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R. D. BEST

2,186,777

CARTON

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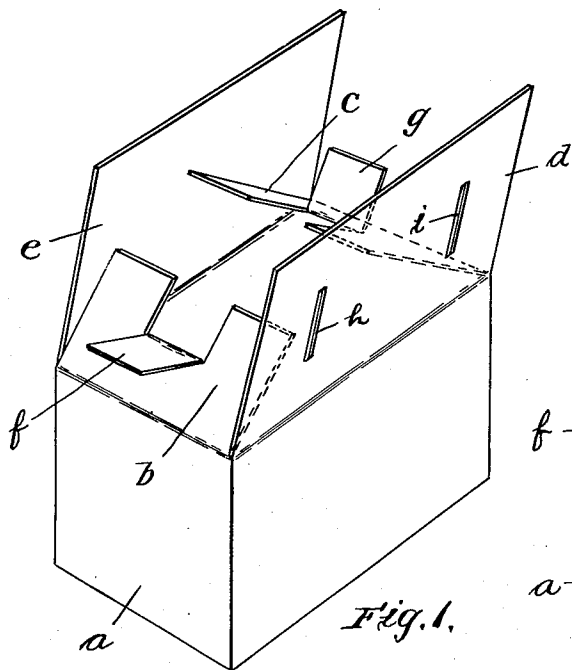


Fig. 1.

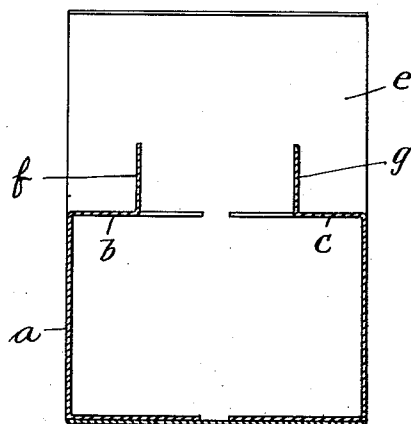


Fig. 2.

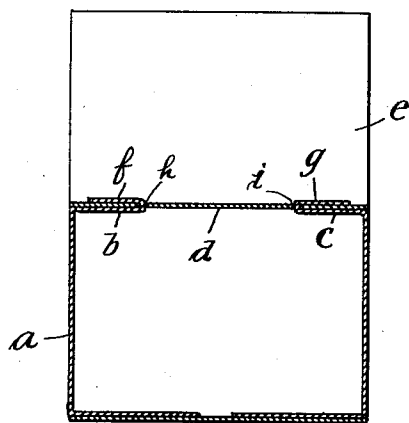


Fig. 3.

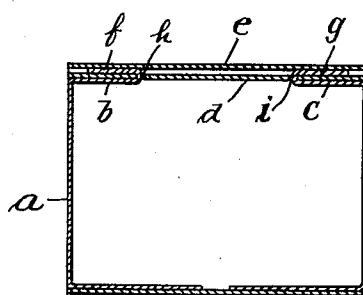


Fig. 4.

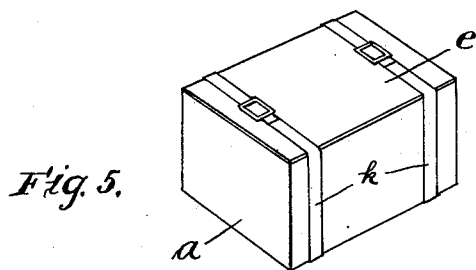


Fig. 5.

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UNITED STATES PATENT OFFICE

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CARTON

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4 Claims. (Cl. 229—39)

This invention relates to cardboard shipping cases or cartons which are ordinarily employed for shipping metal parts or substances which are heavy, so that the cartons require substantial reinforcement to prevent the contents from breaking out during shipment.

Prior to my invention it has been common practice to employ a carton having the usual two end closure flaps and two closures attached to opposite sides of the carton, each of which is adapted to extend entirely across and for the length of the carton, and which are folded one over the other onto the end portions. In addition it has been customary to secure the side closures adhesively to the end flaps and to each other and to place metal straps about the ends and about the sides, the strap about the ends being employed to prevent the ends of the carton from being forced out by the contents during shipment.

The objects of my invention are to provide a form of carton in which its ends will be securely held against being broken out and which will obviate the necessity of using the end strap and also the necessity of adhesively securing the side covers.

I accomplish these objects by forming a longitudinally extending tongue in each end flap and forming correspondingly located transverse slots in one of the closures, so that the tongues may be passed through the slots while in upright position and the end flaps may be drawn firmly against the inner side of the closure, after which the tongues may be bent down onto the closure and the other closure may be pressed down on the bent over tongues and held in this position by suitable straps, so that the tongues, acting through the end flaps will securely hold the end walls of the carton against inward or outward movement.

For a more complete disclosure of my invention, reference is now made to the following specification in connection with the accompanying drawing in which:—

Fig. 1 is a perspective view of an embodiment of my invention.

Figs. 2, 3 and 4 are longitudinal sectional views thereof, showing different stages of the closing operation.

Fig. 5 is a perspective view of the completely closed carton ready for shipment.

In the drawing *a* indicates a common type of carton formed of cardboard or other bendable material and having end closures or flaps *b*, *c*, which extend for the entire width of the carton and for a portion, usually less than half its

length. Side closures *d* and *e* are also connected to opposite longitudinal edges of the carton each of which when folded one over the other in closed position extend entirely across the carton and throughout the length thereof.

According to my invention each end flap is slit longitudinally from the end thereof for approximately half its length, each slit being preferably located at approximately one-third the width of the flap from the adjacent edge thereof, forming tongues *f* and *g* therein, respectively. The closure *d* is provided with two transverse slots *h* and *i* of the same length as the width of the tongues *f*, *g*, said slots being located at a distance from each end corresponding to the distance from the end of the carton to the base of the tongues, or the line at which they are hinged to the flap, so that when the tongues are held in upright position they may be passed through the corresponding slot and the end flaps may be drawn against the inner side of the closure.

After the carton has been filled, the flaps are pressed down horizontally and the tongues are bent up to vertical positions as shown in Fig. 2. The closure *d* is then bent over onto the flaps, at which time the tongues are passed through the slots *h* and *i*, respectively and drawn outwardly until the end flaps have been drawn firmly against the inner side of the closure and the latter is held in its fully closed position. Then the tongues are each bent over towards the end of the carton to which it is next adjacent, as shown in Fig. 3, and then the other side closure *e* is bent down on the cover *d* and onto the bent over tongues, as shown in Fig. 4. Then metal straps *k* are placed about the carton near each end thereof so that they are held over the bent back tongues and securely hold the closures, tongues and flaps in the positions into which they had been forced.

As thus arranged, the tongues, acting through the end flaps, securely hold the end walls of the carton from movement either inwardly or outwardly.

While the bottom sections of the carton will usually be held together by metal staples, it will be apparent that the above described arrangement may be applied to the bottom sections as well as to the top sections.

When the carton is to be unpacked, it is merely necessary to cut the straps and then the carton may be readily opened.

I claim:

1. A shipping carton of bendable material hav-

ing closure flaps at each end extending for the width and for a portion of the length thereof, said flaps each having two suitably spaced longitudinal slits extending from their ends for a portion of the length thereof to form a tongue in each flap, a closure connected to a longitudinal edge of the carton and extending for the length thereof, said closure having two transverse slots through which said tongues are passed, respectively, while held in upright position and drawn outwardly to hold the flaps against the inner side of the closure and then are bent down onto the closure, and a second closure connected to one longitudinal edge of the carton and adapted to be held against the tongues when in said bent down position.

2. A shipping carton of bendable material having closure flaps at each end extending for the width of the carton and for portions of its length and closures at each side extending for the length and width of the carton, said end flaps each having two suitably spaced longitudinal slits extending from their ends for a portion of the length thereof to form tongues, one of said closures having two transverse slots therein respectively located correspondingly to the bases of said tongues and through which said tongues are passed and bent down on the closure, so as to hold the flaps against the under side of the closure, the other closure being bent down onto the slotted closure and onto said bent over tongues and means for securing said closures in said closing positions.

3. A shipping carton of bendable material having closure flaps at each end extending for the width of the carton and for portions of its length

and closures at each side extending for the length and width of the carton, said end flaps each having two suitably spaced longitudinal slits extending from their ends for a portion of the length thereof and equally spaced from the side edges thereof, to form a tongue in the middle of each flap, one of said closures having two transverse slots therein through which said tongues are passed, respectively, while held in upright position, said tongues, being passed through said slots and drawn outwardly so as to hold the flaps against the inner side of the closure, and being bent down against the outer side of the closure and the other closure being held against said tongues to hold the same in said bent-over position.

4. A shipping carton of bendable material having closure flaps at each end extending for the width and for a portion of the length thereof, said flaps each having two suitably spaced longitudinal slits extending from their ends for a portion of the length thereof to form a tongue in each flap, a closure connected to a longitudinal edge of the carton and extending for the length thereof, said closure having two transverse slots through which said tongues, respectively, are passed and drawn outward to hold the flaps against the inner sides of the closure, said tongues being bent oppositely towards the ends of the carton and pressed down against the outer side of the closure, a second closure connected to a longitudinal edge of the carton and held against said bent-over tongues and straps extending about the carton adjacent the ends thereof to hold said closures in said positions.

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