of all of them were very mouldy. He had also tried the experiment of extracting all the honey in the fall from a few colonies, and feeding them syrup made from granulated sugar. They were not protected, and scarcely flew during the winter, but came through in fine condition. Mr. M. D. York was satisfied that bees wintered in chaff hives should not be too closely covered up. When bees are so uneasy as to hang out at the entrance, he quiets them by raising the chaff cushion with which they are covered. To learn how one man had successfully wintered his entire apiary when others sustained heavy losses, Mr. Ira Green had paid $5. The secret was abundant upward ventilation.

The secretary then read a paper from Dr. L. C. Whitting on the production of comb honey. The writer's advice was to have the colonies strong at the commencement of the honey harvest, and, if possible, to have a few combs in some of the sections first given to the bees. When the sections were added, he would reduce the size of the brood nest, thereby crowding the bees into the section boxes. Should a swarm issue, he would hive it in a new hive and place it upon the old stand, moving the parent colony to a new location, and removing the section boxes from the old to the new hive At first he would give the swarm few brood combs, thereby crowding the bees. He also advised the employment of reversible combs or frames.

The advantages of reversion are that the combs are thereby more firmly fastened to the bottom bars, and honey that has been stored in the upper part of the combs will be removed to the section boxes. Comb foundation should be used for starters; the opening between the sections shonld be at least half an inch, and no more room should be given in the sections than the bees can fill.

L. D. Gray crated his bulged sections by sawing up empty sections and putting the strips between the thick combs. C E. Rulison had for a long time been in favor of separators, but was at length compelled to admit that they could be dispensed with. M. D York had provided a portion of his hives with separators, but in those without separators work in the sections was commenced much sooner. He had also removed partly filled sections from hives without separators, and given them to hives having separators, and the empty sections put in place of those removed were filled sooner than the partly finished ones placed between separators. He had used wide frames quite extensively, but should discard them for cases. When wide frames containing two tiers of sections are used, too much room must of necessity be given at one time; the tier of sections was finished first, and became travel-stained before the upper tier was finished, while the sections are difficult of removal. President Taylor agreed with Mr. York

W. Z Hutchinson then read a paper on the use of cane sugar for winter stores. For several seasons he had experimented by extracting the honey, in the fall, from some of his colonies, and substituting a syrup made from granulated sugar. In some winters the colonies wintered all alike, in others, the superiority of the sugar as a winter food was very marked The feeding was done in the latter part of September and early part of October. Mr. August Kloppen thought that this plan might be adopted by those who were in need of amusement! President Taylor replied that it is of no use to those who can always winter bees without loss, but to those who can only be certain of success by so doing it is exceedingly profitable. C E Rulison had extracted one hundred pounds of fall honey, sold it at 12½ cents a pound, bought granulated sugar at 9 cents a pound, and from two pounds of sugar had made three pounds of syrup.

Mr W. Wray would like to know why bees in old decayed box hives, full of cracks, usually come through the winter all right, while they often perish in well made chaff hives. B. Walker said that old box hives usually contain well ripened stores, when with movable comb hives, the best of the honey is usually removed each year. Mr. Green thought that the abundant ventilation afforded by the dilapidated old box hives is what causes their inmates to winter free from dysentery. C. E. Rulison thought that the different results were caused by differences in the food. With movable comb hives the best of the honey is removed, and the bees allowed to fill up their combs with fall honey for winter stores President Taylor said that bees in box hives fill up their hives with good honey, the apiarist cannot remove it, and when fall comes there is not room in the hives to store much honey or pollen. M. S. West referred to a statistical table published in 1881, showing that bees in box hives fared the worst. W. Wray thought that moisture is often the cause of dysentery among bees, and that the ventilation afforded by the cracks in old box hives prevents the accumulation of moisture If improper food caused the wintering losses, he would like to know why bees in the same apiary, with the same kind of food and management, passed the winter so differently. W. Z. Hutchinson said that there might be a difference of stores, even in the same apiary. Colonies differ in age, and consequently part of the honey of some of them is stored in a different season from that of others. When Italians are working upon red clover, the black bees in the same apiary are often storing honey from buckwheat, and even colonies of the same variety, in the same apiary, do not always gather from exactly the same source. One winter Mr. Green had brought home sixteen colonies from one apiary. They were all in box hives, and one hive was very dilapidated. He filled the holes in this hive with wool, and only in this hive the bees survived. He attributed the success to the abundant ventilation. W. Z. Hutchinson.

—*Genesee County, Mich*

More experiments yet called for

After all the numerous, important improvements realized in bee culture, still the more advanced investigators seem disposed to proceed under the impression of not having yet fully apprehended all the conditions and elements of attainable success. While the many experimental failures seem to almost suggest doubt as to the desirableness or prudence of proceeding in this direction, yet it may be asked, how else can we reasonably hope to attain to the knowledge essential toward placing our beloved bee keeping as to result above a peradventure?

In fact, sometimes from even a grievous failure; much may be gained in discovery of what may have been the mistake causing the disaster. We would be loath to admit that most of the worst cases of failure and "blasted hopes" might not have turned out under other conditions very differently.

Surely there are for instance certain laws and conditions of safety in wintering which, if only well enough known and possible to fulfil, we might with ample confidence count on the number to be brought through all right. Now facing winter must we look wintering in the face.

However, it does look rather humiliating to admit that with all the skill and experience here employed hitherto, yet so many of us are earnestly asking one another (and feeling need to ask), "How are you deciding to winter?" Now this is just what we are driving at. We do well to more freely and fully than ever inform each other, and every time give the why and the wherefore. Whatever may be the seeming confusion and conflict of theories, still we are even so on the hopeful way in the search for the better. Thus as we cautiously proceed, keenly watch results, and candidly admit errors, may we all become wise and more successful. Will some of the very successful Ontario apiarists who really know which, or what is best, instruct. Whether shall we have top or bottom ventilation? How much? and how? and why? Each of us being resolved to be right or to be set right.