First district — G. P. Peffer, Pewaukee.
Second district — N. N. Palmer, Brodhead.
Third district — G. H. Robbins, Platteville.
Fourth district — Mrs. Ida E. Tilson, West Salem.
Fifth district — Wm. Toole, North Freedom.
Sixth district — A. D. Barnes, Campbellsport.
Seventh district — John Smith, Depere.
Eighth district — Wm. Springer, Fremont.
Ninth district — Henry Isabel, Merrill.
Tenth district — Isaac Clark, Galesville.
Eleventh district — Mrs. H. C. Vaughan, Ashland.
Twelfth district — A. C. Fisk, Bloomer.
Thirteenth district — H. Barnes, Florence.
Mr. Barnes now read his paper on

THE SELECTION OF VARIETIES — HOW TO PLANT AND CARE FOR AN ORCHARD.

By Asa D. Barnes, Campbellsport, Wis.

To all new beginners I would most earnestly entreat you to plant but very few varieties, and of the best adapted to your locality, and to old planters it will not be necessary to for me to caution you on this point, “for ’tis a demonstrated fact that but few varieties of apples, pears, plums and cherries will withstand our arctic winters and sudden changes of weather with an additional cyclone in the summer season, to rack and ruin our trees.” Therefore select but few varieties. “Of apples, I would recommend for planting on high, heavy, well under-drained clay lands the following list: Duchess, Snow, Wealthy, Blue Paremane, Golden Russett, Flushing’s Spitzenburger and Tallman’s Sweet. For light prairie soils, Duchess, Alexander, Haas, Wealthy, Perry Russett, Pewaukee and Tallman Sweet, and for low, damp soils, Tetofski, Duchess, Whitney No. 20, Haas, Wealthy and N. W. Greening, and for very sandy soils plant Tetofski, Duchess, Wealthy, Fall Spitzenburg and Wolf River, and for general cultivation — of pears none; of plums, plant De Soto and Lombard, and for all occasions plant the Early and Late Richmond cherries.
Experience and observation has taught me that the same varieties of apples will not do equally well on the same farm, planted on different sites and soils, so it behooves us that design planting, to make this with the selection of a site for an orchard the first consideration. And in one respect at least let us adopt the old maid’s rule for making good pie-plant pies. That is to say, put in as many crab apples as our conscience will allow, then close our eyes and dab in another row or two, for they are always hardy and prolific, and some of them very fine fruit for eating and canning, and all of them are good for jelly and cider, and I believe the pollen is a valuable fertilizer for the apple blossom.

Now, how to plant and care for the orchard. I shall elaborate at greater length on the apple tree than any other part of the orchard, for I believe it to be the most abused. To begin with, always select a new site for your young trees. Do not by any means plant young trees where old ones have grown for years and died out, leaving the earth exhausted and poisoned, for it requires certain properties, minerals and alkalies to grow the tree and produce fruit. Nor when they will be shaded by the old trees that remain, for fruit trees like house plants require sunlight.

Prepare your land the same as for corn. Stake off into rows twenty feet apart each way. Dig large holes—the deeper and wider, the better—fill holes nearly full of loose earth on dry, hard lands, and on low, damp soils fill with stones, wood and earth to give drainage to the tree for it is with apple trees as with pears, they will not thrive with wet feet. Place your tree in hole inclining to the west of south with the heaviest part of the top that way, to shade the body from the sun when it gets large enough to scold. Straighten out all roots and fibres to natural position, bring the earth down carefully with your hands and be sure to crowd the earth under the center of the tree; pack firmly, but be very careful not to break off the roots and small fibres. In finishing up, leave the earth nearly level and quite loose—the better to admit the moisture. Then cover the ground at once with dark colored mulching of some kind and place small stones or sods on the same to prevent
it from being disturbed by wind or fowls. Plant an ever-
green of some kind in the center of each square formed
by your fruit trees to assist in breaking up the winds and
also to give a healthy stimulant to the fruit blossoms. By
planting close together each tree will assist in protecting its
neighbor from the winds and storm. Should they all live
and grow large enough to interfere with each other you
could well afford to destroy one-half of them for they will
have paid for themselves time and again.

Seed down to clover—cut the first crop for hay and let
the second crop grow up and remain on the land to prevent
from sudden thawing and freezing. Remove the mulching
at least twice each season and loosen up the earth with a
spading fork and replace the mulching as before.

About the first week in September take a garden rake and
remove all the mulching and as much of the loose earth as
you can—always drawing the rake from the stem of the
tree (to prevent breaking the roots) to check the growth of
the tree and ripen up the wood for winter.

Just before the ground freezes up return the earth and
mulching—making a small mound of earth around the body
of the tree. Bind up all small trees with tarred building
paper to prevent girdling by mice and rabbits. Keep all
stock out of the orchard, unless it might be for a short time
in the fall; when it would be advisable to let the hogs in to
pick up the wind falls and wormy apples. Do not let your
young trees over burden themselves with fruit, but pick the
smallest and most inferior apples as soon as they have set,
for by so doing the fruit left on the trees will be twice as
large and can be gathered with one-half the labor in the fall,
and will bring more than three times as much in market;
besides it will not burden the tree as much as all the fruit
would. Use diligence with good common sense all the
way through and do not steal off a crop of grass or grain,
then turn all the stock on the farm into the orchard to browse
the trees while you are putting in your time at the corner
store smoking a lovely Havana and cursing the nurserymen,
tree agents and country generally, because we can't raise
fruit.
DISCUSSION.

Mr. Harris — I never like to criticise a paper by a young man. I should like to ask, however, if Mr. Barnes does not pack the earth around a tree.

Mr. Barnes said he did.

Mr. Harris — I probably misunderstood you. I used to practice removing mulching from around the trees, but do not put the mulching back. It keeps the foot of the tree so warm sometimes that the sap is driven up before the upper part of the tree is ready for it.

Mr. Hatch — There is a great deal of carelessness on the part of tree planters with reference to this point of packing the earth about the roots. Sometime ago I furnished a man with some evergreen trees, and he afterwards said that he could not grow them. I found that he planted them in a little hole in the ground and had not packed the earth about the roots at all.

Mr. Barter — I think that it is a very important rule to pack the earth tightly around the roots of anything. I remember having remarked to a lady friend one day that all a person had to do to grow flowers, was to put the seed in the ground and put his foot on it. It occurred to me that the putting your foot upon it was the important part of the thing.

Mr. Plumb — In Iowa I found a disposition to charge the injury to the tree to the fact that they had no frost in the ground. I was somewhat surprised, for I have never feared open ground. I want the ground in such shape that when the tree does draw on the ground it will have something to draw from. Unless there are changes of atmosphere, when the sun grows strong enough and strikes a tree it is going to begin to grow.

Mr. Hatch — That is an old story about the circulation of the sap. I never saw any circulation of sap until the buds began to show.

Mr. Plumb — As soon as the tree is warmed up, the warmth follows the root along down. This cannot take place if all circulation is cut off by perfect freezing and the tree dies.
Mr. Tuttle — I can see no chance for a circulation in perfectly frozen roots. My idea of tree killing is that by long continued and severe cold, every particle of moisture is drawn out of the tree and every part of the tree is thus dried up.

The idea of protecting trees by building paper was spoken of, and Mr. Plumb said: I would advise that it be building paper with tar. Mr. Van Deman said: I have tried this plan and tarred paper injured my trees. The paper did not entirely go around the trees and just the parts not covered were all right.

Mr. Kellogg — Was the paper close to the tree?
Mr. Van Deman — Yes, sir.

Mr. Kellogg — If there had been a lining of newspaper between the tarred paper and the tree there would have been no danger.

Mr. Barnes — I secured 200 trees in this manner in Nebraska. I fixed the paper so that it did not touch the trees, and they were all right.

Mr. Phillips — I think the best way to protect trees is with lath, and it is the cheapest way too. It will cost only about one cent to a tree. Leave room between the lath and the tree and then allow the covering to remain until the tree fills it.

Mr. Barnes having spoken highly in praise of the Blue Parmion. Mr. Tuttle said: It depends entirely on the soil whether the Blue Parmion is healthy and hardy or not. On good sandy land the tree is a good bearer. I know trees of this kind that have been growing on sandy land for a long time.

REPORT OF THE COMMITTEE ON AWARDS.

The committee on Awards, now reported as follows:

To the Honorable President and Members of the Wisconsin Horticultural Society:

The undersigned committee selected by you to examine and make awards upon the fruits on exhibition at this convention, would report that we have given them as careful an examination as circumstances would permit and made awards according to our best judgment, but feel very sen-