F. A. DROZ.

PACKING BOX.

APPLICATION FILED FEB. 28, 1913.

1,100,716.

Patented June 23, 1914.

FIG. 1.

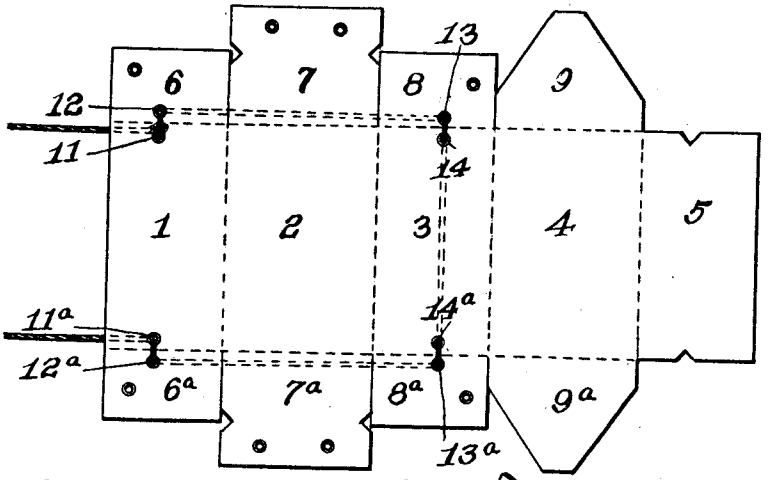


FIG. 2.

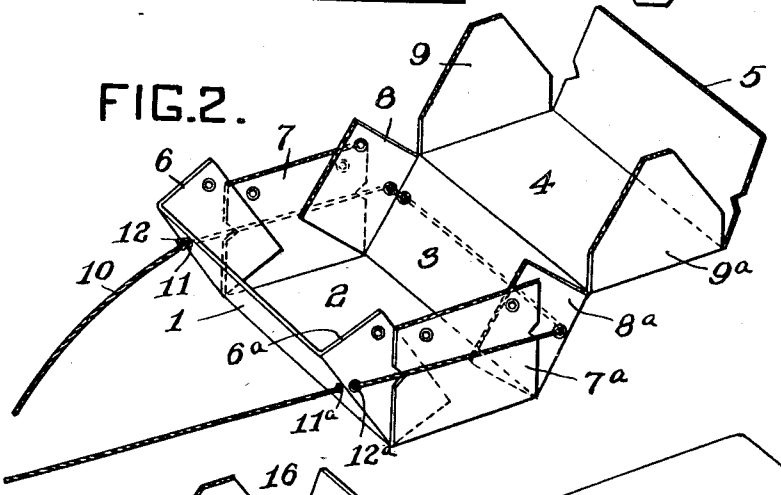


FIG. 3.

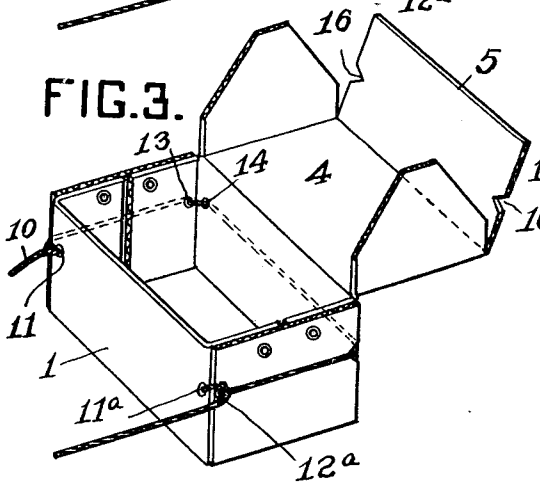
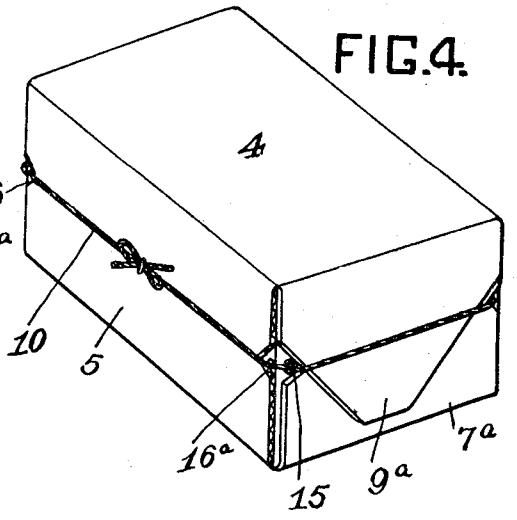


FIG. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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PACKING-BOX.

1,100,716. Specification of Letters Patent. Patented June 23, 1914.

Application filed February 28, 1913. Serial No. 751,275.

To all whom it may concern:

Be it known that I, FREDERICK A. DROZ, residing at Fair Oaks, in the county of Allegheny and State of Pennsylvania, a citizen of the United States, have invented or discovered certain new and useful Improvements in Packing-Boxes, of which improvements the following is a specification.

My invention has to do with collapsible packing boxes adapted to contain articles for delivery, shipment by express or parcel post, etc.

The object of my invention is to provide a box of the character described, wherein all the parts of the box form a unitary blank when collapsed, such box being firm and rigid in construction, and easy to manipulate.

More specifically stated, the object of my invention, as far as the manipulation of such boxes is concerned, is to provide a box which may be easily brought from flattened blank position to box-form and locked into such form, the lid thereof being free to open and close, and which box may be subsequently effectively locked.

In the accompanying drawing, which forms part of my specification, I have illustrated one embodiment of my invention.

Figure 1 is a view of the blank; Fig. 2 is a perspective view of the box partly closed, illustrating the manner of effecting such closing: Fig. 3 is a perspective view of the box when brought to and locked into box form, the lid being free to open and close; and Fig. 4 is a perspective view of the box with the lid locked in closed position.

In the several figures like numerals are used to designate like parts.

The box shown herein is made from corrugated cardboard, which, it is well known, bends easily along a line formed by scoring the surface thereof. However it will be readily understood that any other blank material suitable for the intended purpose may be used, or the parts of the box may be independently formed of suitable stiff material and joined together into a hinged unitary blank.

The blank of corrugated cardboard, when forming the illustrative embodiment of my invention, is cut and scored as indicated in Fig. 1, the full lines between adjacent box parts indicating cuts in the blank, and the dotted lines indicating the scored portions of the board forming hinges between such parts. The front side of the box is formed from the end of the blank, and is indicated in the drawings by the numeral 1. The parts of the box, as they are successively arranged from said side are bottom 2, rear side 3, lid 4 and lid-flap 5. At one end of each of the parts 1, 2, 3 and 4 there are flaps 6, 7, 8, and 9, respectively, and at the opposite ends of said parts there are flaps 6^a, 7^a, 8^a and 9^a, respectively, the flaps 7 and 7^a forming the ends of the box and the other flaps forming reinforcing sections.

In order to facilitate the folding and further manipulation of the box I provide a single means for bringing the blank from its flattened position to box form and for locking it in such form, the lid being free to move, such means also being effective to lock said lid in closed position. The preferred means which I employ to such an end is a flexible wire, tape or cord 10, which, in this embodiment of my invention is tightly attached to eyelets 11 and 12 in the side 1 and flap 6, respectively, and extends loosely through eyelets 13, 14, 14^a, 13^a, 12^a and 11^a in the several members, as clearly shown in the drawing.

It will readily be seen that the box in flattened form may be brought to box-form by pulling the loose or unsecured end of the cord 10, the position of the box when partly folded being shown in Fig. 2; and in thus effecting a closing of the box there is no binding of the cord or crushing of the box portions. When the cord has been pulled taut, the box is in the form illustrated in Fig. 3, the lid 4 being free to open and close as desired. The desirability of locking or securing the box in the position shown in Fig. 3 is clearly apparent, and to such an end I arrange the cord 10 outside of the end 7^a so that the loose end of the cord may be drawn between said end and the taut portion of the cord extending over its exterior face. It will be understood that thus binding the loose end of the cord will accomplish an effective locking of the body portion of the box in closed position: however, in order to obtain a more secure locking, a knot 15 may be formed as shown in Fig. 4. When in this position the box may be handled while articles are being placed therein without the liability of its collapsing.

In the final securing of the box I effect a

double locking of the lid, so that, in case the cord is broken or cut at one point, another part of the cord will keep the lid in closed position. The first locking is accomplished by forming a knot 15 at the eyelets 11^a and 12^a, as shown in Fig. 4, so that the beveled flaps 9, 9^a may, while the lid is being closed, be slipped between the ends 7 and 7^a, respectively, and the cord on their outer surfaces, the flaps thereby adding tension to or tightening the cord, which in turn holds the flaps, and through such lugs, the lid in closed position. The second locking of the lid is preferably effected by placing the lid-flap 5 over the outer surface of the front side 1 and in tying the loose ends of the cord 10, as shown in Fig. 4. To the end that the cord may more effectively hold the flap 5 in closed position notches 16 and 16^a are formed in the flap, such notches being, when the lid is closed, adjacent to the eyelets 11 and 11^a, respectively. It will be seen that the cord is thus, in effect, divided into two portions each of which may hold the lid in closed position in case the other portion is broken. One of said cord portions is the part extending from the eyelets 11 and 12 around the back of the box to the eyelets 11^a and 12^a, and, as stated above, this portion of the cord engages the flaps 9 and 9^a of the lid 4. The other of said cord portions extends from eyelets 11 and 12 to eyelets 11^a and 12^a over the front side of the box and engages the lid flap 5.

I do not wish to limit myself to the details of construction shown and described herein, or to the particular form of box I have illustrated, for obviously many changes may be made by those skilled in the art without departing from the spirit of my invention as defined in the following claims.

I claim as my invention:

1. A folding box having a bottom portion, front and rear sides, ends, and lid formed of a single blank, said lid extending from the top of the rear side and provided with a flap adapted to extend over said front side, a single cord secured near an end thereof to the front side of said box and having sliding engagement with the rear side thereof and with said front side, said cord extending over said flap when the lid is closed thereby holding the lid in closed position.

2. A folding box having a bottom portion, front and rear sides, ends and lid formed of a single blank, said lid extending from the top of said rear side and provided with a flap adapted to extend over said front side, there being wedging flaps extending from each end of said lid, said ends extending one from each end of said bottom portion, and a single cord secured near an end thereof to the front side of said box and having sliding engagement with the rear side thereof and with said front side, the wedging flaps at the ends of the lid being adapted when the lid is closed to extend between said end portions and the cord on the outside thereof, thereby tightening the cord.

In testimony whereof I have hereunto set my hand.

FREDERICK A. DROZ.

Witnesses:

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