J. K. P. BINGAMAN.

FOLDING FIBER BOARD CARTON.

APPLICATION FILED JULY 13, 1915.

1,150,491. Patented Aug. 17, 1915.

Fig. 1.

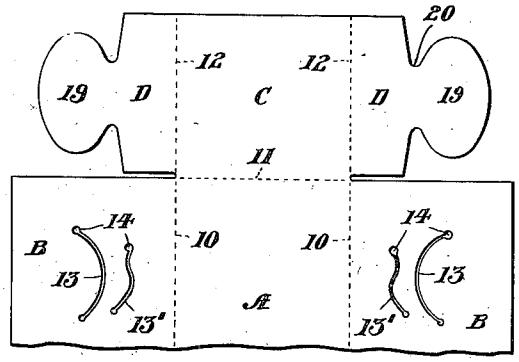


Fig. 2.

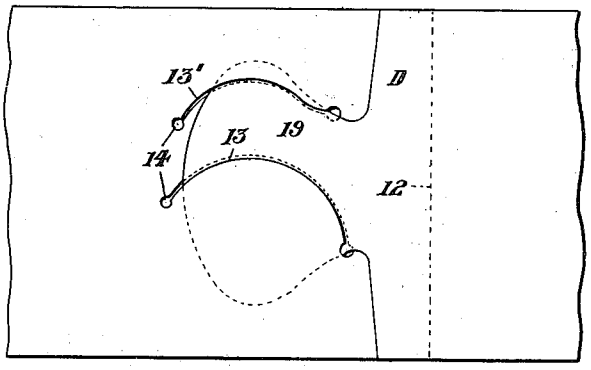
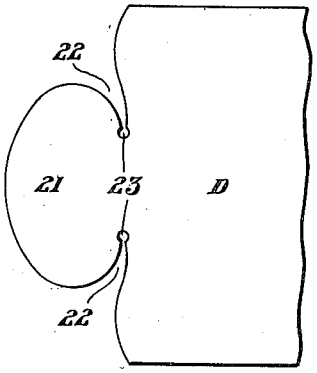


Fig. 3.



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FOLDING FIBER-BOARD CARTON.

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To all whom it may concern:

Be it known that I, JAMES K. P. BINGAMAN, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Folding Fiber-Board Cartons, of which the following is a specification.

This invention relates to certain new and useful improvements in folding fiber board cartons and has special reference to a lock for holding the different portions of such cartons in their set up position, the cartons being of the knock-down type which are shipped and stored in a flat condition and are then folded for the reception of articles.

More particularly the invention relates to a lock which is adapted for use with cartons made from any thickness or character or fiber board or other material so that the very thinnest material or board may be used, as for the packaging of laces and the like in stores or a heavy corrugated board may be used as for the shipment by parcels post or express of such articles as shoes, or hardware, the corrugated board, when used, being especially adapted for the shipment of fragile articles such as eggs and the like.

The principal object of the invention is the provision of an improved form of lock of the above description, which will not require the bending or distortion of the tongue employed and which yet will provide a safe and secure lock not liable to open up during transportation, the lock being of such character that any thickness of board or other material may be employed and the interlocking of the parts being effected by a species of rotary motion.

With these general objects in view and others that will appear as the nature of the invention is better understood, the same consists in the novel combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the appended claims.

In the drawings forming a part of this application and in which like-designating characters refer to corresponding parts throughout the several views, Figure 1 is a view of a portion of a blank for forming a folding box constructed in accordance with this invention. Fig. 2 is a view of two of the parts shown in Fig. 1 interlocked. Fig. 3 is a view showing a modified form of tongue for such lock.

In the embodiment of the invention illustrated in Fig. 1 there is disclosed a box having a bottom A, sides B, end C and end flaps D. The bottom A is defined from the sides B by fold scores or creases 10 and from the end C by a fold score or crease 11, the flaps D being defined from said end by similar fold scores or creases 12. Each of the sides B is provided with a pair of slots one of which in the form shown in Figs. 1 and 2 is arcuate as indicated at 13 while the other is reversely curved as indicated at 13′ with the major portion of the curve substantially concentric to the first slot, both terminating in substantially circular openings 14.

In the modification illustrated in Fig. 5, the flap D is provided with a blunt rounded arrow-head tongue 21 defined from the flap by tapering slots 22 terminating in substantially circular openings 23.

In each of these forms assembly is affected by slipping one side of the tongue through one of the slots, the two parts D and B being angularly disposed and then twisting these parts with the portion between the slots slightly depressed so that the remaining side of the tongue slips into the remaining slot whereupon the two parts B and D are brought into alinement as illustrated in Figs. 2, and the rounded neck of the tongue brought into position to coact with the rounded ends of the slots. It will be observed that where the modification shown in Fig. 5 is used, the openings 23 coöperate with the openings at the ends of the slots and that these openings, in each instance, tend to prevent tearing of the tongue from its flap or tearing of the slots. Moreover, when assembled and the parts D are at right-angles to the parts C there can be no possibility of accidental unlocking.

It is to be noted that in order to affect this the slits are made somewhat longer than these parts of the tongue wherewith they engage when the latter is in locked position, this being clearly observable in Figs. 2 and 3.

While the form of the invention herein shown and described is what is believed to be the preferred embodiment thereof, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

It is obvious that the carton may be

water-proofed by paraffin or other material either inside or outside as may be desired.

What I claim as new is:—

1. In a box lock for carton parts, a part having a pair of spaced slots, one of the slots being arcuate and the other reversely curved, the major portions of the slots having substantially coincident centers, and a second coöperating part having a head provided with a neck and adapted to engage the receiving slots by swinging movement.

2. In a box lock for carton parts, a part having a pair of spaced slots, one of the slots being arcuate and the other reversely curved, the major portions of the slots having substantially coincident centers, and a second coöperating part having a head provided with a neck and adapted to engage the receiving slots by swinging movement, the slots and neck having coöperating enlargements.

In testimony whereof I affix my signature.

JAMES K. P. BINGAMAN.