F. DANZENBAKER.

BEEHIVE.

APPLICATION FILED MAY 25, 1912.

1,174,056. Patented Mar. 7, 1916.

Fig. 1.

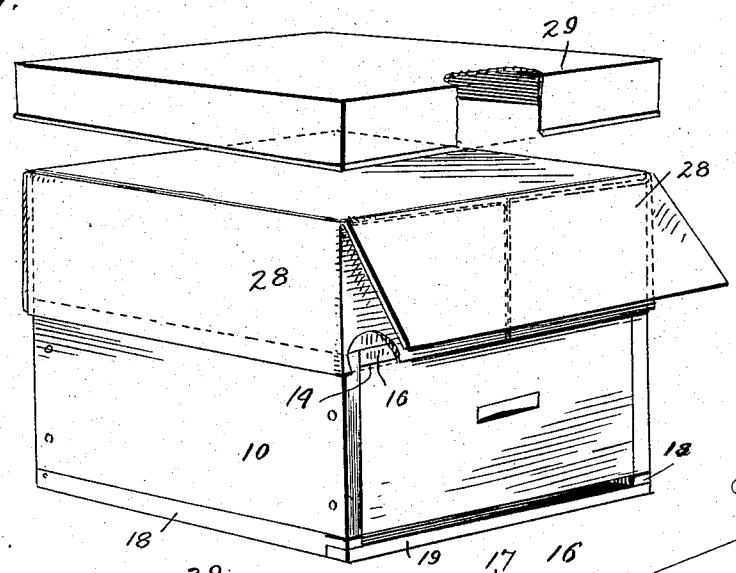


Fig. 2.

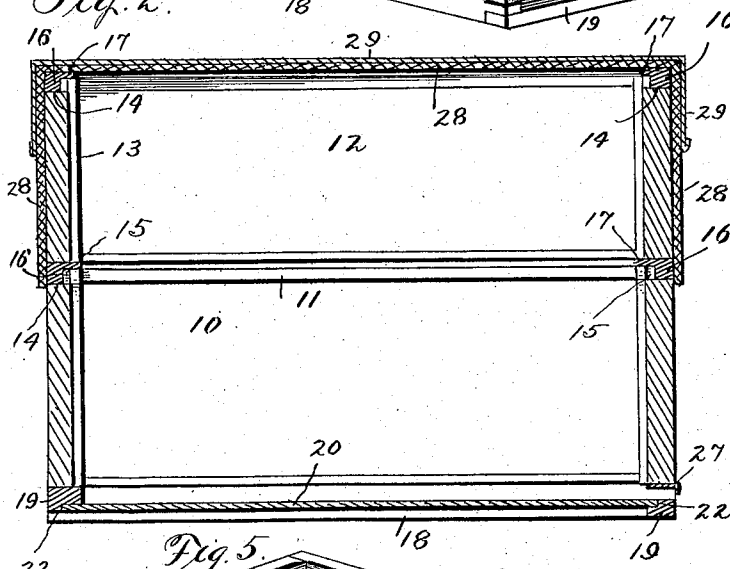


Fig. 6.

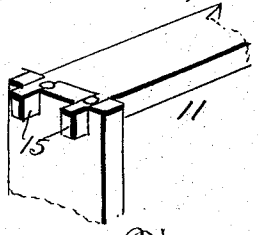


Fig. 3.

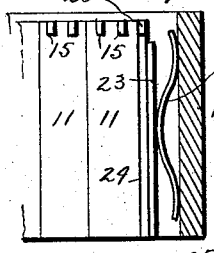


Fig. 5.

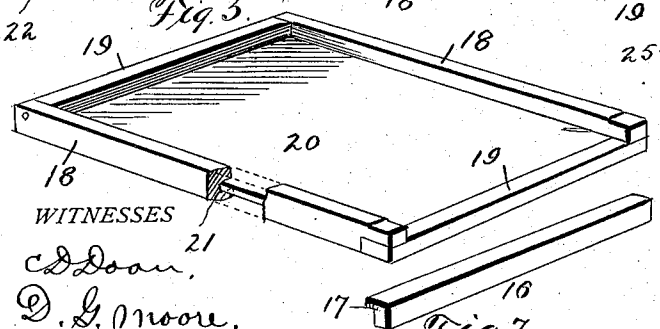
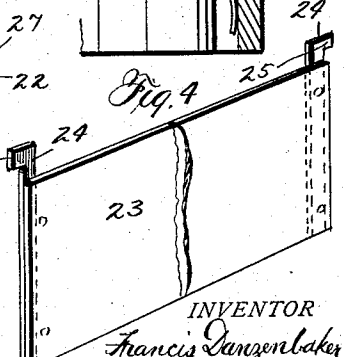


Fig. 4



WITNESSES

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Fig. 7

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BEEHIVE.

1,174,056. Specification of Letters Patent. Patented Mar. 7, 1916.

Application filed May 25, 1912. Serial No. 699,712.

To all whom it may concern:

Be it known that I, FRANCIS DANZENBAKER, of Norfolk, in the county of Norfolk, and in the State of Virginia, have invented a certain new and useful Improvement in Beehives, and do hereby declare that the following is a full, clear, and exact description thereof.

The object of my invention is to improve the construction of bee hives to the end of providing, as far as possible, conditions favorable to the most economical exploitation of the capacity or energy of the bees for work, and improving and cheapening the construction of the hive from the commercial standpoint.

In the accompanying drawings—Figure 1 is a perspective view of a beehive embodying my invention; Fig. 2 is a vertical section from front to rear; Fig. 3 a detail view in cross section of a part of the hive to illustrate my new follower board construction; Fig. 4 a detail view in perspective of the follower board; Fig. 5 a perspective view of a bottom board embodying my invention; Fig. 6 is a perspective view of a portion of a brood frame having the frame supporting means that I prefer to use; Fig. 7 is a detail view of the cover for wintering made of cellular paper.

In the embodiment of my invention illustrated in the drawings, I show a brood chamber 10, containing brood frames 11, and a super 12 containing comb honey section holders 13, the front and back walls of the hive in both cases being cut down to form a supporting ledge 14 to receive projections from the ends of the brood frames and the section holders by which they are suspended or supported in the hive. Said supporting projections may be variously constructed, but an advantageous construction is to prolong the tenons of the top bars beyond the outer side of the end bars of said frames and holders a short distance to constitute lugs or ribs 15. It will be seen that by the utilization of the front and back walls of the hive, as the supporting ledges for the frames and holders, either the internal capacity of the hive from front to back may be increased, or its external size diminished. To close the space resulting from the cutting down of the front and back walls of the hive, I employ a filler in the form of a bar or rail 16, which on one side has an inwardly projecting flange 17 that overlies the tops of the brood frames or the section holders, as the case may be, to cover the numerous joints in said parts, and thus render unnecessary any work on the part of the bees in sealing them up, according to their habit, when they find objectionable grooves or crevices in the hive. Said filling and covering bar, or rail, may be conveniently formed of a single piece of wood cut in a molding machine.

My hive bottom, as may best be seen by reference to Fig. 5, is composed of a frame of wood having parallel side bars 18 connected at their ends by parallel cross bars 19, and a sheet 20, of a manufactured product known by the name of asbestos slate, which covers the entire space between the bars or rails and is advantageously secured thereto by having its side edges, respectively, seated in grooves 21 in the inner side of each of said side rails, and its front and back edges seated in rabbets 22, respectively, in the face of the end cross bars. The grooves in the side bars are situated to one side of the vertical center of the side bars so that a greater space exists on one side of the sheet than upon the other, and the end cross bars are correspondingly different in thickness, the purpose being to enable either side of the bottom to be used, so that at one time a greater space is provided than at the other, the variation of this space at the bottom of the hive being, as it is well known, desirable. The asbestos slate is an excellent material for the purpose, by reason of its hardness and toughness and its insensibility to moisture and changes in temperature, so that there is no liability to warping or cracking, as is the case with wood, and it is preferable to metal because it is lighter and not so cold, the sheet being seated in grooves or recesses on all four sides. It is securely held in place without the use of nails, and as its end edges are concealed by the rabbets in the cross bars, a smooth sightly finish is obtained. A sheet of the same material is also useful as an inner cover for the super.

My follower board is made of a sheet 23 of asbestos slate, at each end of which is attached a strip or bar 24 of wood to engage the contiguous frame or section holder, and at its upper end each of said strips or bars has a lateral offset or lug 25 to rest upon the supporting ledge formed by the front and back walls of the hive. Besides the advan-

tages coming from the nature of asbestos slate, the construction is inexpensive since the sheet 23 is a single piece, and it is necessary to have the strips, or bars, 24, only on one side. The absence of bars from the side toward the hard wall increases the space thereat. The usual springs, such as the bowed spring 26, are interposed between the side wall of the hive and the side of the sheet 23 opposite that having the wooden strips or bars 24.

For contracting the hive entrance in winter and keeping out mice, I employ a simple L-shaped strip 27 of sheet metal, one flange being of a length to fit in between the side rails that it may engage the top of said side rails and thereby be supported in position at the entrance, and said longer flange of the L is of sufficient extent from front to rear as to reach across and cover the joints at the bottom of the brood frames to serve the same purpose in protecting such joints that the horizontal flange of the filling strip or bar serve. The corresponding joints in the frames at the rear of the hive may be covered simply by shifting the hive, or the bottom board, to place such joints over the bottom board rail at the rear of the hive.

For wintering, a cover 28 made of a sheet of cellular paper slit or cut so that besides a portion lying over the top of the hive there are portions extending down over each wall thereof, and certain of said walls may be covered by a double thickness. And over the whole cellular paper cover I place a metal inverted pan-like cover 29. An excellent storm cover is afforded by the bottom board, or a framed sheet of asbestos slate, the frame being of a size to telescope over the hive top.

Having thus described my invention what I claim is—

1. A bee hive member comprising a sheet of asbestos slate, and a frame of wood upon which said sheet is mounted.

2. A bee hive bottom board comprising a sheet of asbestos slate, and a frame of wood upon which said sheet is mounted, comprising side rails with grooves to receive the edges of said sheet, and cross rails having recesses to receive the edges of said sheet.

3. In a bee hive, the combination of a hive body composed of side and end walls, the top of the end walls being lower than the top of the side walls, frames or holders having projections at their ends which overlap the inner portion of the top of each end wall, and a filling bar that rests upon the top of the end walls outside the ends of said projections and extends inward and overlaps the end portions of said frames or holders.

4. In a bee hive, the combination of a hive body, frames or holders therein, and a follower comprising a sheet of asbestos slate having at each end a frame or holder engaging strip, said strip extending vertically and having a laterally extending supporting lug, and said sheet being free from projections on its side opposite the one having said strips.

5. As an improvement in bee hives, a frame composed of top and end bars, the top bars having tenons seated in grooves in the end bars and projected upon the outer side of the end bars to form the supporting lugs in combination with a hive body composed of side and end walls, and said end walls being lower than the top of the side walls, and said end walls being engaged by said lugs, and a filling bar that rests upon the top of the end walls outside the ends of said projection and extended inward and overlaps said frame.

In testimony that I claim the foregoing I have hereunto set my hand.

FRANCIS DANZENBAKER.

Witnesses:
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JAMES H. MARR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."