Dec. 28, 1948. F. L. McGARY ET AL 2,457,702

SHIPPING CONTAINER

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Fig. 1

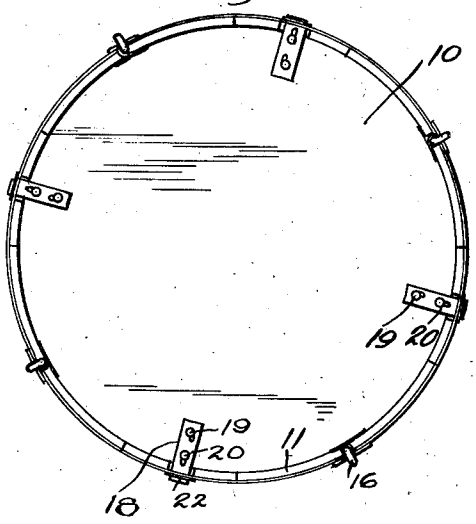


Fig. 2

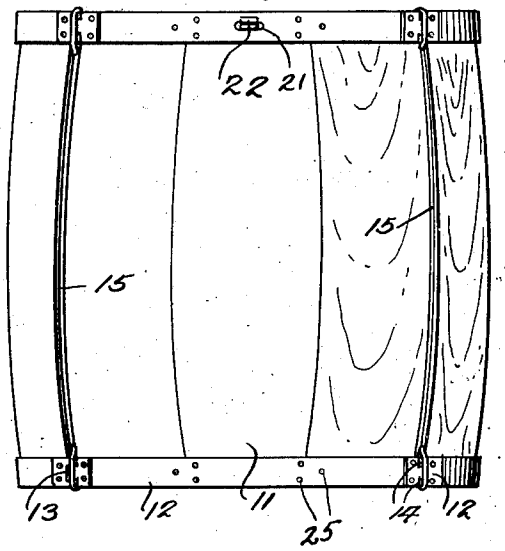
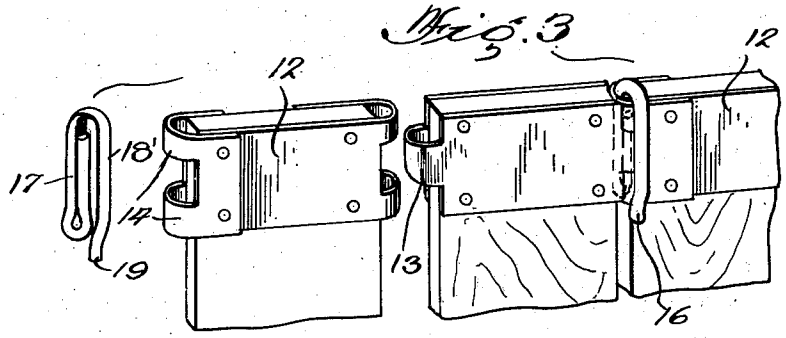


Fig. 3



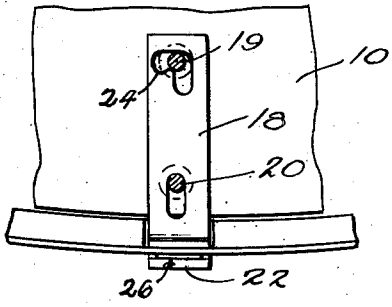


Fig. 4

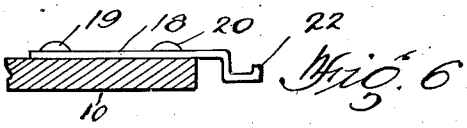


Fig. 6

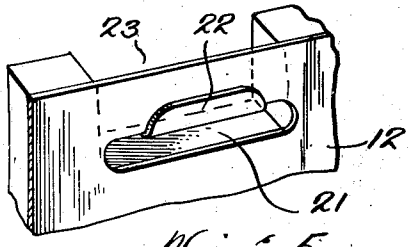


Fig. 5

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SHIPPING CONTAINER

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Fig. 7

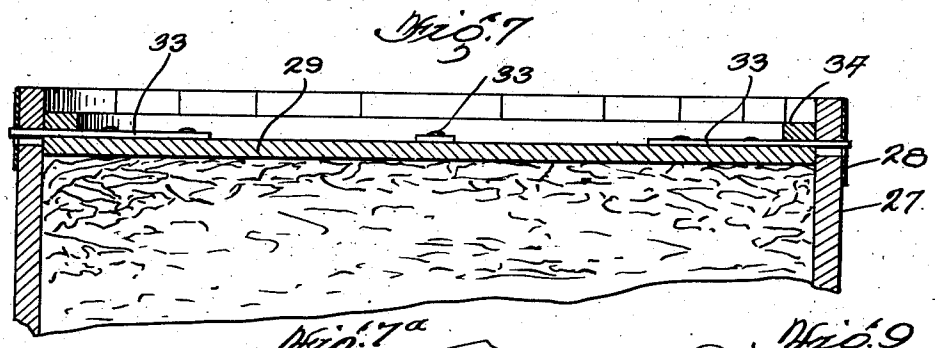


Fig. 7a

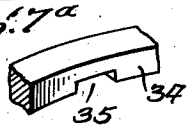


Fig. 8

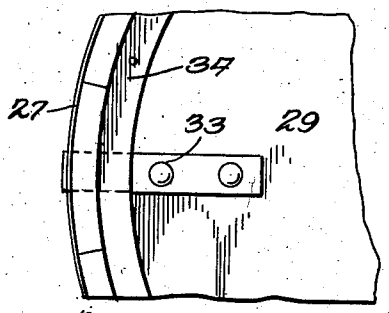


Fig. 9

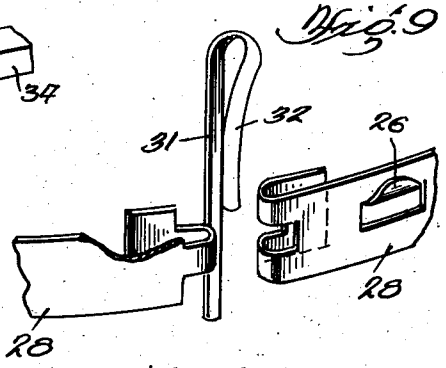


Fig. 10

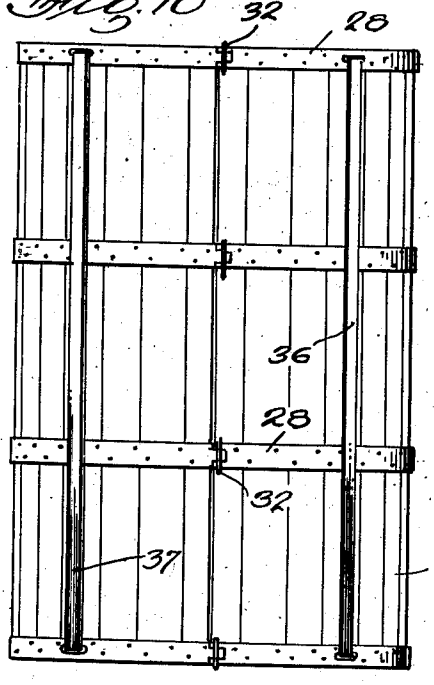


Fig. 11

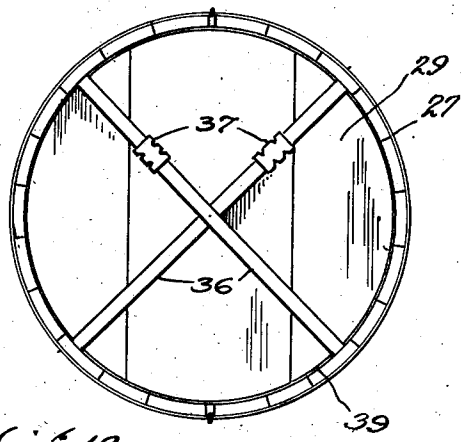


Fig. 12



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2,457,702

SHIPPING CONTAINER

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Application October 3, 1944, Serial No. 556,970

7 Claims. (Cl. 217—44)

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Our invention relates to shipping containers such as hogsheads, barrels, casks and the like and it is an object of the same to provide a structure of knockdown character, such as can readily be set up in such a fashion that its parts will be securely held in place while yet the head may readily be removed for inspection or the like, or the entire device can be knocked down, or a section of the body can be opened for inspection of the contents from top to bottom, e. g., as is customary in the case of hogsheads containing tobacco.

Another object of the invention is to provide a shipping container of such a nature that it can readily be made up as a unitary package, with all the parts and the contents tied together in such a way that it is sealed, so that any breakage for the purpose of pilfering will be immediately obvious.

Other objects and advantages of the invention will appear from a consideration of the following description and of the drawings, which are made a part of this application and in which similar reference characters indicate similar parts.

Referring to the drawings:

Fig. 1 is a plan of a preferred form of the device of our invention,

Fig. 2, an elevation of the same,

Fig. 3, a perspective of a fragment thereof, with some of the parts separated from the others,

Fig. 4, an enlarged fragmentary plan,

Fig. 5, an enlarged fragmentary perspective,

Fig. 6, a detailed showing of one side of a locking device,

Fig. 7, a partial vertical section of a modified form of container,

Fig. 7a, a detail of a liner shown in Fig. 7,

Fig. 8, a fragmentary top plan of the device shown in Fig. 7,

Fig. 9, a detailed showing of the ends of a pair of adjacent hoop sections,

Fig. 10, an elevation showing a modified form providing a sealed container,

Fig. 11, a top plan of the same, and

Fig. 12, a fragmentary perspective of the head.

In the drawings, reference character 10 indicates the head of a shipping container having staves 11 connected and held in place by upper and lower hoops, as usual, except that the hoops are formed in sections 12 each provided with ears that are adapted to be alined for insertion of a pintle or the like. In a preferred form of the invention the hoop sections are each provided at one end with an ear 13 and at the other with two spaced ears 14. There may be a hoop section

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for each end of each stave but preferably two, three or more staves are held at each end by the same hoop sections, as shown in Fig. 1, although we may also make barrel sections of plywood, fiberboard, etc., of such width that only a few sections make up the entire container wall.

For connecting the hoop sections we may use bendable wires or rods 15 extending from end to end of the barrel, the rods being threaded at each end through ears 13, 14 of a pair of staves or barrel sections and being preferably bent about such ears so as to extend inward at their ends beyond the outer surfaces of said ears and so to prevent accidental withdrawal, as shown at 16 in Fig. 3. Obviously the rods may be withdrawn at opposite sides of a stave on a barrel section at the top of the container and the stave section swung outward to expose the contents over the entire length of the same. However, we may also utilize the short staple-like fasteners such as shown at the left in Fig. 3, such fasteners preferably consisting of wire bent to provide a double leg 17 at one side and a single leg portion at the other side recurved as at 19, so that when either leg is inserted through ears 13 and 14 the fastener will just nicely slip into place but the recurved portion will effectively resist accidental withdrawal.

We provide means for locking the head to the staves or sections, so as to hold all parts strongly together, such means preferably consisting of flat bars 18 mounted on the head 10 for radial movement, as by means of radial slots engaged by bolts 19, 20 on the head. These bars have hook-like outer ends, they being preferably shaped as shown in Fig. 6 to engage the upper portion of a hoop section above an opening 21 and being extended upwardly beyond said hoop portion, as at 22 in Figs. 5 and 6. The body of the container will be provided with a recess as at 23 to accommodate the bar 18. Such a bar will preferably be located at the center of a hoop section as shown in Fig. 2, for the best effect in holding the parts in place, and preferably this recess will be just wide enough for easy entry of the end of a bar 18, the sides of the recess guiding the bar into the opening 21 in the hoop. The bar may however be narrower than the recess, as in Fig. 5.

To insure against accidental release of the bars 18 the inner slot is preferably L-shaped and recurved as shown in Fig. 4 so that the bar may be swung about its bolt 20 as a pivot when in locking position and then pushed outward into the notch at 24, whereupon the upward pressure

of the contents of the barrel will effectively prevent release of the hook.

When several staves are connected to form a barrel section they will of course be secured to their hoop sections, as by nails **25** or in other suitable manner. The punch-out portion of the hoop at an opening **23** may be bent upward to reinforce the part above it, as at **26** in Fig. 4.

In the form of the invention shown in Figs. 7 to 9 the body **27**, the hoop **28** and the head **29** may be as in the form first described, the hoop preferably consisting of two or more sections provided at opposite ends with ears as shown in Figs. 3 and 9, Fig. 9 differing from Fig. 3 only in showing the hoops detached from the hogshead, cask or tub, and in that the connector **30** is simplified, it being merely a staple-like device comprising a wire bent to form a long leg **31** and a short leg **32** approaching rather closely at its lower free end to the long leg **31** to prevent accidental disconnection.

In the form shown in Figs. 7 to 9 the radial bars **33** are fixed to the head **29** and the staves or body sections must be sprung out to permit the head to be applied or removed. These bars are straight and they project outward through the slots adjacent the chine of the container and through the hoops **28** as seen in Fig. 7.

To stiffen the chine and to secure the parts in place we may attach a liner **34** in the angle between the head and the chine, this liner being preferably a wooden ring nailed to the head. Preferably the liner is notched at **35** to accommodate the bars **33**.

In the modified form of Figs. 10 to 12, the parts **27**, **28** and the connectors **31**, **32** may be the same as in the form first described. Instead of using locking bars such as those at **18** and **33** in other figures of the drawings we unite all parts of the container, as well as its contents, into a single sealed unit by training a pair of bands **36** of steel or the like through openings in the chine at opposite sides of each head as shown in Figs. 10 and 11, there being preferably two such bands crossing each other at each end of the hogshead. These bands have their ends connected by metallic seals at **37**, in well-known manner, and they serve effectively to prevent pilfering, as frequently is done by prying up an end of a hogshead, removing part of the contents, and then replacing the head. Since the bands **36** must be broken before the contents of a hogshead can be tampered with, any tampering becomes immediately noticeable, and can be taken care of.

Fig. 12 shows a head **38** provided with a metallic band **39** encircling it and attached thereto as by nails **40**. This head may be used with any of the forms of the invention shown, and it serves as a means to prevent tampering and pilfering, either auxiliary to the bands **36** of Figs. 10 and 11, or in place of such means, since band **39** will also serve to prevent easy opening and replacement of the head.

The devices of Figs. 10 to 12 are especially desirable for use on containers for export, or for very heavy goods such as munition and heavy hardware, by reason of their reinforcement of the container.

Certain features of our invention are useful in other relations, as will be obvious. Thus the end closures shown herein can very well be used on tubs and boxes of various sorts, particularly where the end body portions are apertured to

receive radial bars **18** or **33** or heads as shown at **36**.

It will be obvious to those skilled in the art that many changes may be made in the device of our invention as herein disclosed, all without departing from the spirit of the invention; therefore we do not limit ourselves to what is shown in the drawings and described in the specification but only as indicated in the appended claims.

It will be understood that, so far as concerns hogsheads of commercial type, Fig. 1 shows the hogshead as bulging at the middle while Fig. 10 shows it as straight-sided, as is now more common practice.

Having thus fully decribed our invention, what we claim is:

1. A shipping container comprising a head, a body portion, a hoop surrounding the head end of the body and having openings therethrough, and radially movable bars on said head, said bars being turned up at their outer ends to provide hooks for engaging parts of said hoop to prevent retraction of said bars, said bars also having longitudinal guide slots spaced lengthwise of said bars, and bolts on said head engaging said slots, the inner one of said slots being L-shaped to permit the bar to be swung laterally so as to be locked against retraction by the engagement of its bolt in the lateral slot portion.

2. A shipping container comprising a head, a body portion, a hoop surrounding the head end of the body and having openings therethrough, and radially movable bars on said head, said bars being turned up at their outer ends to provide hooks for engaging parts of said hoops to prevent retraction of said bars, said bars having longitudinal guide slots spaced lengthwise of the bars, at least one of the slots having a lateral extension permitting lateral movement of the bar when in projected position, so that endwise movement of the bar is then inhibited.

3. A shipping container comprising a head, a body portion, radially slidable bars on the head engageable in holes in the body when projected, and means for holding the bars on the head including bolts extending through slots spaced lengthwise of the bars, at least one of the slots of a bar having an offset portion permitting the adjacent part of the bar to move laterally into a position such that engagement of such portion with the corresponding bolt prevents retraction of the bar.

4. In a shipping container of the hogshead type, a body comprising a series of staves, upper and lower heads, hoops surrounding said heads, certain of said staves at opposite sides of the container having apertures at their ends and there being corresponding apertures in the end hoops, and bands extending about the container longitudinally of the sides and across the heads of the container to surround the same, said bands each extending through correlated apertures at the ends of a pair of staves at opposite sides of the container.

5. A device as in claim 4, wherein a pair of said bands cross each other at the ends of the container.

6. In a shipping container, a cylindrical body, heads therefor, hoops about the ends of the container, said hoops and body having a plurality of sets of apertures through the hoops and the adjacent part of the body at opposite ends of the container and at opposite sides of the same so as to permit a band to be trained along the

sides of the container and across its ends so as to surround the container, and a plurality of such bands passing through alined apertures at each end of the container each band having its ends united for tying the container and its contents into a single unit.

7. A device as in claim 6, said bands being made of metal, and metallic seals connecting the ends of the bands.

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CHARLES E. McGARY.

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