Sept. 3, 1935. J. S. BURNS 2,012,954

PACKING BOX

Filed Aug. 14, 1933 2 Sheets-Sheet 1

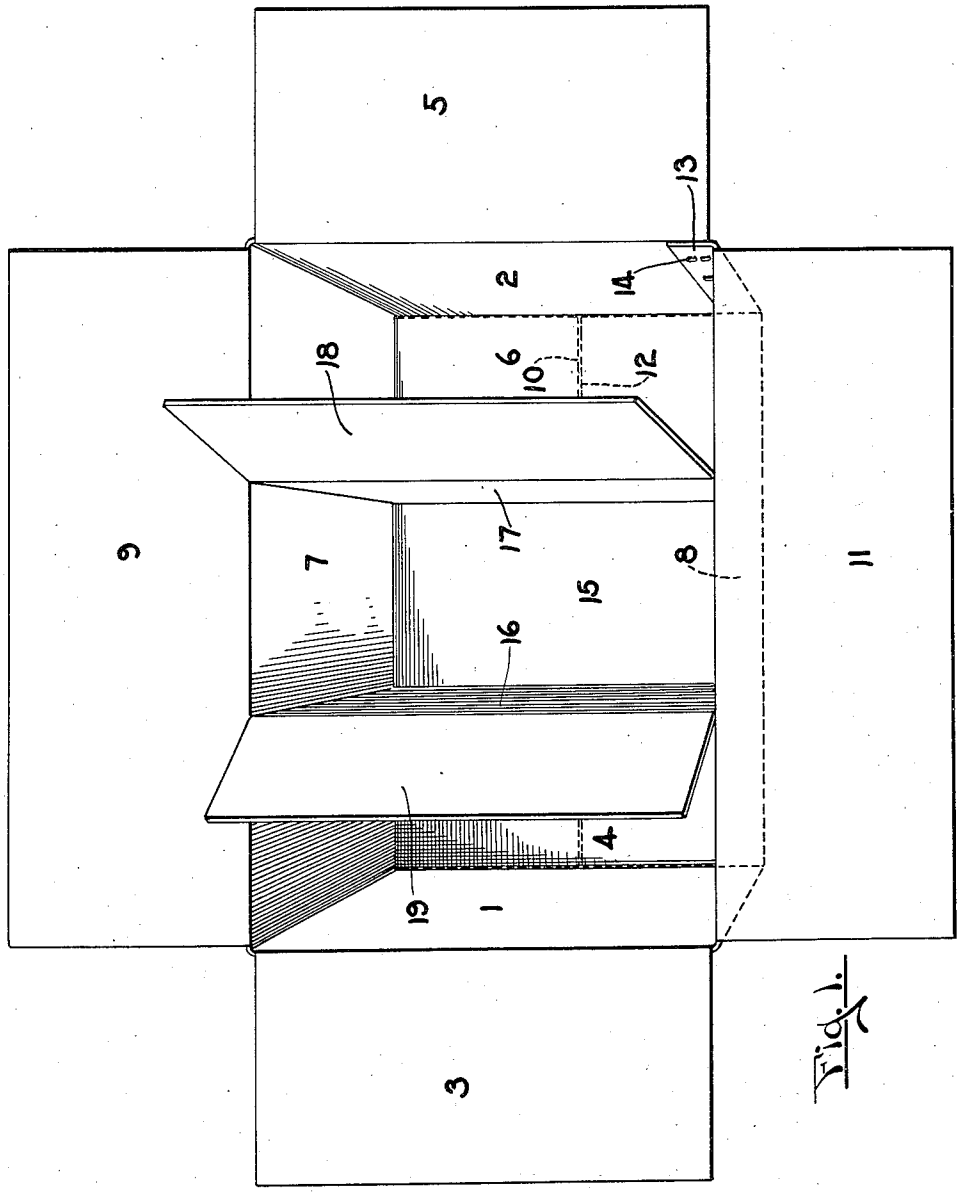


Fig. 1.

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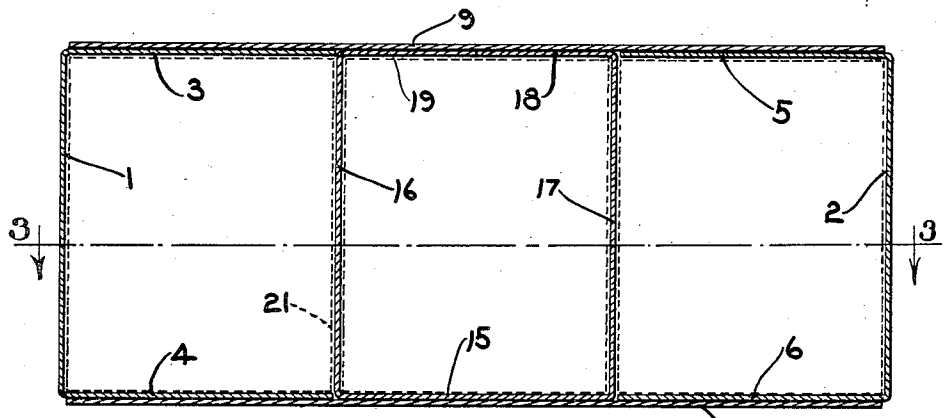


Fig. 2.

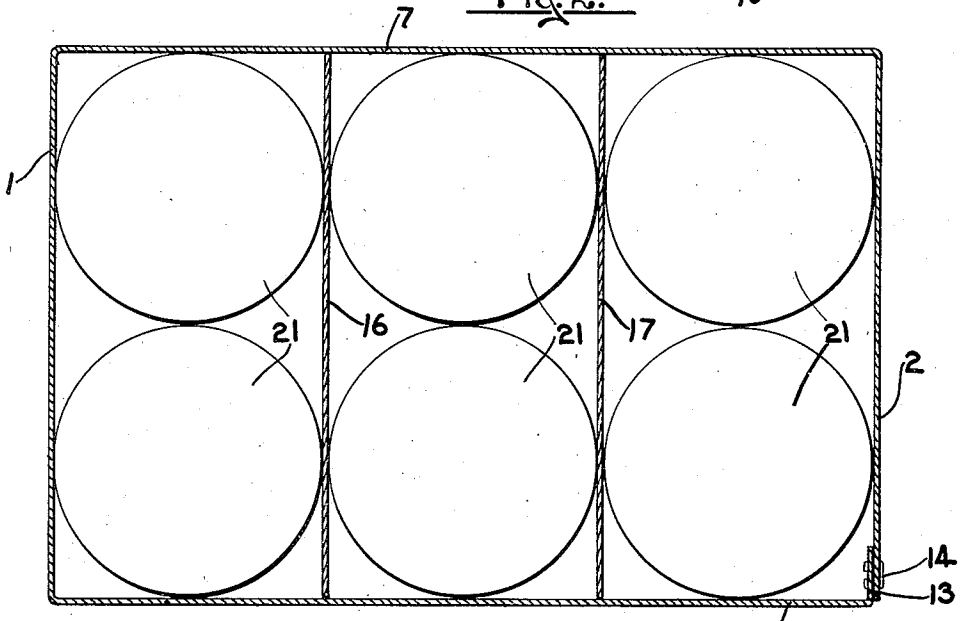


Fig. 3.

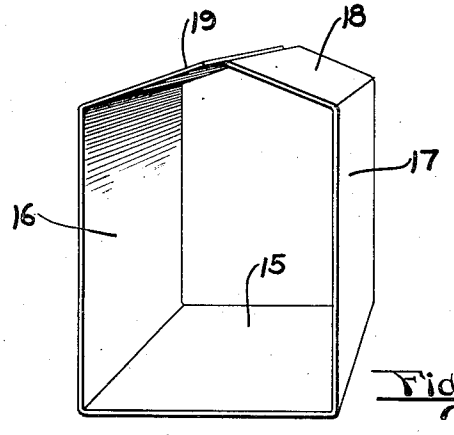


Fig. 4.

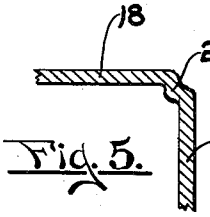


Fig. 5.

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UNITED STATES PATENT OFFICE

2,012,954

PACKING BOX

John S. Burns, Chicago, Ill., assignor to American Box Board Company, Grand Rapids, Mich., a corporation of Michigan

Application August 14, 1933, Serial No. 684,989

1 Claim. (Cl. 229—15)

This invention relates to a box construction and more particularly to a carton formed of cardboard and having separating partitions therein.

Briefly described, my improved box is formed of only two members, the outer member being bent to form a box of rectangular shape and the inner member, of rectangular cross section, extending between the sides of the box as will be later explained.

One of the primary advantages of my invention resides in the durability and strength of the box, the partitions therein being in the form of a hollow strut which extends between the opposite sides of the box to prevent crushing thereof, the sides of the reinforcing member serving as the separating partitions. Also, the other two sides of the reinforcing member extend between the end flaps of the exterior box construction and tend to prevent endwise compression of the box. Thus the box is strengthened and reinforced in two directions.

A third advantage resides in the particular construction of the reinforcing partition member, the folding of this being in a direction opposite to that usually used whereby the corners formed therein are of sharp construction on their exterior sides whereby the reinforcing member properly fits within the exterior box member.

Another advantage resides in the easy assembly of the invention, the reinforcing member merely having glue applied to its lower face and then set into place.

Other advantages will become apparent as the description proceeds.

In the drawings:

Fig. 1 is a perspective view of a box constructed in accordance with my invention.

Fig. 2 is a cross sectional view taken lengthwise through Fig. 1.

Fig. 3 is a sectional view taken along the line 3—3 of Fig. 2.

Fig. 4 is a perspective view of the partition member, and

Fig. 5 is an enlarged sectional view of the corner construction of said partition member.

Similar numerals refer to similar parts throughout the several views.

Referring to the drawings, numeral 1 indicates one end of the box, numeral 2 the other end, the first mentioned end having an upper flap 3 and a lower flap 4 and the second mentioned end having an upper flap 5 and a lower flap 6. Sides 7 and 8 are provided, the former having an upper flap 9 and a lower flap 10 and the latter having an upper flap 11 and a lower flap 12. Also, the side 8 may be provided with a tab 13 stapled to the end 2 as indicated at 14. See Figs. 1 and 3.

As clearly shown in Fig. 2, the end flaps 3, 4, 5, and 6 are of relatively short construction whereby they fail to abut one another, their length being such that approximately one-third of the length of the box lies between their respective ends.

Referring now to Figs. 4 and 5, a reinforcing partition is shown, this partition consisting of a bottom member 15, side members 16 and 17 and top flaps 18 and 19. The width of the bottom portion 15 is substantially equal to one-third of the length of the box and the lower face of this portion is adapted to have glue applied thereto after which it is inserted in position, see Fig. 2, against the lower flaps 10 and 12 of the side members 7 and 8, the portion 15 having its top surface in the same plane as the upper sides or faces of the end flaps 4 and 6, thus providing a bottom for the box in a single horizontal plane. The juncture between the several folded portions in the reinforcing partition member are formed as shown in Fig. 5, that is, material is creased along the desired line and then is folded with said crease or score on the outside of the member. This crease or score is indicated by the numeral 20. This construction, as clearly shown in Fig. 5, prevents any bulging of the members 17 and 18 at their corner and thus the reinforcing partition member is securely and easily located in its position, the lower face of the bottom member 15 lying in secure contact with the flaps 10 and 12 therebelow and the upper portions 18 and 19 of this same member lying flatly against the upper flaps 9 and 11.

The manufacture and use of my invention

After the material for the box is formed and cut to size, the sheet forming the exterior portion of the box is folded to shape, the tab 13 being stapled at 14 to the end portion 2. Next, the lower side of the end flaps 4 and 6 may have glue applied thereto and receive the upper faces of the lower side flaps 10 and 12 thereagainst. The articles to be carried by the box, such as the cylindrical cans 20 shown in dotted lines in Fig. 2 and in full lines in Fig. 3, may be inserted at each end of the box.

Next, the bottom face of the reinforcing member has glue applied thereto, as previously described, and then is inserted downwardly into the box as clearly shown in Fig. 1, cans 20 being placed between the partitions 16 and 17. This completes the packing of the box.

The box is now closed or sealed by folding the portions 18 and 19 inwardly toward one another so that they lie in the same plane and thus their edges come into abutting relationship. Glue, if desired, is applied to their upper surfaces and also may be applied to the upper flaps of the end members 1 and 2 if these members are folded inwardly toward one another. It will be noted that the ends of these flaps 3 and 5 abut against the extreme upper edges of the partitions 16 and 17 and thus prevent their separation. The side flaps 9 and 11 are now folded inwardly and downwardly and the sealing operation is now complete.

Thus it will be seen that the reinforcing partition member forms a hollow strut having a relatively large cross sectional area between the sides 7 and 8 of the box and thus the same is greatly strengthened. Also, as previously described, the flaps 4 and 6 cooperate with the lower portion 15 of the reinforcing member and the flaps 3 and 5 cooperate with the flaps 18 and 19 of the reinforcing member to prevent endwise as well as lateral distortion of the box.

From the above necessarily short description it will be appreciated that my construction although of relatively simple character, being formed of only two sheets of material, nevertheless provides a carton sub-divided into three equal parts thereby greatly strengthening the same and preventing damage of the goods in transit as well as facilitating the packing of the goods.

Without limiting myself to the particular embodiments of my invention illustrated and explained above, and desiring to protect my invention in the broadest manner legally possible, what I claim is:

In a packing box of the class described, a partition member comprising a bottom member, side members and top members, said top members extending toward each other and having their edges abutting against each other, said partition member having a length equal to the width of the box and extending between and abutting against the said sides of the box, said top members of the partition being glued to one face of the box for the purpose described.

JOHN S. BURNS.