

inaugurated in the tropics that is thoroughly scientific and practical. One of the worst features of tropical bee-keeping is the slavish imitation of northern methods. I am almost filled with despair when I see intelligent men using hives in the West Indies that were primarily intended for New York or Ontario, and were never meant by their inventors to be used in the tropics. It is the same with regard to methods. The best books on bee-keeping advocate plans only applicable to temperate zones, and the authors of them would be the first to say that tropical bee-keeping requires different methods. I have talked this matter over with some of the most prominent authors of our bee books, and they thoroughly agree with me in this view, and the largest manufacturers of bee hives in America has repeatedly declared that he was opposed to the use of northern hives in tropical climates, and yet he receives orders continually for just such hives, and he is obliged to fill them, much against his inclination. In Cuba some advance has been made towards a rational system, and also in Queensland. What is urgently required is a book written for tropical bee-keepers, pointing out the radical difference between temperate and tropical bee-keeping. This would probably result in great advances along the right lines but such a book would not be profitable to its author as the sale would be restricted. Some Government ought to subsidise such a work. The British Government ought to undertake it, but I am not sanguine that it will ever do such a thing. Experiments are also required to determine many other points in tropical bee-keeping. In northern latitudes private enterprise has been found sufficient for such work, but it is insufficient in the tropics. In Europe and America the

very ablest and scientific men have not hesitated to devote their best talents to the cause of bee improvement. I believe we are on the threshold of an enormous development in honey and wax production. South America, for example, might produce these to the value of £70,000,000 annually, using our present appliances. In Cuba, honey is produced at a cost not exceeding two cents per pound, which is sold for six cents usually to the merchants of France, Germany and Holland. When this honey gets to the consumers the price has risen to eighteen cents. Who gets all this percentage? Does it not suggest a good deal of thought that honey can be produced at a cost not exceeding that of sugar cane, and is always certain of a higher price in the market? It is not a competition with sugar, however; on the contrary, bees are the allies of the sugar-maker. Saccharine juice just as it comes from the rollers produces good honey when fed to bees and fully elaborated in their stomachs. It is a problem how to do this properly. It would probably well repay any tropical sugar country to attack this question scientifically, that is, how to convert sugar juice into honey. The nectar of flowers and cane juice are identical in composition. Then 6 lbs. of white sugar will produce 1 lb. of honey, value 1s. 3d. to 1s. 6d. Does this not open up a wide field for scientific effort? I leave it with my hearers if this does not give the whole question of tropical bee-keeping an importance second to no other. The question is also the question of the fertilization of flowers to be considered. It seems from the most elaborate experiments that bees excel all other insects in this respect. It also appears clear that the most improved varieties of fruits require the services of bees more than the less improved

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