remember that on Thanksgiving Day, 1878, they saw on their young trees icicles hanging. I think there are some here who can remember that, and yet these trees came through without harm; that cold did very little harm. That was at a time when the trees could not have been dormant. I cannot see how you are going to make a perennial tree dormant. How is it possible for a tree to be perennial and dormant? If there is no circulation of sap, how can the leaves remain upon the trees? What makes deciduous trees? It is nothing but the descent or reflow of the sap. That is not true of any evergreen tree I ever saw. It must flow at all times during the year to a greater or less extent. It is the nature of the tree to do so and how are you going to check it without a cold storage plant over each tree?

Dr. Inman—There may be some ridiculous points in this subject, but it is of vast importance. It is more important to keep our trees dormant than anything else, but when it comes to orange growing, we have got to grow them in the open fields of Florida. Nine-tenths of us have to do that. We cannot shed our large trees in groves of one hundred or two hundred acres. The winds will tear down all the shedding or tents we can construct. Does fertilizing and the cultivation of trees change their condition? If it does, then we can overcome these difficulties by changing our methods of cultivation. I do not depreciate tenting and shedding for those who can afford it. I only want to learn if there is not some mode of protection feasible for the rest of us.

PROTECTION WITH BOXES.

Detailed Description—Protection Perfect—Cost will be About $4.00 per Tree in Five Years.

By J. C. Icenhour.

Feeling that protection to citrus trees in the northern portion of the orange belt will be a topic of interest at this meeting, I thought a word about the method I used in protecting 1,500 trees, the cost and their condition would be of interest.

We have nothing patented, nor have we anything to sell. We at all times are ready to give any information we have in regard to the scheme.

We boxed in each tree. Our box sections were four feet wide and six feet high, made out of matched three-quarter-inch cypress, the material being nailed to two battens, each 3-4 in by 3 in. by 4 feet. The section facing east at bottom had an entrance 10 in. by 12 in., closed by box head, through which a lamp was placed. A cover was made of unbleached sheeting and for this, the first season, they were made six feet square, leaving a margin of a foot to drop over sides of box.

When the box was set up this cover was nailed to top of west side, and
caught up and lightly tacked, to so re-main till the weather man gave the warn-ing to draw over and make fast. This we did January 1st, but did not light our lamps till January 12th.

We use a common glass lamp, such as fits the ordinary bracket, a No. 2 sun burner, inch wick and a tin chimney, with hood to shield the overhanging limbs from direct heat of lamp, and to shield wick from rains, etc.

The founts cost, delivered, 70 cents a dozen; burners, 57 cents a dozen; chimneys, $4.50 a hundred; wicks, 70 cents a gross.

This lamp in our boxes kept the temper-ature up to 42 degrees or 44 degrees when it was 18 and 20 degrees on the outside.

This lamp will burn from fourteen to sixteen hours. We used 130 degree oil, but found it unsatisfactory, as the wicks would crust and would have to be scraped after each burning to insure best results. Would advise the use of the best oil and a really good burner. Do not try to save in these two items, for if you do, some cold day you will wish you had not.

Our sheeting cost us 4 3-4 cents in New York; our lumber, cut to lengths, cost us en lighter, at our dock $10.50 per 1,000 feet. It was a No. 4 grade, good enough for the purpose. We paid $1 per day for our labor. Our sections were nailed together on forms. Material was forced together and held in place by ordinary bench screws. Tops of horses were strapped with iron, so as to clinch the nails when driven through.

Counting every item and all labor used in making and setting up boxes, lamps, oil (13 barrels), labor of tending (paying 20 cents an hour for night and Sunday work), we found on March 15th our protection had cost us $1.85 a tree.

Our box sections are on skids, covered with a few sections, and as battens give a 3-4 inch air space, I claim they will be good for ten years. I estimate the cost to protect our trees for five years will not exceed $4 per tree, and for ten years not over $7 per tree. When the tree gets so large that two sections must make a side (eight sections to a tree) I have a simple way (not to be patented) to fasten two sections into one, and to facilitate handling and piling, dis-engaged by drawing two wire nails, cost per tree about 15 cents at present price of malleable iron.

We expect to keep the trees headed low. Aspiring shoots will be severely dealt with. But as the tree grows, our modern walls will expand, and the cover will be cut ample to meet them.

Our trees came out of the boxes looking as if they had wintered on the keys. The expense of such protection does not annihilate prospective profits. It gives employment to home labor, and makes a demand for a class of lumber that can not be shipped to distant markets. Having your lamps lighted you can go to bed as I do, though the cold is driven by a thirty mile gale.

The box scheme is not ornamental, but the McCormick & Hubbs trees prove its efficiency, and the figures I have given count the cost.