

Jan. 3, 1933.

J. A. MEIER

1,893,431

PACKING CASE OR BOX FOR BEEHIVES

Filed March 6, 1931

2 Sheets-Sheet 1

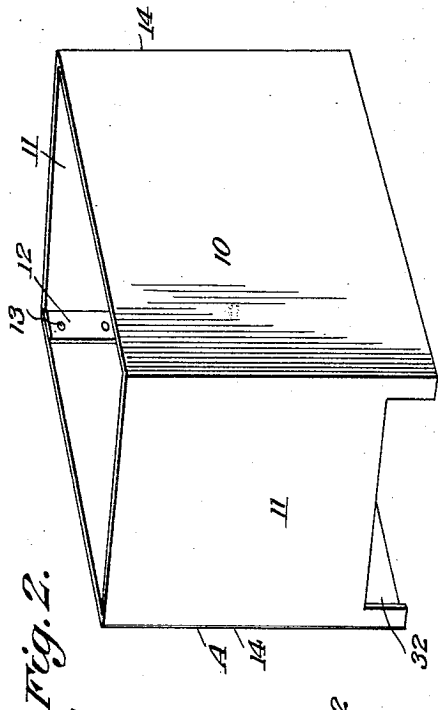


Fig. 2.

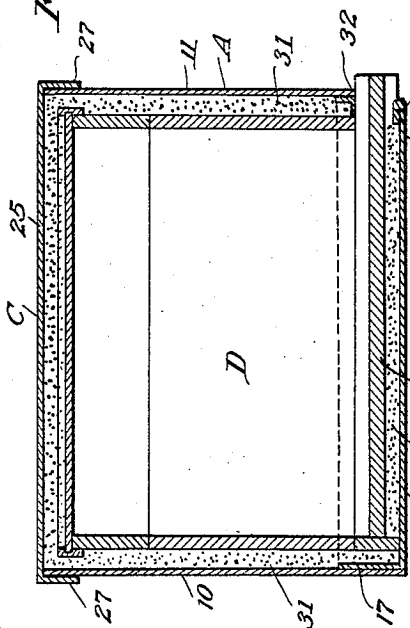


Fig. 1.

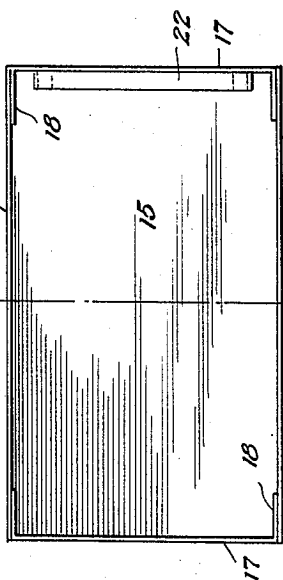


Fig. 3.

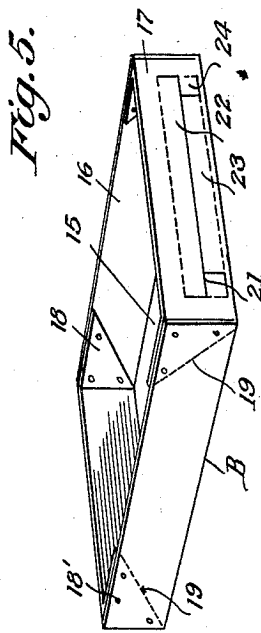


Fig. 5.

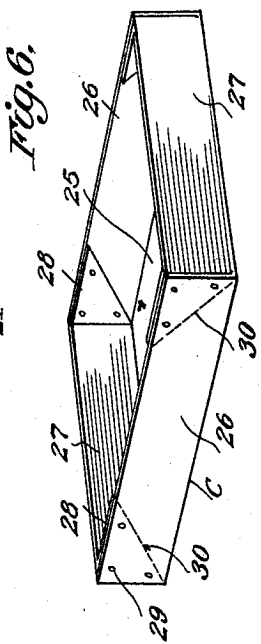


Fig. 6.

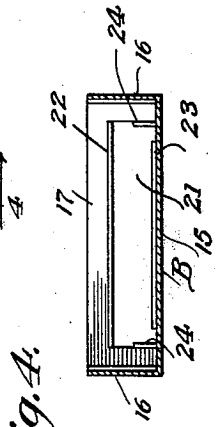


Fig. 4.

John A. Meier  
INVENTOR  
BY *C. L. Evans*  
ATTORNEY

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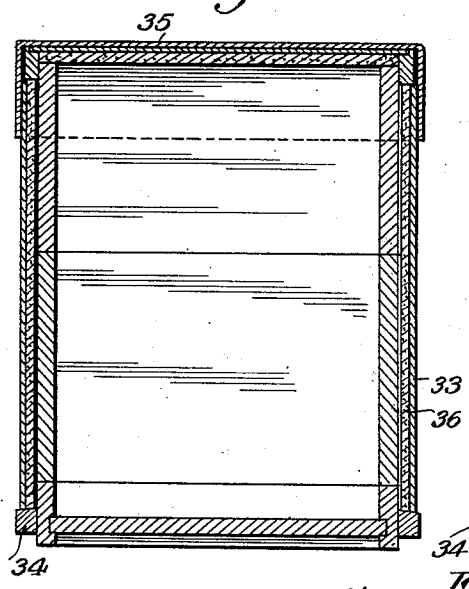
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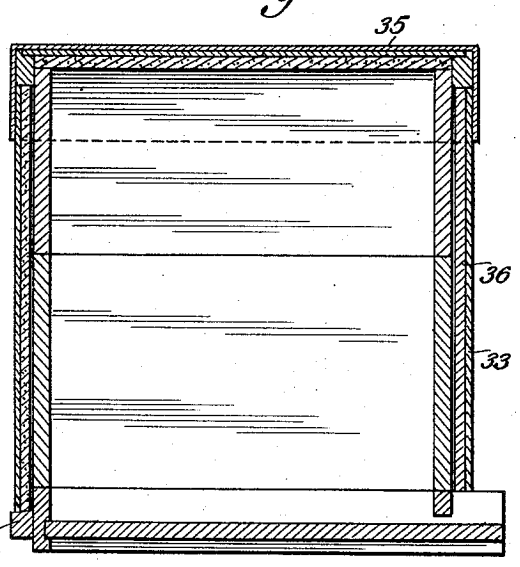
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2 Sheets-Sheet 2

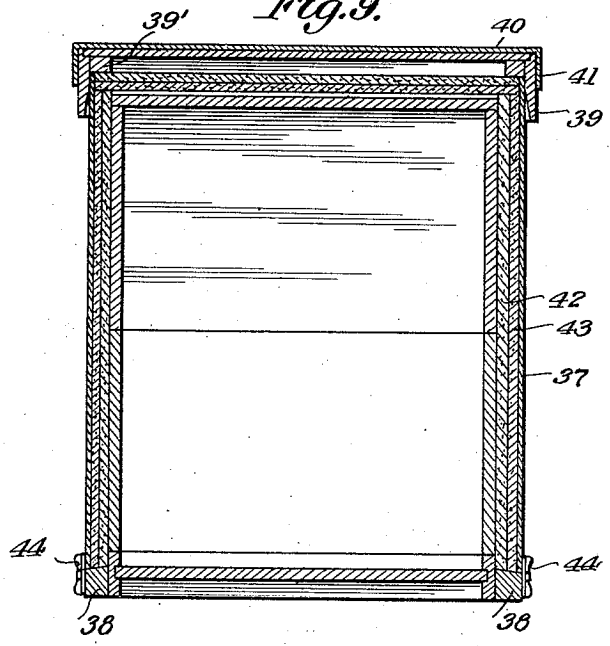
*Fig. 7.*



*Fig. 8.*



*Fig. 9.*



*John A. Meier*

INVENTOR

BY *W. S. Coats*  
ATTORNEY

## UNITED STATES PATENT OFFICE

JOHN A. MEIER, OF HAMILTON, OHIO

PACKING CASE OR BOX FOR BEEHIVES

Application filed March 6, 1931. Serial No. 520,644.

The invention relates to a protective casing for bee-hives, and more especially to the class of packing boxes or cases for bee-hives.

The primary object of the invention is the provision of a case or box of this character, wherein a bee-hive can be protected from inclement weather and during the winter months, the case or box being of novel form as the same is made from heavy fiber board suitably water-proofed and the parts constituting such case or box are collapsible to render the same compact when not in use.

Another object of the invention is the provision of a box or case of this character which is extremely simple in construction, thoroughly reliable and efficient in its purpose, strong, durable, readily and easily applied to and removed from a bee-hive and inexpensive to manufacture.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts, as will be hereinafter more fully described in detail, illustrated in the accompanying drawings which disclose the preferred embodiment of the invention, and pointed out in the claims hereunto appended.

In the accompanying drawings:—

Figure 1 is a vertical longitudinal sectional view through a bee-hive, showing the protective case or box applied thereto and constructed in accordance with the invention.

Figure 2 is a perspective view of the body portion of the box or case.

Figure 3 is a top plan view of the bottom section of the box or case.

Figure 4 is a sectional view on the line 4—4 of Figure 3.

Figure 5 is a perspective view of the bottom section of the box or case.

Figure 6 is a perspective view of the top or cover section of the box or case.

Figure 7 is a vertical transverse sectional view through a modified form or arrangement of the box or case.

Figure 8 is a vertical longitudinal sectional view thereof.

Figure 9 is a vertical transverse sectional view of a still further modified form or arrangement of the box or case.

Referring to the drawings in detail, the box or case comprises a main body section A, a bottom section B and a top section C respectively, and these when inter-fitted are adapted to enclose a bee-hive D which may be of any standard construction.

The body A is made from fiber sheets and includes side walls 10 and end walls 11, these being formed from a single piece of material, the meeting ends 12 being overlapped and joined in any suitable manner, preferably by rivets 13. The body A is foldable at the corners 14 so that it can be brought to collapsed, folded flat condition. The body is preferably water-proofed in any desirable manner and in this instance, is of rectangular shape to surround the bee-hive.

The bottom section B is made from fiber sheets and includes a bottom proper 15, side and end flanges 16 and 17, the end flanges being formed with triangular shaped tongues 18 disposed at right angles to said end flanges and against the inner faces of the side flanges 16, where they are riveted at 18 thereto. The side flanges 16 are formed with diagonal crease lines 19 following the angular edge of the tongues 18 and such bottom section B can be collapsed or folded along these lines to become flat when not in use.

The bottom section B receives the lower portion of the bee-hive D which has a removable bottom or tray 20, the latter being slidably fitted in any suitable manner and is adapted to work through a suitable opening 21 in the front of the bottom section B, this opening being normally closed by foldable flaps 22, 23 and 24 cut and bendable from the front end flange 17 of said bottom B.

The top section or cover section comprises a top area proper 25, side and ends 26 and 27 respectively, these joined by the tongues 28 riveted at 29 to the said sides 26, the tongues 28 being folded at right angles to the ends and carried thereby. The sides 26 are provided with diagonal crease lines 30 so that the top section C can be collapsed or folded flat along the crease lines. The top section C is adapted to telescope over the upper end of the body 10 which fits within the bottom section B to completely enclose

the bee-hive D, as is evident in Figure 1 of the drawings.

The space between the walls 10 and 11 of the body A and the walls of the bee-hive, as well as about the bottom and top of the latter has introduced therein a chaff or filling material 31 which protects the bee-hive D from cold, while the bottom cover and body section is protected from inclement weather. One of the end walls 11 of the body section A is cut away at 32 to form a clearance for the slide bottom or tray 20 of the bee-hive.

In Figures 7 and 8, there is shown a slight modification of the invention, wherein removably fitted about the bee-hive is a body section 33, the latter adapted to rest upon cleats 34 mounted on the bee-hive at the sides and one end thereof contiguous to the bottom of said bee-hive and telescoped over this body 33 is a cover or top section 35, the body and the latter section being made from sheet fibrous material suitably water-proofed. Interposed between the bee-hive and the body 33 and top or cover section 35 are sheets of material 36. These sheets 36 exclude cold from within the bee-hive when enclosed as hereinbefore described.

In Figure 9 there is shown a still further modification, wherein the body 37, made from sheet fibrous material water-proofed in any desirable manner, encircles the body of the bee-hive and rests upon the cleats 38 at the bottom thereof, while overlying the top of the bee-hive is a cover section 40, having the depending marginal flange 41. Within the body 37 and adapted to overlie the sides, ends and top of the bee-hive are dual sheets 42 and 43, and protect the bee-hive from chill or cold, as should be obvious. Metal may be used in the cover per se. A bevelled flange 39 and spacing cleats 39' being of wood. When elements 37, 42, 43 are not in use, the cleats permit the cover to fit the hive itself. The cleats 38 at opposite sides of the bee-hive carry turnbuttons 44 which serve to hold the body 37 against displacement on the cleats and properly positioned about the bee-hive.

It will be apparent that the bee-hive, when confined by the box or case, will be protected against inclement weather and during winter months from chill and cold.

What is claimed is:—

1. A box or case of the character described, comprising a body section to be disposed continuously about a bee-hive and made from fibrous material, a bottom section fitted about the bottom of the bee-hive and telescopically receiving the body section, a cover section having a marginal flange telescoped over the upper end of the body section, and flaps cut and bent from one end of the bottom section to permit a bottom slide of the bee-hive to be extracted therethrough.

2. The combination with a bee-hive having

an end cleat and side cleats at the bottom thereof, of a body section embracing said bee-hive and resting upon the cleats, and a cover section telescoped on to the body section.

3. The combination with a bee-hive having an end cleat and side cleats at the bottom thereof, of a body section embracing said bee-hive and resting upon the cleats, a cover section telescoped on to the body section, and means on the cleat to hold the body section against displacement.

In testimony whereof I affix my signature.  
JOHN A. MEIER.

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