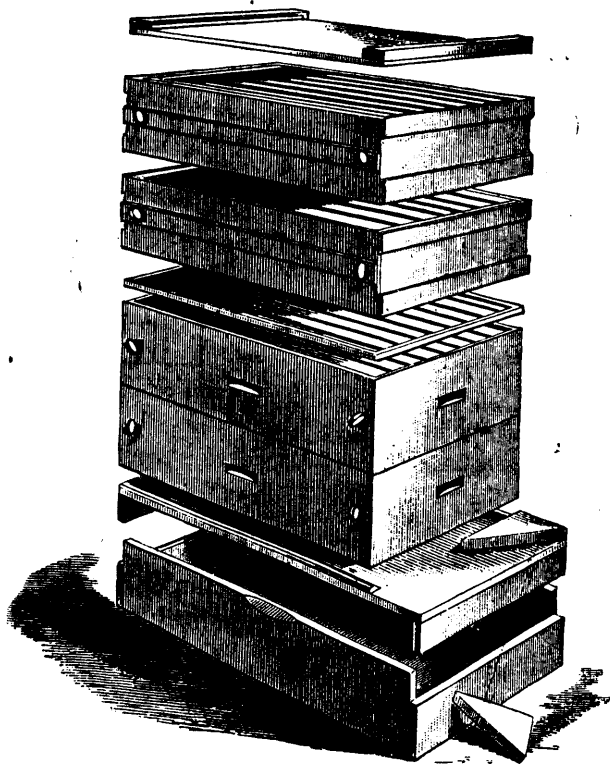


the top and bottom or side bars, half the extra width going to each side, so that when the frames are placed together, a full bee space of  $\frac{9}{16}$  inch is maintained between all the frame sides. The frames are held in the case by strips of tin the full length of the ends and one half inch wide, so that the projection of  $\frac{1}{8}$  inch at each end catches the edges of the frames and keeps them from falling through. The width of the case in side is  $11\frac{1}{2}$  inches into which eight frames, each  $1\frac{3}{8}$  inches,

#### HONEY-BOARD.—BREAK-JOINT.

Above the two sections of the brood-chamber, as shown in the engraving, will be seen the honey-board, which is arranged on the "break-joint" principle—the slats standing over the interspaces between the frames in the brood-chamber, the object being to prevent brace combs being built. The outside frame which holds the slats in position is  $\frac{3}{8}$  inch thicker than the slats them-



THE HEDDON HIVE.

are placed, occupying 11 inches of space and leaving  $\frac{1}{2}$  inch play which provides the space required on the outside of the outer combs. To divide this, light strips  $5\frac{3}{8}$  inches by  $\frac{3}{8}$  inch by  $\frac{1}{4}$  inch are nailed in the corners on the side opposite to the one in which the thumbscrews are placed. These thumbscrews are boiled in tallow and are tapped into the sides, so that their ends work on the edges of the wide sides of the frames, compressing the ends so firmly together that the frames are held tightly in position when the sectional brood-chamber is inverted.

selves, divided on each side, thus retaining the half bee-space. Here in Canada we always place strips of perforated metal in the interstices between the slots to make the honey-board queen-excluding.

#### SECTION CASES OF HEDDON HIVE.

The supers, or section cases, are constructed after much the same principle as are the brood-chambers, excepting

NOTE.—None of the engravings of the Heddon hive as made on this continent have been at all good; we have therefore taken the liberty of reproducing the engraving as shown in Cheshire's "Bees and Bee-keeping," which is constructed on a scale of 1/12th.