

inch, so that when the separator is put in the bees can pass up and down more readily.

Mr. Stilson—What kind of separators do you use, straight or scalloped?

Mr. Westcott—I use scalloped sections.

Pres. Root—I should hardly think that there is any trouble about these being made shallow enough. They have been made deeper and shallower. Was the section capped over and no honey in it?

Mr. Westcott—No, it was not capped over. The space between it and the separator was closed. I have also read in the bee papers articles complaining of this same thing.

Mr. Whitcomb—The question arose last night about extracted and comb honey. My experience is that bees always store honey in the sections in one way or the other. I produce comb and extracted honey, but the best colonies produce comb honey. Yet I get twice as much extracted honey from a colony as I do of comb honey. But it is always under protest, especially in that part of the country where the honey is not abundant, where we have not the linden and white clover; it is where the honey-flows are moderate.

Pres. Root—My opinion is that separators are always a hindrance, more or less. At one time I was strongly inclined to discard separators entirely.

Mr. Masters—I think these protests come on account of the bees. Some bees work readily into sections, while others refuse.

Mr. Stewart—That brings in a little hobby of mine on the size and shape of the entrance into the sections; it sprang from a statement of Mr. Heddon, that he preferred 4-piece sections because it gave a wider entrance into the sections. I used mucilage with them, but it was too much work; I did not like them, so I had sections made to order. It does not cost more than 25 cents thousand. It gives an entrance of the same width clear across the section; that is a great improvement in the section. We can take a 24 pound case and shake nearly every bee out of it, while with the ordinary section we cannot shake them all out. They also fill up more space in the corners.

Mr. Whitcomb—I want to make a protest against Mr. Masters' remark. He lives in the best part of the country; he has the linden and white clover. Here are his bees resting so strongly that they go outside the hive in the Missouri fashion. I doubt that we had got far beyond shaking bees out of the hive.

Mr. Abbott—Will Mr. Whitcomb explain what he means by "Missouri style?" I am from Missouri.

Mr. Whitcomb—I was down in Missouri a little way below Mr. Abbott's, and there the bees put their honey out side of the hive.

Mr. Kretchmer—Mr. Stewart does not understand the question. I understand that the question is, the size of the notch in the side of the section.

Mr. Masters—Mr. Whitcomb misrepresents me; the colony that built the comb on the outside built some of the nicest sections I ever saw. So I want to correct his idea that my bees do not build in the sections.

Pres. Root—We will now listen to a paper by Mrs. J. N. Heater, of Columbus, Nebr. [Applause.]

## THE PAST AND FUTURE OF BEE-KEEPING.

From time prehistoric bees have been kept with varying degrees of scientific intelligence and corresponding success. The Bible mentions honey in many places, though it leaves us entirely in the dark as to the methods of obtaining it in those times; but we fear no challenge to the assertion that they lived in the primitive way in rocks and cliffs, and the honey was secured either by strategy or nerve, and possibly the method would furnish a valuable suggestion to intelligent scientists of to-day. We read, not long since, of recent discoveries in Pompeii, of jugs of well preserved honey, having been found in the ruins of the buried city, during official excavations; giving evidence to us 1800 years later that honey was an article of commerce at that time, though that of itself gives us no idea of their methods of producing it.

We are indebted to the Old World scholars for our first treatises on this interesting study, but "they builded better than they knew," in that they awakened an interest on the subject in the minds of thinking men on our shores, who, combining their own research and experiments with the delving of the foreign masters, have given to the world some of the most valuable and practical knowledge of our time.

In the "good old days" of our grandfathers' time, men contentedly plodded along with their ox-teams, their crude farming implements, and their native black bees in log gums or straw skeps. "Work never ending work," was their watchword, and, the dear old souls, by frugal economy and patient industry succeeded in accumulating wealth. But their sons, whom we may style "our fathers," came upon the field of action with a new watchword, for