

go and keep the best looking queens, irrespective of breed and this generally resulted in hybrids. In the majority of places he thought the impression was Italians had increased the honey yield, but it was easier to keep hybrids, and it is hard to get good hired help.

Mr. Moore.—When we first started beekeeping we spent much time fussing and puttering with our bees. Where we get many, however, we have not the time for this, and to keep them pure it was necessary not to putter. Italians had given him the best results he thought. He thought, however, one wanted pleasure as well as dollars and there was no pleasure in handling hybrids.

Mr. Berg, Traverse city, Mich.—He had some cross-bred bees and they were very cross. They aimed at the head every time. He thought bees could be made cross by handling, but he preferred the Italian or German bees. He had a colony which gave him three seasons 4 supers, 32 sections each of comb honey. The queen was hybrid; he was foolish enough to kill her and put in Italian. Black blood in every shape appeared to crowd out the light and if they found hybrids best they would soon have blacks.

Mr. Heddon.—Thought that the reason the black blood hung on so was because we noticed it when we did not want it. Quality was the question. It was easier to breed for bands than quality. Some people said thistles would stay better than wheat; he thought not, it was only because we wanted the wheat. Mr. Heddon would sooner have a queen out of a honey apiary than one raising queens for sale.

R. F. Holtermann.—Do you not think the queen rearer can devote more time to selection Mr. Heddon? Yes, but I would sooner have queens from a colony giving good results. He thought the disposition of the Italian was not as good as the German. When he got the right bees he let young queens run into the hives as they hatched for swarming and generally the old queen was superseded.

Dr. A. B. Mason, Auburndale, O.—Jokingly said he wished he could always believe all everyone said but he could not believe a man when he said it was as easy to grow wheat as thistles. He

liked Italian as well as hybrid and *vice versa*. As to color, he did not like the too yellow bees.

Mr. Holtermann. I like them just about as pure as I can get them without much fussing.

Mr. Heddon.—Have had pure Italians in large numbers. He did not think much of rising votes in conventions; he wanted to see why a man so thought, and then let the reader judge if the reasons were good.

Mr. Walker, Capac, Mich.—My flow is mostly fall and black bees do the best for me. For 16 years I have made honey production pay every year.

J. T. Timpe, Grand Ledge, Mich.—I prefer the Italian bees.

Mr. Heddon.—In reply to a question there is only one race of bees but they quickly breed to strains.

Upon vote of pure black bees, favored by one; pure Italians, 9; hybrids, 8.

ARE APICULTURAL INVENTIONS IN DEMAND OR EXCESS.

Your committee has assigned a rather difficult subject for me, and I must acknowledge I am rather at a loss as to how to handle it. Webster's New International says that an invention "is the art of finding out something which has not before existed." That last clause would throw out of the category nine-tenths of the so-called inventions. In this connection it should be observed, that the field for original invention is narrowing down. The older the science or industry, the more limited the opportunity for real invention or startling innovation. Inventive genius has then to content itself simply with the improvements upon, or different applications of old or existing principles. In electrical science James Heddon tells us, on good authority, that all the inventions of the present time are simply mechanical improvements, and that no great innovations may be looked for, and I would add that apiculture is no exception. Our own Langstroth and Quinby gave us the first practical moveable frame hive. Major Hrushka the first extractor, and Mehring the first real comb foundation. These three are the great inventions in our beloved industry, and I think I can say truly, that, with few exceptions, all others are simply applications or improvements. Am I stepping on somebody's toes? No. It takes a genius to improve or to make a new application of an old idea.

Now, then, in answer to the question, "Are Apicultural Inventions in Demand or Excess?"