

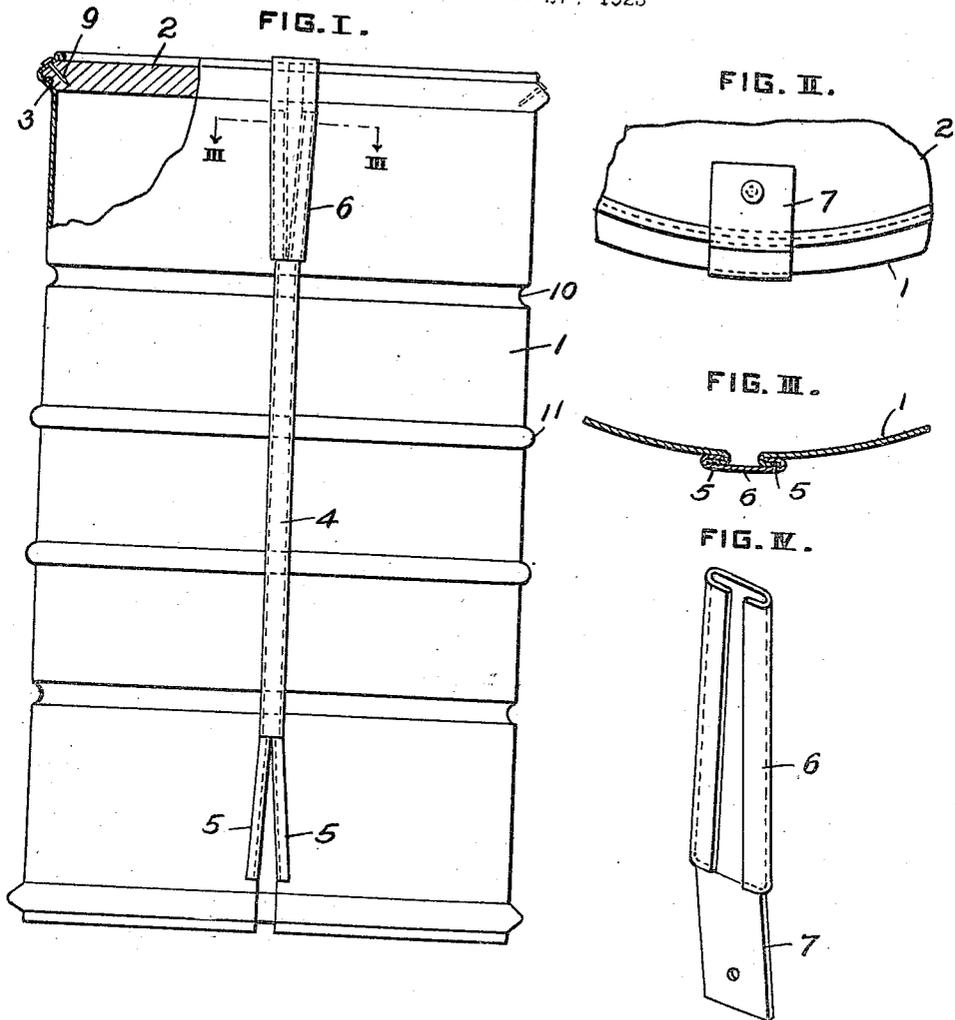
Sept. 23, 1924.

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1,509,218

CONTAINER

Filed Feb. 27, 1923



WITNESSES

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UNITED STATES PATENT OFFICE.

JAMES V. WALSH, OF KNOXVILLE, PENNSYLVANIA.

CONTAINER.

Application filed February 27, 1923. Serial No. 621,519.

To all whom it may concern:

Be it known that I, JAMES V. WALSH, residing at Knoxville, in the county of Allegheny and State of Pennsylvania, a citizen of the United States, have invented or discovered certain new and useful Improvements in Containers, of which improvements the following is a specification.

My invention relates to improvements in containers. I have developed it as a nail-keg, and in that particular development I shall describe it. I do not, however, regard the invention as limited to nail-kegs specifically, but as applicable to barrels and to containers generally. The objects of improvement are cheapness, strength, and economy of space in shipment.

A nail keg embodying my invention is illustrated in the accompanying drawings. Fig. I is a view in side elevation, with a showing of detail in vertical section. Fig. II is a fragmentary view in end elevation, showing a portion of one head of the keg; Fig. III is a fragmentary view in cross section, on the plane indicated by the line III—III, Fig. I. Fig. IV is a view in perspective and to larger scale of a closing and fastening device shown in place in Fig. I. Fig. V is a fragmentary view similar to Fig. I and illustrating a modification, and Fig. VI is a fragmentary view in cross section, on the plane indicated at VI—VI, Fig. V.

The keg of the drawings in which the invention is embodied is cylindrical. Its walls 1 are formed of a web of sheet metal, and its heads 2 of wood.

The web of sheet metal properly cut and shaped is provided with corrugations forming within the mouth and at either end a groove 3, the equivalent of the croze in an ordinary wooden keg. The wooden head is, as in the case of an all-wood keg, tapered at the perimeter, to enter and be secured in the croze, in the position sufficiently illustrated in the sectional showing of Fig. I.

The web of metal of which the keg walls are formed is secured in integral cylindrical form by a longitudinal seam of any preferred kind. I show in Fig. III a suitable form of seam, and this will serve as a typical showing. The edges of the web are oppositely reflexed, and are engaged by a key strip 4 which unites them.

The key strip 4 does not extend the whole length of the keg. At one end at least, and,

as shown in Fig. I at both ends, the strip 4 leaves the edges of web 1 to be secured by other means. Fig. I shows these edges below recurved as at 5, but gaping apart, and above Fig. I shows these otherwise gaping edges united, and the whole secured by a fastening device 6.

It is when the end of the keg is in the condition shown below in Fig. I that the wooden head is sprung to place in the croze groove prepared for it. This wooden head will of course be of standard size. The resilience of the metal and the gaping end of the seam easily allows this bringing of the head to place. When the head has so been sprung into place the structure is suitably integrated and secured. And in the drawing I show several securing means which may be employed severally or some of them together.

The means shown in Figs. I, II, and III consist of a key or keeper 6, essentially like strip 4 but tapered to engage with wedging effect the flaring edges 5, 5 of the seam. After the head 2 has been sprung to place the keeper 6 is applied and the edges of the keg secured snugly upon the periphery of the head. In applying the keeper a tightening tool may be used, if found desirable, to contract the mouth of the keg snugly and uniformly about the rim of the head; then the keeper may be slipped to place. When the keeper 6 has so been slipped home, a terminal tongue 7 is bent over the edge and pressed down upon the head of the keg, where it may be secured by a nail, as indicated in Fig. II.

Fig. I shows that after the head 2 has been seated in the croze groove 3 it may additionally be secured by nails 9.

The web of metal 1 of which the side walls of the keg are formed will ordinarily be galvanized sheet steel of suitable gauge, and it may be reinforced and strengthened in well-known manner by ribs or corrugations, 10, 11. These, as well as the grooves 3 may be rolled into the sheet. Manifestly the cutting of the sheet, the spacing and the dimensions of the grooves and the bending of the edges, may all be accurately and cheaply accomplished. Similarly the strip 4 and the keeper 6 may be very cheaply provided and applied. Instead of galvanized sheet, any other particular sort or kind of sheet metal may be used, and any suitable surface finish may be given it,—or even no finish at all.

The heads will preferably be of wood; manifestly they might be made of metal or of indurated fibre, or of any suitable material.

I have shown both heads of the keg applied and secured in the particular manner in which my essential invention resides; but, manifestly, one of the heads may be formed as desired, and one head only applied and secured as I have described.

The first feature of the completed keg to remark is its security, its capability of enduring hard service in shipment—in the shipment, for example, of such material as nails. A second feature, of which mention already has been made, is the cheapness with which it can be built; the materials are inexpensive, and fabrication is of the simplest sort; in every respect it is well adapted for quantity production. Compared with a wooden keg with its staves and hoops, my keg is much less expensive in fabrication. The saving in the item of labor is substantial. And in this connection it is to be remarked that the maintenance of an elaborate cooperage department in a nail-mill, for example, as is requisite if nails are to be packed and shipped in the usual wooden kegs, is no longer requisite; warehouse space, and drying rooms with their essential heating, are dispensed with. There is saving in weight; the keg of my invention is as compared with a wooden keg of equal strength, lighter. My keg is stronger to resist injury. The item of breakage and repair, appreciable when wooden kegs are used, becomes with my keg negligible. Finally, and by no means least in importance, is economy in shipment. The walls of the keg of my invention are less in thickness than the walls of a wooden keg, and, more important than that, they are not bulged but are truly cylindrical. It follows that these keg units when packed in quantity in a box car pack much more closely than units contained in wooden kegs. There is saving here of approximately thirty per cent in space occupied, and that is a very important consideration.

As I said at the beginning my invention is essentially of a cylindrical container, serviceable for any suitable commodity, and is not limited to a nail keg, in application to which I have, by way of example, described it.

I claim as my invention:

1. A container formed of an integral web of flexible material grooved along one edge and shaped to cylindrical form, the groove along the edge of the web forming an internal circumferential groove at one end of the cylinder, the meeting edges of the web being united medially but at the grooved end of the cylinder left free, from a point inward from the groove to the edge, thus constituting a terminal split in the side of the cylinder, the edges of the split inward from the groove being recurved, such split end of the cylinder being adapted to receive within its groove a circular head, and a removable keeper adapted to interlock with the recurved edges of the web on opposite sides of the split defined above and by interlocking to hold the web of flexible material tensionally in engagement upon the periphery of a head introduced into the groove.

2. A container formed of an integral web of flexible material grooved along one edge and shaped to cylindrical form, the groove along the edge of the web forming an internal circumferential groove at one end of the cylinder, the meeting edges of the web being united medially but at the grooved end of the cylinder left free, from a point inward from the groove to the edge, thus constituting a terminal split in the side of the cylinder, the edges of the split inward from the groove being recurved, such split end of the cylinder being adapted to receive within its groove a circular head, a removable keeper adapted to interlock with the recurved edges of the web on opposite sides of the split defined above and by interlocking to hold the web of flexible material tensionally in engagement upon the periphery of a head introduced into the groove, such keeper being extended in the form of a strap adapted when the keeper is in place to be bent down over the grooved rim of the container and to be secured upon an introduced head.

In testimony whereof I have hereunto set my hand.

JAMES V. WALSH.

Witnesses:

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HARRY E. VANDERSYDE.