

on every hand was heard the cry of "Progress." One invention succeeded another; the people themselves were astonished at their own achievements. The ox was sent to the stock-yards and the horse given his place in the fields to operate the wonderful new machinery. Bee-keepers were making a mighty effort to keep up in the race, and it is with interest we follow the progress of thought and experiment and see the first attempt to domesticate the native bees in the original log gum, being but a section sawed out of the tree in which they were found.

Next we see them transferred to the rude straw skep. Genius saw the possibility of further achievement, and the old box-hive was evolved: but it was reserved for our beloved Langstroth to improve upon all former efforts, and give to the bee-keeping fraternity the most practical movable-frame hive the world has ever seen, and which to the present time remains standard. Naturally this gave a strong impetus to bee-keeping as a business, but at that time no bees had ever been imported into this country, and every experiment had the disadvantage of having to be practiced upon the little black native.

In 1848 our German brothers introduced the Italian bees into their country, and in 1859 they were shipped into England. During the same year our brother across the line imported the first Italian bees to the shores of America. Then began a period of experiments, development and improvement in bees and bee-culture such as we have never had a record of before or since. America, we are proud to note, took the lead of all nations in expensive research in foreign fields. Bees from all the countries of the East, including many of the islands where distinct races were found, were sent to us for inspection or experiment, then was scientific work begun in earnest. The specialist bred for size, he bred for color, he bred for trait, till the poor thing hardly knew what it ought to be when it did emerge from the cell. The surprising thing was, that the workers being of the feminine gender, they were even bred for length of tongue, and those found with the longest tongue, and the greatest activity of the same, were the ones most sought after. Happy bees!

Truly scientific bee-keeping, then, we may say, dates back not more than 40 or 50 years, yet what gigantic proportions it has assumed, representing millions of dollars in the annual production of honey alone, to say nothing of the capital represented in stock, factories, etc., and, not least of all,

we as a body are recognized in the commercial world.

We see, then, that the past has but fitted us for the future of our work, and we feel that while we have appliances so admirably adapted to their uses, our attention in the future should be given more to the practical management of bees, to reduce the labor and expense to the minimum, and the more the work is simplified, the more we shall feel we are advancing. We believe that "mixed farming," so to speak, in the apiary will prevail in the near future. Better results are obtained from working for both comb and extracted honey, and even a queenless nucleus can be made to care for extra queen cells. If the manipulation of bees shall be as much improved upon in the next half century as the general knowledge and appliances have for the same length of time in the past, we can but wonder what we, as bee-keepers, will be doing 50 years hence.

Time has brought us the comb foundation, the extractor, the smoker, and many other appliances which we could not dispense with; but shall we feel that our calling has reached its zenith, and be content with what we have and what we know? So far we have kept pace with the other agricultural pursuits; but we look about us, and, behold! in many places the horse is driven from the field by the traction engine, and again we see a monster machine cutting, threshing and sacking the grain at one operation; and we ask ourselves, what are we bee-keepers going to do to keep up in the race? Are our geniuses sleeping, or are they thinking out some marvelous thing in silence with which to surprise us?

Is it reserved for one present with us today to make his life a blessing to humanity, and his name immortal, by telling us for a certainty how to secure satisfactory crops of honey without increase of bees? how to keep extracted combs from one season to the next, safe from the ravages of the moth? and how to gain the best general results with the least expense and labor? for since we of the present day have taken for our watchword "Protection and Reciprocity," we have no fears but we shall receive reasonable prices for our product if put upon the market in proper condition.

Mrs. J. N. HEITER.

President Root—Our time is rather short. Is there anything to be said on this excellent paper?

Dr. Miller—Mrs. Heiter asks how to keep a set of extracting-combs from one season to another. I would like to ask what is the trouble in keeping combs over?

(Continued in the next issue.)