of Mr. Lawrence, the following resolution was adopted, viz:

“WHEREAS, recognizing in President Paul A. Chadbourne, of the Wisconsin State University, a man distinguished in the sciences, and a practical Horticulturist; therefore,

“Resolved, that he is hereby elected an honorary member of the Wisconsin State Horticultural Society, and he is entitled to enjoy all the privileges of said society by its Constitution.”

“Resolved, that the thanks of this Society are hereby tendered to President P. A. Chadbourne for his very able address, delivered before this Society, this evening, in the assembly hall, and that the Secretary of this Society be instructed to solicit a copy for publication.”

The following communication was received from the State Agricultural Society, by its secretary, Dr. J. W. Hoyt, viz:

STATE AGRICULTURAL ROOMS,

February 6, 1868.

DR. JOSEPH HOBBS, *Pres. State Horticultural Society*:

SIR:—In response to the proposition submitted by the committee of your Society on yesterday, for a joint exhibition of the State Horticultural Society with the State Agricultural Society on occasion of our Annual Exhibition for 1868, I have the honor, on behalf of the Executive Committee of this Society, to submit the accompanying terms and conditions, adopted by the said Executive Committee as a basis for the desired co-exhibition.

Respectfully yours,

J. W. HOYT,

Secretary Wis. State Agr. Society.

RESOLUTION OF THE STATE BOARD OF AGRICULTURE.

Resolved, That, in consideration of the cordial co-operation of the State Horticultural Society, proposed by the officers thereof, we offer the following terms and conditions as a basis for such co-operation:

1. Said Horticultural Society to have authority to revise and properly arrange the premium list in Horticultural Department: *provided*, the aggregate amount of premiums shall be not less than last year; also, authority to appoint the Superintendent of said department, and the requisite number of judges therefor, and to award and deliver all the prizes in said department.

2. Said premium list to be published in the usual manner, and as a necessary part of the general premium list of the Wisconsin State Agricultural Society, and yet as by authority of the State Horticultural Society.

3. This Society to set apart for the premium expenses of said Horticultu-

ral Department, the sum of \$600, payable after the Fair, on the order of the officers of the Horticultural Society.

4. Expenses incurred for the Superintendent and an Assistant Superintendent, and for such incidentals as have been customary when said Horticultural Department was under the management of this Society, to be paid by State Agricultural Society.

The following resolutions were then offered by Mr. Lawrence and were unanimously adopted viz:

Resolved, That this society accepts the propositions made by the Executive Committee of the State Agricultural Society, as a basis of union of the two societies for a joint exhibition during the fall of 1868..

Resolved, that the thanks of the society be and they are hereby tendered to the Executive Committee of the State Agricultural Society, for the very cordial manner and the liberal spirit manifested by them in which they have accepted our proposition for a union of the two societies for the fall exhibition; also,

That the Executive Committee are hereby invited, to attend our meeting and examine the fruit now on the table for exhibition, at their pleasure.

DISCUSSIONS.

Cherries.—The committee on Cherries reported in favor of raising the early Richmond, Kentish and English Morello, ripening in the order named

Mr. Stiekney reared these on clay loam; but would recommend that they be grown on the Mahaleb stock in the absence of Morello stocks.

Mr. Plumb had begun growing the Heart and Bigarreau sorts, but they were all swept off by the cold winters. He thought the above sorts should be planted, the birds are the only obstacle to raising cherries, and would continue until they are more plentifully supplied.

Mr. Tuttle recommended the sorts named, and with him they gave plenty of fruit, and birds do not get them all. The sweet cherries are all too tender.

Mr. Plumb offered the following resolution, which was adopted, viz:

Whereas, Under the act of the Legislature of 1867, providing for the appointment of one commissioner by our Society, to unite in a Joint Report concerning the supply and wants of timber and wood in the State:

And whereas, The Hon. J. G. Knapp, as our commissioner, has discharged the duties of his appointment in a very able and satisfactory manner, therefor,

Resolved that we do hereby tender our thanks for the services by him rendered.

THURSDAY Morning, 9 o'clock A. M.

The Society met pursuant to adjournment.

President Chadbourne announced that five acres of land would be devoted to the use of this Society, on the University farm; and that as preliminary to such a work he had removed the stones and the land had been plowed. He hoped the society would be represented in the grounds, and also in the University by lectures before the students on subjects connected with horticulture.

The most of the morning was devoted to an examination of the fruits ex-

hibited by the Society, by Members of the Legislature, State Officers and others.

In the afternoon the discussion of raspberries was taken up.

DISCUSSION—FRUITS.

Raspberries.—Mr. Stickney has been successful in the cultivation of Doolittle Improved Black Cap; says there is a great want of a good red raspberry; has fruited the Franconia and thinks that, with Brinckle's Orange, the two best varieties; also speaks favorably of the Catawissa; has had poor success with the Philadelphia—thinks it overrated.

Mr. Adams thinks very highly of Brinckle's Orange, quality of fruit first-rate—prolific—rather tender. Thinks Belle de Fontenay a good berry, but prolific in suckers, and would not advise the planting in small gardens.

Mr. Kellogg thinks poorly of the Belle de Fontenay; does not bear well. Thinks favorably of the Catawissa, if properly pruned and taken care of.

Mr. Stickney offered the following resolution:

Resolved, That we recommend the improved Black Cap Raspberry, for quantity and profit; the Brinckle's Orange, Fastolf and Franconia, with protection, for quantity and excellent flavor, and the Catawissa and Ohio Ever-bearing for autumn planting.

The chair appointed as committee on diseases of trees and insects injurious thereto, P. A. Chadbourne, J. S. Stickney and F. S. Lawrence.

With the view of affording protection the following resolutions were adopted:

Resolved, That with a view to modify and ameliorate the severities of our climate, we deem it a matter of great moment to the future well-being of the fruit-growing interest of the Northwest, that a general system of tree planting should be encouraged and insisted upon by those who lead and influence public sentiment; and we invite members of the Legislature and all kindred and local societies to co-operate with us in this work, by every laudable means.

Resolved, That we do hereby continue the premium offered last year to encourage tree planting in our State.

Resolved, That we earnestly recommend the planting of evergreens, largely as a means of ornamenting our homes, and to afford shelter and protection from the severities of the climate. We also recommend that for such planting nursery grown trees, from one to two feet high, which have been frequently transplanted be used; with such trees we find evergreens live as surely as deciduous trees.

The Society adopted the following resolution offered by Mr. Stickney:

Resolved, That we cordially recommend to the Horticultural and Agricultural community the *Wisconsin Farmer*, Madison, and the *Prairie Farmer*, Chicago, Ill., as particularly adapted to our western needs and worthy of support.

After considerable discussion, on motion of Mr. Stickney, the following resolution was adopted:

Resolved, That we recommend the Norway Spruce and White Pine for timber belts and wind-breakers; the Scotch Pine and Austrian Pine, Balsam, Hemlock and Siberian Arbor-vitæ for planting singly; Red Cedar and White Cedar for low ornamental screens; also, Norway Spruce as a single tree, or for a line of trees.

Plums.—Mr. Kellogg recommends the Lombard plum, which the Society confirm.

Mr. Tuttle recommends the Miner for trial.

Mr. Kellogg—Does the curculio affect it?

Mr. Tuttle—It generally escapes; is sometimes affected, but not so much as other varieties.

Mr. Kellogg recommends the Eldridge, a variety of the Green Gage; not very productive, but quite hardy; poor keeper.

Mr. Lawrence finds the Eldridge nearly worthless, being insipid—not recommended.

Mr. Stickney—It was said by some that the Miner Plum could not be propagated by grafting; he had been very successful; recommended grafting on the wild plum, all our choice varieties.

Pears.—The Society recommend for cultivation the following list: Flemish Beauty for general cultivation, and the Early Bergamont, White Doyenne, Belle Lucrative, Winter Nellis and Onondaga for amateurs.

Mr. Stickney reports 70 varieties of pears grown by Hon. H. Crocker, of Milwaukee, only three of which are hardy.

Dishonest Tree Peddlers.—Mr. Stickney thinks the only way to get rid of the vender of poor fruit trees is to raise more at home.

Mr. Kellogg—When we had plenty of trees, purchasers preferred to patronize Eastern nurseries.

Mr. —. The reading public are fast learning to purchase only of well known reliable parties; but some folks seem to love to be swindled.

Currants.—The White Grape and Victoria were recommended by Mr. Adams as valuable, the White and Red Dutch by Mr. Stickney, and also by the Society.

The Society then elected the following officers:

President—Joseph Hobbins, Madison.

Vice-President—J. C. Plumb, Milton.

Recording Secretary—O. S. Willey, Madison.

Corresponding Secretary—F. S. Lawrence, Janesville.

Treasurer—Geo. A. Mason, Madison.

The President then announced the following standing committee, viz:

Nomenclature—Messrs. Plumb, Atwood and Tuttle.

Seedlings—Messrs. Lawrence, Stickney and Kellogg.

Finance—Messrs. Lawrence, Stickney and Leitch.

The following resolution of thanks was offered by Mr. J. C. Plumb:

Resolved, that we do hereby tender our sincere thanks to the officers of the Supreme Court for the use of their commodious room during this session, and also to the citizens of Madison for the generous entertainment our non-resident members have received at their firesides.

Adopted.

A synopsis of the report of the committee on fruits on exhibition shows several fine collections upon the tables, including those of G. J. Kellogg, Jenesville, 17 varieties; Dr. J. Ozanne, Jr., Racine, 20 varieties; J. S. Stickney, Wauwatosa, 10 varieties; A. G. Tuttle, Baraboo, 10 varieties; M. L. Twining, Brodhead, two varieties; A. E. Elmore, Green Bay, one variety; also a fine collection of apples and eleven varieties of grapes, taken from the exhibition tables last fall, packed loosely in boxes and buried in the bottom of the cellar of the Secretary. This fruit was in a fine state of preservation, except its earthy flavor, but it is a hint to those who would preserve autumn fruits. There were also some fine imitation fruits on exhibition from Hovey & Co., Chicago, which were allowed by all to be most wonderful counterfeits, "beyond the pictures," but at prices forbidding "by the bushel for family use."

On motion of J. C. Plumb, the Society adopted the following :

WHEREAS, The fruit growing interest of this state is one of great and growing concern to the health and wealth of our people, and as such demands all possible fostering care and support; and

WHEREAS, This society is accumulating a large amount of valuable horticultural information of general interest, and beyond the power of its funds to publish; therefore,

Resolved, That we, the Wisconsin State Horticultural Society, do most earnestly request the Legislature of this State, to grant aid to enable our publishing committee to issue a volume of transactions.

The Society adjourned, with a general expression of good feeling.

REPORTS OF SPECIAL COMMITTEES.

Swindling Tree-Peddlers.—The committee appointed on the subject of protection against swindling tree-peddlers, made the following report, which was adopted:

Your committee, to whom was referred the matter of itinerent tree-peddlers, would respectfully report, That in view of the fact that there is at the present time a number of persons governed solely by mercenary motives, travelling over the State soliciting orders for the sale of fruit trees, vines and shrubs, and imposing upon the people, by selling them poor and worthless stocks of various kinds, procured from places and at prices, where they can obtain them at the lowest possible rates and selling them at high and fictitious values; and which are not only true to name, but any variety that a person may want, by simply placing upon the article the label with desired name; thereby producing confusion in the nomenclature and causing distrust in the minds of the community, and strengthening the impression that "Fruit cannot be grown in Wisconsin," we would recommend as a partial remedy for this great and growing evil, that the nursery men of this State, publish a full and complete list of the articles they have for sale, with a price for each appended to the same; and that they employ none as agents to travel or solicit for them, but persons of known integrity and uprightness of character; first furnishing them with a certificate of authority as agents, which certificate must be endorsed by the President or Secretary of this Society; and to guard said officers from imposition each nurseryman is hereby required to furnish said officers with a list of such agents so employed by him.

We recommend, also, that this Society request the several newspapers and periodicals of this State, that they publish this report, in order to guard the people from impositions as set forth.

FRANK S. LAWRENCE,

JOHN Y. SMITH,

DR. WM. HOBBS,

Committee.

JANUARY 22, 1867.

Statistics of Wisconsin Fruits.—Your committee to whom was referred the procuring of statistics as to the number of bushels of apples raised in the State of Wisconsin and the value thereof would report, that on examination of returns from the several counties as made by the several town assessors in the month of June last, and as compiled by the Secretary of State it appears that there was raised in the state in the year 1865, 272,452 bushels of apples, valued at \$386,363. These returns only include thirty-seven counties, leaving some sixteen counties which made no reports.

It also appears that in the same counties there was 114,001 pounds of grapes raised, valued at \$28,144, also 27,942 gallons of wine made valued at \$48,625.

F. S. LAWRENCE.

January 22d, 1867.

APPLES AND GRAPES RAISED IN WISCONSIN.

Counties.	APPLES.		GRAPES.	
	Bushels.	Value.	Pounds.	Value.
Brown	767	\$1,127	2,700	\$655
Calumet	1,294	1,656	180	18
Columbia	14,920	20,236	2,054	624
Crawford	748	1,096	3,256	846
Dane	14,701	17,016	60,206	8,270
Dodge	12,751	14,316	3,336	701
Fond du Lac	40,447	36,778	1,933	515
Grant	14,557	17,196	15,160	1,629
Green	9,387	10,389	1,050	289
Green Lake	15,970	15,283	1,367	177
Iowa	4,254	6,577	105	26
Jefferson	25,137	26,289	1,630	291
Juneau	320	629	80	20
Kenosha	47,948	42,024	200	42
La Crosse	11	22	150	37
La Fayette	4,574	6,710	230	54
Manitowoc	138	220	60	15
Marathon	5	12
Marquette	405	630	100	10
Milwaukee	1,150	2,295
Monroe	61	84	206	40
Outagamie	1,195	1,225	241	39
Ozaukee	680	744	2	6
Pierce	13	26	30	305
Portage	4	14	500	1,500
Racine	7,668	7,668	4,000	500
Richland	262	400	1,022	254
Rock	33,932	34,227	1,085	1,121
St. Croix	5	11	2	2
Sauk	2,976	4,990	909	234
Sheboygan	2,359	3,791	604	77
Trempealeau	83	189	590	88
Vernon	544	994	627	70
Walworth	48,556	45,781	1,385	248
Washington	4,140	4,218	154	26
Waukesha	32,653	28,308	1,923	116
Waupaca	496	775	232	80
Waushara	2,383	3,084	1,360	165
Winnebago	24,960	29,293	6,391	829
Total	272,452	\$386,363	114,601	\$18,144

No. of gallons of wine, 27,942 ; value \$48,652.

ESSAYS.

THE CAUSES OF INJURY AND THE MEANS FOR PROTECTION OF ORCHARDS.

PRIZE ESSAY BY A. G. TUTTLE, OF BARABOO.

Whatever may be true of other portions of our country, in Wisconsin no very tempting fruits grow spontaneously. Well directed, perserving efforts are necessary for their production. Situated beyond the ameliorating influence of the ocean, or lakes, we are exposed to the sub-arctic blasts of winter, and the dry winds of summer as they sweep over the plains, or sparsely wooded regions beyond us. To form some estimate of the modifying influence of large bodies of water lying in the direction from whence comes our greatest cold, we need only to turn our attention to that portion of Michigan, lying opposite, and even farther north than Green Bay, where the pear, plum and peach flourish in great perfection. It is not strange, that, exposed to severe and long protracted cold unlike that of any portion of the country lying east of us in the same latitude, our progress in fruit growing should have been slow, as our eastern experiences were of little avail to us.

The selection of varieties of the apple made by the first planters was, with a few exceptions, most unfortunate. Those well known kinds deservedly popular at the east, were found unsuited to our climate, and the result of this first trial, seemed to have left the very general impression that we could not succeed in growing the apple here.

The enthusiastic, intelligent cultivator however, satisfied that extreme cold was the principal cause of injury, now turned his attention to those varieties which had their origin in high northern latitudes. The result was satisfactory. Then commenced our first real progress. Many varieties were introduced admirably adapted to our climate, and the orchardist can now plant with as much certainty of success as in those regions more favorable to the cultivation of fruits.

It is said that in the interior of Russia where the climate is similar to ours—in the region extending from the lakes to the Rocky Mountains—apples, pears, plums and cherries are grown in great abundance, even as far north as the fifty-seventh parallel. In view of the perfect adaptation to our climate of the Russian fruits, already introduced, would it not be well to

take means for the introduction of a greater variety of apples, and also of pears, plums, and cherries? In some appropriate way, may not the attention of the Commissioner of Agriculture at Washington be called to the necessities of the great North-west, that while collecting seeds and cuttings from Europe, he may place within our reach, some of those Russian fruits?

We have already quite a variety of apples, well adapted to our climate, and the fact of there being scattered throughout our State fine, healthy orchards, annually producing their returns of the fairest and finest of fruit, demonstrates beyond all doubt, that apples can be grown here, and in great abundance. True, many do not succeed. Some from peculiarities of soil, or location, but far more from gross neglect, and want of proper cultivation.

It is estimated that seventy-five per cent of all trees planted in portions of our country, favorable to fruit-growing, are destroyed by improper management, or neglect. The truth is, a very large class of those who plant, look upon their work as done, when they have made an excavation in the soil, into which the roots can be crowded, and have thrown sufficient earth about them to hold the trees in an upright position. They expect it to thrive, and vie with the oak in hardiness, while at the same time more exposed to depredations from cattle, and injuries from other causes. Such will continue to divide their maledictions between the climate and the nurseryman, all unconscious of any fault on their part, while it is very evident that they would not have succeeded even in the Garden of Eden, for it seems to have been the employment of that first distinguished fruit-grower, to dress and keep the garden. As a successful cultivation of fruit is more difficult, and the adverse influences, against which we have to contend, are increased, there is reason for closer observation into the causes of failure, that we may be enabled to use such means as lie within our reach to prevent injury, and save from disaster.

It has been well said, that "Horticulture is not altogether an art;" it is a progressive science. The wisest of us have to be continually unlearning things in which we once implicitly believed, and learning new facts, as the science develops itself. This is eminently true of us here; all along our pathway lie the scattered remains of favorite theories. Theories so plausible as to receive, for the time, the sanction of the most intelligent cultivators, which unsupported by subsequently developed facts, have been swept away, or materially changed. After the first trial of grafted sorts had resulted so disastrously, it was thought that by planting the seed we might obtain a class of seedlings, of fair quality, and of a degree of hardiness, sufficient to withstand our climate. The trial was made, over, and over again, with no better results than the early trial of grafted sorts.

Various have been the causes assigned for the injury and destruction of our orchards, prominent among them that of late growth. It was maintained that the sure road to success was to choose those varieties which finished their growth early. Perfect maturity of wood is always desirable, and to insure the safety of some varieties, absolutely necessary. Still there are others

that make very late growth—rarely, if ever, while young, showing perfect maturity—that are among our hardiest varieties, such as the Fameuse and Fall Wine Sap; while some of the most tender, finish their growth, and show well ripened wood. Among them are the Porter and Early Harvest. The pear and plum finish their growth earlier than the apple, and yet are much more liable to injury.

While, to a certain extent, this theory of injury to our trees in consequence of late growth still holds true, it cannot be universally applied to all varieties, and probably not to any in all stages of their growth; for while some of our best, and hardiest varieties will injure from this cause while in the nursery, or for the first few years after planted, others that show well matured growth, and seldom improve while young, are perfectly worthless when they come to the bearing age. Trees that improve from this cause are much more liable to be destroyed while young, than after coming into bearing. Seldom, if ever, are bearing trees injured from having made a late growth, for the production of mere wood growth, and the production of fruit, are antagonistical processes.

Whence, then, comes the injury to bearing orchards? I answer, mainly from severe and long protracted cold. Extreme heat and extreme cold act in a similar manner upon plants; and exhaustive evaporation is equally injurious, whether produced by one or the other of these extremes. An examination of the branch of a tree while the mercury ranges from 20° to 30° below zero, shows the wood to be reduced to the smallest compass possible, not less than it would be, if severed from the tree and exposed to a week of summer heat. This condition, long continued, especially if the cold be accompanied by rapidly moving currents of air, effectually drives all moisture from the tree, and so compacts the wood, that the tree is wholly, or partially destroyed. That injury does not result to all trees alike, is very evident. While one may be constitutionally fitted to endure severe freezing, another is destroyed by comparatively slight cold. One from its peculiar cellular structure resumes its functions when the adverse influences cease to act upon it; while the other loses all power of recovery, is rendered unsightly, by disease, or dies outright. That extreme cold is a principal cause of injury must be apparent from the fact, that the greatest injuries to our orchards, have always been produced by a winter of severest cold.

Another injury resulting from severe freezing, is the opening of the fissures through the body of a tree, extending frequently its entire length. When the cold is most severe, the opening is large enough to admit one's finger, thereby, exposing the heart of the trees to that drying process of freezing. Fissures are also made between the branch and body, where the union between trunk and branch is imperfect. This bursting of the body is not confined to fruit trees alone; the oak, and many other forest trees are ruptured in the same manner and from the same cause. It seems to result in no permanent injury to them, neither does it to most of our hardy apple trees; while those more tender are badly injured, and not unfrequently de-

stroyed by it. Why one tree is hardy, and another not, has never been satisfactorily explained, for while the wood of the oak and the orange are of similar texture, one stands unharmed by the severest cold, and the other is destroyed by slight freezing.

Without going into an examination of the minor causes of injury to our orchards, I present these two, viz. : immature growth, and excessive, long continued cold, as the principal causes of failure. What, then, are the remedies to counteract, in a measure, these fatal influences? For the first, timely and judicious cultivation. Entire neglect of culture would be a certain preventive of late growth; but we thereby render our orchards more liable to be destroyed by severe freezing; for a tree must have a certain amount of vitality and vigor to withstand the severe cold of our winters. No doubt, many of our young orchards have been injured by too much cultivation, extending throughout the entire season; while on the other hand, want of care and cultivation has ruined many more. Orchards, especially while young, should be cultivated, but that cultivation should be given early in the season, not extending into the period of second growth. By this means the trees are kept healthy and vigorous, and excessive stimulation is avoided. Retarding the growth by pinching is also beneficial.

For the second—excessive cold—I answer *protection*. I am well aware that in advocating shelter and protection for orchards, I am opposing the often expressed opinions of some, that we should plant where they are exposed to to the winds from the cold quarter.

The necessity for protection, has been recognized and repeatedly urged as an important auxiliary, in the protection of fruit, not only in this country, but throughout Europe, where the climate is milder and less subject to extremes of heat and cold. Never before have the advantages and the necessity of protection ever been called in question. In the Middle and Eastern States, it is said to be much more difficult to grow fruit now than formerly, and the chief reason assigned for this change is, the destruction of forests, which once gave protection to their orchards.

It is very singular that here where the necessity for protection is far greater than at the East, from the fact that we are subject to greater extremes of heat and cold, and an almost unlimited sweep of the winds; a practice so entirely at variance with all former experience should have found advocates. Unless we deny that the dry winds of summer, or the cutting blasts of winter result in injury, it is difficult to see how such theory could find supporters. If a certain degree of cold will produce injury, or health to a tree, its liability to injury will be increased if the cold is accompanied by a strong wind. The object of shelter is to arrest the drying currents, and modify the debilitating effects of injurious evaporation whether produced by heat or cold. If it is true that protection is unnecessary, then our large open prairies are just the place for fruit growing, and the heavily timbered portions of our state are unfit for that purpose. Does not all experience teach us to the contrary? We need shelter from the hot, drying winds of

summer, frequently, while the trees are in bloom, or at the time the fruit is setting. A strong wind, dry and hot, from the south-west sweeps over them, causing excessive evaporation at a time when the tree is heavily taxed, to support its blooming and the forth-coming foliage. The result is, a partial or total destruction of the crops. The injury to the crop from this cause is much more frequent, than from late spring frosts.

Protection on the north-west, and west, against the severe cold, and on the south west to shield from the drying winds of spring and summer is absolutely necessary.

GRAPE CULTURE—HINTS AND DIRECTIONS.

BY GEO. B. KELLOGG, OF JANESVILLE.

Location.—1st, Southeast exposure at an angle of 25°. 2d, Southern at the same angle. 3d South side high board fence upon level ground. 4th, Southwestern exposure. Lastly, we would recommend planting, if no better position than a northern slope could be obtained, in which case a board fence might be *necessary* to mature the fruit some seasons.

Soil.—1st, Limestone. 2d, Calcareous clay, underlined. 3d, Prairie loam, with clay subsoil. 4th, Prairie loam with sand or gravel subsoil. 5th, Any soil capable of producing good corn.

Preparation of soil.—1st, Trenching with the spade two feet deep, without inverting, that is leaving the subsoil at the bottom. 2d, Preparation by the plow twenty inches deep, using the double Michigan plow—usually four horses are sufficient. 3d, By repeatedly plowing with two horses, throwing the ground into lands in the direction of the rows up and down the slope, of sufficient width for two rows only; then by twice inverting the same by back-set, leaving it in ridges of sufficient width to allow two rows without setting near to or in the dead furrow.

This ground needs no manure except as mulch. Good corn land is good for grapes, with an annual top dressing.

Selection of Varieties.—For general cultivation: 1st, Concord. 2d, Delaware. 3d, Hartford Prolific. 4th, Diana. 5th, Allen's Hybrid. 6th, Rogers No. 4. 7th, Isabella. 8th, Rogers No. 19, and other varieties, *ad infinitum*. The Concord, Delaware and Hartford Prolific will succeed wherever a good corn crop will mature, with the necessary preparation of the soil as before noticed. Distance of planting, six by eight feet.

Selection of Vines.—1st, Strong 1 year old layers of previous year's bearing wood. 2d, Well grown cuttings of such varieties as readily propagate by cutting. 3d, One-eye plants from well ripened wood.

Planting.—Root prune, leaving the roots some twelve to eighteen inches in length—place in their natural position at seven inches below the surface, in tenacious or clayish soils, and ten inches in light or sandy soil—cover with earth three or four inches, then fill the excavation with straw manure as a mulch; but do not use strong manure as it will often injure newly planted vines. During the latter part of summer the soil should be worked up to the vines, filling the excavations without removing the mulch.

Cultivation.—Work with a horse with a fine tooth cultivator, or with a hoe or potatoe hook, keeping the ground clean until about the tenth of August.

Training.—Keep the vines upright allowing but one cane the first season, pinching in all laterals and allowing the main vine to grow unobstructed until frost.

Pruning.—For winter, prune about four weeks after the falling of the leaf, to their buds, the first season, allowing but two to grow the second season. The second fall, prune to three eyes on small canes and six on large ones, which will probably be capable of producing twelve branches,—which is all a vine at this age ought to bear; all surplus growth should go to bearing wood and to elaboration of mature root. The one arm system may be adopted in part, by allowing one arm and establishing the fruiting spurs on that as the season and strength of the vine indicate. Two arms may not be grown on account of the necessity of winter protection.

Trellis.—The first year, anything giving support to the vine, set at the time of planting, is sufficient for keeping the vine in an upright position. The second year, stakes set between the vines by the use of an iron pointed crowbar, similar to those used in setting hop-poles, will not injure the roots. The stakes setting between the vines will give nearer and horizontal position, which is quite beneficial to the bearing vine. The fourth season a trellis may be made or the stakes increased to accommodate the additional wood. A simple and efficient trellis may be made by setting Red Cedar or Bur Oak posts, charred and tops down, driving them by the use of the bar and sledge. After setting the posts, narrow slats, two or three inches in width, may be nailed to the post, eighteen inches apart, or common wire for fencing may be used; and by sawing off the posts at a uniform height and putting in a rail or piece of round iron, of sufficient length to receive two thicknesses of the slats, a brace running lengthwise and crosswise of the rows will materially add to uniformity of the vineyard, and the training of the extra growth of the vines, always leaving every third space open for the passage of the wagon with mulch and fertilizers.

Winter Protection.—In the month of September, after the first and second years' planting, let there be earth sufficient thrown around the base of the vines to protect the lower buds, and at the time of pruning or soon thereafter let there be a slight covering of the soil of not more than two inches, and if possible, put it on during a dry time; after which, during the first freezing of the ground, let there be a generous mulch of straw manure—and if

that manure contain marsh hay, so much the better—applied as far as the roots probably extend. When the vines are large and marsh hay can be procured it may be used at the time of pruning for covering the vine three or four inches deep and putting enough earth around the base to hold the hay in position.

Spring Treatment.—Do not disturb the vines from their winter bed before the 15th of May; then remove carefully the covering and return two-thirds of the mulch of straw and hay leaving it on until about the first of June, always removing it in a cloudy day or late in the afternoon.

Protection should always be given by timber or evergreens, from the southwest winds which prevail in early summer.

5 HOR. SOC.

EXTRACTS FROM CORRESPONDENCE.

THE CULTURE OF SMALL FRUITS.

BY A. M. PURDY, SOUTH BEND, IND.

To those who have enjoyed the luxury of "small fruits," for even a single season, it seems unaccountably strange that more do not plant of these delicious and healthy fruits. First in the season, and long before any other fruits come in, we have the luscious and melting strawberry, either fresh from the vines or "smothered" in sugar and cream. Next, follows the sprightly raspberry, with its many beautiful colors and flavors; after which, come the magnificent and glossy blackberries, hanging like so many sparkling jets on the overloaded bushes; also the grapes, rich in their many favorite localities. These with the currant and gooseberry mixed in at their proper season, make a paradise of one's home, and add to it an interest which attract the love and attachment of the children, who may be growing up around the dear old hearth-stone, with an ardor too strong to be broken.

* * * I find, in my observations, the almost universal objection to growing these luxuries is, that "it is too much labor; too much attention is required," &c. Such complaints are generally raised by those who have never had success in growing them; and the reason is that they were neglected from the hour they were set out. If a small share of the useless avocations are devoted to giving the proper and simple care required to grow these luxuries, a bountiful harvest would repay them for it and they would not fail ever afterwards to keep them in good order; thereby insuring a certain crop *every* season.

Again, many are deterred from setting them out after reading a long and elaborate work, from some theorizing author, giving directions that would puzzle any common brain, and deter most people from setting such fruit. For instance, one writer will take strong ground, that a certain amount of a certain kind of fertilizers must be put on the ground at a certain season; and it must be "trenched" in to a certain depth. A certain variety must be planted, and must be set in "hills," and not a runner allowed to grow. They must be mulched *just so*, in the fall, and with *just such* kind of litter. In fact, if the directions of some of these writers on 'grape culture and other

fruits were fully carried out by the new beginners, they would not only become discouraged themselves, but would naturally discourage others from going into it.

After over fifteen years' experience in growing fruits, I can say to all persons, that it is no more trouble to grow grapes, strawberries, raspberries, blackberries, &c., than Indian corn and cabbage. For most of fruits, there is more danger of high manuring than too little. This is especially the case with grapes. An amateur neighbor of mine, who has as fine an assortment of grapes as any need desire, has been in the habit of high manuring and has never succeeded in getting as fine crops of fruit, as since his change to high manuring; and what is more noticeable, since his change in this respect he has *no mildew* on his fruit. I have observed that grapes grown on ordinary soil, are less liable to rot and mildew, than those which are forced into an unnatural growth, by high stimulating fertilizers. The best flavored Concord or Isabellas I ever saw, and which were free from mildew or rot, were grown on an inferior, light, sandy soil. My advice is, to get the ground in about the condition required to grow good crops of corn, and my word for it no disappointment will follow.

In setting strawberries for garden culture, set the plants one foot apart; keep clean and as they commence to throw out runners, train them along the rows. By fall they will form thick matted rows, about one foot in width. Mulch these lightly with any barnyard litter, or saw dust or tan bark. The next spring, work among them with a fork-hoe, and prick out all weeds. Immediately after they are through fruiting, spade the ground between the rows, spading under all the vines except a strip three or four inches wide. Scatter among these a liberal supply of rotted manure after making the ground loose among them with the fork-hoe and picking out all weeds. Keep clean and take the same care as during the previous year. Many growers recommend the "hill" system. My objections to it, are that they are apt to be killed out by "cut worms," and in many cases, with our most popular sort, (the Wilson's Albany,) the vines so exhaust themselves in bearing, that they are apt to be thrown out, or "heave" through the winter, on account of not forming new roots enough to sustain them, and when a plant is thus destroyed a vacancy is left; while, if they were allowed to form thick matted rows, they would be better protected from being thrown out, and if a few were destroyed it does not leave an entire vacancy in the row; while at the same time *new* plants fill up the rows *every* year, and these from such strong fibrous roots, that they are sure proof against our changeable winters, and certain to bear, as the new roots give more nourishment than an old exhausted plant. Some growers allow the vines to cover the ground. My objection to this method is, that they cannot be properly cultivated and consequently suffer from the least drought. I have found after practical experience that when vines are thoroughly cultivated in the spring and well worked with the fork-hoe, they do not suffer in comparison from the drought, with those which are not so cultivated, while those which were allowed to

run broadcast over the ground, and consequently could not be worked among, proved almost an entire failure. Another great objection to allowing them to grow in this way, is, that it is impossible to go among them to pick the crops, without destroying a large share of the vines and fruit. To grow them for market, we set the plants, one foot apart in the row, and rows four feet apart; keep clean with the cultivator and fork-hoe; train the runners along as before described; mulch in the fall with plenty of rotted manure or straw and work among them thoroughly in the spring. After they are through fruiting, plow the ground *deep* between the rows, plowing the rows down to a narrow strip from four to six inches in width, manuring them well and train the runners and take the same care as the year previous.

Set blackberries and raspberries from two to three feet apart in the row, and rows of raspberries six feet, and blackberries eight feet apart; keep clean, and in August and September cut back the top and long side branches, so that blackberries shall stand about five feet high, and raspberries four feet, mulch *heavily* in the fall with tan bark, saw dust, old straw, manure, or chip dirt. This not only acts as a mulch, causing the crop to be double, but keeps the weeds down, thereby saving a great amount of labor.

As to grapes there are numerous ways and instructions for the setting. My advice is to set them in a warm sunny place, where the ground is naturally warm and dry. Cut back two or three eyes, the first year, allowing two or three branches to grow. In the fall, cut these back about four feet in length, and lay them down, covering them slightly with dirt or litter of any kind. By the way, there is a great amount of discussion as to which is the most hardy and will stand the most severe winters. I believe there is no good variety in cultivation that will pass through our severe and changeable winters unprotected without being injured somewhat; and so long as it is so little trouble to lay them down and take them up in the spring, I think it useless discussion. A man that is too lazy to spare the little time and labor required to do this is unworthy to have this luxury. Each year I should cut out the wood, and have two or three branches of the new growth. Cut those back to six or eight feet; cutting off all side branches to within two or three eyes of the main branch. Set the roots eight feet apart in the row and and rows twelve to sixteen feet. Use either trellis or stakes to train the vines on.

By observing these simple instructions these luxuries may be enjoyed the year round. * * *

I think most of our societies are apt to spend too *much* of their discussions on some new varieties, and leave in the back ground the old, well proved successful sorts. It should be remembered that the great mass of people have not the means to spare for these high priced sorts; while older varieties will give better satisfaction, and prove more successful in the end. My advice to the common people is, to wait until your wealthy neighbor has tried these new mushroom roots, and if they prove a success try accordingly. I would not have it understood that I discountenance or discourage the

growing of new sorts, but my advice is, to those who cannot afford it, "don't get bit." I have passed through the mill and can speak from bitter experience.

To sum up, friends, let me advise all to plant fruits. Set out an orchard of hardy apples, * * Yes, plant them out, and by so doing leave a living monument to your children and children's children; and your satisfaction will be, that, as they grow up, they will enjoy the fruits of your labor and teach their children to call you blessed.

FEBRUARY 3d, 186b.

FRUITS, &c., IN TREMPÉALEAU COUNTY.

BX E. WILCOX, TREMPÉALEAU, WIS.

* * * This county extends from township 18 to 24 north, and a few miles back from the Mississippi river. The south part of the county is thought to be well adapted to many kinds of fruit. Here the wild plum, crab apple, grapes, raspberries, &c., grow. The people, not satisfied with these, have, with commendable zeal undertaken to raise nearly all kinds of cultivated fruits, thought to be adapted to this latitude. Here can be found fruited the apple, plum, cherry, pear, grape and small fruits. The soil varies near the village. To the north is a sand prairie, while east and back from the river a mile or more, on the second table, is a strip from one-half to a mile in width of good soil, with a subsoil of gravel. This is thought to be one of the best fruit localities in our county or in the northwest part of our state. Here the grape, the pear, the plum, the apple, &c., are being cultivated to some extent, and with good prospects of success. The grapes were mostly killed to the ground last winter; this was thought to be occasioned rather by a hard frost in the fall on the immature vines than by the cold of winter, extreme as it was. The most careful cultivators mulch their trees, and throw earth about them in the fall, and cultivate the land in some hoed crop. It is difficult to report the kinds of apples and other fruits which promise best as the names are lost, and until they are in bearing it is not known what we have got. * * * Back of the before mentioned section, much of the country is rough and broken, with rich and fertile valleys. At Galesville, the county seat, and eight miles from the river, the soil is good. Here also much is being done in fruit growing, and the trees in the gardens look very promising.

Whortleberries.—A few miles north of this place, you come to the "huckleberry" region. And right here let me say that some who are not posted may be disposed to doubt what I may say; nevertheless, I will try to keep in the bounds of truth. In the northern part of this county, Jackson, &c.

hundreds of bushels are, and thousands may be, gathered annually. The crop too is a sure one, as they grow mostly on the ridges, they are not subject to frosts, which in the valleys would be destructive to them as well as the fruits. Here is a useful lesson from nature. Here it is, that from the tenth of July until the last of August, the settler's family large and small may be found on the ridges, with baskets, pails, tubs, &c. ; and when the male members, who accompanied them in the morning on their way to some adjacent slough to cut hay, return with the team, the women and children, baskets, pails, &c., filled with bushels of berries are taken home. After two or three days of such work the man starts with perhaps ten, fifteen or twenty bushels of his own and enough for some neighbors to make perhaps thirty bushels, for some market, perhaps fifty or sixty miles off, where they are sold for from \$1.25 to \$1.50 per bushel. When he gets back some other one in the neighborhood takes his team with a load. In the mean time the picking at home goes on, and hundreds of bushels are dried for family use, and for sale.

I tell you this "huckleberry" business, is a great thing. They are good in milk, in sugar and cream—good for pies, short cakes, pudding. Well, here is a reason why small fruits are not much sought after in this section. Every family can, or do have plenty of this kind of fruit the year round. It takes but very little sugar, in fact, will do very well without any.

JANUARY 12, 1865.

FRUITS IN RICHLAND COUNTY.

BY ALBERT S. NEFF, OF WOODSTOCK.

* * I will try to give you what information I can in regard to the fruits of Richland county and our experience.

First. It is unfavorable so far as I can ascertain. There is scarcely anything in the shape of cultivated fruit grown in this county. I know of but little and what is growing is close to the Wisconsin river. Back from the river the trees seem so live for a year or two, and then commence to die. The tops commence first, and about the next year after that they are dead. I know of some orchards that have been set out four or five years. They were set out say seventy-five trees in the first place, and now there is not one single healthy looking tree in the orchard ; but there are some trees that do live.

Second. The orchards are all differently located. On a soil of clay and loam, timber lands, they are productive, and make a heavy growth of wood each year. I put out an orchard two years ago last spring, nearly all lived until this present year, and seemed to be living thirftily this spring ; but I washed them rather early with too strong ley, and it hurt a good many of them ; but

the largest of them lived and are doing well yet. Those trees were from the Janesville nursery. The varieties are not known.

Third. The leaves commence to curl and twist during the hot weather, and have lots of large and small ants on them during the summer months.

Fourth. The trees turn black, with white spots on the bodies, and finally die.

But this county is very productive of the best of wild fruit; the woods are full of wild plums, grapes, cherries and crab apples, all the finest of the kind I ever saw; and it seems strange that tame fruits do no better than they do. Thousands of dollars have been paid out to get fruits into this county, mostly to nurseries out of this state. Apple tree peddlers have canvassed every part of the county, and trees have been set out and died.

FRUITS IN PIERCE COUNTY.

BY M. D. PROCTOR, FALL RIVER.

* * * Agreeably to request, I give a statement of my experiment in fruit raising. In the spring of 1863, I bought of O. Salisbury fifty standard apple trees, three years old, set them the first of May in a wheat field, twenty-five feet apart; the soil, a sandy loam, rolling enough to carry off the surface water. I dug the holes about three feet square and one and a half deep, and set them as near as they stood in the nursery as I could. I then mulched them with straw and corn-fodder from the barnyard, and kept the weeds and wheat hoed up for three feet around them. Although the season was very dry they all lived with one exception, and made a fair growth, and were not watered at all. I set fifty more last may, which are doing well; and now have twenty-seven varieties.

The location is midway between the valley and hill top, with a northern and western exposure, where the north-west and south winds had a fair sweep on the east there; was a mound that broke the force of the east wind somewhat, but no timber. The land was prairie, broken in 1857, and had been cropped with oats, corn and wheat, and bore good crops.

I set the following varieties: Perry Russet, Winter Wine Sap, Jefferson County, Sweet June, Bailey's Sweet, Astrachan, Washington, Duchess of Oldenburg, Seek-no-further, Snow, Yellow Bellefleur, Rawle's Janett, St. Lawrence, Sweet Pear, and Tallman's Sweeting. They had no protection in the winter, except the mulch that was applied at planting, and came out all right, with the exception of the Washington, Bellefleur and St. Lawrence. They were injured in the limbs some, but have made a fair growth. The rest

came through, to all appearance as well as my crabs, by their side, and have done well through the summer. I cannot see but what the bark looks as bright as it does on the crabs. This year I plowed as near as I could, then forked around the trees and mulched again with old straw from the barn-yard, and planted the ground to potatoes. I have given them no protection this winter. Our climate here is different from what it is farther east. The winters are cold and dry with but little snow or rain. The summers are very warm. The thermometer ranges from 40 ° below to 100 ° above, with a very dry atmosphere.

There are no apples raised here of any consequence. The most of the trees set in this vicinity came from New York, and have died out, until people have despaired, and given up in disgust; still, when they see trees bidding fair, they take courage, but they take hold carefully. Crab apples do finely, so do small fruits; and wild plums are in abundance.

SEPTEMBER 7, 2865.

FRUITS IN WAUSHARA COUNTY.

BY HENRY FLOYD.

* * * I came to my farm on the north bank of the Fox River, in the south-east corner of this county, fifteen years ago. I have on forty acres, eight or ten different kinds of soil, varying from a very light sand, with a clay subsoil, five feet below the surface, to stiff clay at the surface. I have a sandy loam, with clay subsoil from six to eighteen inches below the surface; also a rich marl quite sticky, with a subsoil of the same, from one to three feet deep, except, being filled with gravel stones, this resting on a bed of pure gravel, and being the highest ground I have. The aspect is south-east and south-west. I have fruit trees on all the above varieties of soil, and find the English Golden Russett better adapted to light sandy soil than any other variety tried. I have but few varieties hardy enough to stand our coldest or hardest winters, without injury.

The following lists are hardy enough to live, and have proved profitable with me. I name them in the order of their hardiness—all root grafted: Duchess of Oldenburg, Perry Russett, Red Astracham, Snow, Talman's Sweet, Pomme Gris, Fall Orange, Lowell, St. Lawrence, Autumn Strawberry and Sops of Wine. The following are worked on the tops of hardy stocks: Westfield Seek-no-further, Yellow Bellflower, Calville Russet, Vandevere Pippin, Keswick Codling, Red Astrachan, Golden Sweet, Peck's Pleasant, Summer Queen, Colvert, Mother, Ramsdell's Sweet, Dominic, Primate, White Winter Pearman, Canada, Beauty of Kent and Baldwin.

My time of planting is the early spring. I set two rods each way and a tree in the centre of each square thus formed; keep the land in hoed crops from five to seven years, then cultivate with a large cultivator, keeping the ground clean in the fore part of the season, and letting the weeds grow in the latter part; for winter protection I have also found it a good plan to mulch late in the fall and early winter with coarse manure, remembering always to keep plenty of hungry cats—a perfect and practical remedy for the mice.

A thorough application of kerosene oil is a sure remedy for the bark louse, and can be easily and rapidly applied to trees from three to seven years old, with a paint brush. The oil will clean the tree of lice, dead bark, moss, &c., without injury to the tree. I have known trees crusted with the bark lice and stunted and dwarfed by them, cleared of their monster scabs and make a fine growth the first year after the application of this oil.

On the high land, and red marl soil, previously spoken of, I have planted the Flemish Beauty and other pears. With my limited experience with that fruit, the Flemish Beauty is almost the only variety *worthy* of cultivation in this latitude. Last winter, 1864, injured this variety, as will all very hard winters, depending on the ripeness of the growth. [Mr. F. here enumerates 12 other varieties, with which he has experimented, and lost them both as standards and dwarfs, and proceeds.] I think my experience in pear culture appears rather mournful, but, I assure you it is no less so, than my neighbors, I have not a doubt, but that some of them, have bought, set and lost the Vicar of Wakefield, Swan's Orange and Louis Bonne de Jersey, from three to five times, in the last ten years. The people rely upon the recommendations of tree pedlers, and give their orders for what they recommend; while he recommends all he has to sell, which is a general stock. I should like to know how many hundred thousand dollars have been paid to eastern nurserymen for tender pears and apples, or even the famous King of Tompkins County. I think all that have tried the dwarf pear culture, in this section of country, will agree with me in calling it a perfect failure.

Plums are grown to some extent in this locality. Duane's Purple is much the best variety for this latitude; it is not only the most hardy, but most productive. The Imperial Gage stands next in popularity. All should be grown on the wild plum stock. * * *

I am growing some grapes, have the Delaware, Concord, Diana and Isabella. The last is too late for this latitude, except in favorable seasons. I cover all vines in winter.

February 4, 1865.

FRUITS IN SHEBOYGAN COUNTY.

BY J. B. RICHARDSON, SHEBOYGAN FALLS.

* * * I have been engaged in the nursery business in this county since the year 1855. In the spring of 1855, I planted a stock of some seven acres, mostly eastern varieties, brought here from eastern New York. You undoubtedly know the result. I have found that eastern nurserymen's experience is of but little value here, except the system of propagation. We now have an entire new list of varieties, with a few exceptions. The eastern tree trade is about played out in this locality. The agents they send here have very poor instructions, in regard to varieties, and we have been imposed upon in that particular. Not that alone, but they deliver their trees too late in autumn, and too late in spring. Another of their impositions has been in sending such varieties as are not adapted to this soil and climate; and many of them worthless. They generally send us their surplus kinds, such as do not sell readily in the eastern market.

In every orchard that I have visited, this and other seasons, I find some few varieties of the eastern trees, that are doing well, that is they look healthy, but do not fruit early. I find the Golden Russet, Northern Spy, Tallman's Sweet, Rawles' Janet and Red Astrachan. These varieties are land-marks in most of the faded out orchards, whether cultivated or not. They stand, saying to their owner, "if you will use us well, we will produce fruit." But the worst feature is, the farmer does not know what they are. Not one in fifty has a record of his planting, so he cannot profit by his experience. They seem to think, or do not know but that all varieties are equally good, if they are procured and planted in good order. Most of the farmers when they come to us for trees, will say, "we want good sized healthy trees;" but do not mention a word as to what varieties they want; hence the failure in a great degree has been through the agents selling them the kinds that they most wished to get rid of, and paying no regard to varieties suited to this country. They are both to blame, for not knowing or doing better. Still these same farmers, who have been duped for the eleventh time, say "we are to spend our days in Wisconsin, and we must raise fruit, and think we can, if we get at it right; and we are willing to try again, if you will furnish us good trees raised at home, but will not spend another dollar for that eastern trash." Then he will say, "I have paid out \$70 or \$100 for them, and now see what I have left. There are only three or four trees."

If one should go to these men and ascertain the names of the kinds that

have withstood this fiery trial, behold there is a Russet, there a Spy and there a Tallman Sweet. If you go into the garden, you will find a strong cherry, perhaps, if he has planted a dozen kinds; but the only variety that has any promise is the Kentish, or some other of the Morello class. All others have failed because they are out of their latitude.

Plums—we have very little trouble with, when grafted on the wild stock: The Lombard and Yellow Egg seem to stand the best, but the Imperial and Bleeker's gapes and the Orange do well. Pears seem very fickle. * *

I find a great error exists in choosing proper sites for orchards. Most of our German people plant on too low and wet land, at the foot of a hill or rise of land. They do so because they did so in Germany, and have not learned as yet the differences in climate. They say the hill is too poor, consequently their trees freeze out. Our Yankees take the other extreme, being quicker to learn the causes of trees failing on low land, but do not as yet learn that our hills are too bleak, without some protection. And just how much protection is needed is hard to determine. I find, too, by close observations of our native trees, that the hardy varieties of grafts, are much hardier than seedlings growing in the same grounds, as a general rule. I also find by months' travel and daily observation of trees, that those with very short stems, and low spreading tops are much the healthiest and bearing the most fruit. This shows that if we want to assist nature we must not clip her wings. Never trim *up*. Rather trim *down*. We find that with draining or subsoiling our clay lands, and with good culture, together with home raised trees no difficulty exists in raising a good orchard.

FRUITS IN MINNESOTA.

BY A. S. STEWART. LA SCUR.

* * * I have made the raising of fruit and fruit trees, my business in Minnesota for the last nine years. I find the small fruits, such as currants, gooseberries and strawberries, do well on almost all kinds of good soil. The early varieties of the grapes do well here if planted on good soil, where it is free from early and late frosts. Among the best are the Delaware and Clinton. The hardy varieties of the apple have done well on the right soil and situation. Among the best are the Red Astrachan and Tallman's sweet. There are several other very choice varieties in bearing, but I have not been able to learn their names. I have several varieties from seeds that promise well. The orchards that are doing the best stand on soil composed of a good share of clay, and where they are not exposed to late and early frosts.

We want more light on the subject of fruit growing in the north-west; and I am pleased to learn that Wisconsin has started the wheel in the right direction to gather information. Let us have the experience of every fruit grower in the North-west, and it will be the means of saving thousands of dollars by enabling us to purchase trees of the right kind, so that we will be able to enjoy the luxury of fruit of our own growing.

SEPTEMBER 11, 1865.

FRUITS IN NORTHERN IOWA.

BY E. R. HEISS, ROCK GROVE, FLOYD COUNTY.

* * * I would say that the soil of our orchard is a sandy loam, but not very sandy; subsoil is clay. The face gradually slopes to the south, the south end being almost level. I would prefer a northern or western slope. It is partially sheltered on the west by a grove. Our trees are generally root grafted (I prefer that mode to any other, where the variety is known to be hardy) and were planted eleven years ago. The general causes of failure here have been in planting tender varieties; in planting on low wet soil; in using stimulating manures before the trees have borne three or four crops; in heavy pruning in the spring, when the sap is in full flow, also in severe pruning after the beginning of the second growth, which gives the tree a check in growth, followed by an over vigorous and late growth, and unfits it to stand our hard winters. As I have said trees are sometimes killed by pruning, so they sometimes perish for want of pruning. During the growing season our prevailing winds are from the south-west. This causes the tree to grow to the north-east, and the north-east branches take the lead, and rob the south-west ones of their due proportion of sap. This not only enfeebles the branches, but the trunk on the south-west side of the tree. Then it does not take much sun or freezing to kill the side of a tree which is about dead with starvation. The remedy is to cut back the north-east side branches to an inside bud, until a proper vigor and growth is forced on the other side. Something can be done in setting the tree, by setting so that it shall lean to the south-west, or toward the sun at one o'clock p. m.

SEPTEMBER 7, 1865.

[Mr. F. gives a list of fruits as hardy, about the same as the Society have recommended.]

BY D. W. ADAMS, WAUKON, ALAMAKEE COUNTY.

* * * I send some items of my experience in fruit growing in this northeastern county of Iowa. My grounds are dry rolling prairie, fully exposed to all winds and situated eighteen miles from and 650 feet above the Mississippi river, in latitude 43° 20'. The soil is a friable black loam, about twenty inches deep, resting on a well drained yellow, sandy, dry subsoil, underlaid with limestone. I have had most experience with apples, and my collection embraces one hundred varieties. (Here Mr. Adams gives his list, divided into five classes, among his list of hardy are those of this Society.)

My plan of setting is on top of the ground, twenty-two feet apart, and ridge the land until the roots are covered four inches deeper than in the nursery, then cultivate with corn. I have 1400 trees growing under this treatment and they leave me nothing more to ask in the way of health, beauty and vigor. All are branched about twelve or sixteen inches high, and have been planted five years. They commenced bearing last year. With pears, my experience has been disastrous. Forty varieties have had their day on my premises. A few arrived at bearing size, and gave some fruit, and then they succumbed to the rigors of our winters. I have not now a single healthy pear tree. I have never been troubled with blight. The Great Dispenser of events did not find it necessary to add that to winter desolations in order to thoroughly accomplish the destruction of my pear trees.

With grapes my success is all that I can ask. I have the following varieties, and esteem them in the following order: Delaware, Concord, Diana, Rogers No. 3, Creveling, Hartford, Clinton, Catawba, Rogers No. 19, Connecticut, Tokalon, Northern Muscadine, Union Village, Rebecca and Isabella. Small fruits succeed well. Of strawberries, Wilson's I rely on for a main crop, though I cultivate others. Houghton is the only *sure* gooseberry. The Cherry, Victoria, and White Grape are by far the best three currants, being thrifty, productive and large.

January 15, 1866.

LOCAL HORTICULTURAL SOCIETIES OF WISCONSIN.

MADISON HORTICULTURAL SOCIETY.

The Madison Horticultural Society was organized July 7, 1858, under the name of "Madison Horticultural Association," with the following officers:

President—A. L. Collins.
Vice President—J. G. Knapp.
Treasurer—D. J. Powers.
Secretary—D. S. Curtis.

The first exhibition was held on Saturday, August 12, 1858. Since then, J. G. Knapp, W. T. Leitch and Wm. H. Watson, have successively filled the office of President; and J. T. Clark, Geo. Capron and Joseph Hobbins, the office of Recording Secretary.

The Society was granted a charter by the Legislature, on March 29, 1861, with its present name, with the usual privileges of such corporations.

The thirty-second exhibition was held September 24, 1868. Three or four exhibitions are held each year, and monthly meetings about half the year. Exhibitions prove very successful, financially, there being at this date about \$500 in the treasury and their influence is very apparent in the increased interest given to the culture of plants in this city.

The officers, for 1869, are as follows:

President—W. T. Leitch.
First Vice President—D. Worthington.
Second Vice President—Timothy Brown.
Directors—Dr. Joseph Hobbins, J. T. Stevens, Dr. N. J. Moody, John Gripper and H. M. Lewis.
Treasurer—George A. Mason.
Corresponding Secretary—Dr. Joseph Hobbins.
Recording Secretary—T. D. Plumb.
Committee on Fruits—Caspar Meyers, O. S. Willey and N. J. Moody.
Committee on Flowers—John Gripper, Edward Thompson and Mrs. O. C. Johnson.
Committee on Vegetables—G. A. Mason, N. F. Lund and J. T. Stevens.
Committee on Finance—Timothy Brown, Wm. Hobbins and H. M. Lewis.

T. D. PLUMB,
Recording Secretary.

MADISON, December, 1868.

GERMAN HORTICULTURAL SOCIETY.

MADISON, WIS., December 11th, 1868.

The German Horticultural Society of this city was organized June 28th, 1865, consisting of thirty members:

President—John F. Hauser.
Secretary—F. A. Pfaff.
Treasurer—Samuel Klauber.

The first Exhibition was held at Turners' Hall, July 18th, 1865, and was in every respect a success. The second Exhibition, in 1865, was held at the same place, September 19th, 1865.

In 1866, the Society held its Spring Exhibition, June 26th; Summer Exhibition, July 24th; and Fall Exhibition, September 18th, at the City Hall.

The officers for 1866, were:

President—R. Baus.
Secretary—F. A. Pfaff.
Treasurer—F. B. Huchting.

The pecuniary success of 1866 was very satisfactory to the Society.

The Exhibition for 1867 opened with the following officers:

President—Bruno Schneider.
Secretary—F. A. Pfaff.
Treasurer—Charles Gewecke.

The Spring Exhibition, June 2d; Summer, August 13th. The Fall Exhibition was dropped and the Society competed at the Wisconsin State Fair, held in the latter part of September, and was awarded the first premium—\$50 cash.

For 1868, the officers were:

President—F. A. Pfaff.
Secretary—Wm. Helm.
Treasurer—Charles Gewecke.

The Spring Exhibition, June 24th, 1868. No Summer Exhibition was found practical on account of scarcity of flowers, &c. The Fall Exhibition was held at Turners' Hall, September 23d.

The Society counts at present forty five members, and is in a flourishing condition. The members are classed in two classes—Active and Passive. The Active members are obliged to help at Exhibitions, &c., and are the workers in the Horticultural line; the Passive are members paying \$3 per annum dues, and are exempt from any labor for the Society.

Very respectfully, &c.,

WILLIAM HELM,
Sec'y German Hort. Society.

JANESVILLE HORTICULTURAL SOCIETY.

This Society was organized October 8th, 1866, by the adoption of a constitution and by-laws, and the election of the following officers:

President—Hon. I. C. Sloan.
Vice President—S. G. Williams, Esq.
Secretary—F. S. Lawrence.
Treasurer—S. W. Smith.

The object of the Society, as embraced in its Constitution is, "to promote a more thorough knowledge of Horticulture, in its various branches, among its members, and be a medium of disseminating information among the people generally; also, to induce the citizens of this city to beautify and adorn their homes and the streets surrounding the same, by setting out and protecting the growth of ornamental and useful shade trees and shrubbery."

The meetings of the Society held for discussing the many topics connected with horticultural matters, have been generally well attended, and have elicited much valuable information, of which the public have eagerly availed themselves, as witnessed in the more urgent call for further information pertaining to the same, and the numerous trees, vines, shrubs and flowers that have been planted around their homes, since the date of its organization.

During the year 1867 two fairs were held and proved successful. The show of fruit, both small and large, and of flowers also, were magnificent and elicited the commendation of all who had the good fortune to witness the display. The past year, owing to causes beyond the control of this society, only one fair—and that a free one—was held. The display of small fruits and flowers, however, was very good.

One great obstacle under which this Society has labored, in holding its exhibitions, has been the want of a room of sufficient capacity to make a good display, so that each variety of fruit and flowers could be placed without crowding. This obstacle we are in hopes to have removed before the time of holding another fair.

This Society now numbers about forty members, most of whom are life members. So far from being discouraged by the failures of the last year, the most of them are determined to enter upon the campaign for another year with renewed zeal and courage, avoiding the rocks and shoals of the past, and make our Society one of the institutions of the land.

The present officers are:

President—Dr. J. B. Whiting.
Vice-President—S. G. Williams.
Secretary—F. S. Lawrence.
Treasurer—S. W. Smith.

F. S. LAWRENCE,
Secretary.

GRANT COUNTY HORTICULTURAL SOCIETY.

The Grant County Horticultural Society, of Platteville, was organized December 16, 1867. Its officers are:

President—J. H. Rountree.
Vice President—Jacob Wernli.
Secretary—Chas. H. Allen.
Treasurer—L. L. Goodell.

These officers constitute the Executive Committee.

The objects of the Society, as expressed in the constitution, are as follows :

“ The advancement of the science of Horticulture in this vicinity, and the collection, comparison and preservation of the culture of fruits, flowers and garden vegetables in this and adjoining counties.”

But one exhibition was held, which was held in June, and was eminently successful. It is the purpose to hold two exhibitions each year.

The resources of the Society are: Membership, \$2; dues, \$1; Receipts from exhibitions. All premiums awarded to members of the Society at the first exhibition were donated, and the Society is now in funds.

The results of the labors so far have been to awaken an interest in the culture of flowers and fruits, and to introduce into our place a large number of educational books and periodicals. As a necessary result of this, grapes and small fruits are being planted in abundance, and in a few years our locality may be proud of what it can do in this direction.

CHAS H. ALLEN.

Secretary.

THE KENOSHA HORTICULTURAL SOCIETY.

The organization of the “Kenosha Horticultural Society” was the offspring of a settled conviction on the part of leading amateurs and cultivators in the city of Kenosha and vicinity that a high standard of excellence in cultivation and improvement in raising fruits and flowers especially, could not be attained through the agency of the County Agricultural Society to which most of them belonged. Not that the latter did not offer sufficient premiums or inducements, but that from the nature of the case, the cultivation of grain, the raising of stock and the manufacture of butter and cheese must receive its chief attention. Added to which was the further consideration that the soil of the neighbourhood of Kenosha—a sandy loam—was peculiarly adapted to the growth of the smaller fruits, vegetables and flowers, and a relatively large number of persons had embarked, or were about to embark in their cultivation in order to supply to some extent the market in

Chicago and other places. These persons would, from time, to time express their desire for the establishment of a permanent society in furtherance of the design to increase the general stock of knowledge upon the subject; to compare views, and furnish opportunity to relate individual experiences; to interchange products—seeds as well as fruits—to awaken in the general public an interest in the subject of floral ornamentation and arboriculture; in the preservation and propagation of forest trees and shrubs, and the growth of fruits suited to this climate.

The meeting organized by the appointment of Thomas Howland, a well known pomologist, as chairman and S. Y. Brande secretary. A committee was appointed to draft a constitution and by-laws.

In accordance therewith the following officers were elected :

President.—H. P. Hinsdale.
Vice-President.—Stephen Galt.
Secretary.—H. T. O'Farrel.
Treasurer —S. Y. Brande.

Executive committee, S. T. Rice, A. Z. Zettstrom with the President Vice President and Secretary *ex-officio*.

The Society voted to hold monthly meetings on the third Monday of each month at 2 o'clock in the afternoon of the months of October, November, December, January, February and March, and at 7½ P. M. of the remaining months of the year.

The society held its first or spring exhibition on the 30th day of June 1868, in "Horticultural Hall." Considering the lateness of the season, the show of strawberries was decidedly superior. Samples of all the leading varieties in cultivation were on exhibition together with a goodly show of early vegetables.

The attendance and patronage though not all the Society desired or expected was encouraging, and served to further the determination to make the fall exhibition surpass it in excellence.

The second, a fall exhibition was held on the 25th and 26th days of September, 1868. The show of vegetables was truly magnificent. The display grapes, apples &c. very fine, though owing to the general failure of the apple crop the number of specimens was not so great as would undoubtedly have been on exhibition. Kenosha county, in proportion to its size, is producing the largest quantity of this fruit in ordinary seasons of any county in the state. The flowers on exhibition were greatly admired, and specimens of pampas grass, eight feet in height, with a large drooping flowery head, attracted universal attention. The interest manifested was encouraging and the second fair was unanimously voted "a success"

As a Society we have no endowment, or fund; the expenses are wholly met by voluntary contribution, including an annual membership fee of one dollar. We have no experimental garden, and only the nucleus of a library, but we hope in time to be supplied with the means to create the latter.

The present officers are the same as at the organization of the Society. Our expectation is, that the Society will continue to be "a necessity", wise we should, knowing the fickle character of many hundred enterprises,

predict its early abandonment. We feel that it has already done good in improving the character of our gardens and garden products, and in stimulating the desire to produce more and better things, and we hope to furnish the State Society with other contributions in future, which shall be alike creditable to us and to the commonwealth of which we form a part.

S. Y. BRANDE,
Treasurer.

OSHKOSH HORTICULTURAL SOCIETY.

OFFICE OF OSHKOSH HORTICULTURAL SOCIETY,
OSHKOSH, November 3, 1868.

O. S. WILLEY, Esq.,
Secretary of State Horticultural Society :

DEAR SIR:—Your favor of the 31st received. The "Oshkosh Horticultural Society" was organized on the 16th of April, 1868, and the past season has given two successful Exhibitions. The Society, yet in its infancy, was an experiment, and I hardly feel yet privileged to speak of its ultimate success, yet its importance may be estimated by the taste and attention it has stimulated among the more refined and appreciative portion of our people. All matters relating to Horticulture, in a general and systematic sense, had been neglected, if not ignored, and the few yards and grounds showing taste, here and there and far between along our streets, serve to make the neglect more apparent. The first labor of our Society was to encourage the setting of shade trees; in this, it was very successful. Probably more trees are set along our streets last spring, than ever before. We next gave notice of *free* public Exhibition, and urged our citizens to prepare for it, publishing a series of Horticultural articles, stating what to plant in the way of shrubbery, and when to plant it. When our Exhibition finally took place, it was well attended, exciting both wonder and admiration, and was by all considered a success. It was given as a *free* Exhibition, that its objects might be the better known. The second Exhibition presented a good show of flowers and fruits, the evening was very unfavorable, yet the attendance was such as to show an interest in, and an appreciation of the objects of the Society.

Since then the labors of the Society have been directed to general objects, connected with Horticulture, discussion of vines, fruit trees, &c., and during the winter, weekly meetings will be held for the purpose of considering matters that will be most likely to engage attention next season, and best promote the interests of Horticulture.

I have no doubt of the success of the Society nor do I doubt that good results will follow its labors. Horticulture enlists the attention of every in-

telligent and refined mind, and we have only to develope it, to make the taste and practice popular. We number about forty members, and will increase it to one hundred during the next season.

The present officers are :

President—Geo. Hyer.
Vice-President—O. H. Harris.
Corresponding Secretary—I. J. Hoile.
Recording Secretary—Jacob Fowler.
Treasurer—B. Harkell.

Another year will enable our Society, I hope, to report more favorably.

Very respectfully,

GEO. HYER.

APPENDIX.

APPENDIX

CONSTITUTION AND BY-LAWS

OF THE

WISCONSIN STATE HORTICULTURAL SOCIETY

ADOPTED AT THE ANNUAL MEETING IN FEBRUARY, 1868.

CONSTITUTION.

ARTICLE I.—This Society shall be known as the Wisconsin State Horticultural Society.

ARTICLE II.—Its object shall be the advancement of the science of Pomology and of the art of Horticulture.

ARTICLE III.—Its members shall consist of *Annual* members, paying an annual fee of One Dollar, of *Life* members paying a fee of Ten Dollars at one time, and of *Honorary* members, who shall only be members of distinguished merit in Horticultural or kindred sciences, or who shall confer any particular benefit upon the Society, who may by vote be invited to participate in the proceedings of the Society.

ARTICLE IV.—Its officers shall consist of a President, Vice-President, Recording Secretary, Corresponding Secretary, Treasurer and an Executive Board, consisting of the foregoing officers and the ex-President, and *three* members to be elected annually; five of whom shall constitute a quorum at any of its meetings.

In addition to the foregoing officers, the President, and Secretaries of all local Societies shall be deemed *ex-officio* members of the Executive Board.

All officers shall be elected by *ballot* and shall hold their office for *one* year thereafter, and until their successors are elected.

ARTICLE V.—The society shall hold *annual* meetings commencing on the first *Tuesday* of February, for the election of officers, for discussions, and for the exhibition of *fruits*; also, one meeting during the fall, for exhibition of

fruits, and for discussions, at such time and place as the Executive Board shall designate.

ARTICLE VI.—This Constitution may be amended at any regular meeting by a two-thirds vote of the members present.

BY-LAWS.

I The President shall preside at meetings, and with the advice of the Secretary call all meetings of the Society, and have a general superintendence of the affairs of the Society, and shall deliver an Annual Address, upon some subject connected with Horticulture.

II. The Vice President shall act in the absence or disability of the President, and shall perform the duties of the chief officer.

III. The Secretaries of local Societies shall by correspondence and personal intercourse with Horticulturists of their respective districts obtain accurate information of the condition and progress of horticulture and report to this Society.

IV. The Corresponding Secretary shall attend to all the correspondence of the Society.

V. The recording Secretary shall record the proceedings of the Society, preserve all papers belonging to the same, and superintend the publication of its reports.

VI. The Treasurer shall receive and keep an account of all moneys belonging to the Society, and disburse the same on the written order of the President countersigned by the Secretary, and shall make an annual report of receipts and disbursements.

VII. The Executive Board may, subject to the approval of the Society, manage all its affairs, and fill all vacancies in the board of officers; three of their number, as designated by the President shall constitute a finance committee.

VIII. It shall be the duty of the Finance committee to settle with the Treasurer, and to examine and report upon all bills or claims against the Society, which may have been presented and referred to them.

LAWS

RELATING TO THE PLANTING AND PRESERVATION OF

FRUIT AND FOREST TREES.

Chapter 165—R. S.

SECTION 49. Every person who shall wilfully and maliciously, or wantonly and without cause, cut down and destroy, or by girdling, lopping, or otherwise, shall injure, any fruit tree or any other trees, not his own, standing or growing for shade, ornament, or other useful purposes, or shall maliciously or wantonly break the glass or any other part of it in any building not his own, or shall maliciously break down any fence belonging to or enclosing land not his own, or shall maliciously throw down or open any bars, gate, or fence, and leave the same down or open, or shall maliciously or injuriously sever from the freehold of another any produce thereof or anything attached thereto, shall be punished by imprisonment in the county jail, not more than one year nor less than three months, or by fine, not exceeding two hundred dollars.

SECTION 51. Every person who shall wilfully commit any trespass by entering upon the garden, orchard, or other improved land of another, without permission of the owner thereof, and with intent to cut, take, carry away, destroy, or injure the trees, grain, grass, hay, fruit, or vegetables there growing or being, shall be punished by fine, not exceeding fifteen dollars nor less than three dollars.

SECTION 52. Every justice of the peace shall have concurrent jurisdiction in his own county with the circuit court, of all the offenses mentioned in the three preceding sections of this chapter, when the value of the trees, fruit, grain, or other property injured, destroyed, taken, or carried away, or the injury occasioned by the trespass, shall not be alleged to exceed the sum of one hundred dollars; and in any such case the punishment shall be by fine, not exceeding fifty dollars nor less than five dollars.

SECTION 53. Any person who shall wilfully cut down or destroy, or by girdling or otherwise shall injure, any tree growing or standing upon any lands set apart for university and school purposes, or either, and belonging to this state, or upon any other lands belonging to this state, or upon any other lands belonging to this state, or who shall wilfully cut or take, carry or haul away, from any such lands, any timber or wood previously cut or sever-

ed from said lands, or shall dig or carry away any mineral earth or stone in or upon any of said lands, shall be held guilty of a misdemeanor, and upon conviction of any of said offenses, shall be punished by imprisonment in the county jail of the proper county, not more than one year nor less than three months, or by fine, not exceeding five hundred dollars.

SECTION 54. Any justice of the peace shall have concurrent jurisdiction in his own county with the circuit court, of any offense mentioned in the preceding section, where the value of the trees, wood, timber, mineral, earth, or stone shall be alleged not to exceed the sum of one hundred dollars, and in such case the punishment shall be by fine, not exceeding one hundred dollars nor less than ten dollars.

SECTION 55. It is hereby made the special duty of the superintendent of schools in each town, who may have knowledge of or who may receive information of any offense mentioned in the next preceding sections of this chapter, to forthwith inform the district attorney of the county in which he shall reside, of the trespass committed, of the name of the trespasser or trespassers, and of the name of the witness or witnesses in the case; and the district attorney shall immediately proceed to bring such trespasser or trespassers before the proper tribunal for trial, and he shall prosecute them in the name of the state.

SECTION 56. Any person who shall wilfully and without authority cut down or destroy, or shall injure by girdling or otherwise, any growing or standing timber or tree upon the private property of any individual, or upon any property held in trust, or shall cut any timber or wood upon any such property, or take, or carry, or haul away therefrom any timber or wood previously cut or severed from such freehold or land, or who shall willfully and without authority dig or carry away any mineral earth or stone from any such freehold or land, shall be deemed guilty of a misdemeanor.

SECTION 57. Any person who shall be convicted of having committed any such offense in the day time, shall be punished by imprisonment in the common jail of the county, not less than ten days nor more than one year, or by fine, not less than ten dollars nor more than five hundred dollars, together with the costs of suit; any person who shall be convicted of having committed any such offense in the night time, shall be punished by imprisonment in the county jail, not less than twenty days nor more than two years, or by fine, not less than twenty dollars nor more than one thousand dollars, together with costs of suit; any person who shall be convicted of having committed, in the day time, a second offense, shall be punished by imprisonment in the county jail, not less than twenty days nor more than two years, or by fine, not less than twenty dollars nor more than one thousand dollars, together with costs of suit; and if the first conviction be for any such offense committed in the day time, and such second conviction shall be for an offense committed in the night time, or if the first conviction be for an offense committed in the night time, and the second conviction be for an offense committed in the day time, such person, upon such second conviction, shall be punished by imprisonment in the county jail, not less than thirty days nor

more than two years, or by fine, not less than thirty dollars nor more than one thousand dollars, together with the costs of suit; and if such second conviction be for an offense committed in the night time, such person shall be punished by imprisonment in the county jail, not less than forty days nor more than two years, or by fine, not less than fifty dollars nor more than one thousand dollars, together with the costs of suit; upon all subsequent convictions of such offenses, such offender shall be punished by both such fine, costs, and imprisonment, as last aforesaid.

SECTION 58. If any person, upon conviction of any offense mentioned in the last two sections of this chapter, shall be adjudged to pay a fine, such person shall stand committed to the county jail until such fine and costs shall be paid, or until he shall be discharged therefrom by due course of law.

SECTION 59. If any person shall willfully or maliciously set on fire, or cause to be set on fire, any woods, or prairie, or other grounds other than his own, or shall intentionally, or by neglect, permit the fire to pass his own prairie or grounds to the injury of any other person or persons, every person so offending shall, on conviction thereof for every such offense, be fined in a sum not exceeding five hundred dollars nor less than ten dollars.

Chapter 279—General Laws 1860.

AN ACT for the protection of orchards and fruit trees.

SECTION 1. Section fifty-one, of chapter one hundred and sixty-five, of the revised statutes, is hereby amended by adding thereto the following, to-wit: "or by imprisonment in the county jail not more than thirty days, nor less than five days"

SECTION 2. Section fifty-two, of said chapter, is amended by adding thereto the following: "or by imprisonment in the county jail, not more than three months, nor less than ten days."

Approved March 31, 1860.

Chapter 102—General Laws 1868.

AN ACT to encourage the planting and growth of trees and for the protection thereof.

SECTION 1. Every land owner or possessor of five acres of land or more, who shall reserve from the natural growth, or shall successfully grow by planting not to exceed one-fifth part thereof in forest trees, in the form of tree-belts, as hereinafter described, shall be entitled to have the land on which such trees grow exempted from taxation from the time the said trees commence to grow, if planted by the owner, until the trees shall reach the height of twelve feet. Whenever the trees shall have attained the height of twelve feet, he shall be entitled to receive an annual bounty of two dollars per acre for each acre so planted or grown as a tree-belt, which bounty shall be allowed him as hereinafter provided; and the certificate therefor shall be

received by the collector of taxes assessed on the entire land of which the tree-belt forms a part, as so much cash.

SECTION 2. Tree-belts to be entitled to the benefit of this act, shall be reserved or planted on the west or south sides of each tract of land, and shall be not less than thirty feet wide; but no tree-belt shall exceed one-fifth part of the entire tract of land on which the same is planted: *provided*, that if the east and north sides of any tract of land, or either of them be bounded by a public highway or street, then a tree-belt one rod wide may be planted next to said highway or street, and the same shall be entitled to all the benefits of this act, although such last mentioned tree-belt shall with the other tree-belts on the west and south sides exceed the one-fifth part of the whole of said tract of land. The tree-belts may be composed of any or all of the following kinds of trees, or such species thereof as will grow to the height of fifty feet or more, viz: arbor vitæ, ash, balsam fir, basswood, beech, birch, butternut, cedar, black cherry, chestnut, coffee tree, cucumber tree, elm, hackberry, hemlock, hickory, larch, locust, maple, oak, pine, spruce, tulip tree and walnut. All belts shall be of equal width throughout their entire length, and contain not less than eight trees standing nearly equal distances from each other, on each square rod of land.

SECTION 3. Tree-belts to be entitled to the benefits of this act, for each five acres of land must be at least thirty feet wide; for each ten acres of land at least sixty feet wide, and for forty square acres at least one hundred feet wide, and must be on two sides of each square tract of land; and all tree-belts owned by the same land owner must be planted to not exceed one-fourth of a mile apart, or on the west and south sides of every forty square acres of land; and the tree-belts may be divided and planted on any other lines within each forty square acres, by the permission of the assessor.

SECTION 4. Whenever any person, after having applied for and obtained a bounty certificate for a tree-belt, shall allow such tree-belt to die out by want of culture or otherwise, or shall cut down the same, or shall pasture the same lands with his cattle or animals, or shall so thin out the tree-belts that, in the opinion of the assessor, it shall no longer be entitled to receive the annual bounty hereby offered, or to have the land exempted from taxation, he shall lose all benefit of this act until it shall again be accepted and certified to by the assessor.

SECTION 5. It shall be the duty of the assessor upon application of the owner each year, at the time of assessing the personal property in his district, to ascertain by personal examination of all tree-belts for which exemption from taxes or bounties is claimed, and by inquiries whether the belts have been reserved or planted, and are thriftily growing as required by this act; and if he shall be satisfied that they are not so growing, or that the owner has allowed his cattle and animal access to the tree-belts, or that he has cut down or thinned out the same so as to destroy their capacity as a wind-break, he shall assess the land for taxes, and shall refuse to grant any certificate showing that the owner is entitled to a bounty thereon.

Approved March 4, 1868.



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