

life. When swarming is excessive, very little surplus honey will be secured, and the colonies being weak, are less able to repel wax moths and robber bees. If they issue late, or the season be poor, they may not gather enough to last them through the winter, and if given sufficient stores are many times (unless united) too weak to survive the cold.

Various plans are followed to prevent natural swarms, but in most cases it has not been found profitable. When allowed to swarm naturally, great energy and industry is shown, evidently from the excitement of swarming and the building of new combs. Therefore comb honey producers generally allow one swarm to issue from each strong colony and prevent after-swarms by destroying or removing all but one queen cell, or none are left and a laying queen is furnished. The boxes on the old are given to the new swarm at the time of hiving, and work on them is continued. As soon as the brood matures in the old hive, they are again populous and are furnished with boxes. By this plan, all colonies are kept strong and are both prosperous and profitable.

It has been found that if sufficient room is added as fast as required, both for brood-raising and storage, a colony having a good yearling queen will not have the swarming impulse; but where an old queen has early in the season laid a large number of eggs, there comes a time when she is exhausted by the tax and needs a rest. Swarming relieves her, for a time, of excessive egg-laying, while the new combs are built and honey stored. There is a point against giving full sheets of foundation or finished combs to first swarms and in favor of the use of starters in brood-frames with boxes above and queen excluding honey-boards between.

Producers of extracted honey, by giving as many combs as can be used and extracting often, entirely prevent swarming and keep an enormous lot of bees in a hive. By this means great yields are obtained from one colony. If this can be accomplished when working for extracted honey, why cannot the same thing be secured by giving similar conditions when working for comb honey? So thought a prominent English bee-keeper, and the result is we are offered a new non-swarming system by which plenty of room, both for egg-laying and storage in boxes is given as required, and swarming prevented and its benefits secured (part of them) by having a new set of brood-combs built from starters. It is claimed that this plan is sure, and it will, no doubt, be tested in many apiaries this season. The management is as follows:

Early in the season, before the bees get the desire to swarm, a hive containing empty frames

(not combs) or those with starters only, is placed under the brood nest. As the harvest comes, boxes are given, and as fast as occupied the boxes are raised, and others placed underneath. As the top ones are finished, they are removed and more boxes are placed under the second set, which are then at the top. Boxes should contain drawn-out comb and be given as often as required to occupy all the bees and prevent much work below. If comb is built in the lower frames it is removed when but two-thirds finished, and is never allowed to be completed. The principle is to always have unfinished combs in the brood-chamber nearest to the entrance. If the space is farthest from the entrance or at the back of the hive, there is a possibility of swarming.

Pawtucket, R. I. SAMUEL CUSHMAN,

For the Canadian Bee Journal.

Mr. Pettit Replies to Mr. McKnight.

THE END OF THE CONTROVERSY.

ASK the privilege of replying to Mr. McKnight's letter on page 172, C. B. J., lest some of his unfair statements might pass for truth. And so Mr. McKnight has at last discovered that "there is no written law to prevent it (the grant) being so used." What a pity he had not looked into the matter just a little sooner. And now he tries to hide behind "custom makes law." Would it not have been better to have owned up frankly that it was a mistake to suppose there was a law to govern the matter?

Mr. McKnight says "the Board decided it was not competent for them to expend it as Mr. Pettit desired to see it expended." I answer that the Board did nothing of the kind whatever. It did not even discuss the propriety or impropriety of so using the grant. If anyone doubts my assertion please ask the secretary; we all know that he is a careful painstaking officer, and will be in a position to give correct information. That is one.

Again he says "some of those members doubtless never paid a dollar to the Association funds, and flourish their resolutions in the face of the Board." Now, as the Board never took any action whatever relative to the grant nor the manner in which it should be expended, the above accusation is all untrue. That makes two.

"In thus ignoring the decision of the Association's executive body, and declaring the voice of unaffiliated local bodies as of more value and weight in his estimation than the deliberate decision of the Board."

This also is all untrue. I have never done