Mr. Plumb had thought much and practiced some on hedge plants. He had heard the three-thorned locust named as making an excellent hedge, and had sent for seed of the same; but more than one-half of them had proved thornless, and he had abandoned the idea of making a hedge of them, and should therefore cultivate the trees for shade trees. A neighbor of his had been trying the Osage orange, and it promised well on the high, dry land; and he meant to plant it himself.

Judge Knapp said that in his opinion Wisconsin was north of the zone of the Osage orange, and experience would prove, if it had not already done so, that it could not be depended upon as a hedge plant in this state; in fact many of the plants proved tender at Bloomington, in Illinois. And where one dies out, the hedge is destroyed as a fence. Some plant was required, every one of which would be hardy. The three-thorned locust, in addition to the objection of its dangerous thorns, would not bear to be sheared down sufficiently to keep in bounds. It was a tree and not a shrub.

Mr. Adams said there was a difference in the seedlings of the Osage, as to their capacity to resist the cold, the same as with apple seedlings; and for that reason he did not think it would make a good hedge plant here. The tender ones would die out and thus the hedge be destroyed.

The meeting then adjourned to 7 1/2 in the evening.

7 1/2 O'Clock P. M.

The meeting convened agreeably to adjournment. The president in the chair.

The secretary then read from Mr. De Wolf of Delevan,

AN ESSAY ON THE RASPBERRY.

Mr. President and Gentlemen:

The raspberry is among our most important branches of horticulture, and is rendered doubly important at the present time, by the neglect it has received in the past. * * My love for all persons living within our beautiful state prompts me to make one frank statement, and in this I desire to encourage
those who are just starting or it may be putting it off, and have not set fruit of any kind, and now, because their wheat will not sell for two dollars per bushel, plead that they are unable to plant this coming spring. Horticulturists are not able to defer the planting of fruit for one moment. "Delays are dangerous" in horticulture. If a man can spare but one dollar, and he invest it in the Black Cap Raspberry plants, I believe that it will do him more good than five dollars expended for any other variety of fruit.

History of the Raspberry.—Pliny, the elder, who is supposed have written his natural history about the year A. D. 45, mentions the wild brambles, which the Greeks called Idea. Palladius, a Roman agricultural writer, who flourished in the fourth century, or about 1400 years ago, mentions the raspberry as one of the cultivated fruits of his time. But like most other small fruits, very little improvement was made until within the past century, as the old gardeners depended mainly upon the wild plants, which they obtained from the woods of their own or some foreign country. Even yet, very many of the farmers and gardeners of our own state are following the same practice of getting their raspberry plants from the woods.

Objections to the Culture.—I meet these men and try to sell them raspberry plants of new varieties. "But," says one, "I don't want any of them, I have fooled away money enough upon them now, as mine all killed out last winter." I ask such a man, "Sir, what variety did you have?" And after a great deal of study he finds the names of several very popular foreign varieties; or it may be the name of a seedling of some of these varieties, no better than its parent. This man had never heard that these varieties must be protected in winter, unless their owner had provided a green house, to grow them in. Persons not having this convenience, will do well not to purchase any variety for general cultivation that needs winter protection. The next man I meet has heard about "winter protection," and says, "I will not bother with raspberries. They are more trouble than profit." The third man
says, "They have spread all over my lot, and I would not take raspberry plants as a gift." I meet the neighbors of the above mentioned persons, and they cry out, "Humbug!" I plead with them to read what Andrew S. Fuller and other horticulturists have written. "No. I do not care for the opinion of Fuller. I believe my neighbors in preference to any one."

These and similar objections have met me often during the past three years; and they have had to be removed, or they could not be persuaded to invest in any variety of raspberry.

* * I have endeavored to seek out a variety of the raspberry that was free from these serious defects. * * Perhaps our pomological writers have been somewhat at fault in condemning every variety that did not come up to their standard as to quality; forgetting that a moderate supply of a medium quality of fruit was far better than none at all. Quantity is that which gives satisfaction to the masses.

The Black Caps.—On examination I have found that all the black caps were hardy, and needed no protection in winter; also, that they did not sucker. "But," says the farmer, "I have black raspberries; I brought them from the woods. What better are yours?"

The Black Caps, like other valuable fruits in their native state, are found to have several defects, that must be remedied before they can be pronounced worthy of general cultivation. These defects are: 1st. Small size of fruit; 2d. Dryness of the pulp; 3d. Excessive seediness; 4th. Small yield; 5th. The short and uncertain period of its bearing habit. A neighbor of mine, a few years ago, becoming interested in the culture of the raspberry, set out a large piece—I think several acres, with the common black raspberries, but after a time, a friend of his from near Oak Corners, in New York, when the Doolittle raspberry was just started, induced him to try some of those plants. After trying the Doolittle thoroughly, he dug up and threw away all of the native plants, and planted the others, thus subjecting himself to no small loss of time, labor and money in their culture. His neighbors said he was crazy, thus to throw away money, months of hard labor and
his plants, and then give his note for sixty dollars to pay for plants of the Doolittle; which they were sure were no better. But mark the result. In 1866, two years from setting out the Doolittle, he says, "I have raised one hundred and fifty bushels of the Doolittle Black Caps, which I have sold at an average of $8 per bushel, wholesale, making the nice sum of twelve hundred dollars, for one crop." And he adds, "There is no fruit that gives so quick and profitable returns, for the labor bestowed and money invested. No fruit retains its flavor, or keeps better when canned. It is easily and rapidly dried.

I could refer to many instances of enormous profits received from the culture of improved varieties of the Black Caps, but as the one mentioned took place in our state, I shall let that suffice, as a practical reference. Within the last three years greater perfection in this class of raspberries has been attained.

Varieties.—Davidson's or Sinton's Thornless, is the earliest in ripening its fruit. Its fruit and habits are similar to the Doolittle, with the exception of being a little earlier and free from thorns, thus making it a special favorite among ladies.

Garden ripens next in order. This is a dark red or brown berry, as if red and black were mixed. By some this is highly prized as a garden berry.

Doolittle ripens next in order. This variety has been too long before the public to require further description.

Seneca is extremely late and very prolific. It is a decided improvement upon the Doolittle. This fruit is larger and the canes more vigorous and productive.

Improved Miami is certainly one of the largest black raspberries in cultivation; and the best of the cap varieties. It may be briefly described as follows: fruit very large, dark brownish-black, almost entirely covered with bloom, juicy and sprightly in flavor; canes very strong and vigorous, with more or less bloom, not so much as on the Seneca, but more than on the Doolittle; spines numerous and strong, on the one-year old plants, but afterwards they are quite scattering; leaves large, and deep green, with leaflets rather broad in proportion
to their length. Very productive; berries ripen some days later than the Doolittle. It is very probable that this is the same as the Mammoth Cluster. * * * I care not by what name they are called, the Improved Miami, McCormick, or Mammoth Cluster. I have five acres of them and claim they are the best five acres of raspberries in our state. In the American Horticulatural Annual for 1869, Fuller says: "In 1867 I sent for the Miami, and obtained a small lot from H. M. Purdy. These plants have fruited finely this season, and from them I have taken my description of the Mammoth Cluster Raspberry."

The above are five distinct varieties, and are from the earliest to the latest known. All of them propagate from the tip of the canes, layering in the fall. They do not sucker, and need no winter protection, nor staking, if properly trimmed; or any more cultivation than corn.

Culture.—Any soil that will produce good corn, with deep tillage, will answer, yet light soils should be well manured. Plow well and deep; if sub-soiled all the better. Prepare the ground thoroughly. Planting must be well done. Spread the roots out properly, then cover the plant about two inches and no deeper. Many persons lose their plants by neglecting this caution. We plant four feet apart in the rows, and from six to eight feet wide, and cultivate a row of corn or potatoes between them, the first year or two. In the garden they may be set closer, but the rows should be six feet apart. Cultivate with the hoe and cultivator, keeping the ground mellow and entirely free from weeds. The first season be careful not to hill up around the young plants, but keep the ground level. If it be hilled up much the canes will die. Do not work nearer than about 18 inches to the hills with the cultivator, for fear of breaking the roots. Cultivate the ground as early in the spring as it may be fit. After the berries have blossomed, do not work too deep, lest you destroy the fibrous roots, that feed the forming berries.

Trimming.—The second spring after planting the canes
should be shortened to twelve or eighteen inches, according to their growth, so that they may not over-bear, and also to keep the fruit from the ground. When the new wood of the second year has made a growth of three feet it should be checked by cutting it off. The old wood should be removed each year, as soon as the fruit is gathered, and the new shortened in. After July never cut or break any of the growing branches.

_Garden Culture._—All the advantages of house culture may be secured by planting quite closely together and mulching the ground heavily with any course material.

Experience teaches us that raspberries can be more successfully cultivated in Wisconsin than any other fruit. May Divine Providence speed the day when Wisconsin shall be as noted for her raspberries as some of her sister states are for their peaches and other fruits.

The secretary then laid before the society the following

LETTER FROM JOHN A. WARDER.

O. S. WILLEY, Esq.,

_CLEVES, (O.) 12th mo. 31, 1863._

_Secretary Wisconsin Horticultural Society:_

MY VERY DEAR SIR:—I wish it were possible to express to you and to my good friends in Wisconsin the disappointment which I felt that I was unable to accept your invitation last fall. I had quite set my heart upon being with you, but could not get away. And now, must inform you that my engagements at Champaign are for a course of from 12 to 20 lectures. The managers allow me but four each week, commencing with January 12 prox., and I shall not get through by the 2d of February; if I can get away at that time it will afford me great pleasure to meet with my good friends of Wisconsin, for whose esteem I have a very high regard. *

I am delighted to learn that you horticulturists are doing so much as you report, at and about the Agricultural College—just what we might have expected from such a noble set of fellows. This institution alone would attract one to your beautiful city of lakelets, about which I have read such charming accounts, and which I have been so anxious to behold.

The botanical exploration of your state would indeed be a most valuable labor, and should be undertaken by the legislature. A report upon the plants of Wisconsin would indeed be very valuable, and you have the men to do it. Your Lapham's report on grapes is one of the best, indeed the very best one extant in any of our states.

Yours, very truly,

JNO. A. WARDER.