Nov. 4, 1930. W. M. STOREY 1,780,544

FASTENER FOR PACKING CASES

Filed Dec. 16, 1929

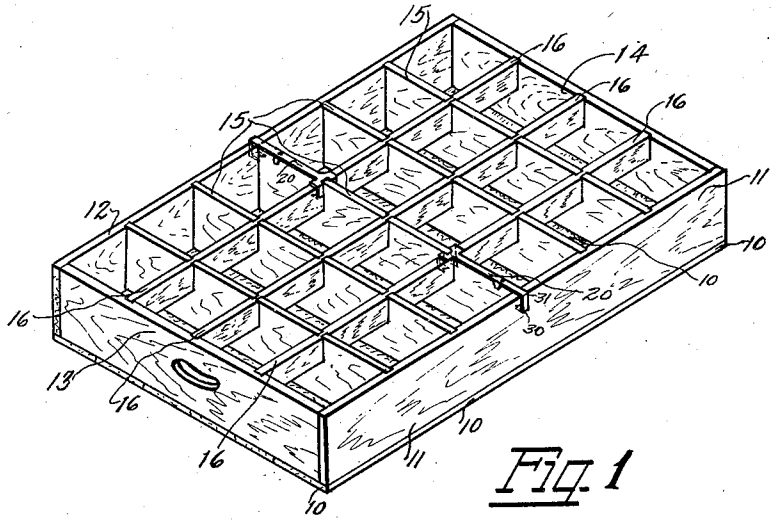


Fig. 1

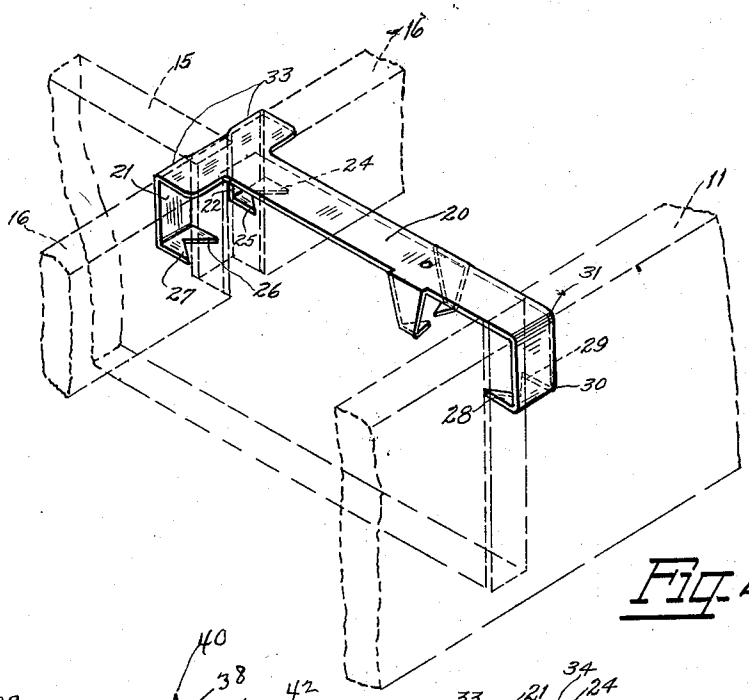


Fig. 2

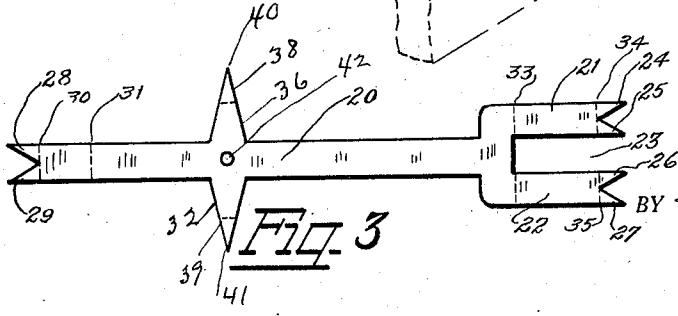


Fig. 3

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Patented Nov. 4, 1930 1,780,544

UNITED STATES PATENT OFFICE

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FASTENER FOR PACKING CASES

Application filed December 16, 1929. Serial No. 414,444.

This invention relates to bottle boxes or bottle crates and provides means for firmly securing the parts of the crate together, so as to prevent the same from spreading apart and thereby make a more durable box or crate.

An object of my invention is to provide a packing case and more especially a bottle crate which has means adapted to be secured to the side thereof and also to one of the partition members of the box to secure the sides and the partition member to each other in a substantial manner.

Another object of my invention is to provide a metallic reenforcing member adapted to be secured to the side portion of a packing box and to be also secured to certain of the partition members of the box so as to firmly secure the partition members and the side portions to each other.

Some of the objects of my invention having been stated other objects will appear as the description proceeds when taken in connection with the accompanying drawings, in which—

Figure 1 is a perspective view of a bottle crate showing my invention applied thereto;

Figure 2 is an enlarged perspective view of a portion of a packing box with my invention secured thereto;

Figure 3 is a plan view showing the clamping member itself.

Referring more specifically to the drawings the numeral 10 indicates the bottom portion of the box which has the side portions 11 and 12 and the end portions 13 and 14, and this box has a plurality of transverse partition members 15 and a plurality of longitudinally disposed partition members 16, which members 16 are set in cut away portions of the transverse partition members 15. These partition members are secured to the side and end walls of the box in any suitable manner, and it has been found heretofore that due to the rough usage which bottle crates have that there is a tendency for the side walls to pull away from the end-wall portions and to allow the partition members to collapse and otherwise become weakened.

In order to overcome this weakness I have devised a re-enforcing member 20 which has the two portions 21 and 22 at one end thereof, which are spaced apart from each other leaving the space 23 which is adapted to fit over one of the transverse partition members 15. These members or portions 21 and 22 have the barbs 24, 25, 26 and 27 thereon, which are adapted to be bent inwardly and to pierce the longitudinal partition members 16 while the cavity portion 23 passes over the transverse partition members 15. The outer end of the member 20 has the prongs 28 and 29 thereon which are adapted to pierce into the outer surface of the side wall portions 11 or 12 as the case may be, and to be firmly embedded therein.

It is thus seen that the member 20 secures the side wall portions firmly to the longitudinal partition member 16, and this partition member 16 being embedded in cut away portions in the transverse partition member 15 and the member 20 lying on top of one of the transverse partition members 15 and being embedded in the outer side wall portions 11 or 12 form a very substantial re-enforcing member between the partition members of the box and the side wall portions. The member 20 is adapted to be bent along the line 30 so as to cause the prongs 28 and 29 to project inwardly and to the outer side wall portions of the box, and the members 21 and 22 are adapted to be bent along the line 34 and 35 to cause the prongs 24, 25, 26 and 27 to pierce the partition members 16. The members 21 and 22 are also adapted to be bent along the line 33, so that the portion from line 33 to 31 is practically straight and lies on top of the transverse partition member 15.

The portion 20 has the outwardly projecting portions 36 and 37 which are adapted to be bent along the lines 38 and 39 with the points 40 and 41 being adapted to be embedded in the transverse partition member 15. This member 20 also has a hole therein at the point where the projections 36 and 37 occur into which a suitable nail or screw may be inserted. This hole is indicated by the reference character 42, and the nail is shown in place in Figure 2 as indicated by the reference character 43.

In the drawings and specification I have

set forth a preferred embodiment of my invention, and although specific terms are employed they are used in a generic and descriptive sense only, and not for purposes of limitation, the scope of the invention being set forth in the appended claims.

I claim:

1. As a new article of manufacture, a fastener for securing separated parallel members to each other, said fastener being formed from a single piece of sheet material, comprising a body portion, two separated members extending from said body portion and in the same horizontal plane of said body portion, said extension members having prongs thereon adapted to be bent inwardly to engage the side walls of one of the parallel members, the other end of said body member having prongs thereon adapted to be bent inwardly to engage the side walls of the other parallel member.

2. In a fastener for bottle crates and the like, said bottle crate comprising side wall portions and longitudinal and transverse partition members intersecting together, said fastener comprising a body portion, barbs cut in one end of the body portion and being adapted to be bent inwardly to pierce the outer edge of the side wall portions of the box, the other end of said body member being forked and the ends of said members constituting the fork having barbs thereon which are adapted to be bent inwardly to penetrate the side wall portions of one of the partition members to securely hold the partition member with relation to the side wall member.

3. In a fastener for packing cases and the like, a body member, barbs on one end of the body member adapted to engage the side wall portion on the packing case, said packing case having transversely and longitudinally disposed partition members therein, barbs on the other end of said body member adapted to fit on each side of one of the transverse partition members and to be embedded in the side wall portion of one of the longitudinal partition members.

4. In a bottle crate having side wall portions and transversely and longitudinally disposed partition members, said partition members intersecting each other, a fastener adapted to secure said partition members to each other and to the side wall portions of the crate, said fastener comprising a body portion, barbs on one end of the body portion adapted to penetrate the side wall portion of the crate, two separated projections extending from the other end of the body portion, said projections being adapted to be bent downwardly on opposite sides of one of the transversely disposed partition members, barbs on the ends of both of said extending members, said barbs being adapted to press into the side wall portion of the longitudinally disposed partition member.

5. In a fastener for bottle crates and the like, a body portion, a fork at one end of the body portion, barbs on each end of said fork, said fork being adapted to be placed beside a transverse partition member of a crate, and to be embedded in the side wall portion of the longitudinally disposed partition members of the crate, and the other end of said body member being adapted to be embedded in the side wall portions of the crate.

6. In a fastener adapted to secure the partition members of a packing case in position with relation to the side wall portions, a fastening member adapted to have one end thereof embedded in the side wall portion of the crate, and the other end thereof being adapted to be secured in the side wall portion of one of the longitudinally disposed partition members of the crate and on opposite sides of one of the transverse partition members of said crate.

In testimony whereof I affix my signature.

WILLARD M. STOREY.