

manner, the swarming of strong colonies was more readily avoided; for once a colony gets overcrowded and takes the swarming fever, it is almost impossible to prevent it. Our aim was always to prevent swarming as much as possible and to secure the increase from the division of such colonies as were not lively to have their force in time for the height of the harvest. I do not mean that we took our increase from weak colonies. But after rearing our queens from the very best mothers, we secured the bees for increase from colonies which, being a little late in breeding, would have their forces of numerous harvest workers a little too late for a full harvest.

Since the advent of the automobile, the distance to outapiaries is much less important, for an apiary which might have been considered out of reach, with horses, may be established 20 to 30 miles from home and visited with less loss of time than when we traveled 6 or 8 miles with horses and vehicle. But the roads must be of a passable kind.

When we increased our outapiaries gradually to four, five and six, we found it impossible to continue as close inspection of the bees, as regular a control of their condition, as formerly. The production of comb honey became much more difficult, and we abandoned it entirely, for the following reasons:

1. In the production of comb honey, swarming is much more difficult to prevent. The rules which we have promulgated in the American Bee Journal, as our guide in the prevention of swarming, are less easily followed, especially in supplying the bees at all times with sufficient space to store their honey. It is necessary for them to have combs built ahead of need, so that in the best days of harvest they may find room for their fast gathered nectar. This is much more readily supplied with the production of

extracted honey. We have, on the average, enough room in our extracting supers for some 80 pounds per colony without the necessity of the bees building a single comb.

2. To produce an attractive article in comb honey, it is necessary to watch the colonies closely and remove, as quickly as possible all sealed sections, so they may not be travel-stained by the bees. This requires numerous trips. So the product was less per pound, but the the natural result was a change from comb to extracted honey. The value of quantity produced was much greater and, from year to year, we preserved numerous supers full of combs, which increased the possibilities of the next harvest. We now have supers of combs which have been in use annually for over 40 years.

It became also necessary to be more lavish as to the amount of honey left in the brood chambers. This was greatly facilitated by the large hives which we have used for many years. Our brood chambers have a capacity equal to between 12 and 13 Langstroth frames and we make it a rule never to extract from the brood combs. In this way we have rarely less than 40 pounds of honey to winter the bees. The colonies are strong when they go into winter quarters, they winter better than smaller colonies, their breeding is not interrupted by lack of food in spring unless the previous crop has been short, and the production of young bees for the crop is usually immense.

In order to make short work of putting on supers, we aim to have the colonies as much as possible of equal strength when the crop begins. If the queens are equally good, the food equally plentiful, the breeding will be fairly uniform. If it is not, and some colonies are only of fair strength when the harvest begins, we can either equalize by ex-