

(No Model.)

W. WILSON.
HINGE FOR BOXES.

No. 584,616.

Patented June 15, 1897.

Fig. 1.

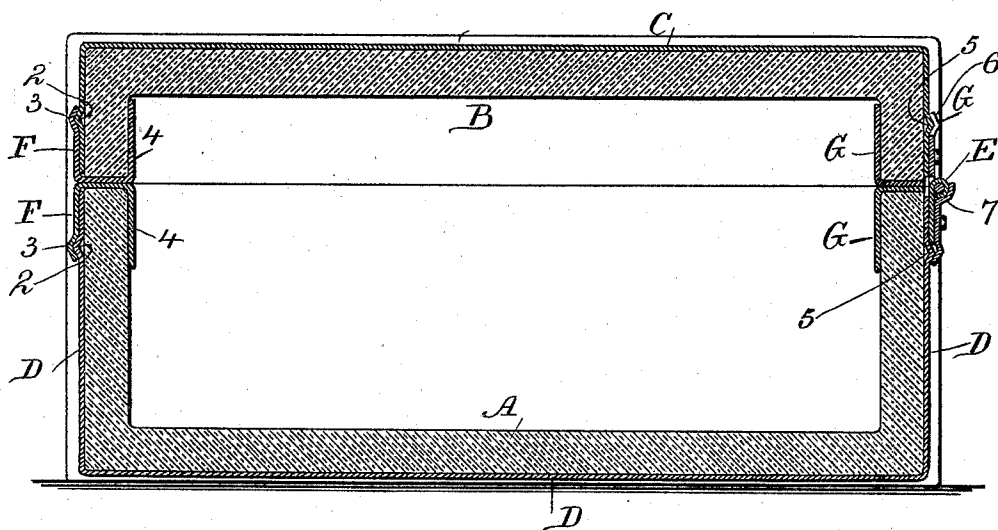


Fig. 2.

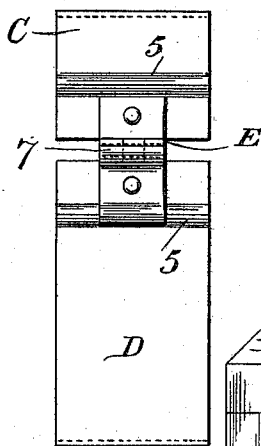


Fig. 3.

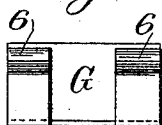


Fig. 5.

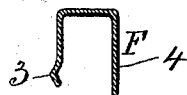
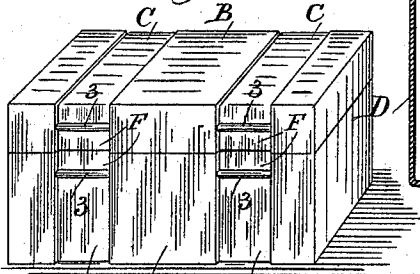


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM WILSON, OF NEW YORK, N. Y., ASSIGNOR TO THE MANHATTAN
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HINGE FOR BOXES.

SPECIFICATION forming part of Letters Patent No. 584,616, dated June 15, 1897.

Application filed October 21, 1896. Serial No. 609,531. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WILSON, a citizen of the United States, residing in the city, county, and State of New York, have invented an Improvement in Hinges for Boxes, of which the following is a specification.

Boxes have been made of glass pressed up to shape, there being a bottom and an upper portion or cover, and difficulty has arisen in connecting the upper and lower portions of the box by hinges that were not liable to injure the glass and that could be depended upon for strength and permanent connection.

The object of the present invention is to provide metallic hinges and connections that can be slipped upon the box of glass or other suitable material and held by clips, thus avoiding rivets or similar attaching devices that have heretofore been employed in connecting the hinges in boxes made of glass, china, or other vitrified materials.

I provide metallic straps hinged together and bent so as to pass below and above the box and across to the opposite sides, where they are received and held by spring-clips placed over the edges, and I also provide spring-clips for holding the metal straps to the edges of the box at the back portions and adjacent to the hinges. It is advantageous to groove the surfaces of the top and bottom of the box, so that the metal straps are received into the depressions; but they may be held between ribs or other projections that prevent them shifting their positions upon the surfaces of the box.

In the drawings, Figure 1 is a vertical cross-section of the box through one pair of straps. Fig. 2 is an elevation of the straps at the hinges. Fig. 3 is a detached elevation of one of the hinge-clips. Fig. 4 is a separate detached section showing the end of the strap distant from the hinge and the clip to be applied to the same, and Fig. 5 is a perspective view of the box.

The box is of any desired shape or configuration and of any suitable material; but the present improvement is especially adapted to boxes of glass or vitrified material. The bottom A and top B are made with grooves or recesses, into which are received the upper strap C and the lower strap D, and these

straps are united at one end by the hinge E. It is usual to provide two pairs of straps for each box. There may, however, be three or more pairs, or with some boxes one pair will be sufficient. It is therefore only necessary to describe the construction and mode of applying one pair of straps.

The straps are bent angularly, so as to coincide and fit closely with the front, back, bottom, and top of the box, and hence the bottom A can be slipped into the lower strap or the lower strap placed around the bottom and the upper strap around the top, the hinges coming in line, or nearly so, with the division between the top and bottom and at the back of the box, and the outer ends of the straps are adjacent to the line of separation at the front part of the box, and there is an outward-projecting lip 2 at the end, or nearly so, of the strap, and to hold these outer ends of the straps clips F are provided, such clips being three-sided and having a bead 3 at the outer edge and with a portion 4 to pass inside the box, and the edges of the top and bottom of the box are to be recessed sufficiently to receive the clips F and allow the edges of the top and bottom to come closely together. It will now be understood that after passing the straps around the box the clips F are to be applied and sprung into position so that the bead 3 upon the clip receives the lip 2 near the outer end of the strap to hold the same firmly in position.

The sheet metal adjacent to the hinge might be formed with hook-shaped projections to hook around and engage the top and bottom portions of the box adjacent to the hinge, but I prefer to use the clips G, which are similar to the clips F, except that the outer portions of the clips are notched of a width to allow the clip to be inserted at each side of the hinge, as seen in Fig. 3, and there are ribs 5 upon the sheet metal adjacent to the outer ends of the hinges over which the beads 6 of the clips G are sprung, so as to hold the parts firmly in position.

I find it advantageous to employ separate sheet-metal hinges and rivet them onto the upper and lower straps, and it is also important to prevent the top or cover of the box from dropping back after it passes a vertical

position, and by this means lessen the risk of the glass cover or box becoming injured; and with this object in view the stop-plates 7 are riveted on with one leaf of the hinge, the end of each stop-plate terminating near a horizontal line passing through the center of the pivot-pin, so as to form a stop to arrest the movement of the top or lid of the box as the same is swung backward. These bands can be prepared complete and ready to slip upon the box of glass or similar material, especially where such boxes are of uniform size in consequence of being molded, and after passing the straps around the top and bottom portions of the box in their proper positions the clips are applied at the outer ends and adjacent to the hinges, so as to sustain the straps against lateral motion at these points and hence render the connection secure and reliable.

I claim as my invention—

1. The combination with the box, of metal straps adapted to be passed around the top and bottom portions respectively, a hinge connecting the straps together, and metal clips adapted to pass over the edges of the top and bottom of the box and hold the ends of the straps in position, substantially as specified.

2. The combination with the box, of metal straps adapted to be passed around the top and bottom portions respectively, a hinge connecting the straps together, and metal clips adapted to pass over the edges of the top and bottom of the box and hold the ends of the straps in position, and metal clips adapted to pass over the top and bottom edges of the box and at the sides of the hinge for holding

the straps in position adjacent to the hinge, substantially as set forth.

3. The combination with the box, of metal straps adapted to be passed around the top and bottom portions respectively, a hinge connecting the straps together, metal clips adapted to pass over the edges of the top and bottom of the box and hold the ends of the straps in position, and metal clips adapted to pass over the top and bottom edges of the box and at the sides of the hinge for holding the straps in position adjacent to the hinge, and a stop-plate secured in position with the end terminating in line, or nearly so with the center of the hinge, substantially as set forth.

4. The combination with the box, of metal straps passing around the top and bottom portions and terminating with lips at the outer ends, metal clips adapted to pass over the edges of the box and having beads to spring over and hold the lips upon the ends of the straps, substantially as set forth.

5. The combination with a box, of metal straps adapted to pass around the top and bottom portions of the box, a hinge for uniting the straps together, there being ribs in the metal of the straps adjacent to the hinges clip-plates having openings for the hinges and passing over the edges of the box and having beads to receive the ribs on the straps, substantially as set forth.

Signed by me this 17th day of October, 1896.

WILLIAM WILSON.

Witnesses:

R. TURNER,

W. H. BIRTWHISTLE.