

I. ROTH.
 MERCHANDISE HOLDER.
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1,287,111.

Patented Dec. 10, 1918.

Fig. 1.

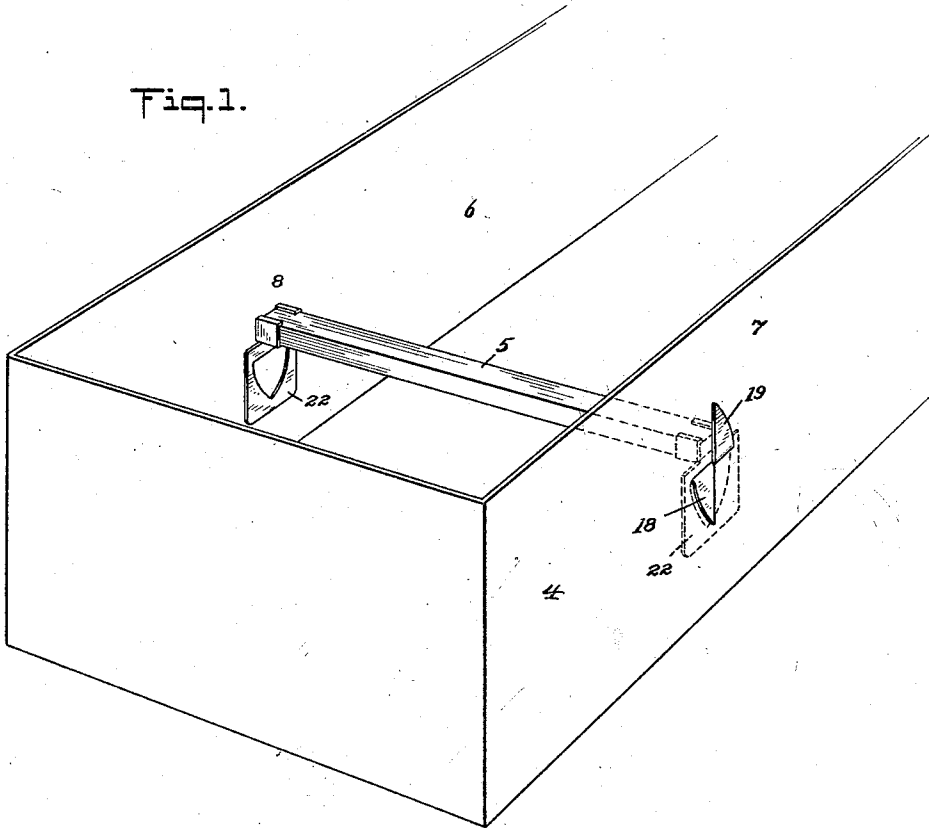


Fig. 2.

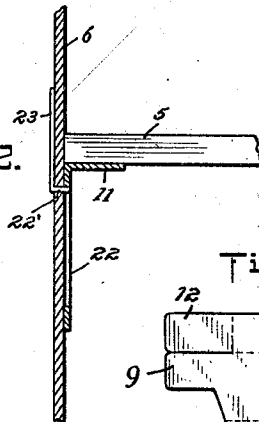


Fig. 3.

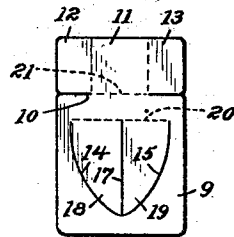
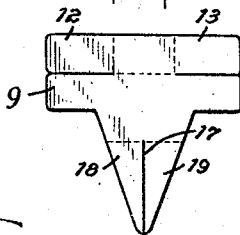


Fig. 4.



WITNESS:

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MERCHANDISE-HOLDER.

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To all whom it may concern:

Be it known that I, ISAAC ROTH, a citizen of the United States, residing in the city of New York, county of Bronx, and State of New York, have invented certain new and useful Improvements in Merchandise-Holders, of which the following is a specification.

My invention relates in general to a fastening means for positioning a bridge member between opposite walls of a box-like structure, such as the paste-board boxes used for packing and transporting flowers, articles of apparel and other merchandise.

In packing merchandise in these frail cardboard boxes, it not infrequently happens that the straps or bridge pieces positioned to hold the goods down on the bottom of the box or to hold the merchandise in layers, are torn from the sides of the box during the jostling of the same while in transit. These boxes are frequently packed one upon the other with the result that the accumulative weight crushes the lower boxes damaging, if not destroying, their contents.

In attempts which have been made heretofore to remedy this condition, the expense incidental to effecting a secure holding of the bridge pieces in position in the cardboard boxes and the necessary strengthening of the portion of the card-board adjacent the bridge connections has made the commercial use of these devices prohibitive.

Not only are these old devices expensive to construct but the cost of labor incidental to their mounting in the boxes has caused them to be unsatisfactory.

Accordingly, the primary object of my invention is to provide a simple form of fastening device for these bridges which will not only maintain the bridges securely in position on the frail box sides, but which will incidentally reinforce the sides especially adjacent the points of attachment of the bridge in such a manner that the walls are strengthened against the action of crushing or other distorting strains.

Another object is to provide a simple form of device of the class described which can be mounted in place without the use of any mounting tool or other cumbersome fastening mechanism.

Another object of the invention incidental to the economic feature above suggested, is to provide a form of attaching means which can be readily stamped from sheet metal by

a simple die action and without loss of metal in the forming operation.

Various other objects and advantages of the invention will be in part obvious from an inspection of the accompanying drawings and in part will be more fully set forth in the following particular description of one form of mechanism embodying my invention, and the invention also consists in certain new and novel features of construction and combination of parts hereinafter set forth and claimed.

In the drawings:—

Figure 1 is a perspective view showing one end of a box, with a preferred embodiment of my invention in position thereon;

Fig. 2 is a vertical sectional view through the connection at one end of the bridge shown in Fig. 1;

Fig. 3 is a plan view of the blank which forms the connection shown in Figs. 1 and 2, and

Fig. 4 is a similar view of a modified form of blank.

In the drawings, there is shown a box 4 which may be any of the conventional boxes used in storing and transmitting merchandise and for the purpose of this description the box 4 may be regarded as the conventional form of paste-board box used for transporting flowers, and the like. A bridge 5 is positioned to extend between opposite walls 6 and 7 of the box with each end thereof fastened in position by means of fastening means 8 particularly forming the subject-matter of this invention.

The fastening means may be formed from a sheet of metal, such as tin, and may readily be stamped to shape by means of a suitable die. Referring particularly to Fig. 3 which shows such a stamping, there is shown a body portion 9 of substantially square form, from one edge 10 of which projects centrally a lug 11 of a width to fit the width of the bridge 5. Side lugs 12 and 13 extend from opposite edges of the lug 11 and are of a length sufficient to permit these lugs to fit the sides of the bridge 5 and to overlap the top thereof as shown in Fig. 1. In order to economize metal the sum of the widths of the lugs 11, 12 and 13 is equal to the width of the body portion 9, but it is obvious that the lugs 12 and 13 may be of greater length transversely of the body portion so as to more fully overlap the top of the bridge

5 and may even be of such a length as to entirely inclose the end of the bridge 5. The body portion 9 is provided with two slits 14 and 15 curving toward each other and converging toward the edge of the body portion opposite the lug 11. The angle formed by the slits 14 and 15 is bisected by means of a centrally disposed slit 17 which coacts with the slits 14 and 15 to form two pointed fingers 18 and 19 designed to be bent back along the dotted line 20.

The blank so formed is fastened to opposite ends of the bridge member 5 by bending the lugs 12 and 13 about opposite sides of the ends of the bridge member and then bending the body portion 9 at right angles to the plane of the bridge member and about the line 21. This forms a stop member 22 as shown in Fig. 1, which engages the inner side of the adjacent wall over a material area thereof and tends to reinforce this wall against distorting strains. As the slits 14 and 15 are spaced from the outlining edges of the body portion the bending of the fingers 18 and 19 therefrom has but little weakening effect upon this body portion and detracts little, if any, from its reinforcing function. The fingers 18 and 19 are bent forwardly first as shown at 22' in Fig. 2 and as so formed the device constitutes an article of manufacture. When it is desired to mount the bridge in the box, the pointed members 18 and 19 are forced through the penetrable sides of the box making a hole therethrough merely of a size equal to the perforating members when entirely forced through. With the ends of the bridge member in engagement with the inner side of the box and with the stop member 22 engaging the inner side thereof, the free ends 23 of the fingers 18 and 19 are bent in opposite directions as shown at the right of Fig. 1 and moved back flat against the outer side of the box. The rigidity of the metal is sufficient to hold the members in the position shown in Fig. 1.

It will be seen that by means of a device of this character the bridge 5 is firmly supported in position and that the portion of the box side engaged thereby is reinforced, a portion being held between the stop 22 and the down bent projecting finger opposite the same. At the same time the upstanding finger projecting above the engagement of the bridge member with the side of the box, tends to reinforce the portion of the box side above the bridge. Any tendency of the bridge to buckle, either by reason of the articles packed underneath the same or by reason of superimposed weight on the box will be resisted by this engagement of the members on both the inner and outer sides of the box. As this engagement is over a material area of the box the disadvantage hereinbefore incident to formed

eye constructions are eliminated and local strains distributed over a material area of the box side.

The blank can readily be formed with ordinary die machinery and can be conveniently and quickly fastened to the bridge portion 5.

In the device herein disclosed this bridge portion is shown to be a flat wooden stick as this material tends to provide a cheap construction. The flat construction of the bridge disclosed is of advantage in that it spreads over the held articles and tends to eliminate any cutting action of the bridge on the articles held thereby.

The device shown in Fig. 4 resembles the construction shown in Fig. 3 except that the protecting portion of the plate 9 about the tongues 18 and 19 have been omitted.

Having thus described my invention, I claim:—

1. A member adapted to be positioned to extend between walls of penetrable material, fastening means for connecting one end of said member to the adjacent wall, said means including bendable lugs for engaging said member, a body portion extending from the lugs for engaging the inner side of the wall, a pair of fingers adapted to be bent from said body portion coacting to form a pointed projection extending at right angles to the body portion and adapted to penetrate the wall, said fingers adapted to be bent in opposite directions back flat against the outer side of the wall thereby to strengthen the wall against buckling under strain imposed thereon.

2. A member adapted to be positioned to extend between walls of penetrable material, fastening means for connecting one end of said member to the adjacent wall, said means including a sheet metal blank provided with cuts juxtaposed to form a pair of fingers disposed side by side and coacting to form a pointed projection extending from the end of the member and adapted to penetrate the wall, said fingers adapted to be bent in opposite directions back flat against the outer side of the wall thereby to strengthen the wall against buckling under strain imposed thereon and a bracing member paralleling said fingers and coacting therewith to hold the wall therebetween.

3. A bridge member including a flat wooden stick, a metal member having one end rectangular in cross-section fixed to one end of the flat wooden stick and having a finger projecting therefrom with a pointed end adapted to penetrate a paste-board wall, said finger being readily bendable, whereby it may be bent back after it has penetrated the paste-board wall and a stop member extending laterally from the rectangular end and formed integrally with the finger for engaging the side of the paste-board

wall opposite the side engaged by the bent finger.

4. A sheet metal fastening member including a body portion provided with a pair of converging slits adapted to form a pointed member and also including a pair of lugs adapted to constitute a fastening means for securing the member in place.

5. A sheet metal fastening member including a body portion provided with a pair of converging slits and a third slit bisecting the angle formed by the pair of converging slits thereby to form a pair of pointed members and also including a pair of lugs adapted to constitute a fastening means for securing the member in place.

6. A sheet metal fastening member including a body portion provided with a pair of converging slits and a third slit bisecting the angle formed by the pair of converging slits thereby to form a pair of pointed members and also including a pair of lugs adapt-

ed to constitute a fastening means for securing the member in place, said slits being spaced from the outlining edges of the body portion.

7. A wooden bridge member adapted to be fitted between a pair of oppositely disposed walls of a box, metallic fastening means fixed to opposite ends of said bridge member, one of said members comprising a sheet metal blank provided with means for engaging the inner side of the adjacent wall and also provided with cuts juxtaposed to form a pair of sharp pointed members acting to provide a single punching means for penetrating the wall, said pointed members being independently bendable back against the outside of the wall.

Signed at New York city, in the county of New York and State of New York, this 9th day of November A. D. 1917.

ISAAC ROTH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."