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C. C. SHENK ET AL

2,145,613

RUBBER LINED BARREL

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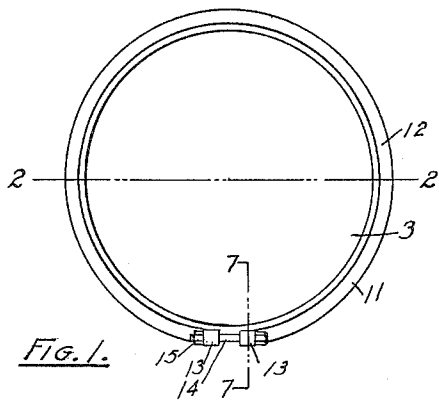


FIG. 1.

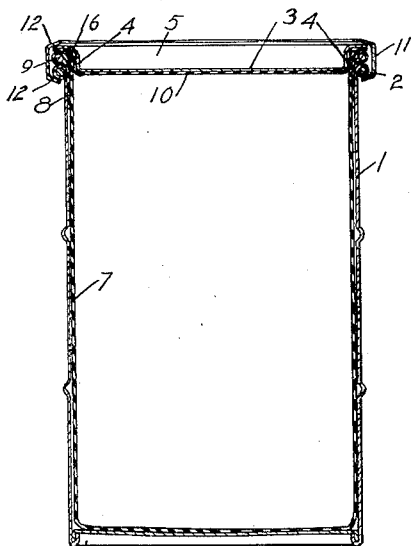


FIG. 2.

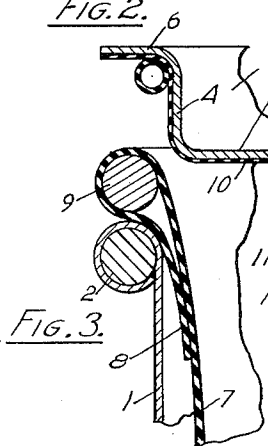


FIG. 3.

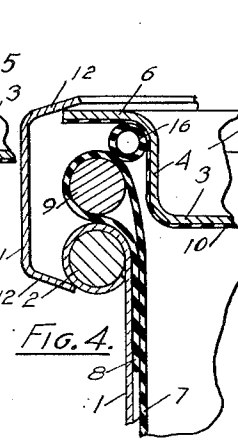


FIG. 4.

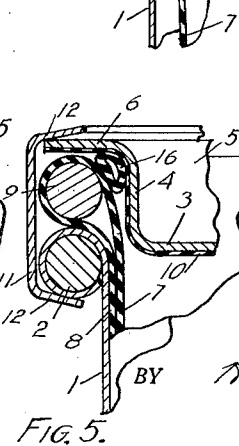


FIG. 5.

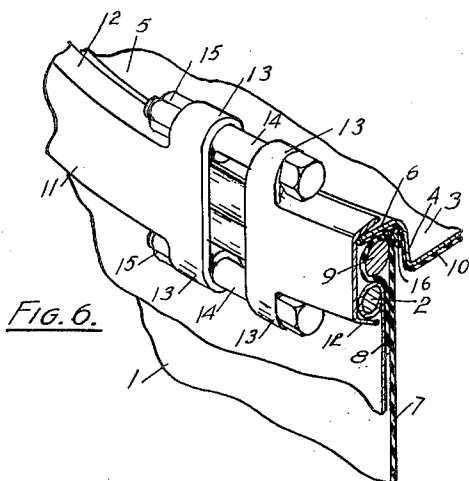


FIG. 6.

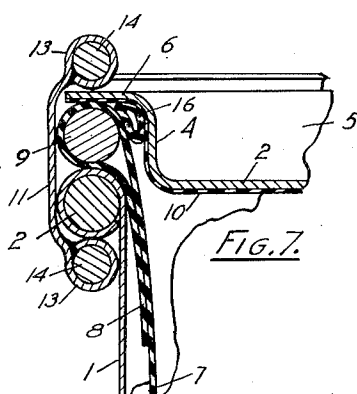


FIG. 7.

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UNITED STATES PATENT OFFICE

2,145,613

RUBBER LINED BARREL

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Application January 18, 1937, Serial No. 121,074

8 Claims. (Cl. 220—63)

It is desirable for some uses to protect barrels, particularly metal barrels, from the contents. This has heretofore been accomplished by providing a rubber lining for the barrel, and the present invention is designed to improve barrels of this type. The invention involves the use of a bag as a liner, the bag being provided with a return fold at its upper edge in which is a ring, the return fold being arranged in the closed barrel between the upper edge of the barrel and the ring, and ordinarily extending downwardly along the inner surface of the barrel. Features and details of the invention will appear from the specification and claims.

A preferred embodiment of the invention is illustrated in the accompanying drawing as follows:

Fig. 1 shows a plan view of the barrel.

Fig. 2 a section on the line 2—2 in Fig. 1.

Fig. 3 an enlarged view of a fragment of the barrel showing the parts in position for assembly.

Fig. 4 a similar view showing the parts in an intermediate position during assembly.

Fig. 5 an enlarged view of a fragment of the barrel showing the position of the parts in the completed assembly.

Fig. 6 a perspective sectional view showing the clamping mechanism.

Fig. 7 a section on the line 7—7 in Fig. 1.

1 marks the barrel. This is provided with a beaded edge 2, this edge being preferably wire reinforced. A cover 3 is provided, this cover having up-turned edge 4 forming a depression 5 in the cover. The cover also has the out-turned flange 6 extending from the up-turned flange 4.

The bag 7 forming the liner has a return fold 8. A ring 9 is arranged within this fold. The ring in the assembled position is directly above the beaded edge 2, and the return fold 8 extends around the ring between the ring and the beaded edge and then along the inner surface of the barrel between the barrel and the bag.

The cover preferably has a liner 10, the outer edges of the lining 10 extending between the cover and the fold above the ring. The cover is clamped in position, and the bead, ring and cover drawn together by a clamping ring 11. This clamping ring is preferably of channel form. Webs 12 of the channels may be slightly inclined so as to more definitely draw the parts together. The ring is split and provided with heads 13 at the split ends, and the heads are secured together by bolts 14 which extend through the heads and are provided with nuts 15 by means of which the

clamping ring may be drawn in so as to secure and clamp the parts together.

A ring gasket 16 may be provided if desired. This is arranged between the bead and the corner formed by the flanges 4 and 6 and tends more definitely to seal the barrel.

With this structure the lining bag may be vulcanized by arranging it on a form with the end portions of the bag extended. In this way all portions of the bag are equally exposed for vulcanization, thus securing a uniform product. The lining can be applied to any standard barrel, the ring 9 having some adjustability in the fold to take care of ordinary tolerances. The ring affords means whereby the edge may be lifted so as to permit the escape of air from between the bag and the lining. The ring may be readily removed so that the bag may be more conveniently cleaned. The ring may also be taken from one bag and utilized in another as desired. The rubber return fold is slightly stretched by the ring and through its elasticity returns into close relation to the outer face of the wall of the bag so that in inserting the bag into the receptacle, the extension of the fold requires no manipulation to make it enter the receptacle.

What we claim as new is:

1. A barrel having a beaded edge; a bag forming a lining for the barrel, the bag having an outwardly turned return fold around its upper edge; and a ring detachably included in the return fold over the beaded edge, the return fold extending around the ring and frictionally held between the ring and bead.

2. A barrel having a beaded edge; a bag forming a lining for the barrel, the bag having an outwardly turned return fold around its upper edge; and a ring detachably included in the return fold over the beaded edge, the return fold extending around the ring, frictionally held between the ring and bead and extended downwardly within the barrel.

3. A barrel having a beaded edge; a bag forming a lining for the barrel, the bag having an outwardly turned return fold around its upper edge; a ring detachably included in the return fold over the beaded edge, the return fold extending around the ring and frictionally held between the ring and bead; and a cover seating on the fold above the ring.

4. A barrel having a beaded edge; a bag forming a lining for the barrel, the bag having an outwardly turned return fold around its upper edge; a ring detachably included in the return fold over the beaded edge, the return fold extending around

the ring and frictionally held between the ring and bead; a cover; and a rubber lining for the underside of the cover, the lining extending between the fold and cover.

5 5. A barrel having a beaded edge; a bag forming a lining for the barrel, the bag having an outwardly turned return fold around its upper edge; a ring detachably included in the return fold over the beaded edge, the return fold extending around
10 the ring, frictionally held between the ring and bead and extended downwardly within the barrel; a cover seating on the fold above the ring; and a clamping means engaging the bead drawing the cover, ring and beaded edge together.

15 6. A barrel having a beaded edge; a bag forming a lining for the barrel, the bag having an outwardly turned return fold around its upper edge; a ring detachably included in the return fold over the beaded edge, the return fold extending around
20 the ring and frictionally held between the ring and bead; a cover seating on the fold above the ring, said cover having a recess forming an upwardly and outwardly extending flange at its edge; and a gasket between the return fold on the
25 ring and the cover, said gasket extending into the corner formed by the flanges of the cover.

7. An elastic rubber lining for a receptacle in bag form having an outwardly turned return fold along its open end and a ring loosely and detachably included within the fold, the fold forming a skirt around the bag below the ring, and
5 constituting the outer wall of the lining adapted to engage the inner wall of the receptacle to be lined, the periphery of the bag being less than that of the ring.

8. A lining for a barrel comprising an elastic
10 rubber element, consisting of a tubular bag of substantially uniform diameter with a closed bottom and an open top and a relatively rigid ring element larger in diameter than the normal diameter of the said elastic element, the top of said
15 rubber element being folded over and about the ring element and extending axially of the ring element to one side thereof into a skirt-like portion engaging a lower portion of the elastic element, thereby forming a two-ply portion adapted
20 to engage the interior of a barrel.

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