Aug. 31, 1943. A. L. ROSENMUND 2,328,230

BOX

Filed Aug. 23, 1940

Fig. 1.

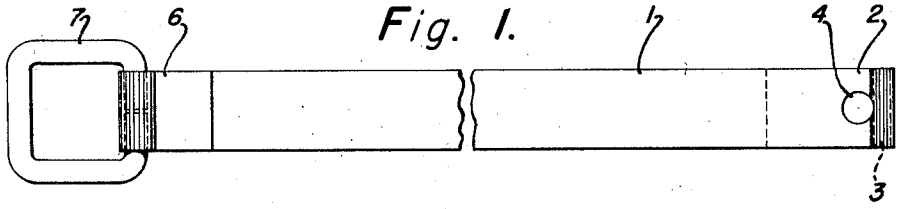
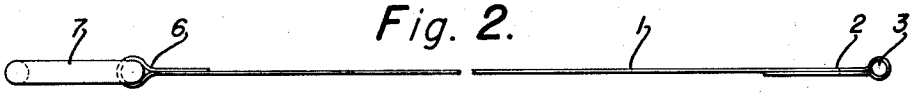


Fig. 2.



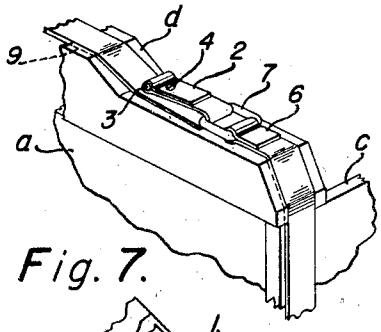


Fig. 7.

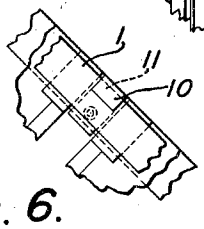
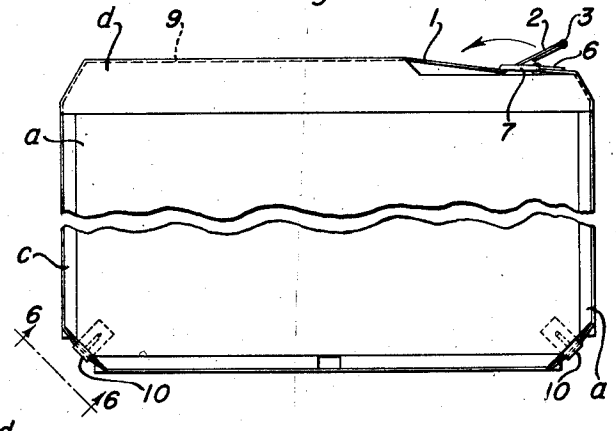


Fig. 6.

Fig. 5.



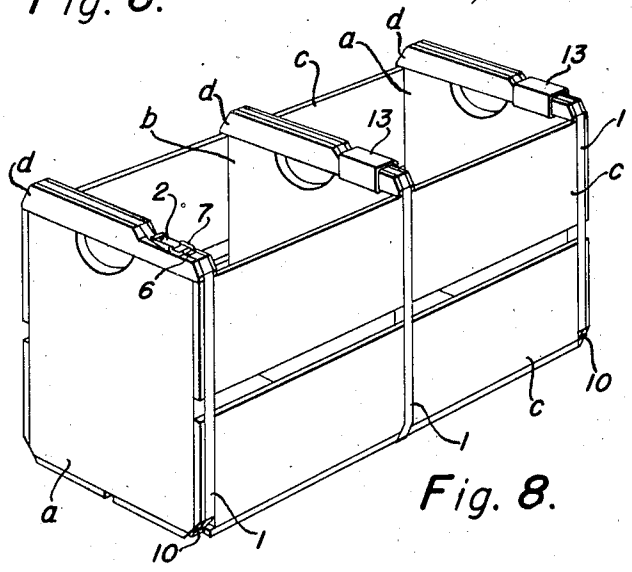


Fig. 8.

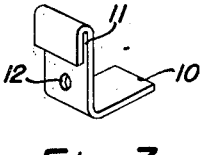


Fig. 3.

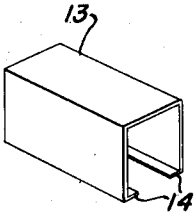


Fig. 4.

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BOX

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Application August 23, 1940, Serial No. 353,827

3 Claims. (Cl. 217—66)

This invention relates to boxes and particularly to field boxes for fruits and vegetables.

Among other objects, the invention is intended to provide an improved field box for fruits and vegetables; and to provide such a box with a reenforcing metal band or strap which may be quickly and easily applied, tensioned, and removed.

One illustrative embodiment of the invention is shown in the accompanying drawing, in which—

Figure 1 is a top plan view of the reenforcing band or strap.

Fig. 2 is a side elevation of the same.

Fig. 3 is a perspective view of a bottom corner clip for the box.

Fig. 4 is a perspective view of a metal guard for locking the band or strap after it has been tensioned about the box.

Fig. 5 is an end view of a field box, showing a reenforcing band properly positioned thereabout and ready to be tensioned and locked.

Fig. 6 is an enlarged corner view taken on the line 6—6 of Fig. 5, showing a bottom corner clip with the reenforcing band inserted therein.

Fig. 7 is a perspective view of a completed buckle fastening of the reenforcing band.

Fig. 8 is a perspective view of the field box, showing the reenforcing bands tensioned thereabout and secured by the buckle fastening, with two of them housed and locked by metal guards.

The illustrative field box is a two-compartment container comprising two solid ends *a*, a solid center partition *b*, and slatted sides *c*. The side slats *c* are usually nailed or stapled to the ends *a* and the center partition *b*. To protect the fruit when a number of filled boxes are stacked one upon the other, a cleat *d* with beveled ends may be secured to the top surface of each end *a* and of the center partition *b*. The ends, center partition, and cleats are usually constructed of resawn lumber. The side slats may be of resawn lumber or rotary-cut veneer.

Heretofore, reenforcing metal bands were positioned around the box, drawn tight, and then nailed at intervals through the side and bottom slats and into the ends or into the center partition. This method of reenforcing was unsatisfactory because it required removal of the nails whenever it became necessary to tighten the bands about the box or to remove the bands to replace a broken side slat.

The reenforcing bands of this invention and the method of assembling them on the field box are such that they may easily be secured thereon or removed by means of a buckle fastening. The reenforcing bands 1 are passed around the ends and the middle of the field box and properly tensioned, secured and locked without nailing the bands to the box.

Referring to Figs. 1 and 2, the band 1, preferably of steel, has permanently shaped on one end 2 an eye clamping therein a support pin 3. The eye may be permanently secured by spot welding the double thickness of the band. Adjacent the support pin 3, the double thickness of the end 2 is provided with a hole 4 to accommodate an element of a special tool for tensioning the band 1 around the box. The tool referred to is shown in my copending application of even date herewith. To the other end 6 of the band 1 is fastened a buckle 7 which is permanently secured thereto preferably by spot welding.

As shown in Figs. 5 and 8, the reenforcing bands 1, three of which are illustrated (Fig. 8), are of a sufficient length to pass completely around the field box plus a generous overlapping of the ends 2 and 6. As shown in Fig. 5, the side and bottom slats preferably are recessed to a sufficient depth to allow the reenforcing bands 1 to rest in the recess with their outer surfaces flush with that of the slats. The recess also prevents any lateral movement of the reenforcing bands 1. The top cleats *d* may be provided in their upper surface with a groove 9 of sufficient width and depth to receive the reenforcing bands 1.

To prevent the reenforcing bands 1 which are adjacent the ends of the field box from slipping off the bottom corners, a metal clip 10 (shown in detail in Fig. 3) is secured to each bottom corner of the box, as shown in Figs. 5 and 6. The metal clip 10 is bent at a right angle, the end of one of its legs being shaped into a U to provide a channel 11, into which the outer edge of the reenforcing band 1 is inserted. The other leg of the metal clip 10 rests adjacent the inner surface of the end and, by means of a nail driven through a hole 12 of the clip and into the end, the metal clip 10 is securely fastened in position.

As shown in Fig. 5, the top cleats *d* have a portion of their top surface cut away, whereby the buckle fastening of the reenforcing band 1 may be positioned below the top surface of the top cleats 8.

With the reenforcing band 1 in position, as shown in Fig. 5, the end 2 of band 1 is inserted through the buckle 7 and drawn as tight as desired and then, by swinging the end 2 in the di-

rection indicated by the arrow in Fig. 5 to the position shown in Fig. 7, the band 1 will be held under tension so long as the end 2 remains in the position shown in Fig. 7. To hold the end 2 in locked or closed position, a metal guard 13 is provided. As shown in Fig. 4, the guard 13 is adapted to slide endwise over the cut-away portion of a top cleat *d* and over the buckle 7 and the band end 2 to house the buckle fastening and hold it in locked position. The metal guards 13 have a portion of one of their sides open, thereby providing a pair of flanges 14 which may engage the under side of the cleat *d* or enter grooves formed in the cleat *d*. The metal guards 13, two of which are shown properly positioned in Fig. 8, will prevent the end 2 of the buckle fastening from being raised or bent back toward its initial position. To loosen the reenforcing band 1, the metal guards 13 are removed, thus permitting the end 2 to be bent back to initial position to release the tension on the band and remove it from the box.

It should be noted that the metal of the reenforcing bands 1 is sufficiently flexible to permit the end 2 to be bent back upon itself without breaking, while not flexible enough to permit the the end 2 to slip on the buckle 7 when the end 2 is bent back upon itself.

Among other advantages, the invention increases the life of the field boxes and reduces the cost of keeping them in repair.

The word "box" as used in the specification and claims is intended to include crates.

It will be understood that the invention is not to be limited to the specific embodiment shown for purposes of illustration and that all of the features of the invention need not be used conjointly.

I claim:

1. In a field box having top cleats, a releasable reenforcing metal band surrounding the box and overlying the top cleats under tension, a buckle secured to one end of the band, the other end of the band having a hole formed therein and passing through the buckle and bent back upon the body of the band to hold the band under tension, and a detachable locking member overlying the buckle and the bent end of the band and connected to a top cleat to lock the bent end of the band in holding position; the sides of the box and the top cleats being recessed to receive the band and hold it against lateral shifting.

2. In a field box, a releasable reenforcing metal band surrounding the box under tension, a buckle secured to one end of the band, the other end of the band being passed through the buckle and bent back upon the body of the band to hold the band under tension, and a detachable locking member overlying the buckle and the bent end of the band and connected to the box to lock the bent end of the band in holding position.

3. In a field box, a releasable reenforcing metal band surrounding the box under tension, one end of the band being provided with an opening and the other end of the band being passed through said opening and bent back upon the body of the band to hold the band under tension, and a detachable locking member overlying the bent end of the band and connected to the box to lock the bent end of the band in holding position.

ALFRED L. ROSENMUND.