Aug. 30, 1932. D. LEVKOFF 1,874,705

FOLDING BOX

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Fig. 1.

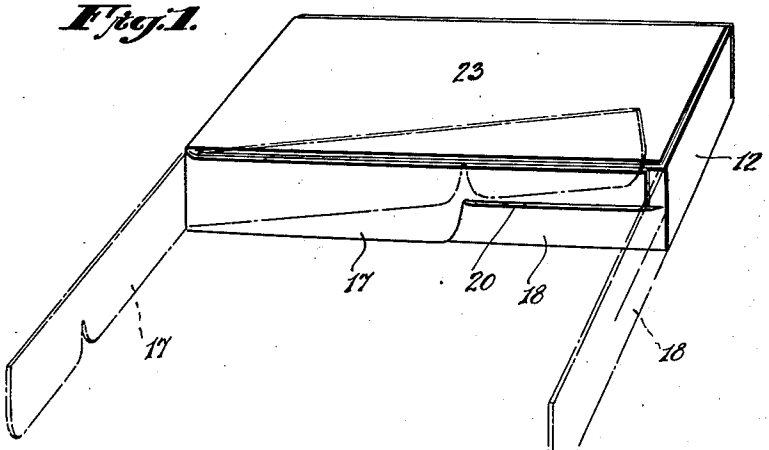


Fig. 2.

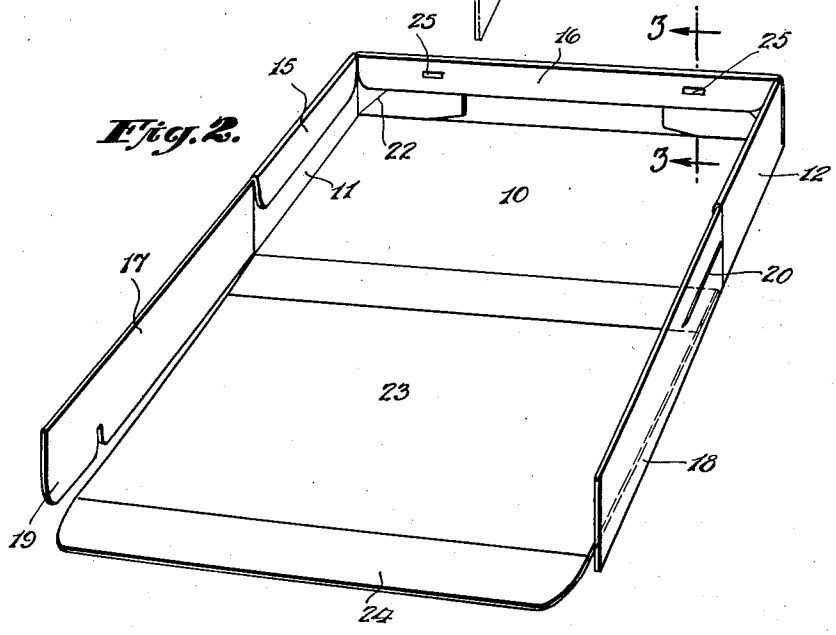
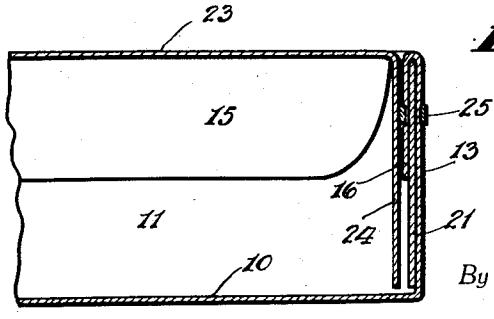


Fig. 3.



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Fig. 4.

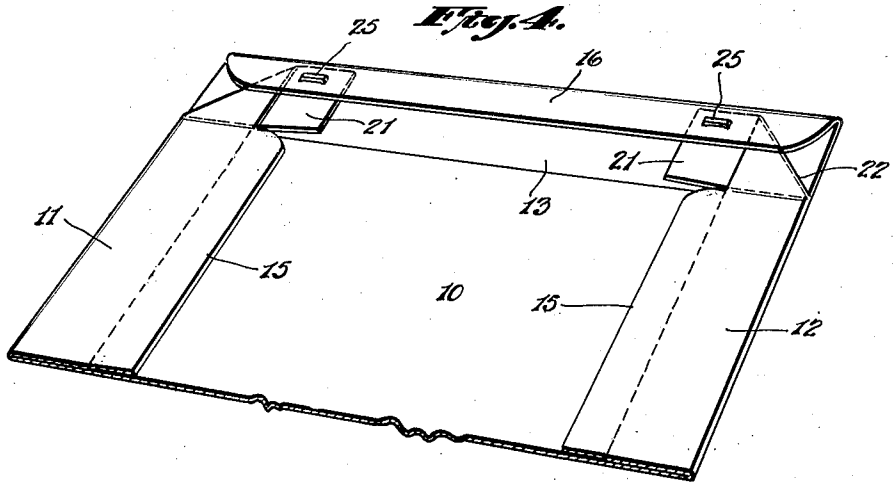
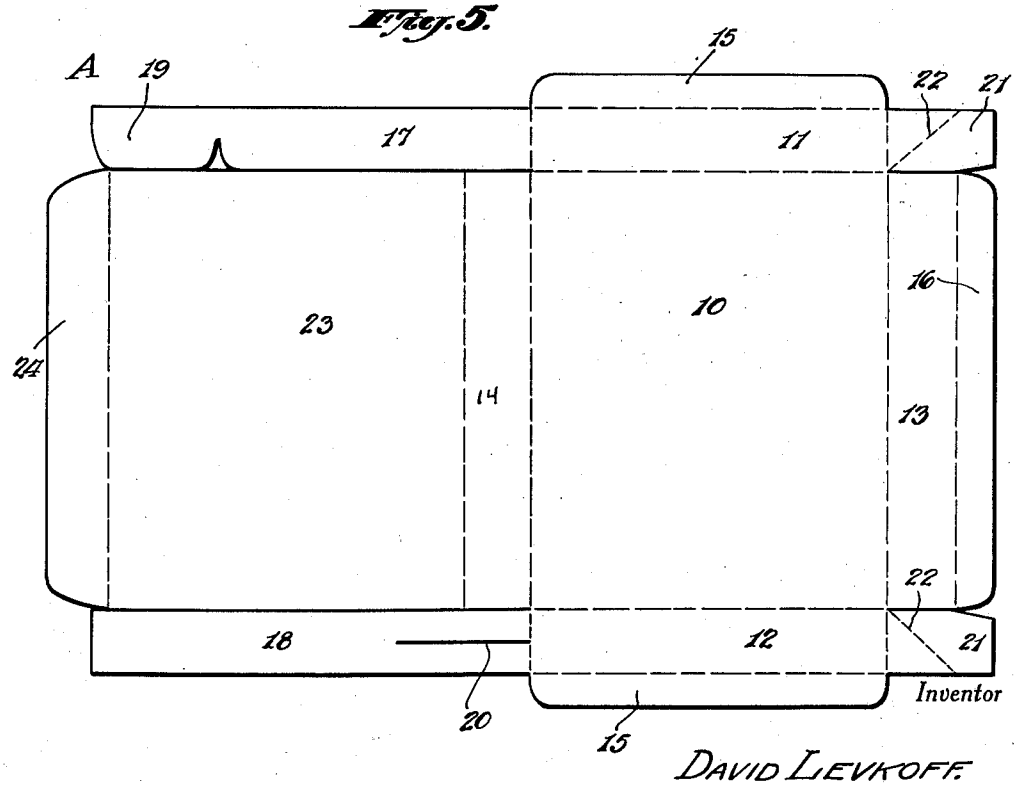


Fig. 5.



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UNITED STATES PATENT OFFICE

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FOLDING BOX

Application filed October 11, 1929. Serial No. 398,912.

This invention relates to improvements in folding boxes.

The primary object of the invention resides in a folding box constructed from a single blank of material which is cut and scored in a manner to effect a saving of stock and to speed up the production or output of a machine without in any way sacrificing strength to the walls of the box.

Another object of the invention is to provide a folding box in which a pair of coacting locking flaps are contiguous with the side or end walls which overlap the rear wall to hold the box in a set up position and serve to effectively reinforce the rear wall.

A further object is the provision of a foldable cardboard box in which the joining corner flaps are coextensive with the side walls and are secured to the front wall by two stitches, staples or the like fastening elements, the rear walls having inturned flaps for rigidly reinforcing the same.

A still further object is to provide a folding box which lies substantially flat when in an unfolded position and which may be set up for instant use without undue effort or patience on the part of a user.

With these and other objects in view, the invention resides in the certain novel construction, the combination and arrangement of parts, the essential features of which are hereinafter fully described, are particularly pointed out in the appended claims, and are illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view showing the box in a set up closed position in full lines, and in a partially set up position in dot and dash lines.

Figure 2 is a perspective view of the box in a partially set up position.

Figure 3 is a vertical enlarged sectional view on the line 3—3 of Fig. 2.

Figure 4 is a sectional perspective view showing the front and side walls in a normal flattened condition.

Figure 5 is a plan view of the blank before folding.

Referring more particularly to the drawings, the reference character A designates the blank from which my improved folding box is constructed, and which is cut and scored from a single piece of material in a manner as to be saving in stock, and which is capable of speeding up production of the output of the machine, as will be hereinafter appreciated.

The blank A may be of cardboard or any like foldable material, and includes primarily a bottom wall 10, bounded by end walls 11 and 12, a front wall 13, and a rear wall 14. The end walls 11 and 12 are provided with inwardly foldable reinforcing flaps 15, while the front wall 13 is provided with a like reinforcing flap 16. Coextensive with the rear ends of the end walls 11 and 12 are coacting interlocking flaps 17 and 18 respectively, the former being provided at its outer end with a tongue 18 which is insertible into an elongated slit 20 provided in the flap 18 adjacent its connection with the end wall 12.

Coextensive with the front end of the end walls 11 and 12 are front corner flaps 21, which are identical in construction and provided with diagonal fold lines 22 which permit folding of the box in a manner shown in Figure 4 of the drawings, and which will be more fully understood hereinafter.

Hinged to the rear wall 14 is a swingably mounted cover 23 provided with a front cover flap 24 which abuts the front wall of the box when the said box is in a set up position and the cover is closed thereon as shown in Figures 1 and 3 of the drawings.

With reference to Figure 4 of the drawings, it will be seen that the front corner flaps 21 fold on the diagonal fold lines 22 to permit the free outer ends of the flaps to be fixedly connected to the front flap 16 by stitches or staples 25, the said front flaps being folded inwardly over the front wall 13 with the corner flaps 21 interposed therebetween.

Assuming that the blank is in the position shown in Figure 4 of the drawings wherein the side walls 11 and 12 are foldable over the bottom wall 10 at which time the interlocking flaps 17 and 18 overlie the cover section as will be appreciated at which time the box is in a substantially flat condition. When

it is desired to set up the box for use, it is only necessary for a slight pressure to be applied to the front wall to cause the same to move to a vertical position which will automatically cause the side walls to stand upright together with the interlocking flaps 17 and 18. The rear wall 14 is next erected whereupon the flaps 17 and 18 are brought around exteriorly of the rear wall so that the locking tongue 19 enters the slit 20 in the tongue 18. This tends to pull the box together and retain the walls of the body of the box in a set up position.

The reinforcing flaps 15 are next turned inwardly over the side walls to reinforce the same in a manner clearly shown in Figure 2 of the drawings. Assuming that the box body is in a set up position as just described, it is only necessary to swing the cover 23 over the body to cause the front locking flap 24 to fit against the front wall which will tend to retain the cover in such position.

From the foregoing description, it will be seen that I have provided a folding box which is extremely simple of construction, and which when in a set up position provides a rigid construction to permit packing of fragile articles without fear of damage thereto in transit. With reference to Figure 5, it will be noted that the blank A is substantially rectangular in plan and only fragments of a rectangle have been cut away to produce the various folding parts of the box.

While I have shown and described what I deem to be the most desirable embodiment of my invention, it will be understood that I do not wish to limit myself to the exact details of construction shown, nor to anything less than the whole of my invention, limited only by the appended claims:

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

1. A folding box comprising a body having a bottom wall, a front wall, a rear wall, side walls, foldable corner flaps coextensive with one end of said side walls and fixedly secured to said front walls, and coacting interlocking flaps coextensive with the other end of said side walls and foldable about the rear walls to hold said body in a set up condition.

2. A folding box comprising a body having a bottom wall, a front wall, a rear wall, side walls, foldable corner flaps coextensive with one end of said side walls and fixedly secured to said front walls, coacting interlocking flaps coextensive with the other end of said side walls and foldable about the rear walls to hold said body in a set up condition, and reinforcing flaps coextensive with said side walls and front wall and foldable inwardly thereof to reinforce the respective walls.

3. A folding box comprising a body having a bottom wall, a front wall, a rear wall, side walls, foldable corner flaps coextensive with one end of said side walls and fixedly secured to said front walls, coacting interlocking flaps coextensive with the other end of said side walls and foldable about the rear walls to hold said body in a set up condition, a cover swingingly connected to said rear wall, and a front cover flap on one edge of said cover for fitting within the front wall upon closing of said cover to said body.

4. A folding box comprising a single blank of cardboard cut and scored to provide a bottom wall, connected front and rear walls by the bottom thereof, connecting side walls, corner flaps coextensive with one end of said side walls folding against said front wall for fixed connection therewith, and coacting interlocking flaps coextensive with the other end of said side walls folding exteriorly of and against said rear wall.

In testimony whereof I affix my signature.

DAVID LEVKOFF.