

(No Model.)

W. E. BOND.

KIT.

No. 412,160.

Patented Oct. 1, 1889.

Fig. 1

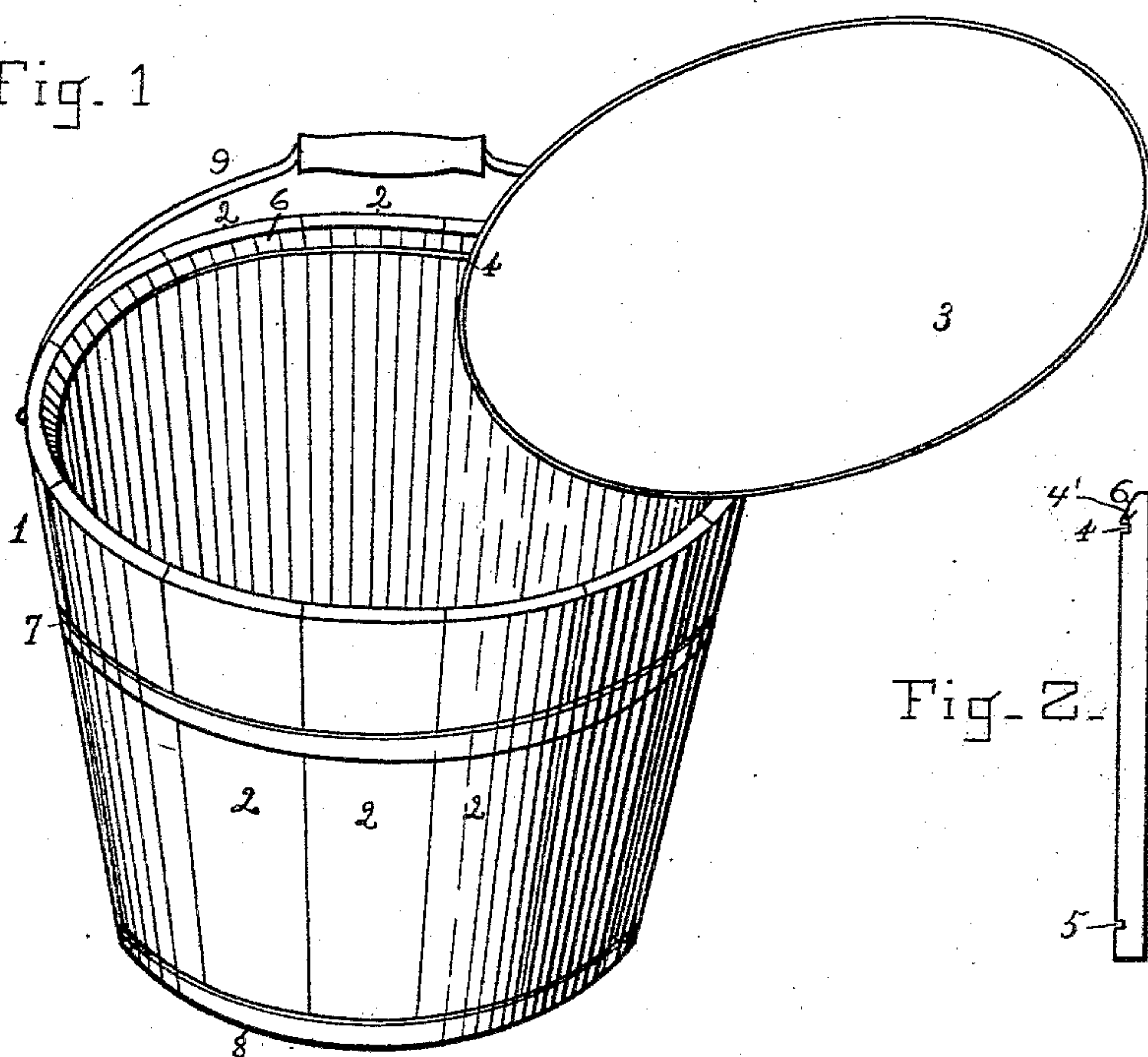


Fig. 2

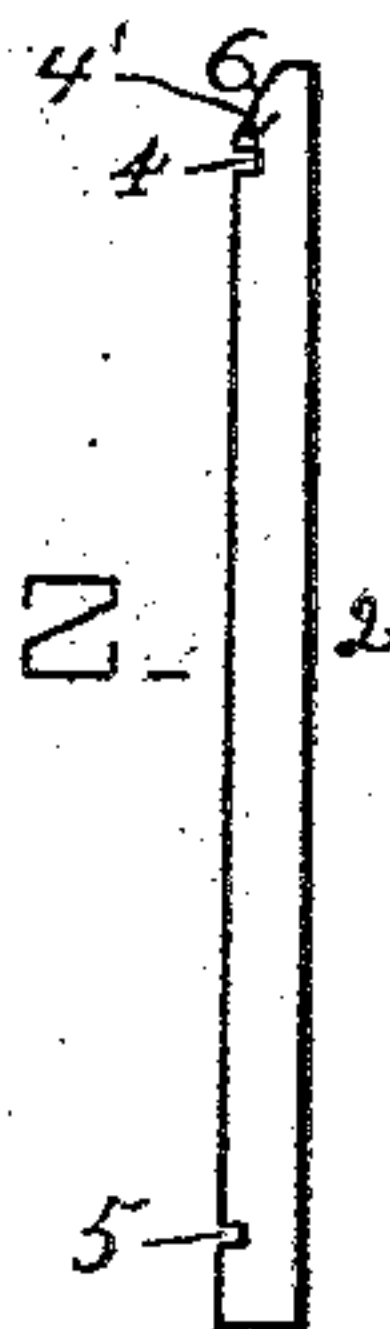
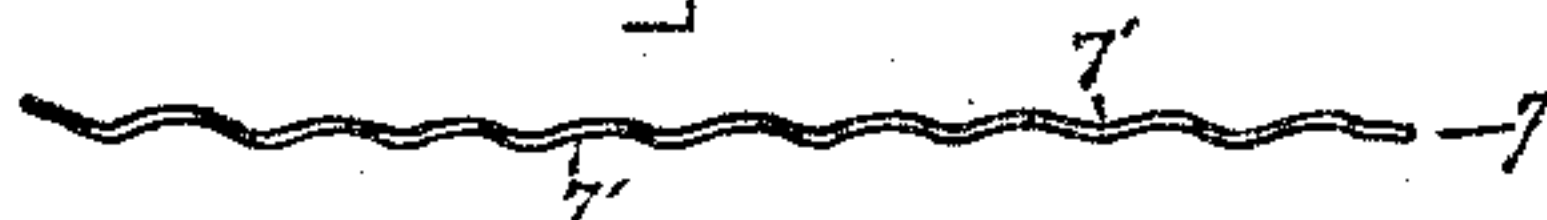


Fig. 3



Fig. 4



Witnesses.

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KIT.

SPECIFICATION forming part of Letters Patent No. 412,160, dated October 1, 1889.

Application filed May 7, 1889. Serial No. 309,890. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. BOND, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Kits, of which the following is a specification.

My invention relates to a kit or a tapering covered vessel similar in its form and construction to an ordinary wooden water-pail, but being adapted to receive and have secured within a crozing near its larger end a cover.

The object of my invention is to produce an article of manufacture which is adapted for use in holding liquid or semi-liquid substances or other articles of merchandise—such as nuts, candies, tobacco, &c.—which it may be desired to transport from place to place without there being a liability of loss by leakage from the package or of its being broken into by the persons through whose hands it is required to pass, by reason of an insecure covering. The wooden packages of this nature for the shipment of jellies, preserves, nuts, candies, tobacco, &c., which have heretofore been used have had a removable cover applied and secured thereon in a temporary manner, such securing device often consisting of only a few strips of leather or tin and a few tacks. The covers thus used do not, neither were they intended to, form a perfectly-tight joint—one capable of retaining liquids or semi-liquid substances within the kit—and in consequence of this defect the contents escape therefrom in the operation of their cartage and in consequence of the jar incident to the movement of the cars and other vehicles upon which they are transported, thereby producing not only a loss of their contents by leakage, but damage to the packages, and also to the goods of all other kinds within their vicinity. This defect has proved so serious that transportation companies have discriminated regarding the carriage of many articles in packages thus made. Still another serious result produced by the easy method of removing the covers is the loss of their contents

by the abstraction from the package in which they are packed of such articles as candies, nuts, tobacco, &c., by the teamsters and steamboat and train men through whose hands the goods may pass, thereby entailing a loss upon both shipper and carrier.

The objects above named are attained in the manner herein described and as illustrated in the accompanying drawings, which are made a part of the specification.

Figure 1 is a view in perspective of the kit and a cover for the same. Fig. 2 is an edge view of one of the staves composing the kit; Fig. 3, a transverse sectional view of the cover, and Fig. 4 an edge view of a modification of a part of the upper or top hoop.

Similar figures of reference indicate like parts in the several views.

1 represents the kit; 2 2 2, the staves of which it is composed; 3, a cover therefor; 4, a crozing in the upper end of the staves for receiving said cover; 5, one in the lower end of the staves for receiving a bottom; 6, a chamfer formed upon the ends of the staves above the crozing. 7 and 8 are respectively top and bottom hoops, and 9 a bail for the kit. The kit 1 is formed of staves 2 2 2, which may be cut or sawed. They are tapered, their edges fitted to each other, and the staves cut to the required length. A sufficient number are then assembled into the desired form and turned in a lathe adapted for the purpose. The crozings 4 and 5 are cut, the former one for receiving a bottom and the latter one a cover. The chamfer 6 is cut upon the inside of the staves above the crozing 4, and a bottom is inserted in the crozing 5. Hoops are driven upon the kit. It is sandpapered and polished, and may be further finished by being painted and varnished, as suits the purpose for which it is to be used, and the bail 9 applied, thereby completing the kit.

It will be observed that in forming both the upper and lower crozings the cut is made in the staves in a direction at right angles with their length, thereby producing positive shoulders in each crozing. While this

is preferable in both of the crozings, it is not a necessary element in their formation, except in the upper one, the crozing 4, where the positive shoulder 4' upon the upper side of the crozing is a barrier to the removal of the cover from the kit, except by its breakage or the loosening of the hoop 7, and is therefore essential for attaining the object of my invention.

In applying the kit to any of the purposes above named, it is filled with the desired material nearly to the crozing 4, when the cover 3, formed as shown in Fig. 3, is placed in position, resting it upon the chamfered ends of the staves, when it is pressed downward, the chamfered ends of the staves aiding its movement, while the slight elasticity of the staves, and also the compression of the cover, while subject to the aforesaid downward pressure, permits the cover to enter the crozing, when the staves and cover resume their normal size and form a tight joint between each other. The cover being thus sprung into its place within the crozing, its removal therefrom can only be accomplished by its breakage or the loosening of the top hoop 7, both operations requiring the use of tools and denoting by their effects upon the kit any attempt toward breaking into it. It is important that the top hoop 7 be not placed too near the top of the kit, or that some distance exists between the cover and said hoop, whereby a degree of elasticity in the portion of the staves which is above the hoop is provided for, and the insertion of the cover by a downward pressure thereon is made possible.

Fig. 4 shows an edge view of a modification of a part of the upper or top hoop. In the use of some species of wood with which it may be desired to manufacture the kits the staves may be wanting in sufficient elasticity or the length of the staves be so limited that the distance between the top hoop and cover does not permit the elasticity necessary for the easy insertion of the cover. Any difficulty of this nature I provide for by the use of this modification of the hoop. I use for this purpose a hoop made of steel and having corrugations transversely of the hoop, as shown in Fig. 4. These corrugations allow of an extension and contraction in the hoop's length, thereby providing for a want of elasticity in the staves.

I am aware that it is not new to make a kit or similar article of wooden ware having its top hoop at some distance below the upper end of the stave and a cover inserted in said end, as such a method of construction is shown in the patent of J. W. Taylor, No. 140,195, of June 17, 1873; but the cover in this case is made in two parts, with a flange over the joint of said parts, and a lever is applied for forcing said parts apart and into the crozing of the staves.

I am also aware of the invention of S. F. Hess, No. 99,188, of January 25, 1870, in which

a cover is inserted within a rabbet near the upper end of the staves; but said rabbet, while having a shoulder below the cover for preventing the further entrance of the cover, has none above it for preventing its removal by means of a sharp instrument inserted into or under it. Packages have also been made wherein their top hoop was placed above or nearly opposite the crozing for the cover, thereby making the insertion of the cover in the manner described in my invention impossible without removing said hoop, and thereby permitting some portion of their contents, if of a liquid nature, to escape, the invention of H. F. Coombs, No. 289,390, of December 4, 1883, being an example in which said hoop must be placed thereon after the cover is put in place, thus making additional expense and also marring the package by the operation.

I do not, therefore, claim, broadly, a kit having a bottom and a cover secured in crozings formed in its staves. Neither do I claim the application of a hoop having corrugations transversely thereof for the purpose of providing for an increase in the circumference of the article upon which it is used, as such a hoop is shown in its application to a barrel and pail stave in patents granted to Israel G. Rice November 10, 1885, No. 330,153, and May 18, 1886, No. 342,135; but

What I do claim, and desire to secure by Letters Patent, is—

1. As an article of manufacture, a kit composed of staves having crozings formed near each end of the staves, a bottom inserted in the lower one of said crozings, a hoop secured around the kit near its bottom end and one intermediate between said bottom hoop and the upper crozing, a chamfer formed upon the projecting ends of the staves above said upper crozing, and a cover having a smooth upper surface and its upper and lower surfaces near the edge thereof chamfered, and adapting the cover to enter said upper crozing and also to be inserted therein by being placed upon the aforesaid chamfered ends of the staves, pressed downward, and sprung into said crozing under the positive shoulder 4', and thereby making the removal of said cover impossible except by its breakage or the lowering of the aforesaid upper hoop, all combined and operating substantially as described.

2. As an article of manufacture, a kit composed of staves having crozings formed near each end of the staves, a bottom inserted in the lower one of said crozings, a hoop secured around the kit near its bottom end and one intermediate between said bottom hoop and the upper crozing, said intermediate hoop having corrugations transversely thereof, a chamfer formed upon the projecting ends of the staves above said upper crozing, and a cover having a smooth upper surface and its upper and lower surfaces near the

edge thereof chamfered, and adapting the cover to enter said upper crozing and also to be inserted therein by being placed upon the aforesaid chamfered ends of the staves, 5 pressed downward, and sprung into said crozing under the positive shoulder 4', and thereby making the removal of said cover impossible except by its breakage or the lowering of the aforesaid upper hoop, all combined and operating substantially as described.

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