

mother, are just as good bees as can be produced. In other words, there is no system of queen-rearing that will improve a strain of bees; try and not misunderstand me. To be sure, we must have queens that are sufficiently prolific to keep the brood-nests full of brood at a time of the year when this is desirable, and possessed of a longevity that will enable to perform this feat two or more seasons; having this, what more is needed. As a rule, the honey-producer need trouble his head very little about the rearing of queens; the bees will attend to that and rear just as good queens as are needed. If his queen don't fill the brood-nests in the required season, how much more practical to simply reduce the size of his brood-nests until the queens do fill them, instead of ransacking the earth for more prolific queens, or else by twisting, turning and shifting about of combs, endeavor to make one queen lay an increased number of eggs.

As I look at the matter in the light in which I am discussing it, the queen is simply the vehicle of transmission from one generation to another; it is the qualities to be transmitted rather than the vehicle of transmission that should receive our attention. To illustrate: A man has a strain of bees that are of little value as honey-gatherers; can he, by any sort of "jugglery" at queen-rearing transform them into energetic workers? Something might be done in the way of selection, but not by methods of queen-rearing.

Bee-keepers often tell how much better are the bees from the queen secured from this breeder than from the queen bought of some other breeder, or that the bees from the daughter of a queen from a certain breeder are superior to bees from the daughters of some other queen, and have argued from this that the queens and the manner in which they were reared caused the difference in results. I say no. The difference is

in the strain of bees, and not in the manner in which the queens are reared.

That there are circumstances in which much depends upon the queen it is idle to dispute. Some of our best bee-keepers have argued against extra prolificness in the queen, some of them even going so far as to assert that prolificness in the queen is at the expense of quality in the bees; but that prolificness is all-important to the user of large brood-nests cannot be dodged. He must have prolific queens, else one-half of his brood chamber is transformed into a store-room. But this extra prolificness is not secured by some peculiar method of queen-rearing, but by selection—by rearing queens from the colonies having the most prolific queens. Here again the queen is simply the vehicle for transmitting the quality of prolificness from one generation to the other.

The age of queens may also have some bearing upon success. Where the harvest ends with white clover more surplus will be secured if the bees do not swarm; and colonies with young queens are far less likely to swarm. Then, again, young queens lay much later in the fall, and this has a bearing upon the subject of wintering, as also does the time when they begin laying in the spring.

As I have already said, we need queens sufficiently prolific to fill the brood-nests with eggs at the season of the year when this is desirable and possessed of a reasonable amount of longevity. This secured, nothing more needs consideration except the stock from which they come. Naturally, when a man buys a queen he expects to get the worth of his money. If he buys her to rear queens from he expects her to be able to endow her royal offspring with the qualities and characteristics of her ancestors, and if she does this he need not mourn if she lives on long enough to allow him to secure