

G. E. SCRUBY.
 PAPER BOARD BOX.
 APPLICATION FILED JUNE 24, 1921.

1,425,549.

Patented Aug. 15, 1922.

2 SHEETS—SHEET 1.

Fig. 1.

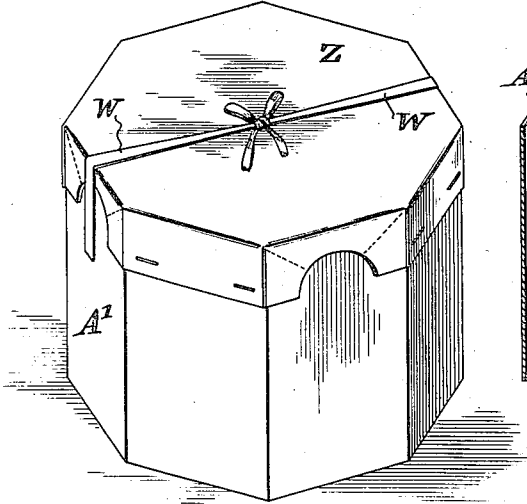


Fig. 2.

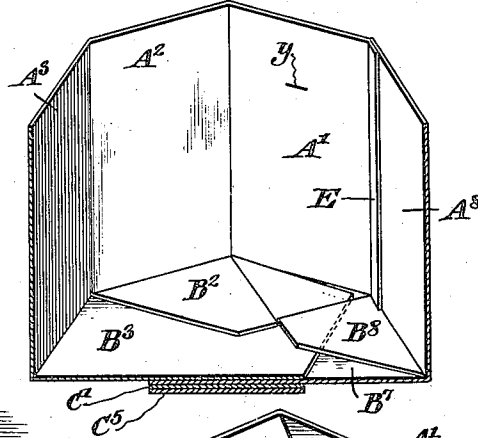


Fig. 3.

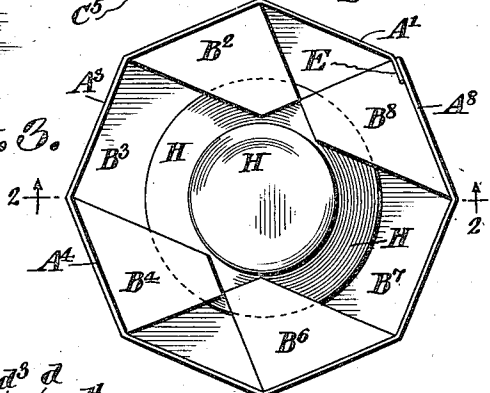
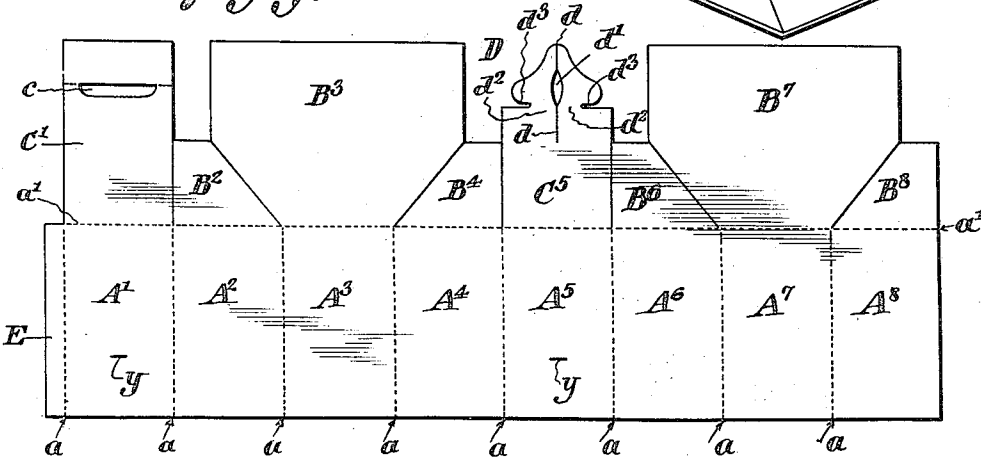


Fig. 4.



Inventor
 G. E. Scruby
 by his Attorneys
 Baldwin & Wright

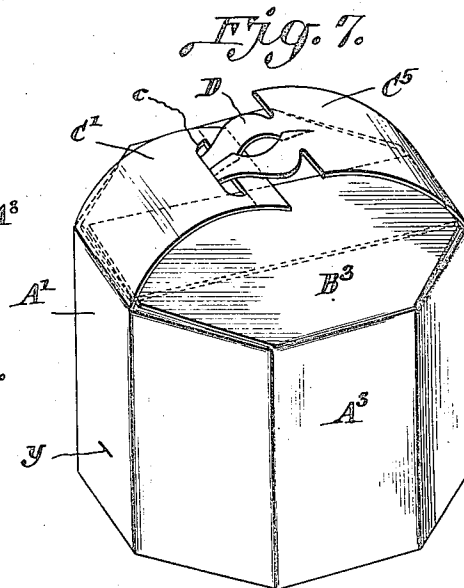
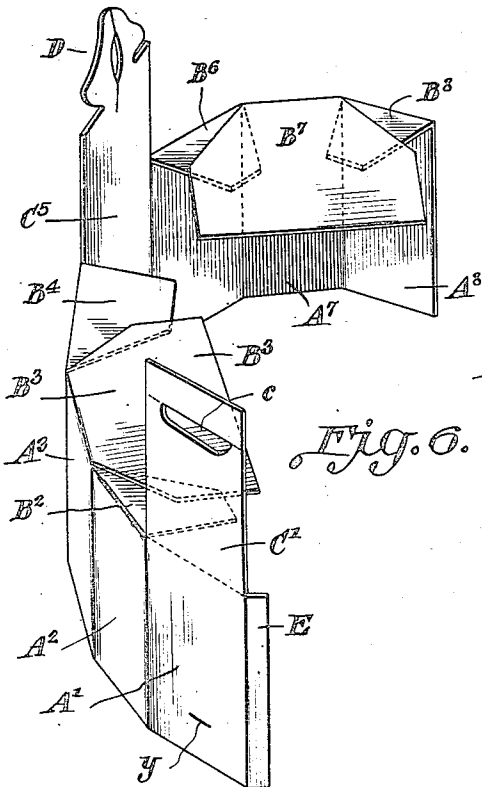
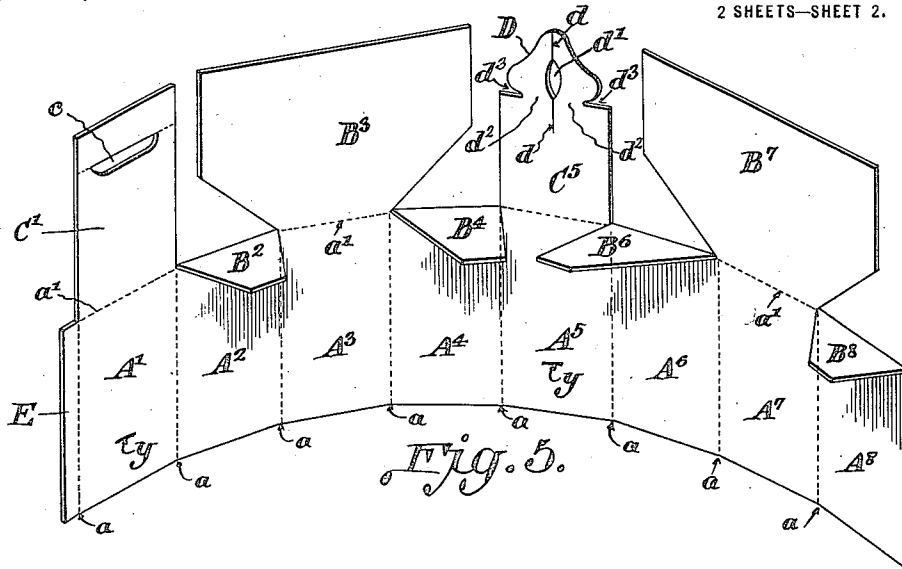
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2 SHEETS—SHEET 2.

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UNITED STATES PATENT OFFICE.

GEORGE E. SCRUBY, OF BIRMINGHAM, ALABAMA, ASSIGNOR OF ONE-FOURTH TO ROBERT R. TAYLOR AND ONE-FOURTH TO THOMAS M. McCLELLAN, BOTH OF BIRMINGHAM, ALABAMA.

PAPER-BOARD BOX.

1,425,549.

Specification of Letters Patent. Patented Aug. 15, 1922.

Application filed June 24, 1921. Serial No. 480,050.

To all whom it may concern:

Be it known that I, GEORGE E. SCRUBY, a citizen of the United States, residing at Birmingham, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Paper-Board Boxes, of which the following is a specification.

This invention relates to boxes made of paper board and especially to boxes so made that are used for containing hats and other millinery.

The object of this invention is to provide a pasteboard box which is strong and durable and may be easily constructed from a flat blank with minimum waste of material.

According to this invention I form a blank which is scored to define the required number of panels to form the body of the box, flaps of two sizes to form the bottom and flaps adapted to interlock and to hold the parts in position when bent to the required shape. Preferably the box is of octagonal shape and there are eight panels for the sides or body of the box, two large bottom forming members, four smaller reinforcing bottom forming members and two flaps which are adapted to interlock and hold the parts in position. All of the eight panels are of the same size, one of the panels being formed with a flap which is overlapped by a panel on the opposite end of the blank. Two of the panels join the two larger bottom forming members, four of the panels join the four reinforcing bottom forming members, and two of the panels join two securing flaps.

When the blank is bent into shape, the four smaller bottom forming members are arranged inside the box and serve to reinforce and stiffen the bottom and also serve as means for holding a hat or other article in place. The larger bottom forming members overlap each other and the locking flaps overlap the bottom and hold the parts in place. When the box is completed, the interlocking flaps arranged on the outside of the bottom co-operate with the four reinforcing bottom members inside the box in holding the main or larger bottom forming members in place.

In the accompanying drawings:—

Figure 1 is a perspective view of a box embodying my improvements, with a cover applied and secured in place.

Figure 2 shows a section of the box on the line 2—2 of Figure 3.

Figure 3 is a plan view of the interior of the box.

Figure 4 is a view of the scored and cut blank from which the box is made.

Figure 5 is a perspective view of the blank partially bent to shape.

Figure 6 is a perspective view showing other parts of the blank bent.

Figure 7 is a perspective view looking at the sides and bottom of the box, showing how the interlocking flaps are connected.

The box A is preferably of octagonal form as indicated and it is provided with a suitable cover Z. The particular cover shown is of novel construction and is claimed in my application for patent filed June 27, 1921.

An important feature of the box is in the construction of the bottom thereof. As indicated in Figure 3, there are parts in the bottom which serve to hold in place a hat H or similar article. When millinery is placed in a box without being secured thereto damage often occurs. I have provided simple and efficient means whereby this may be avoided.

The manner in which the blank and box are constructed will now be explained. The blank shown in Figure 4 is adapted to form a box of octagonal shape. The blank is scored at *a* in eight places and also along the line *a'* to define eight panels *A*¹, *A*², *A*³, *A*⁴, *A*⁵, *A*⁶, *A*⁷, *A*⁸, which form the sides or body of the box and also form at one end a flap *E*, which when the blank is bent is cemented or secured to the opposite end of the blank.

The upper part of the blank in Figure 4 is not scored but is slit to form two relatively large bottom forming members *B*³ and *B*⁷, four relatively small bottom forming members *B*², *B*⁴, *B*⁶ and *B*⁸, and two locking members *C*¹ and *C*⁵.

The bottom member *B*³ is arranged between the bottom forming members *B*² and *B*⁴ and the bottom forming member *B*⁷ is

arranged between the members B⁶ and B⁸. The members C' is arranged at the end of the box while the member C⁵ is arranged between the members B⁴ and B⁶. The members B³ and B⁷ are of the same shape and size and all of the members B², B⁴, B⁶ and B⁸ are of the same shape and size though much smaller than the members B³ and B⁷.

The stock is cut out on opposite sides of the members B³, B⁷ above the outer ends of the members B², B⁴, B⁶ and B⁸, and into the spaces thus formed the members C' and C⁵ extend.

The member C' is formed with a slot *c* and the member C⁵ is formed with a tongue D of general triangular shape which is slotted at *d* from its outer end inwards and also formed with an oval hole *d'*. The tongue D joins the body of the member C⁵ by a relatively narrow neck *d*², thus producing shoulders *d*³ for interlocking purposes.

A blank of the kind shown in Figure 4 and above described may be easily and quickly formed by machinery and there is but little waste of material. The manner in which the blank is bent is indicated in Figures 5, 6 and 7. First the bottom forming members B², B⁴, B⁶ and B⁸ are bent inwards in the manner indicated in Figure 5 until they assume positions at right angles to the panels of the body. Next the member B⁷ is bent over upon the members B⁶ and B⁸ and the member B³ is bent over upon the members B² and B⁴, then the blank is bent until the outer end of the member B³ overlaps the flap E which is cemented to the member A⁸ in any suitable way. Then the members C' and C⁵ are bent in the manner indicated in Figure 7 over the bottom of the box, the two members of the tongue D being made to overlap at their outer ends to reduce the width of the tongue, which is then inserted in the slot *c* and pressed forward until the shoulders *d*³ are inside the slot, then the two members of the tongue are allowed to expand and the members C' and C⁵ are then held flat against the bottom of the box which is now complete.

It is obvious that blanks such as shown in Figure 4 may be produced with great rapidity. The blanks in the condition shown in Figure 4 may be shipped to the user while occupying a relatively small space and it is a simple operation, quickly performed, to set the box into usable condition, or the flap E may be first secured to the panel A⁸ and the blank folded once. In this condition the blanks will occupy

small space when shipped and may be readily opened out and the bottoms formed in the manner before described.

The cover Z shown in Figure 1 is of octagonal form, made to closely fit the box, but may also be secured thereto by a tape W as indicated. In order to attach the tape to the box the latter is preferably formed with slots *y* so that the tapes may be knotted on the inside, passed through the slots, brought over the cover and tied in the manner shown.

I claim as my invention:

1. A box having a body formed of a series of panels and its bottom of a plurality of inner reinforcing members and outer members of larger area which are overlapped by the inner members, two of the body panels being formed with overlapping locking members bridging the bottom.

2. A box having a body formed of a series of panels and its bottom of a plurality of inner reinforcing members which also serve to hold articles within the box and outer members of larger area which are overlapped by the inner members, two of the body panels being formed with overlapping locking members which bridge the bottom of the box.

3. A box having a body formed of a series of panels of the same size and shape and its bottom formed with two hexagonal members which overlap each other and four reinforcing members which overlap the bottom forming members on the inside, two of the body forming panels being prolonged to form two locking members which bridge the outside of the bottom of the box.

4. A box formed from a blank scored to form eight panels of the same size and shape, slit and cut away to form two hexagonal bottom forming members, four quadrilateral bottom reinforcing members and two locking members, said blank being bent to form a box of octagonal shape with the bottom forming members overlapping each other and overlapped by the quadrilateral members while the locking members bridge the bottom on the outside.

5. A box formed from a single piece of paper board scored, slitted and cut to form side panels, overlapping bottom members and reinforcing members of smaller area than the bottom forming members, and which have free outer ends within the box to serve as holders for a hat or other article.

In testimony whereof, I have hereunto subscribed my name.

GEORGE E. SCRUBY.