

matter of egg production. Nature has placed the bees in a unique position, by varying the size of the babies' cradles, and she has made the queen equal to all possible demands.

The queen lays eggs in queen cells when queens are needed. As the queen cell cups constructed by the bees are $\frac{1}{8}$ inch in diameter, this statement by Mr. Hand is at variance with the suggestion of the cell structure being the factor in determining the sex.

I will conclude by urging your readers to keep better bees. Let them seek out their best queen and after two consecutive years breeding and requeening from the one queen, they will establish through her an improved strain in their apiaries.

Wishing your readers a successful year for 1912.

Wasco, Cal.

PARTHENOGENESIS

By George B. Howe.

In the November number of the C. B. J. on page 316 J. E. Hand in trying to explain "parthenogenesis" appears to have the idea that it is merely theory and not fact. Parthenogenesis seems to me to be as true to-day, and as satisfactory an explanation of certain facts, as it was when Dzierzon gave it to the world. If friend Hand will take black or pure Carniolan queens and mate them with Italian drones, he will find that the blood of the resulting drones will not be "contaminated."

No, brother bee-keeper, if you have a pure queen and she gets mismated by all means use her as a drone mother, provided she is otherwise a superior breeder. Her drones will be as pure as any properly mated queen in your yard. I have tested this out time and time again, and never knew it to fail. If the queen is pure her drone progeny is also pure.

Again, friend Hand says on page 317, "Evidence of a tangible nature, however, is not wanting to show that the size and shape of the cell perform an important office in deciding the sex of the egg deposited therein." All theory again, friend Hand! Did you ever take a knife and cut the cells off the centre of a comb and put it into the centre of the brood nest and have the queen lay in it before the cells had a rim to the cell of $\frac{1}{8}$ of an inch? Or did you ever put in a sheet of foundation when honey was coming in but slowly, and see what fine workers you got from the eggs that were laid in the shallow cells. The best test is to take an old brood comb with the centre cells cut close to the mid rib, and put it into the centre of the brood nest during a slow honey-flow. Anyone can prove this to their own satisfaction. Let us explode any old theories that do not stand real tests. The size of cells has no bearing upon the question of the sex of the bees resulting from the eggs laid in them.

I could write more on this subject but think this is quite enough..

Inbreeding Bees

To inbreed bees is about as hard to do as it is for a man to fly. Here we have it that a queen is never fertilized but once, and a drone mates with only one queen. To inbreed we must use the male or female more than once in the same family. If we select and breed from our best honey gatherers using drones from our best honey-gatherers as well as queens, you will find that your supers and pocket book will be fuller. Don't be afraid of inbreeding your bees. Sixteen years of breeding one strain of bees along similar lines as friend Hand proves to me beyond a doubt, that we may improve our bees as well as any other stock, only it will be more slow and uncertain on account of the peculiar nature of the bee.

THE AUTOMOBILE

By I.

I enclose two photos. I put my car to. T. Jackson, 24 h.p., M. a five passenger tour is so constructed that bolts, the body is hoisted by means of blocks hanging until it is near a flat Lorry sort of supplies, etc.

The one photograph of extracting supers from out yard. The other as I was passing through with my last load of winter packing. It is some of the others I am planing mill.



The motor in this car taking any sized load I put on, but it would be more than 1000 lbs. on, on springs and tires, which be taken into consideration.