

E. J. ATCHLEY.  
 BEE SHIPPING BOX.  
 APPLICATION FILED MAY 31, 1918.

1,311,741.

Patented July 29, 1919.

Fig. 1.

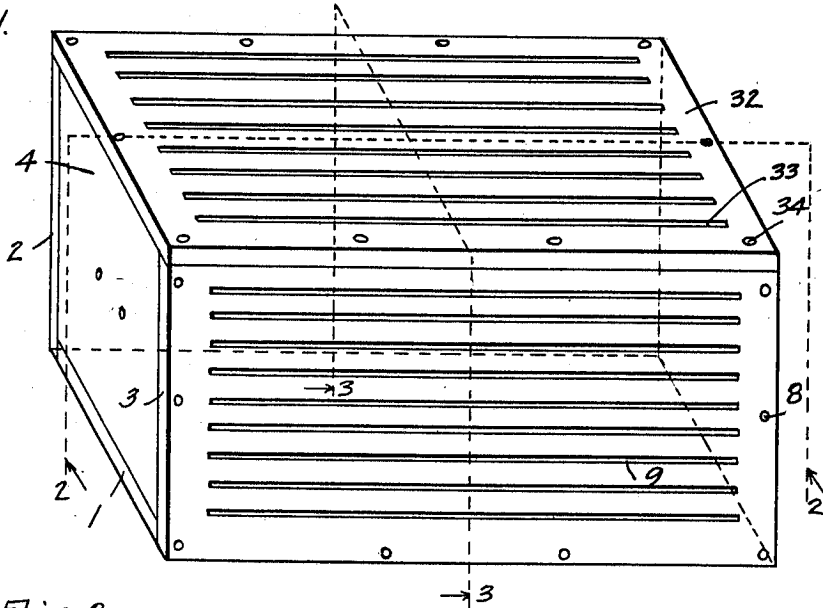


Fig. 2.

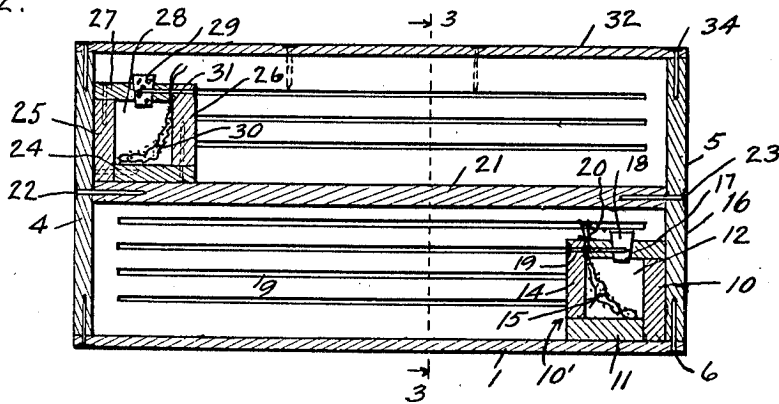
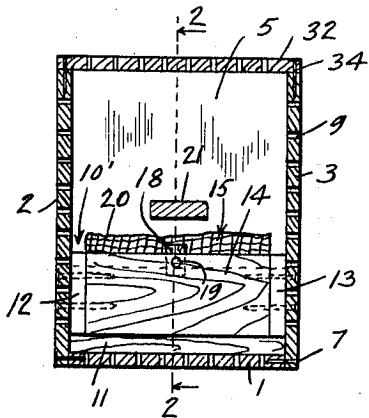


Fig. 3.



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# UNITED STATES PATENT OFFICE.

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## BEE-SHIPPING BOX.

1,311,741.

Specification of Letters Patent.

Patented July 29, 1919.

Application filed May 31, 1918. Serial No. 237,614.

*To all whom it may concern:*

Be it known that I, EMERSON J. ATCHLEY, a citizen of the United States, residing at Riverside, in the county of Riverside and State of California, have invented new and useful Improvements in Bee-Shipping Boxes, of which the following is a specification.

My invention relates to shipping cases and consists in the novel features herein shown, described and claimed.

Specifically, my object is to make a ventilated shipping case adapted to contain a flock of bees and water and food for the bees so that the package may be shipped by parcel post or express.

Figure 1 is a perspective of a shipping case embodying the principles of my invention.

Fig. 2 is a vertical longitudinal section on the lines 2—2 of Figs. 1 and 3.

Fig. 3 is a vertical cross-section on the lines 3—3 of Figs. 1 and 2.

The main body of the shipping case is in the form of a rectangular box and consists of the bottom board 1, side boards 2 and 3, and end boards 4 and 5 mounted upon the ends of the bottom board 1 and between the ends of the side boards 2 and 3. The bottom board 1 is secured in place by nails 6 driven through the bottom board into the end boards 4 and 5, nails 7 driven through the side boards 2 and 3 into the bottom board 1, and nail 8 driven through the side boards 2 and 3 into the end boards 4 and 5.

The boards 1, 2 and 3 are or may be all alike and the box is ventilated by cutting longitudinal slits 9 through the boards intermediate of their ends. The slits 9 are made with a thin circular saw and are small enough to prevent the bees from crawling through the slits.

A food tank 10' is built into the box at one end and upon the bottom and comprises a board 10 mounted against the inner face of the end board 5, a board 11 mounted upon the bottom board 1 against the board 10, end blocks 12 and 13 against the inner faces of the side boards 2 and 3 and against the ends of the boards 10 and 11, the board 14 mounted parallel with the board 10 and against the blocks 12 and 13 and upon the

board 11, a wick 15 extending from the upper face of the board 11 upwardly to a position above the upper edge of the board 14, and a board 16 fitting upon the blocks 12 and 13 and upon the board 10 against the wick 15. The boards 10 and 11, the blocks 12 and 13, and the boards 14 and 16 are secured in place by suitable nails. The parts are suitably waxed to form tight joints and prevent leakage. An opening 17 is formed through the board 16 for the insertion of suitable liquid food, and a cork 18 is applied to the opening and may be secured in place by a nail 19. The liquid food will climb the wick 15 by capillary attraction and will be accessible to the bees at the upper end of the wick.

A clustering bar 21 is centrally located in the chamber of the box and secured in place by nails 22 and 23.

A water tank is built against the inner face of the end board 4 and upon the clustering bar 21 and consists of the boards 24, 25, 26 and 27, the end blocks 28, the cork 29, the wick 30, and the nail 31. This tank is built up in a manner similar to the food tank and is properly waxed and filled with water.

After the food and water have been placed in the tanks a pound flock of bees is placed in the case and the cover 32 applied. The cover 32 is a board similar to the sides 2 and 3 and has ventilating slits and is secured in place by nails 34.

The shipping case thus constructed is intended to be used only once and is primarily intended to contain a pound of live bees for shipment by parcel post or express and the package may sometimes be several days in transit and it is important that the package be so prepared that the bees will not escape and that the bees will be comfortable and well fed during the time they are in the case.

The food and water tanks may be built in various ways, the only requirement being that they shall carry the food and water without spilling and that the food and water shall be accessible to the bees.

Various changes may be made in the details of construction without departing from the spirit of my invention as claimed.

I claim:

A bee shipping box comprising a rectangular container provided with longitudinal ventilating slits and provided with a removable cover, a central clustering bar, a closed liquid food receptacle in said box

having means for feeding liquid food to the exterior of said receptacle by capillary attraction.

In testimony whereof I have signed my name to this specification.

EMERSON J. ATCHLEY.

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