

H. B. WALTER.
SOLID END BOX.

APPLICATION FILED OCT. 14, 1911. RENEWED DEC. 28, 1912.

1,055,243.

Patented Mar. 4, 1913.

Fig. 1.

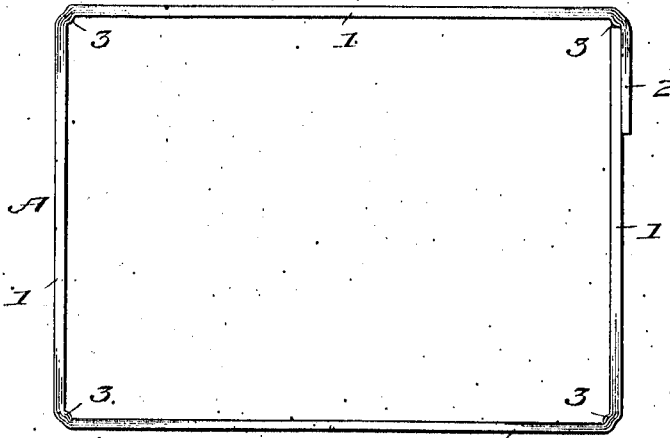


Fig. 2.

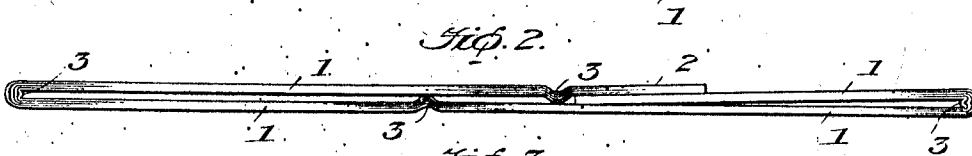


Fig. 3.

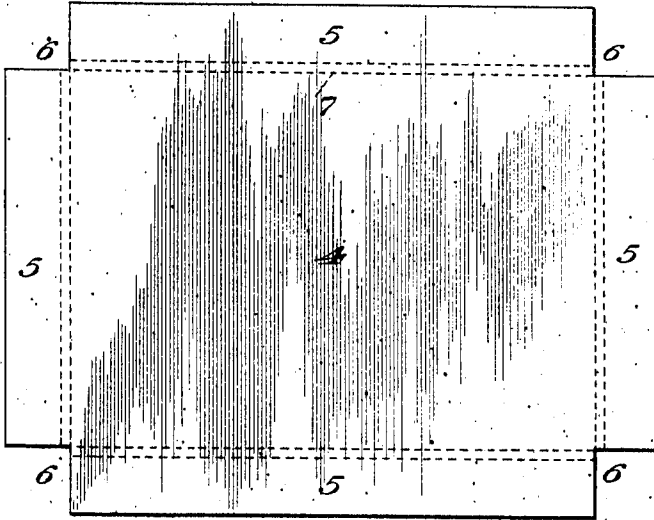
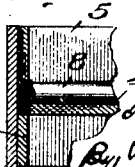
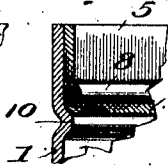
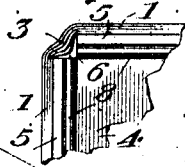


Fig. 4.

Fig. 5.

Fig. 6.



WITNESSES

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UNITED STATES PATENT OFFICE.

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SOLID-END BOX.

1,055,243.

Specification of Letters Patent.

Patented Mar. 4, 1913.

Application filed October 14, 1911, Serial No. 654,645. Renewed December 28, 1912. Serial No. 739,163.

To all whom it may concern:

Be it known that I, HARRISON B. WALTER, a citizen of the United States, residing at Danville, in county of Vermilion and State of Illinois, have invented certain new and useful Improvements in Solid-End Boxes, of which the following is a specification.

My invention relates to an improvement in solid end boxes, and particularly to that class known as an end loader.

The object is to provide a card or straw board box capable of being collapsed into flat form when shipped, and when used to be set up into rectangular form, having one end thereof fastened into position whereby the box can be filled from the opposite end and then closed by having the solid end inserted and fastened to the body of the box.

The invention consists in a mat or body portion of a box, folded on four parallel lines to form the corners of the box, with one edge overlapping another and fastened permanently together, in connection with heads or ends having flanged edges, and uni- form notches at the angles extending a trifle deeper than the bend, whereby when the flanges are bent at right angles to the heads or ends, clearance is formed between the ends of these flanges to receive the inwardly extending ribs made by the bends in the mat at the corners of the box, thus producing an end loading box made in three pieces of material. The edges of the flanges are prevented from coming together by the formation of a bead formed thereon, the bead of one flange engaging the adjacent beads of the other flanges, causing the ends or edges of the flanges to be held apart. When the flanges are bent at right angles to the main portion of the ends, the beads on the flanges will project inwardly, so that when the flanges are folded vertically, the beads of the adjacent flanges will come together, thus preventing the flanges from being bent inward upon the end portions and causing the edges of each end flange to be held apart, and at the same time forced in an outward direction, so as to obtain a firm engagement with the inner wall of the box. The body of the box is embossed or creased along each edge, which embossed portion forms a seat or support for the end members when inserted in the box and prevents the end members from being forced in too far. The embossed portion per-

forms an additional function, in that it affords a means for holding the ends in proper position so that they can be fastened uniformly to the body of the box.

The invention further consists in certain novel features of construction and combinations of parts which will be hereinafter described and pointed out in the claims.

In the accompanying drawings, Figure 1 is an end view of the box in its rectangular form with the ends removed; Fig. 2 is a view of the box in its collapsed, flattened out form; Fig. 3 is a view of the blank forming one of the ends or heads, showing the scoring or beading on the flanges; Fig. 4 is an enlarged detail view of one corner of the box, showing the head applied, and indicating the clearance at the corner of the head or end to receive the internal rib at one corner of the box; Fig. 5 is a detail view, showing the embossed or creased portion around the edge of the box, upon which the heads or ends are mounted; and Fig. 6 is a modification.

A, represents the body of the box, which is provided with sides 1, one of which sides is provided with a flap 2, which is connected to another side member for connecting the four sides together. The box is creased or scored at the several corners, forming ribs 3 which extend inwardly or toward the interior of the box. The creasing of the box at four predetermined points for forming corners, allows the box to be readily assembled into the position indicated in Fig. 1, or in a collapsed condition, as shown in Fig. 2, for shipping. The ends or heads 4 are provided with flanges 5. The flanges are separated from each other by notches 6, which are formed at the four corners of the ends or heads. The flanges are adapted to be bent at right angles to the main portion or heads 4 along the line 7, and above the line 7 or beginning at the line 7, and upon each flange, a bead 8 is formed. The beads 8 of each flange, when the flanges are bent at right angles, engage each adjacent bead, as clearly indicated in Fig. 4, whereby a clearance is formed between the edges of the flanges to receive the ribs 3 of the box. The bead 8 is formed preferably by creasing or scoring the flanges and folding the flanges along the lower edge of the scoring, as at 7, causing the bead 8 to project inwardly, whereby the

adjacent ends of the beads of the different flanges will come together, causing the edges or ends of the flanges to be held apart for forming a clearance for the ribs 3 of the box, and at the same time preventing the flanges from being bent inwardly and onto the ends or heads, but instead, causing the flanges to be held in an outward direction, whereby they will come into closer contact with the walls of the box when inserted therein. A beading or ridge 10 is formed around the four sides of the box at the edges, upon which the heads or ends 4 are supported. These ridges prevent the ends or heads from being forced too far into the box, and afford a means of support, whereby the flanges can be fastened to the walls of the box. The flanges 5 can be fastened to the box A in any suitable manner, and in this instance I prefer that an adhesive be applied to the flanges, whereby they will be caused to adhere to the inner wall of the box when inserted.

The body of the box is folded into a rectangular form, as shown in Fig. 1, when it is desired to use the same, and one end is inserted in the box so that one end of the box will be closed, when the box can be filled and the other end or head inserted for sealing the box, the two heads forming a rigid means for holding the four sides together, and as the heads are made in a single piece, there is no danger of the box collapsing.

In Fig. 6 I have shown a strip 11 extending along the inner wall of the sides of the box for forming a supporting means, as a substitution for the ridge 10.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A collapsible box comprising a body having internal ribs formed at the corners and heads having flanges adapted to be bent at an angle to the main portion of the heads, and a bead formed on each of the flanges, each bead engaging the adjacent beads, whereby the edges of the flanges will be held apart for forming a clearance for the ribs upon the insertion of the head in the box.

2. A collapsible box comprising a body having internal ribs at the corners thereof, heads having notches at the corners thereof, flanges formed on the heads, beads on the flanges, each bead engaging the beads of the adjacent flanges when the flanges are brought to an angle to the heads, whereby the ends of the flanges will be prevented from coming together for forming a clearance for the ribs of the box.

In testimony whereof I affix my signature, in the presence of two witnesses.

HARRISON B. WALTER.

Witnesses:

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