Sept. 15, 1931. E. F. THOMPSON 1,823,710

FOLDABLE BOX

Filed Nov. 16, 1927

Fig. 2.

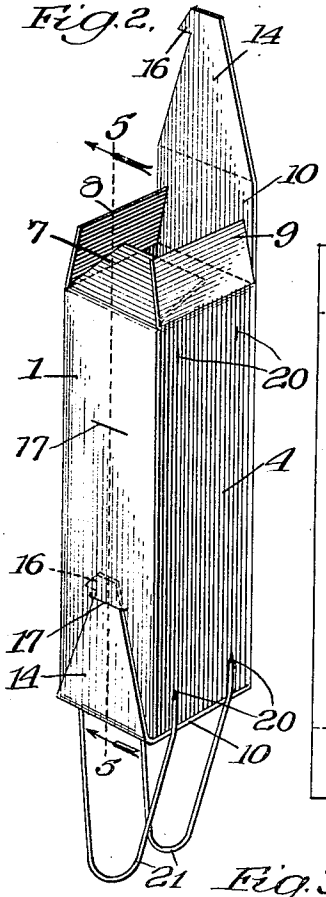


Fig. 1.

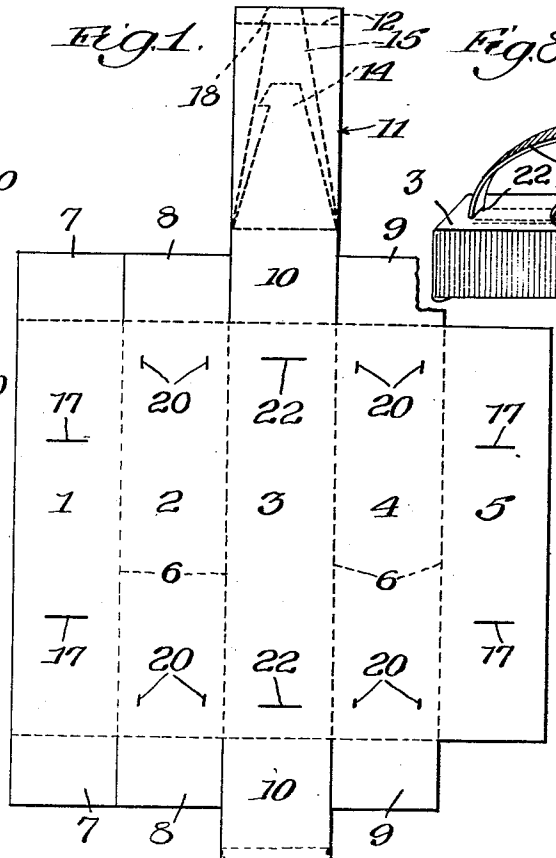


Fig. 8.

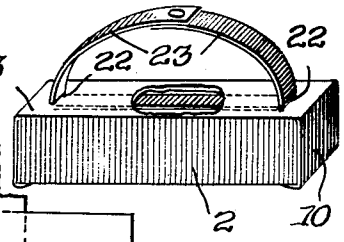


Fig. 3.

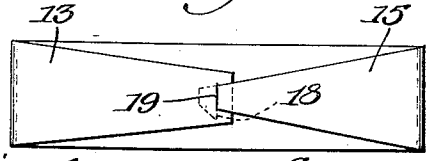


Fig. 4.

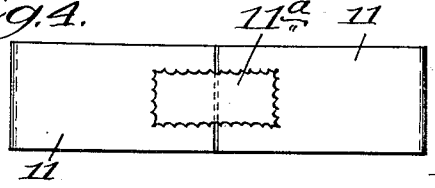


Fig. 6.

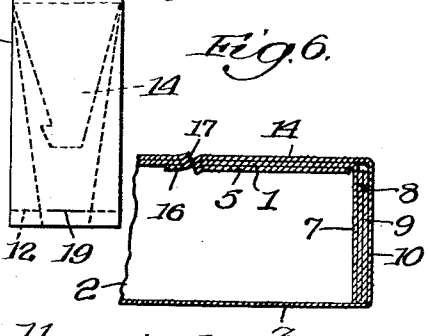


Fig. 5.

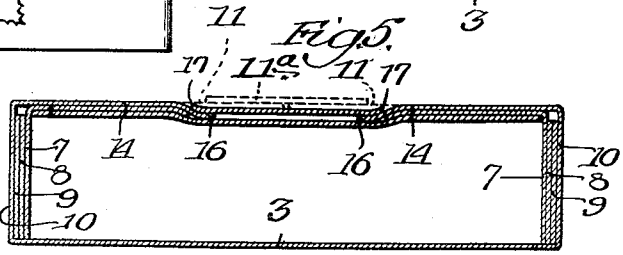
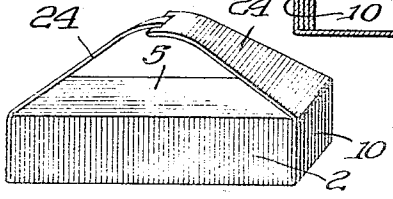


Fig. 7.



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UNITED STATES PATENT OFFICE

ESTELLE FLORENCE THOMPSON, OF CHICAGO, ILLINOIS

FOLDABLE BOX

Application filed November 16, 1927. Serial No. 233,589.

This invention relates to improvements in foldable boxes made from flat blanks of paper, cardboard, cloth, sheet metal, or any other desired material.

One object of my invention is to provide a box in which the end flaps which close the ends of the box are provided with extensions fashioned in such a manner that any pair of a number of sets of extensions may be employed to lock the flaps closed.

Another object of my invention is to have the extensions referred to overlap the outermost section of the adjacent wall of the box so that said extensions may be used to lock the end flaps closed.

A further object of my invention is to provide locking slots in the box to receive locking tongues on the extensions to interlock the extensions with the box.

A further object of my invention is to provide the blank from which the box is made with a number of slots or cuts to permit carrying elements, such as tapes or strings to be readily and easily attached to the box.

The invention consists further in the matters hereinafter described and claimed

In the accompanying drawings—

Figure 1 is a plan view of the flat bank of my improved box;

Figure 2 is a perspective view of the box set up from the blank, and having the end flaps at one end of the box left open to show the arrangement thereof;

Figure 3 is a front view of the box showing the use of a slightly different style of extension on the outermost end flaps;

Figure 4 is a similar view showing the extensions of a still different form;

Figure 5 is a longitudinal sectional view taken on line 5—5 of Figure 1 when all of the end flaps are closed;

Figure 6 is a similar section through one end of the box and showing in full lines the extensions on the outermost end flaps interlocked with both of the sections of the front wall of the box;

Figure 7 is a perspective view showing the extensions on said end flaps providing a handle for the box; and

Figure 8 shows another form of handle means to be hereinafter described.

The box of my invention is made from a flat blank of paper, cardboard, sheet metal, or other desired material. The blank, as shown in Figure 1 is formed to provide a plurality of rectangular sections 1, 2, 3, 4, 5, which are divided from each other by score or fold lines 6, 6. The sections 2 and 4 constitute the side walls of the box, while the section 3 constitutes the rear wall of the box and the sections 1 and 5 overlap and constitute the front wall of the box. The sections 1, 2, and 4 are provided at their opposite ends with end flaps 7, 8, and 9, which when the box is set up, fold inwardly toward each other and overlap to close the ends of the box, as indicated in Figure 2. The section 3 is also provided with end flaps 10, 10 which have a size to completely close the ends of the box and overlap the adjacent end flaps 7 to 9.

In accordance with my invention, I provide the end flaps 10, 10 with extensions 11, 11 by which said flaps may be locked in closed position to maintain the box set up.

Each extension 11 is initially made of the same width as its end flap 10 and has a length equal to more than half the length of the box. Each extension 11 may be cut off along a line 12 to reduce the extension to half the length of the box so that said extensions will meet when folded over the front of the box, as shown in Figure 4.

The extensions when so used are not provided with means whereby they may be interlocked either together or to the front of the box. I may secure them together in any desired manner, as by the use of a sticker or a label 11^a as shown in Figure 4.

Each extension 11 is fashioned by scoring or otherwise to provide within its margins a plurality of extensions 14, 15 of different lengths and widths, as shown in Figure 1. The extensions 14, 15 at the opposite ends of the box are alike so that either set of extensions as selected may be used to lock the end flaps 10, 10 closed. Thus the manufacturer of the blank may furnish it with the extensions 11 fashioned as described so that the box users may select the particular set of ex-

tensions desired by merely cutting the extensions 11 along the lines defining the particular set of extensions wanted. In making the box blank in this manner, the manufacturer's costs both as to labor and materials are reduced because it is only necessary to make one blank for all forms of the extensions on the end flaps 10, 10.

In Figure 2, I have shown the extensions 14 used to lock the end flaps 10 to the front wall of the box. These extensions are provided at their outer ends with suitably shaped locking tongues 16 which are inserted in locking slots 17 in the outermost section of the front wall of the box. In order that either section 1 or 5 of the blank may serve as the outermost section of this front wall, I provide both sections with locking slots 17 which register when the sections overlap. This permits the extensions to be locked to either section or to both, as shown in Figures 5 and 6, respectively.

In Figure 3, I have shown the extensions 15 employed to lock the end flaps 10, 10 closed. These extensions have the same length as the original extensions 11 and consequently when folded against the front wall of the box overlap at their meeting ends. To secure the extensions together, I provide one of them with a locking tongue 18 and the other with a locking slot 19.

The wall sections 2, 4, are provided adjacent their ends with a pair of relatively short slots 20, 20. These are provided so that carrying elements in the form of tapes or strings 21 may be conveniently attached to the box after it is set up by inserting the ends of the elements in the slots and knotting them so that they remain connected with the box and provide loops on the outside of the box for carrying purposes. By providing a set of these slots 20 at each end of the box the strings or tapes may be connected with either or any end of the box.

The wall section 3 of the blank which constitutes the rear wall of the box is provided adjacent its ends with cross lots 22, 22, so that a ribbon or tape 23 may be inserted through the slots and have its ends connected together either inside or outside the box to provide a carrying loop for the box as shown in Figure 8.

In Figure 7 I have shown extensions 24, 24, on the end flaps 10 made long enough so as to provide when interlocked a loop which may serve as a handle for the box in addition as a lock for the flaps.

The box of my invention may be made of any size desired and may be used as a container for merchandise of all kinds, as for example candies, crackers, butter, etc. The front wall of the box being made up of two overlapping sections provides a rigid and strong construction for the box even when made of light material such as paper or cardboard. The strength of the box is also augmented by reason of the fact that the extensions on the end flaps 10, 10 overlap the front of the box and also by reason of the fact that the end flaps hold in place the end flaps on the other sections of the box thereby making an end structure which will support and hold the articles in the box. The provision of a number of different types of extensions on the end flaps 10, 10 allows a selection of the most suitable form of lock which may be required by the box user. The box is also simple in construction and is of such a character that it can be set up, filled and packed by machinery.

The details of constructure shown and described may be variously changed and modified without departing from the spirit and scope of my invention.

I claim as my invention:

A box made from a flat blank of sheet material and having foldably connected wall sections, two of which are co-extensive with each other and with the width of the box and overlap to form the front wall of the box, each of the wall sections except the one on the outermost side of the box at the front thereof having end flaps integrally connected therewith at the opposite ends thereof and overlapping when the blank is set up to close the ends of the box, the end flaps on the wall section constituting the rear wall of the box having tapered extensions which overlap the outermost section of the front wall of the box when set up, the overlapping wall sections constituting the front wall of the box having registering slots therein, whereby the free narrow ends of the extensions may be interlocked with either or both of said sections.

In testimony that I claim the foregoing as my own I have hereto affixed my signature to this application for Letters Patent on my one-piece-unpasted-fastened box, original drawing of which was made and witnessed Oct. 16, 1927.

ESTELLE FLORENCE THOMPSON, LL. B.