

Feb. 26, 1929.

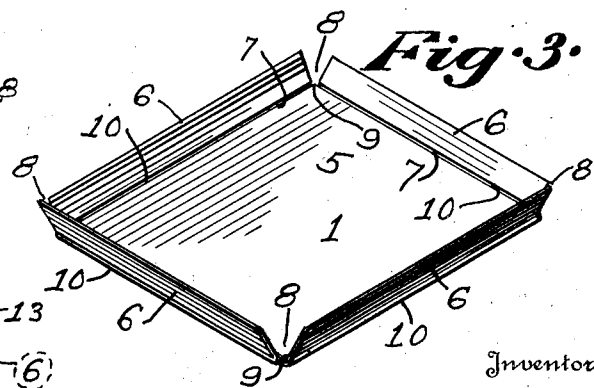
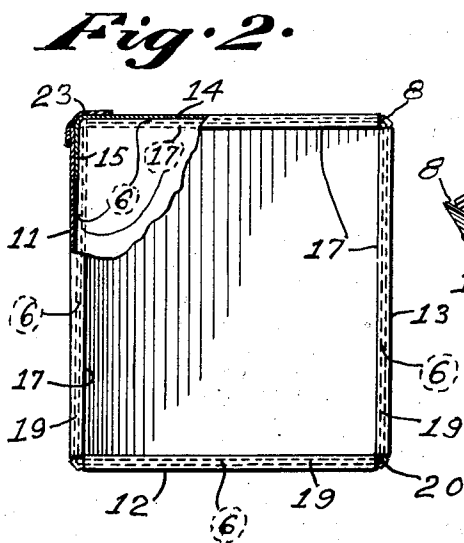
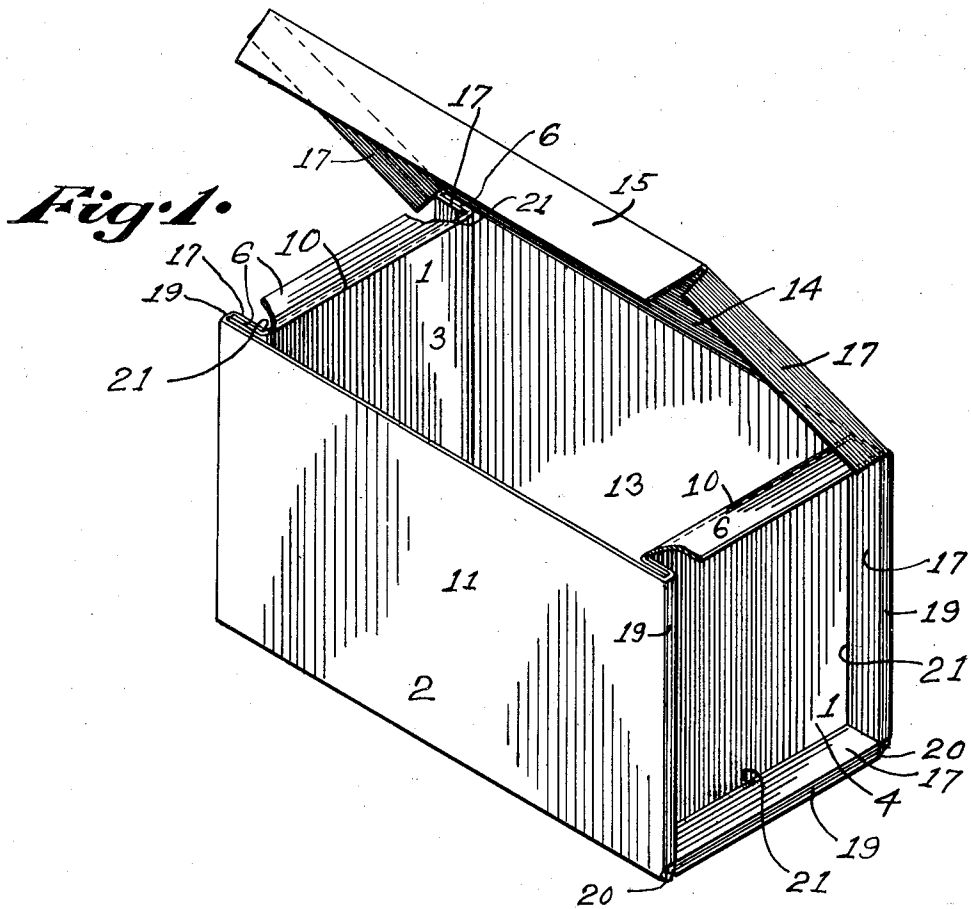
B. A. LANGE

1,703,399

BOX

Filed Aug. 24, 1925

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 4.

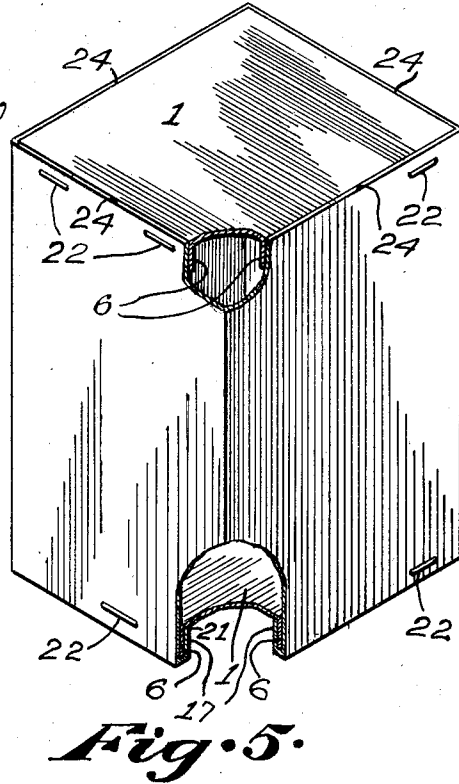
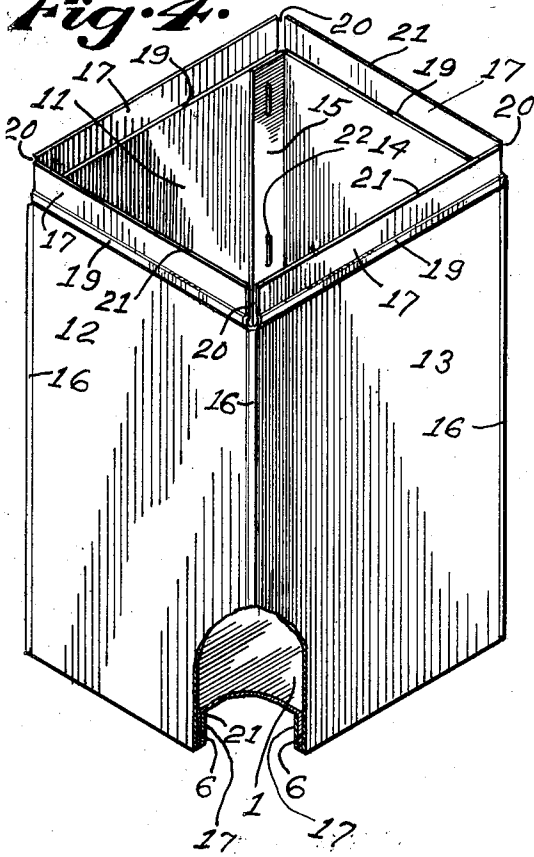


Fig. 5.

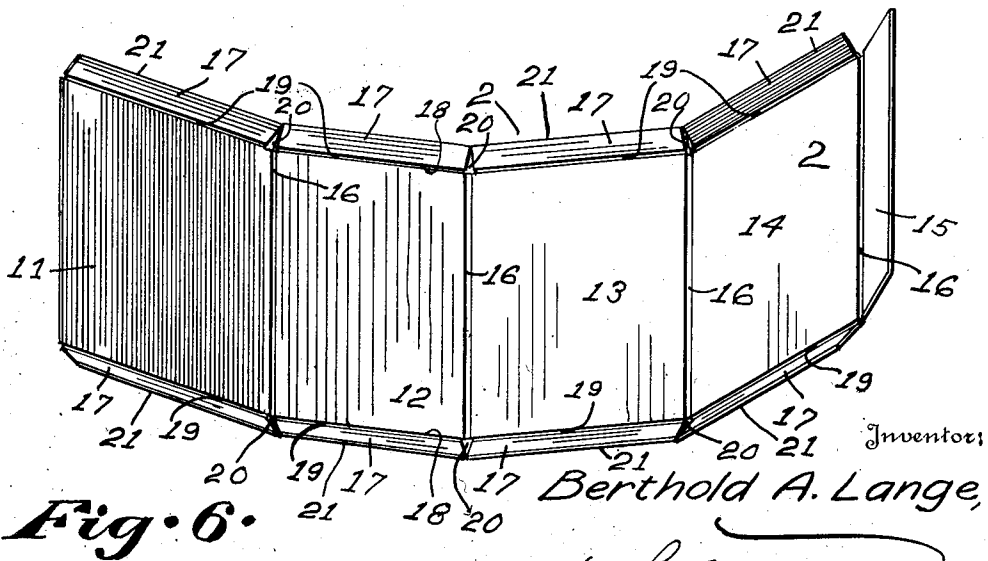


Fig. 6.

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UNITED STATES PATENT OFFICE.

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BOX.

Application filed August 24, 1925. Serial No. 51,972.

This invention relates broadly to boxes, and has more particular reference to a box formed of fiber board, straw board, paper board, and similar material which may be cut, and folded into shape.

The principal purpose of the invention is to provide an improved form of joint for connecting together the separate wall pieces of a box of the character set forth, the joint reinforcing the box generally and particularly at the joint.

Other objects and advantages incident to the invention will appear in the course of the following description of a preferred embodiment and modifications thereof.

In the accompanying drawings forming part of this specification, in which like numbers of reference denote like parts wherever they occur,

Figure 1 is a perspective view of a preferred form of box constructed in accordance with this invention, the cover being lifted;

Figure 2 is an end view of the same, partly broken away to reveal a transverse vertical central section;

Figure 3 is a perspective view of one of the finished pieces of material comprising the box and forming one of the walls;

Figures 4 and 5 are perspective views of respective modifications; and

Figure 6 is a perspective view of another one of the pieces of material that co-operates with the piece of Figure 3 to form the embodiments exhibited in Figures 1, 2, and 4.

The box preferably comprises three pieces of material connected together. In the form exhibited in Figure 1, two of the pieces of material 1 are identical in size and shape and form oppositely disposed walls of the box. The other piece of material 2 forms the remaining walls of the box. Any of the walls of the box may be formed of the pieces 1, but preferably they are used to form the walls 3 and 4 of smallest area, denominated in the trade as the end walls. The pieces 1, as best shown in Figure 3, each consist of a central polygonal-shaped portion 5, preferably rectangular, having integral flaps 6 disposed along the edges 7 thereof. The flaps 6 are separated by notches 8 at the vertices or corners 9 so that they may be bent on the creases or seams 10 to form flanges.

The piece 2, illustrated detached in Figure

6, comprises a series of walls 11, 12, 13, and 14 and a flap 15, foldable on intermediating connecting creases or seams 16. Flaps 17 extend longitudinally along the lateral or longitudinal edges 18 of the row of walls 11, 12, 13, 14, being flexibly connected thereto by creases 19, and separated from one another by notches 20 at the ends of the creases 16. The piece 2 embraces the pieces 1 transversely, so that each wall 11, 12, 13, and 14 co-operates with a corresponding edge 7 of each of the polygonal walls 3 and 4 to form corners therewith and projects outwardly beyond the said corners along the outwardly projected flanges 6 of the walls 3 and 4, the flaps 17 of the piece 2 being folded back on the seams 19 against the inner side of the flanges 6. The triple layer joint thus afforded between the pieces 1 and 2 by the wall of the piece 2 and its flap 17 and the intermediating flange 6 of the piece 1 contributes additional strength and ruggedness to the box, particularly at the ends 3 and 4, besides making a tighter joint. The strength and ruggedness may be further enhanced by bringing the longitudinal edges 21 of the flaps 17 into abutting relation or engagement with the outer sides of the walls 3 and 4.

The lid of the box may be embodied in the wall 14 of the piece 2, as shown in Figures 1 and 2; or it may be constituted by one of the pieces 1, covering the open end of the form depicted in Figure 4. In the former case, the pieces 1 are fastened to the walls 11, 12, and 13; and, after filling the box, the cover 14 is fastened in place by inserting the flap 15 between the wall 11 and the adjacent vertical flanges 6 of the pieces 1, as shown in Figure 2. The flaps 17 at the ends of the cover 14 are then folded under the top flanges 6 of the pieces 1. In the form shown in Figure 4, the flap 15 is securely fastened to the wall 11, and the lower piece 1 secured to the lower end of the piece 2. After filling the box, the cover piece 1 is placed on the open upper end with its flanges 6 projecting upwardly with their top edges on a level with the seams 19, and the flanges 17 are then folded on the seams 19 over against the inner sides of the flanges 6. The joined portions may be secured together by any suitable means, such as an adhesive, or by means of metal or wire fasteners or staples 22. In

the form shown in Figures 1 and 2, the lid 14 may be secured in place by means of adhesive tape 23 secured over the closing edge, as shown in Figure 2.

5 It is not to be understood that two pieces 1 are necessarily required to make a box in accordance with this invention, or that flanges 17 need necessarily be formed on both lateral longitudinal edges 18 of the
10 piece 2. For instance, in the form of Figure 4, the open side of the box may be closed by bending down the flanges 17 and securing thereover a cover of any suitable shape, and not necessarily provided with flanges. In
15 Figure 5, the piece 2 has flanges 17 along only one longitudinal edge, to fit the piece 1. The other longitudinal edge 24 is without flanges or seams, and another piece 1 may be used to close the opening thereat,
20 the flanges 6 of the said piece extending inwardly into the box and the outer side of the said piece 1 being flush with the edges 24.

Having thus fully described this invention,
25 I hereby reserve the benefit of all changes in form, arrangement, order, or use of parts, as it is evident that many minor changes may be made therein without departing from the spirit of this invention or
30 the scope of the following claim.

I claim:

A box comprising a pair of oppositely disposed pieces of wall material each having integral flaps separated by notches and adapted to be bent to form separated lateral
35 flanges and a third piece of material having a series of transverse creases and a plurality of integral flaps adapted to form separable foldable flanges disposed longitudinally on both sides of said piece and having a fold-
40 able longitudinal end flap, said third piece embracing the first-named pieces transversely so that each wall of said piece co-operates with corresponding edges of said
45 first and second pieces to form corners therewith and projects outwardly beyond the said corners along the outwardly projected flanges of the first and second pieces, the flaps of said third piece being folded
50 against the inner side of the flanges of the first and second pieces and the longitudinal edges of the flanges engaging the outer side of the walls of the first and second pieces, the inner end portions of the front wall
55 being separated from the adjacent flanges of said first and second pieces to permit the insertion of said end flap therebetween.

In testimony whereof I hereunto affix my signature.

BERTHOLD A. LANGE.