

family, but as find colonies of produce enormous ing will bee-keepers is much in

prominent bee-States says: "It r a queen rearer teristics of his fact that Nature re shall be pro-ong the drones showing 'extra ies,' revert back ite of us." In and can, and do he domestic ani-barred and spot-neral purpose or meat cattle, and of domestic ani-, cannot, and do re sports in the bees are wild by atter a whit how ve that a non-ssible, for belief some prominent y acknowledge ose, that we have ess in improving

reply to an en-of the American l, 1911): "The get a queen of at all sure that be like her." age 187 of the for June, 1910: asked what is the certainly say the n queens with unfortunately the early so uniform first cross."

opinion that is en as Townsend.

Doolittle, Byer, Cook, Miller (not Dr.) and others, *management* of the bees and hives has about as much to do with honey results as has breeding or selection. A colony of bees preparing to swarm does not store much honey; a colony lacking ever so little of being "ready" for harvest will not give what was the psychological something which made one of my colonies give me last (1911) season about 100 pounds of surplus comb and extracted, while the year before, which was a vastly better season, and the queen but 2 years old, I got practically nothing. I think from what I have read and from conversations with bee-keepers, that all who keep bees have at some time had a similar experience.

I do not care to be rated an obstructionist. I am a firm believer in evolution, while many who write about selection and breeding, "throw a fit" when Darwinism is mentioned. I think the survival of the fittest (and the *fittest* among bees) an explanation of existing types.

It has been evident to me from the start of this discussion that some do not understand the fact that a "sport," which is our main hope of improving the bee, is not so designated on account of actions, but shape and color, the tint of hair or shape of body. The Century Dictionary says: "Sports are chiefly observed among domestic and cultivated plants." The reason is plain. Most of these are the result of centuries of breeding from structural oddities, and are always trying to revert to original forms. Wild animals and plants almost always remain true to ancestral types. The bee is not a domestic animal, and never will be. At best, "domestication" is but a relative term.

We want something more than an occasional colony which will give a large surplus. We want a strain of bees which will breed true to the type

of *industry*. Color is unimportant. We want to be just as sure, when we breed, that we shall get a certain kind of bee as is the owner of the mule-footed hog that he will get pigs with an undivided hoof; the chicken fancier that he will have black, white or striped fowls. Bee-breeders come pretty close to this condition of color, as in the golden, but the verdict of the bee-keeping world is against them, whatever the future has in store for this strain. I insist again that *industry* is not a transmittable attribute and once more assert that a man is the only intelligently industrious animal alive. He is the only animal that knowingly lays up more stores than sufficient for immediate or future need. The bee does not *know* enough to do this. The more specialized an animal is, the less it reasons. The bee is the most highly specialized animal alive today. This I believe, cannot be gainsaid. If a colony of bees gets a hive filled with honey late in the season, it is still apt to swarm or die of starvation.

To those who have been abusing me for some of my rank ideas I refer to Mr. Siebert's remarks in *Gleanings in Bee Culture*, page 402:

"I do not know of any work in all apiculture that pays so well as weeding out poor stock," and, in my own humble opinion, we have there all that has been gained from studying the bee for half a century. The movable-frame hive was a great step—in getting honey—while the few good methods of controlling swarming and *hard work* do the rest. None of these things have changed the honey-bee, however, for "the bee is wild by nature."

To shift the burden from my own shoulders to those of a man of some importance, I will close by quoting what Prof. Cockrill says: "The honey-bee is the last word in all bee-life, and has become so firmly established in her position that little change has taken