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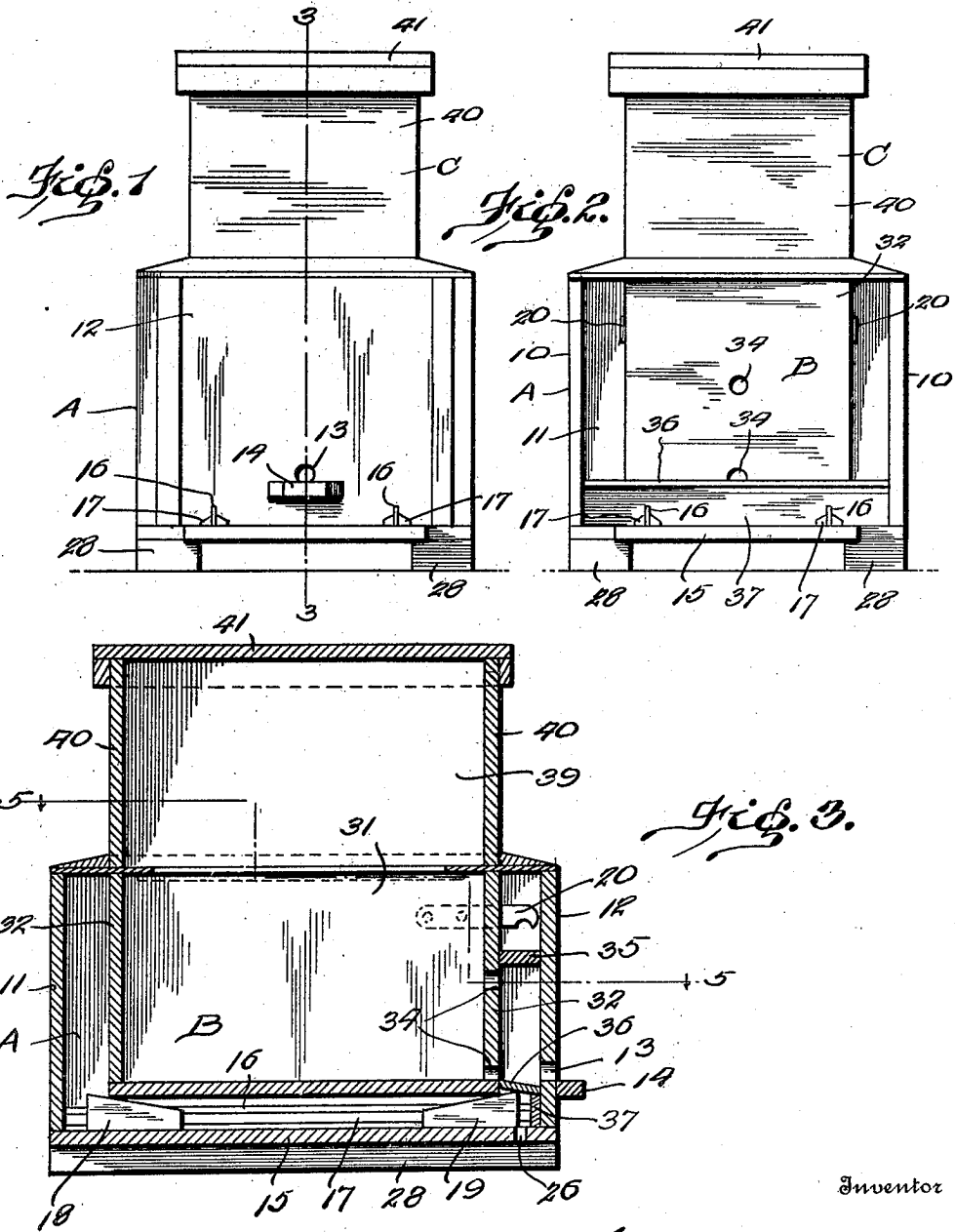
1,490,126

S. A. PENNEY

BEEHIVE

Filed April 18, 1922

2 Sheets-Sheet 1



Inventor

S. A. Penney
Edson Bros

Attorney S

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2 Sheets-Sheet 2

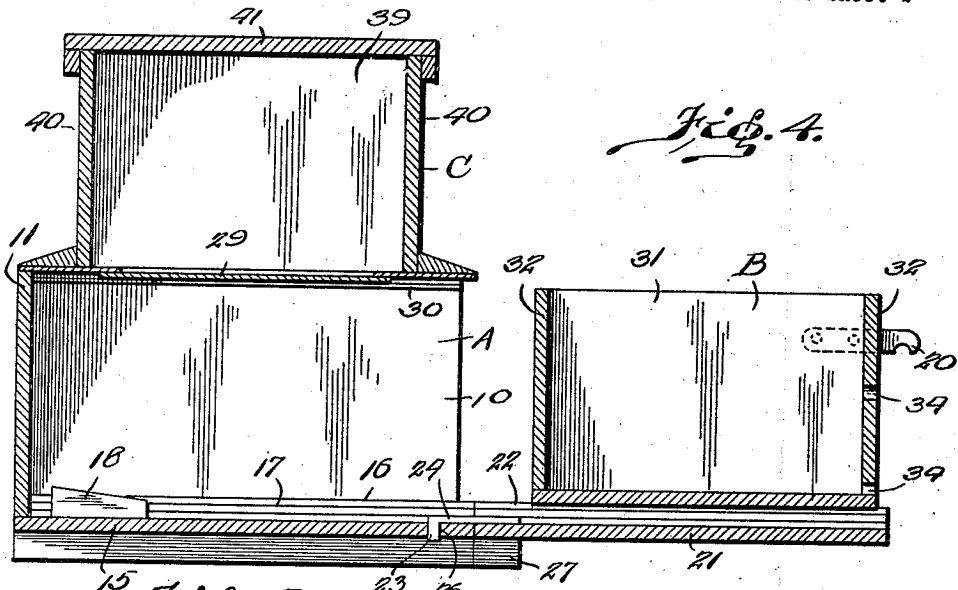


Fig. 4.

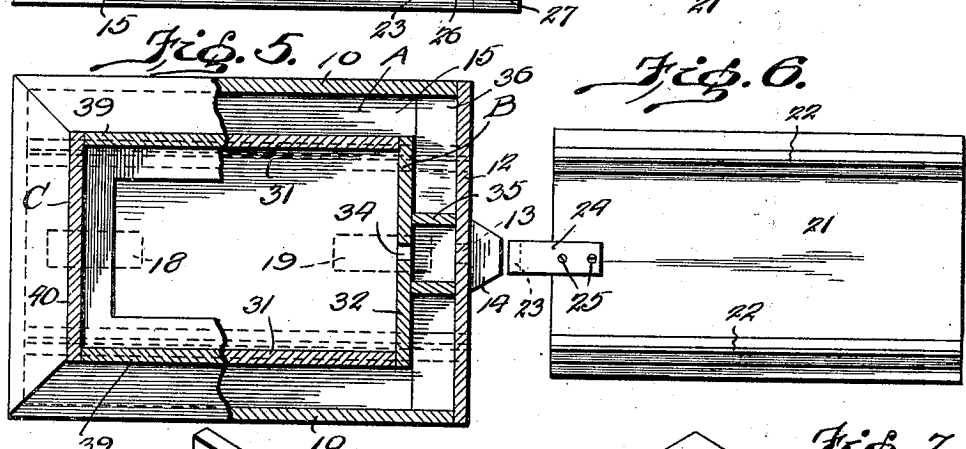


Fig. 5.

Fig. 6.

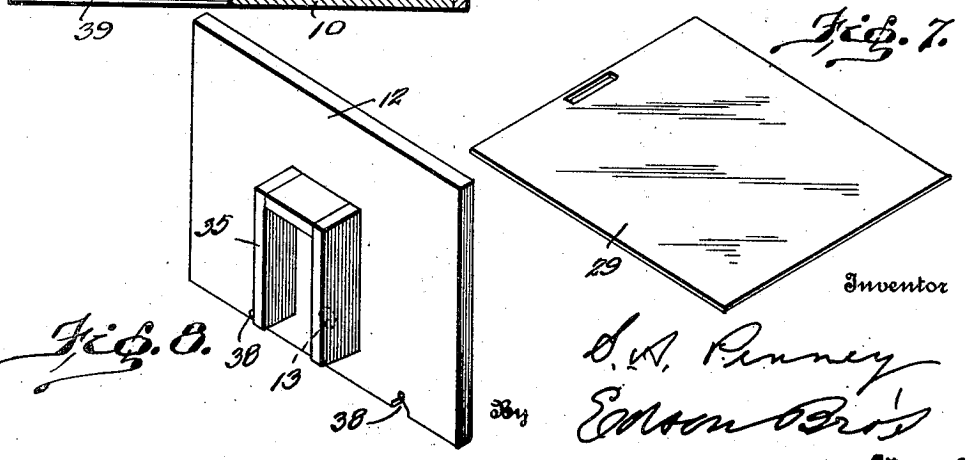


Fig. 7.

Fig. 8.

Inventor
S. A. Penney
Edison Bros
 Attorney

UNITED STATES PATENT OFFICE.

SAMUEL A. PENNEY, OF ILION, NEW YORK.

BEEHIVE.

Application filed April 18, 1922. Serial No. 554,510.

To all whom it may concern:

Be it known that SAMUEL A. PENNEY, a citizen of the United States, residing at Ilion, in the county of Herkimer and State of New York, has invented certain new and useful Improvements in Beehives, of which the following is a specification.

This invention relates to beehives and has for an object to provide a hive embodying new and improved features enabling the withdrawal of the brood chamber for examination.

A further object of the invention is to provide an improved type of hive for summer and winter use embodying a casing or housing into which the brood chamber is inserted and from the walls of which it is spaced, with a super above, all of which forms air chambers about various sides of the brood chamber for insulating purposes.

A further object of the invention is to provide in a beehive a casing with a track or guide members disposed in the bottom thereof with an extension applied to the casing for extending the track or guide members upon and along which the brood chamber may be bodily removed from the casing to rest upon the auxiliary track for the purpose of examining the brood chamber without disturbing or removing supers. A further object of the invention is to provide improved means for separating the brood chamber from the super during the withdrawal of the brood chamber to imprison the bees in the super during such examination.

With these and other objects in view, the invention comprises certain novel parts, elements, units, constructions, combinations, interactions and functions as disclosed in the drawing, together with mechanical equivalents thereof, as will be hereinafter more fully described and claimed.

In the drawings:

Figure 1 is a view of the improved hive in front or end elevation showing its winter condition.

Fig. 2 is a view of the hive in front or end elevation with the winter enclosure removed showing the summer condition of the hive.

Fig. 3 is a longitudinal vertical sectional view through the hive in winter condition as shown on line 3—3 of Fig. 1.

Fig. 4 is a longitudinal sectional view through the hive with the brood chamber

withdrawn upon the auxiliary track for examination purposes.

Fig. 5 is a view partly in top plan and partly in horizontal section, as indicated by line 5—5 of Fig. 3.

Fig. 6 is a plan view of the auxiliary track member.

Fig. 7 is a perspective view of the division plate used to separate the brood chamber from the super.

Fig. 8 is a perspective view of the winter closure with the portico shown in operative relation thereto, it being understood that the portico may be associated with the hive in summer condition as well.

Like characters of reference indicate corresponding parts throughout the several views.

It is well known in apiculture that during the winter season it is desirable to maintain the colony in the brood chamber and to insulate the brood chamber in some manner from cold. In the present instance this insulation is shown in the form of an air spaced wall surrounding the brood chamber, but it is to be understood that where approved by apicultural practice, this space may be wholly filled with some insulating material. The present invention is therefore not limited in any way to the continual maintenance of this air space wholly unoccupied. With this end in view, the device comprises a casing A, a brood chamber B, and a super C. In the drawings no attempt has been made to show the brood frames in the brood chamber or the sections in the super, it being understood by any one skilled in the art that such additional structures are necessary to the proper use of the hive. The casing A comprises side members 10 and an end wall 11. The other end of the casing opposite the end wall 11, which is the front end of the hive, is normally open and is closed to make a complete casing by a closure 12. The casing A enclosing the brood chamber B forms, as will be noted, an air space entirely about the sides, ends, and bottom of the brood chamber, which, as stated above, may or may not be filled with insulating material, as good practice dictates. The closure 12 is provided with a fly hole 13 and lighting board 14 for winter use. Upon the bottom 15 of the casing A tracks or rails 16 are positioned, being held in operative relation in any approved manner, as by the

wooden strips or cleats 17. The brood chamber in normal or operative position, is held out of engagement with these rails 16 by means of wedges 18 and 19, the former being fixed to the bottom 15, the latter being insertible manually when the brood chamber is in its operative position, as shown at Figs. 3 and 5. When the wedge 19 is removed the brood chamber B drops from engagement with the upper part of the casing A and by its own weight, breaks the adhesive material ordinarily applied by the bees to all openings and cracks. This permits the brood chamber B at its front end to drop upon the tracks 16, whereupon manual stress applied to the handles 20 will draw the brood chamber outwardly off from its engagement with the wedge 18 and resting wholly upon the rail 16.

To prevent the entire structure being cumbersome an auxiliary track is provided comprising a bottom member 21 with rails 22 thereon adapted to align with the rails 16, and the bottom member being held in position by means of a hook 23 carried by a plate 24 rigidly secured to the auxiliary bottom 21 in any approved manner, as by screws 25, and hooking into an opening 26 formed in the bottom 15 of the casing. A cleat 27 is secured along the end of the auxiliary bottom 21 which abuts against the sills 28 of the casing A to maintain the auxiliary bottom 21 in an approximate alignment with the bottom 15. It will therefore be seen that with this auxiliary track member in position as shown at Fig. 4, the brood chamber B may be drawn entirely out of the casing A so that it is in position for inspection. Before withdrawing the brood chamber it is found desirable to close the communication between the brood chamber and the super C to entrap or imprison in the super such bees as may be in the super and this is done by means of a separating plate 29 sliding upon guide-ways 30 formed in the top of the casing A, as indicated more particularly at Fig. 4.

The brood chamber 3 presents few novelties, comprising side walls 31 and end walls 32, the front wall 32 being preferably provided with two fly holes 34 which will preferably be located within the portico 35. As shown at Fig. 8, this portico is shown in position relative to the winter fly hole 13, but it is to be understood that it may stand upon the summer lighting board 36 to form a covering over the fly holes 34. This summer lighting board 36 is preferably provided with a supporting strip 37 having recesses to accommodate the rails 16 and supporting strips 17, as shown more particularly at Fig. 2. The winter closure 12 will also be provided with similar recesses indicated at 38 in Fig. 8 and shown in position upon the rails and strips at Fig. 1.

No novelty whatever for the super C is claimed and it is shown simply as side walls 39 and end walls 40 with a cover 41, all in accordance with the present good practice in apiculture.

In operation for summer or storage use, the hive will assume the position shown in Fig. 2, the incoming bees lighting upon the lighting board 36 and entering through one or either of the fly holes 34 into the brood chamber, as is customary, and from thence upwardly into the super to store loads of honey, or pollen, for storage in the brood chamber, will, of course, be so stored. As heretofore pointed out, the portico 35 may stand upon the lighting board 36 to cover the fly holes 34, but this is a matter of choice. As the season progresses and inspection becomes necessary or desirable, the separating sheet or plate 29 is moved into separating position, as shown at Fig. 4, to imprison in the super such bees as are therein. The supporting wedge 19 is now manually withdrawn, dropping the brood chamber B upon the rails 16 and the auxiliary bottom track member 21 applied by hooking the hook 23 into the opening 26. The brood chamber is now drawn out manually upon the rails 16 and 22 until it assumes the position shown at Fig. 4, for inspection from the top, is shown desirable. After such inspection is completed the brood chamber is returned by sliding along the tracks 22 and 16 until it engages the wedge member 18 which forces the inner end of the brood chamber upwardly against the casing. The introduction of the movable wedge 19 completes the reassembling, except that it is found desirable to replace the movable lighting board, and if wished, also the portico 35.

For winter the open end of the casing is closed by means of the closure 12 shown at Fig. 8, ingress and egress being permitted, however, through the fly hole 34, and, as pointed out, the insulating space between the brood chamber and the walls of the casing may be employed in that condition as simply imprisoning air, or may be packed with insulating material, as the fancy of the apiculturist dictates. It is obvious also that during the winter time the super will be empty and will either be employed as insulating space or may also be packed with insulating material.

I claim:

1. A beehive comprising a casing having a super, a brood chamber within the casing spaced from the walls of the casing, a track formed along the bottom of the casing, and an auxiliary applicable track extending the track in the casing whereby the brood chamber may be drawn bodily out from the casing upon the auxiliary track, means for raising said brood chamber off said track in said casing to contact with said super

and close communication between said brood chamber and the space between its walls and the casing.

2. A beehive comprising a casing having
5 a super, a brood chamber located within the casing and spaced from the walls and bottom thereof, a track along the bottom of the casing under the brood chamber, an
10 auxiliary member carrying supplemental tracks, means to attach the supplemental member to the casing, and means to withdraw the brood chamber from the casing
15 along the tracks, means for raising said brood chamber off said track in said casing to contact with said super and close communication between said brood chamber and the space between its walls and the casing.

3. A beehive comprising a casing, having
20 tracks formed along the bottom thereof, an extension member adapted to be applied to the casing and carrying extension tracks in alignment with the tracks in the casing, a brood chamber proportioned to slide along
25 the tracks into the casing, means at the limit of movement of the brood chamber to lift the brood chamber off of the track, a super in communication with the casing and with the brood chamber when in inserted
30 position, means for raising said brood chamber off said track in said casing to contact with said super and close communication between said brood chamber and the space between its walls and the casing.

35 4. A beehive comprising a casing, tracks formed along the bottom of the casing, an extension track member, means to readily secure the extension member to the casing, a brood chamber smaller than the interior

of the casing and movable along the tracks
40 for inspection when located upon the extension member, means within the casing to raise the brood chamber into engagement with the top of the casing when at its inner limit of movement, and a super in
45 communication with the brood chamber when in its inner position.

5. A beehive comprising a casing, a super disposed above and upon the casing and communicating therewith through an open-
50 ing, a sliding plate adapted to close the communicating opening between the casing and the super, a brood chamber smaller than the interior of the casing and normally in operative communication with the
55 opening between the casing and the super, means to drop the brood chamber from its association with the communicating opening to the super, means to withdraw the brood chamber from the casing, and means
60 to support the brood chamber in its withdrawn position for inspection purposes.

6. A beehive comprising a casing having an opening in its top, a super disposed
65 above and covering the opening, tracks formed along the bottom of the casing, a brood chamber movable along the tracks, means to elevate the brood chamber off of the tracks and into engagement with the top of the casing to be in communication
70 with the opening into the super, and means to close the casing to form an air space entirely around the sides, ends, and bottom of the brood chamber within the casing.

In testimony whereof he affixes his sig-
75 nature.

SAMUEL A. PENNEY.