March 22, 1932. H. E. COLE 1,850,829

FOLDING BOX

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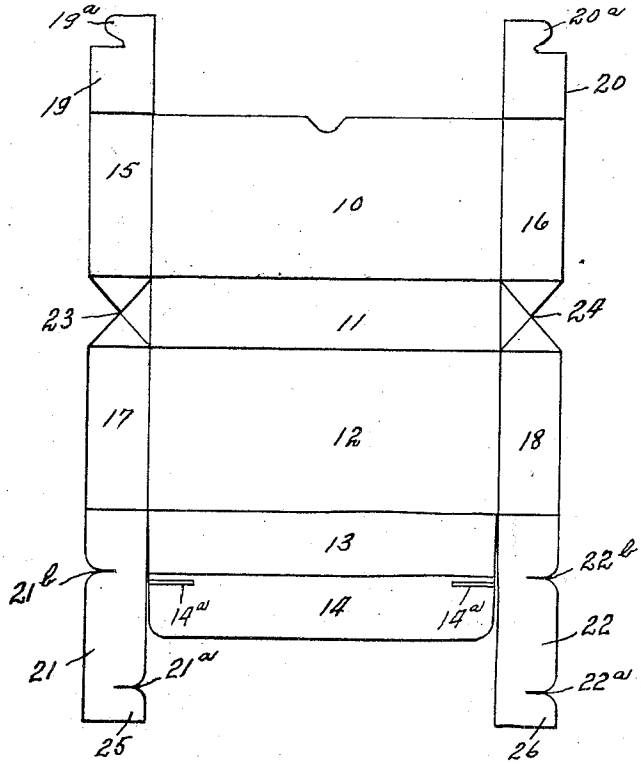


FIG. 1.

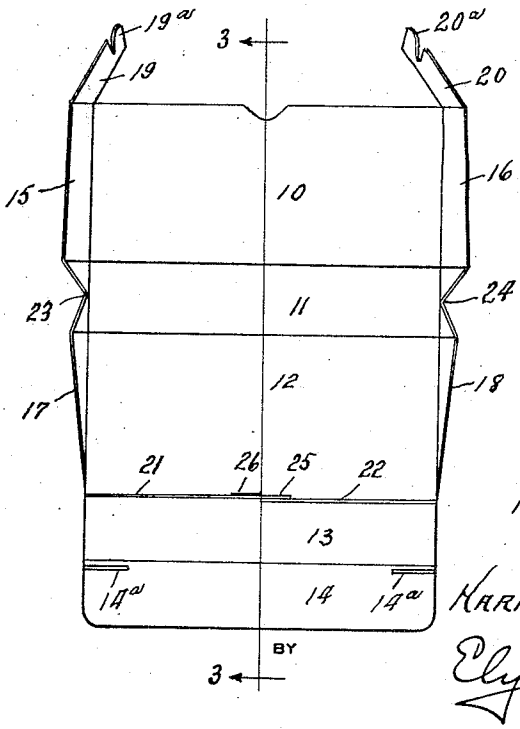


FIG. 2.

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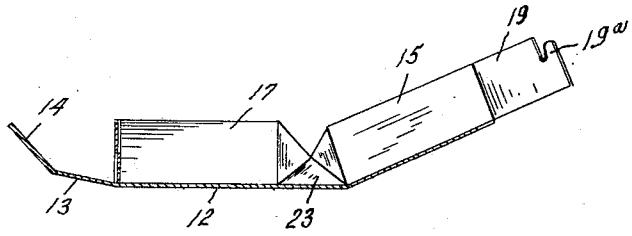


FIG. 3.

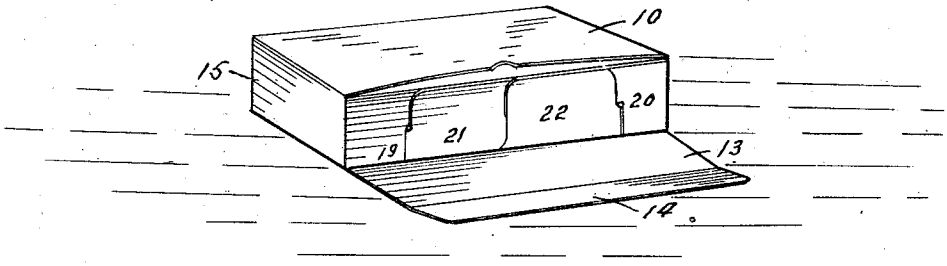


FIG. 4.

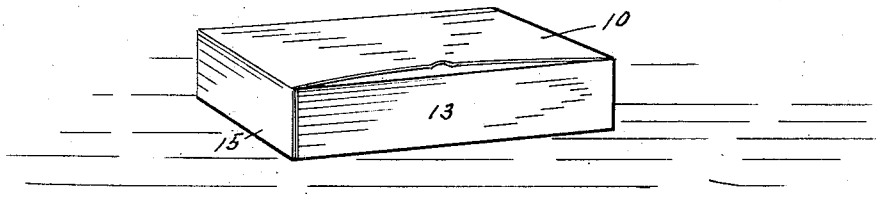


FIG. 5.

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UNITED STATES PATENT OFFICE

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FOLDING BOX

Application filed August 23, 1929. Serial No. 387,834.

This invention relates to folding boxes.

The general purpose of the invention is to provide an improved folding box of which a blank is provided including a top, closed end, bottom, open end and a locking tab are arranged in a line through the center of the blank and sides are arranged at each side of the top and bottom and foldable gussets at each side of the closed end between the top and bottom sides.

More particularly, the invention contemplates the provision on such boxes of more or less flat construction such as suit or dress boxes of comparatively long interlocking flaps on the ends of one pair of sides, preferably the bottom sides, and comparatively short flaps on the other pair of sides each adapted to interlock with an adjacent long flap when the top and bottom are brought together to secure the parts of the box together ready for closing the open end by insertion of the locking tab between the edges of the flaps and the top.

The foregoing and other purposes of the invention are attained in the folding box shown in the accompanying drawings and described below. It is to be understood that the invention is not limited to the particular form thereof shown and described.

Of the accompanying drawings,

Figure 1 is a plan of a folding box blank embodying the invention;

Figure 2 is a plan thereof showing the preferred first step in the operation of folding the box;

Figure 3 is a longitudinal section through the box illustrating the next step in the folding operation;

Figure 4 is a perspective view showing the folded box after completion of the folding step of Figure 3; and

Figure 5 is a perspective of the completely folded box.

Referring to the drawings, the box blank, which is made in the usual way as by stamping out to the shape shown with the scorings shown from suitable material such as paste board, comprises a top 10, closed end 11, bottom 12, open end 13 and locking tab 14 arranged in a line through the center of the blank and having sides 15 and 16 on each side of the top, sides 17 and 18 on each side of the bottom, flaps 19 and 20 on the extreme ends of sides 15 and 16, flaps 21 and 22 on the extreme ends of the bottom sides and foldable gussets 23 and 24 on the sides of the closed ends and between the adjacent ends of the top and bottom sides.

The flaps 21 and 22 are formed with slits at 21^a and 22^a therein to provide hook-like members 25 and 26 adapted to be interlocked across the box for the initial setting up thereof. These flaps 21 and 22 are also provided with slits 21^b and 22^b adapted respectively to receive hook-like members 19^a and 20^a on the flaps 19 and 20 to secure the top and bottom of the box together.

The gussets 23 and 24 comprise three triangular portions defined by diagonal scorings between the adjacent ends of the top and bottom sides, the outer triangular portion being stamped out so that the gussets will fold easily and will not be too bulky in the folded box.

The locking tab 14 preferably is provided with scored portions 14^a, 14^a adapted to provide projections for locking over the edges of the flaps when the tab is inserted to close the open end of the box.

When an article such as a suit, dress or the like is to be packed in the improved box, the first operation is to fold the sides, flaps and gussets upwardly and to fold flaps 21 and 22 inwardly and interlock the same as shown in Figure 2. The dress, suit or the like is then placed on the bottom of the box.

The top 10 is then folded upwardly as shown in Figure 3, gussets 23 and 24 folding inwardly and drawing the closed end upwardly as this operation continues and the top sides 15 and 16 engaging about or overlapping the bottom sides 17 and 18 and the flaps 19 and 20 being folded inwardly and hooked respectively in the slits 21^b and 22^b as shown in Figure 4.

The setting up of the box is now completed by folding up the open end 13 and inserting the tab 14 between the flaps and the top, the box thus set up being shown in Figure 5.

It will appear from the foregoing description and the accompanying drawings that a simple, easily set-up, one-piece folding box of flat construction has been provided by the invention. Obviously modifications of the invention may be resorted to without departing from the spirit thereof or the scope of the appended claims.

What is claimed is:—

1. A folding box comprising a blank formed with a top, closed end, bottom and open end in a line through the center thereof, sides on the top and bottom, diagonally foldable gussets, the outer triangular portions of which are cut-out, on the closed ends and connected between the top and bottom sides, flaps on the extreme ends of the bottom sides having interengaging hook-like formations for locking the flaps together across the box, flaps on the extreme ends of the top sides and having hook-like members thereon, said first-named flaps each having a slit therein for receiving the hook-like member of each second-named flap on the same side of the box, and a tab on the open end adapted to be inserted between the engaged flaps and the top to close the box, said tab having scored projections thereon for engaging over the upper edges of the flaps in the folded box to lock the box closed.

2. A folding box comprising a blank formed with a top, closed end, bottom and open end in a line through the center thereof, sides on the top and bottom, diagonally foldable gussets on the closed ends and connected between the top and bottom sides, flaps on the extreme ends of the bottom sides having interengaging hook-like formations for locking the flaps together across the box, flaps on the extreme ends of the top sides and having hook-like members thereon, said first-named flaps each having a slit therein for receiving the hook-like member of each second-named flap on the same side of the box, and a tab on the open end adapted to be inserted between the engaged flaps and the top to close the box, said tab having scored projections thereon for engaging over the upper edges of the flaps in the folded box to lock the box closed.

3. A folding box comprising a blank having a top and a bottom, an end between said top and bottom, a second end member connected to the bottom along the edge thereof opposite to said first mentioned end, a flap secured to the second end member, the said top, the first mentioned end member, the bottom, the second mentioned end member and the flap being in alignment, diagonally foldable gussets adjacent each end of said first mentioned end, sides secured to the edges of the top and botom, flaps on the extreme ends of the bottom sides having interengaging hook-like formations for locking the flaps together across one end of the box. flaps on the extreme ends of the top sides and having hook-like members thereon, said first named flaps each having a slit therein for receiving the hook-member of each second named flap on the same side of the box, the said second end member being adapted to fold over said flaps when the latter are engaged and said tab being adapted to be inserted between the engaged flaps and the top of the box.

HARRY E. COLE.