(No Model.) 2 Sheets—Sheet 1.

C. A. BUTLER.

BEE ESCAPE.

No. 346,023. Patented July 20, 1886.

Fig. 1.

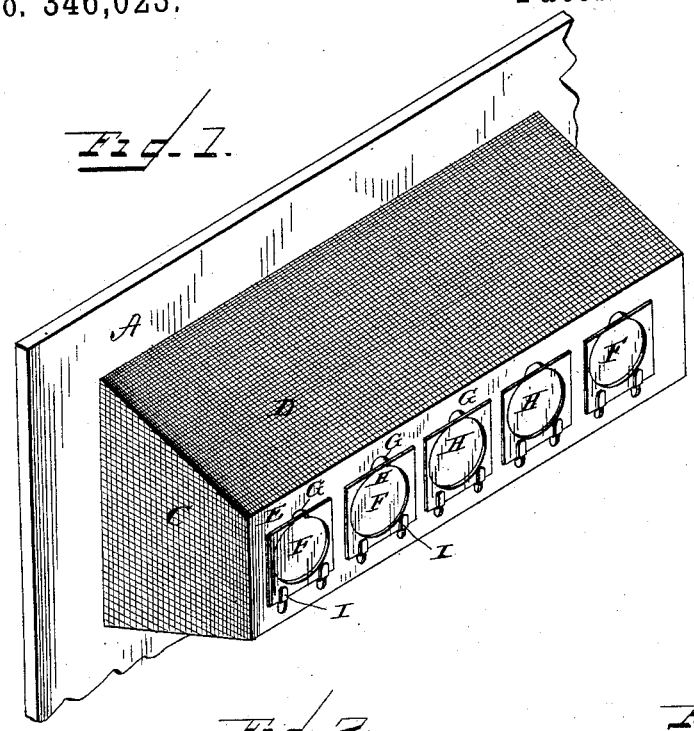


Fig. 2.

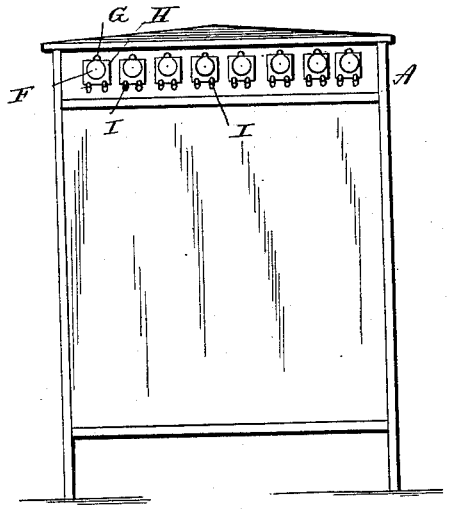
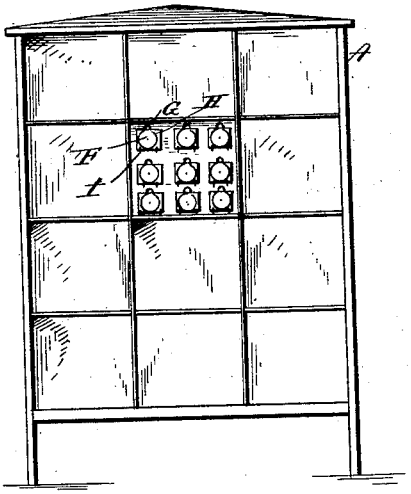


Fig. 3.



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(No Model.) 2 Sheets—Sheet 2.

C. A. BUTLER.

BEE ESCAPE.

No. 346,023. Patented July 20, 1886.

Fig. 4.

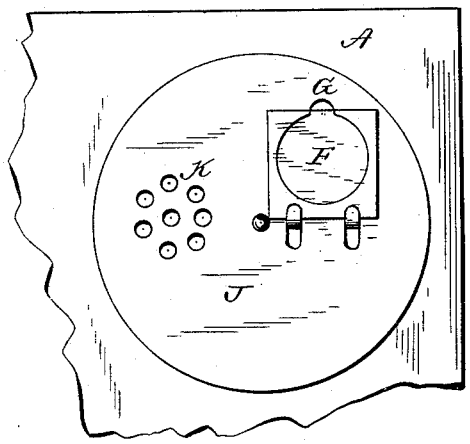


Fig. 5.

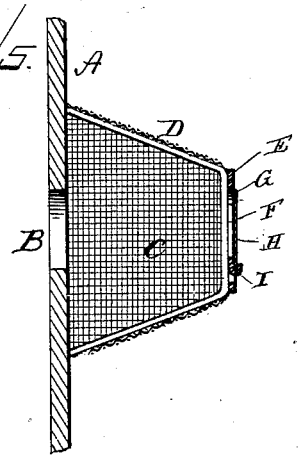
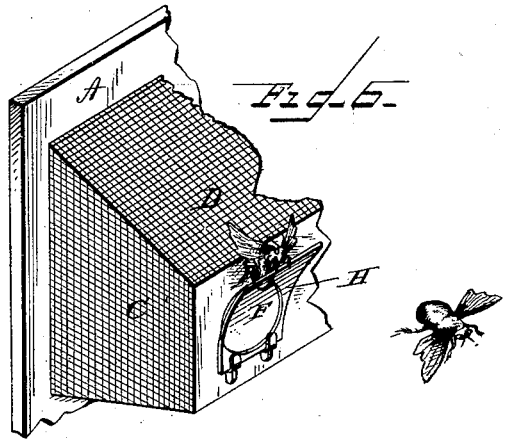


Fig. 6.



WITNESSES
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UNITED STATES PATENT OFFICE.

CHARLES A. BUTLER, OF MORIAH, NEW YORK, ASSIGNOR OF ONE-HALF TO GEORGE W. POWELL, OF SAME PLACE.

BEE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 346,023, dated July 20, 1886.

Application filed April 30, 1886. Serial No. 200,699. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. BUTLER, a citizen of the United States, and a resident of Moriah, in the county of Essex and State of New York, have invented certain new and useful Improvements in Bee-Escapes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of a portion of a bee-hive provided with my improvement. Figs. 2 and 3 are similar views, showing slight modifications of the same. Fig. 4 is a front view showing another form of applying the improvement. Fig. 5 is a vertical sectional view of the form shown in Fig. 1, and Fig. 6 is a perspective view showing a bee in the act of escaping through an escape-aperture provided with my improvement.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to escapes for bee-hives, honey-boxes, or honey-houses, which will allow the bees to escape and invite them to escape, and at the same time prevent the bees from again entering the hive, honey box or house; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the side of the hive, honey box or house, and this side is provided with an aperture or window, B, from the edges of which project walls C C and D D, of wire-gauze, the top and bottom walls being slightly converging. A plate, E, is secured to the edges of these walls, closing the box formed by them, and forming the front of the box, and this plate or strip is provided with a number of circular apertures, F, having each a round notch, G, in the upper edge. A plate, H, of mica or other transparent and flexibly-secured material, is secured at the lower edge of each perforation, covering the aperture, with the exception of the notch or elongation, and this plate is preferably secured in the manner shown in the drawings, the plate with the perforation being of metal and having tongues I struck out of it, which tongues are bent over the edge of the plate of mica, holding the same clamped. The transparent plates may, however, be secured in any other suitable manner, and if thin glass plates are used they may be secured by means of suitable yielding springs. It will now be seen that when the hive or honey box or house is provided with this attachment, the bees will be attracted from the dark hive by the light falling through the gauze walls, and through the transparent plates over the apertures, and when the bee, on arriving to one of the apertures, feels the air through the notch, it will seek that notch, and in endeavoring to crawl out through the notch it will force the mica plate outward and escape, when the plate will spring back over the aperture and prevent a bee from again entering, the attachment being principally intended for the honey-boxes of bee-hives or for honey-houses, where honey in the combs is stored, and from which places it is desired to allow all the bees which may have followed with the combs, or which have entered the honey-box from the hive before communication between the hive and honey-box was cut off, to escape and again enter the hive without being able to enter the honey-box or honey-house.

By having the escape-apertures, as just described, in the front plate of a projecting frame, the bees will be prevented from lighting in front of the escape-apertures, but will light upon the inclined top wall of the box or frame, where they will not be able to enter, but will leave the box and enter their original hive.

In Figs. 2 and 3 are shown views of hives, honey boxes or houses, in which a plate having the escape-apertures is secured in the front of the hive or box at the top, as in Fig. 2, or forming a window in the center of the front of the hive or box, as shown in Fig. 3, both forms having the same object and function, with the exception of their being flush with the front of the hive or box, and consequently offering more inducement for the bees to light upon the said front and endeavor to enter

through the escape-apertures than the narrow strip in the form shown in Fig. 1, where the bees will light on the top wall of the box or frame, and will not come near the apertures, where they either might succeed in forcing the transparent plate from the aperture or might retard or stop the escape of bees within the hive or box.

In Fig. 4 is shown a form in which a circular disk, J, is pivoted below and to one side of the escape-aperture, which is cut directly in the wall of the hive or box, and which disk has an aperture, F, covered by the transparent plate, and a series of perforations, K, arranged in a circular space, which perforation and perforated space may be brought to register with the escape-aperture in the wall, so that the bees may either escape, or the escape-aperture may be covered with the perforated portion, which will admit air into the hive or box; or the escape-aperture may be entirely covered.

The plate or disk having the escape aperture or apertures is preferably made of sheet metal, which will prevent the bees from gluing the disk or plate with wax or propolis, which, in the case of the revolving disk, would interfere with the operation of the disk, while it might interfere with the working of the transparent plates in the other forms shown; but if, for reasons of convenience, economy, or for any other reason it should be desirable to use wood or any other material, it may be used without departing from the spirit of my invention.

The lips holding the mica sheet will form an easily made and simple and effective fastening for the transparent plate; but any other fastening may be used with the plate, and the plate may be made of any transparent or translucent material without departing from the spirit of my invention.

The escape-aperture having the notch or elongation in the upper edge will assist the bees in passing out and in getting sufficient purchase to force the plate out.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a bee-hive, the combination, with the front plate having a circular aperture with an elongated portion or notch, of a plate of mica flexibly secured by one of its edges to said plate, said mica covering said aperture, but exposing said notch, as set forth.

2. In a bee-hive, the combination of the front plate having a circular aperture with an elongated portion or notch, the plate having tongues struck out near the edge of said aperture directly opposite said notch, and a plate of mica flexibly secured by one of its edges beneath said tongues, said mica covering said aperture, but exposing said notch, as set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

CHARLES A. BUTLER.

Witnesses:
L. F. LE GAULT,
J. B. GREENE.