

the value of queen-excluding honey-boards becomes fully apparent.

The wood and zinc honey-board may be made to take the place of Mr. Heddon's "break-joint" slatted honey-board, for the latter does not prevent the queen from starting brood in the supers and especially when running for extracted honey. Many suppose the queen stays near her brood and never surveys the supers to any great extent, but in my observation she does, and when she finds a nice lot of brood combs there it is very natural she should make use of them. In producing comb honey, the queen is not apt to start brood in the sections, if the brood-chamber is large, whether the "break-joint" honey-board is used or not. The use of such boards is to prevent the building of brace combs between the section super and the brood-chamber, thereby facilitating the handling of the supers and keeping unprotected sections from being soiled, as the bees build few brace combs above such honey-boards.

I desire to add that I was not only the first to construct the wood and zinc honey-board, but the first to conceive of the idea of supporting narrow pieces of perforated zinc in the manner here described.

DR. G. L. TINKER.

New Phila., O.

From the *Lewiston Journal*.

DIVISION BOARDS.

THEIR UTILITY AND VALUE IN BEE-KEEPING.

DIVISION boards should have a place in every well regulated apiary. In fact, every well managed apiary will include the division board as a necessary adjunct to successful handling of bees. The division board fits into a place in the handling of bees which no system of management can fill without them, hence they are a necessity. This necessity in their use has grown out of the system by which bees are kept, an understanding of their ways and workings calling into requisition many things as movable frames, the extractor, section cases, honey sections and the various appliances which render bee-keeping profitable and among them all the division board ranks as important a feature as either of the requisites named.

EARLY INTRODUCTION.

Although the use of division boards in the apiary as a factor of prominence dates back but a few years, it may be known to some of the more advanced apiarists that as long ago as 1852 a patent was taken out on division boards by Rev. L. L. Langstroth. This was 35 years ago,

but the division board, we think, did not very generally come into use till quite recently. Mr. Langstroth's board was made as follows, and will be found on page 376 of his book, "The hive and honey-bee."

"One piece $18\frac{1}{2} \times 9\frac{1}{2} \times \frac{1}{8}$, each side of each end made one-quarter inch beveling, for easy adjustment. One piece $8\frac{1}{2} \times 19\frac{1}{2}$ nailed on the first piece, like the top piece of the movable comb frames. By this divider, the size of hive can be determined at will."

This reveals the use the division board was first put to, to contract or enlarge the size of the hive. And this is an important matter when rightly considered. While there are various ways in which division boards are useful in handling bees, perhaps the two most important advantages derived from their use is in preparing stocks for winter and in adapting the size of the hive to the strength of the colony in spring.

PREPARING FOR WINTER.

In preparing for winter it is known to be best to allow the bees only space according to their numbers. That may be to occupy four, five or six frames. We all know it is easier to heat a small room in winter than a large one and so this principle applies to the bee-hive. And again we do not want to depart from established rules in building hives as to size; were to do so we might lumber our premises with a large number of different sized hives of no use only as occasion called for wintering and occasionally for nucleus swarms in summer.

If we use division boards the question of making hives to carry eight or ten frames is easily solved. It is an advantage to have some hives which will carry ten frames, as side storing can then be practiced if one likes that way, and in running for extracted honey it is an advantage to use ten frames in the lower story as a prolific queen will occupy that number and leave the upper story clear of brood. Then if such hives are desired to run for comb honey and five to six frames in the brood-chamber are found sufficient, the contraction is easily made by using division boards, or the same contraction made for wintering, and if deemed necessary the spaces between the walls of the hives and division boards can be filled with some material which is non-conducting to cold, as leaves, chaff, etc.

USE IN SPRING.

In rearing large numbers of bees early in the season, queens are induced to early breeding from two especial causes, viz.: heat and a supply of proper food. A requisite of spring care is to reduce the size of the brood nest to just as small compass as the bees can comfort-