

FOR THE CANADIAN BEE JOURNAL.

THE PURITY OF DRONES.

MR. H. D. CUTTING, Clinton, Mich. does not attempt to answer my query No. 109 in C. B. J., but asked "Why not give your views and then call for discussion?" In answer I have, see *Gleanings* Aug. 1st, 1886, page 614. Five out of the twelve answers affirm my own opinion—that the drones from pure queens that are mismated are not as good as the mother stock and that they are ~~Contaminated~~ ^{inferior} to others claiming them to be as good as queen stock before being mated. I would ask of them, have they answered this from practical experience, justifying an answer as practical on the drone question, or do they answer this from theory and every day observations?

In 1884 I had, in all, about 30 colonies of bees. In April, same year, I got one selected tested golden Italian queen; my bees and everybody else's for more than twenty miles in any direction were all Blacks. I killed the queens from every hive, except the one Italian, sometime in May and reared in each hive an Italian queen from my tested one, which, by the way, was one of the purest and finest golden Italians I have ever had up to this day, I have never had any as good except from the same breeder, and one I have now, bred by A. Grey, of Ills., of Doolittle's best stock and mated to Grey's own drones; these queens were all mated to Black drones. The last of May sent to Tenn., and got another Italian queen, and that gave me only two pure ones. In June I again killed out all the hybrid queens and reared queens for every colony from the tested ones and I continued to kill out queens and rear again as fast as tested up to October; during this rearing I only got one pure mated queen. The first cross produced workers about half Blacks (pure, no rings) and half Italians (3 banded.) I find always, when two different races are crossed, the first cross, with each in its purity, that the workers are about half and half; thus with blacks and Italians in the first cross, half the bees are apparently perfectly pure blacks, and the other half perfectly pure Italians, with a few of each showing crossed markings; each succeeding cross continued to improve. In the fall after all the Black drones were gone, the progeny of the last lot of queens reared, all showed from one to three and even some four yellow bands, but these bands were not bright, clear and distinct as with the pure Italians, they were a mingled color, that is the yellow rings appeared to be composed of a bright and a dark yellow all in one band, side by side, might be termed double bands; there was not a single black bee

among the progeny of the last lot of queens reared, thus showing conclusively, that they were mated to the drones reared by the mismated queens, for had they any of them mated to pure Black drones, there would have been pure Blacks among their workers; these bees were not pure Italians, as they should have been if the theory advanced had held good in practise. Queens reared from these pure queens that were mated to hybrid drones and mated to the same drones themselves, produced dark, two banded bees, with an occasional three banded one among them. After spending the year rearing queens, I had to send off and buy upwards of 20 queens to replace my own rearing to get pure stock. In reference to "in breeding." In among the last lot of queens bought in the fall of 1884, I got one that proved to be a fine Albino queen; producing different bees from anything I had ever seen, so I determined to breed them, and in the spring of 1885, I reared nearly every queen from my Albino that I sold, (I began queen rearing for sale then) and reared for myself from her and replaced all my golden Italians as soon as possible. By May 10th, I think, I had but few queens of golden variety. All that year I bred of the Albino mostly, drones and queens too as near as possible. May 1st, 1886, I had none but daughters of the Albino queen and their daughters in my apiary of sixty colonies. All this year I have bred nothing but of that Albino queen's progenies and they continue to improve in markings and qualities. The old queen, the mother of my race of "American Italian" bred in 1884, is yet here and doing finely. I have had Albinos of various breeders in the U. S., but none I have had suited me and I would not cross them with my stock, which has been entirely "in bred," but there is none yet found to excel them in working qualities, beauty, size or gentleness and since spring, 1885, I have bred in separate apiaries, Cyprians, Syrians and Carniolans that I imported myself from Mr. F. Benton direct. None of these races equal my "in bred" stock, in any way—that make bees desirable to the human family. So I continue "in breeding" for present, selecting, of course, only the best to rear my drones as well as queens from.

ABBOTT L. SWINSON.

Goldsboro, Wayne Co., N. C., Oct. 9, '86.

From the Nor'-West Farmer.

BEE-KEEPING.

WHY is it so few of the farmers of this great land have gone in for bee-keeping? It is in my opinion the pleasantest, and, as I will try to show, one of the most profitable of the auxiliaries to mixed