A. SCHROEDER.

REMOVABLE CORE FOR METAL BARRELS.

APPLICATION FILED FEB. 9, 1914.

1,140,535. Patented May 25, 1915.

Fig. 1.

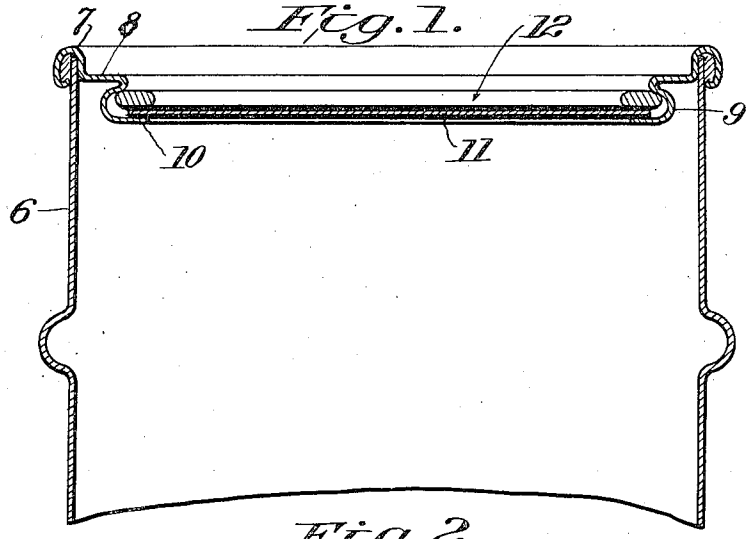


Fig. 2.

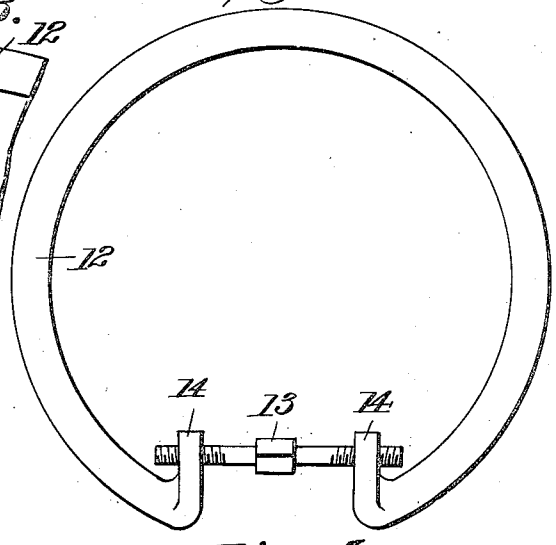


Fig. 3.

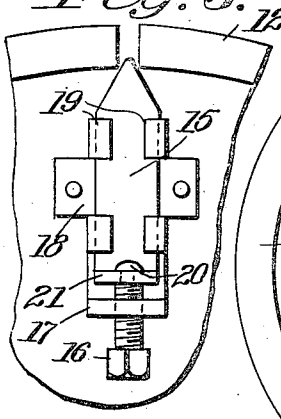


Fig. 4.

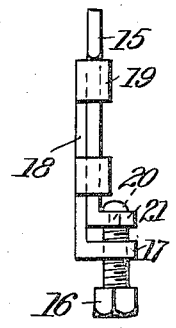
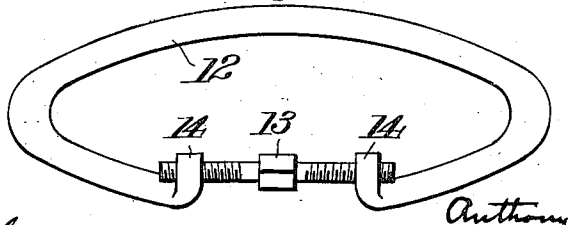


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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REMOVABLE COVER FOR METAL BARRELS.

1,140,535. Specification of Letters Patent. Patented May 25, 1915.

Application filed February 9, 1914. Serial No. 817,462.

To all whom it may concern:

Be it known that I, ANTHONY SCHROEDER, citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Removable Covers for Metal Barrels, of which the following is a specification.

This invention relates to covers for barrels and similar packages, and is particularly adapted and intended for use in connection with metal barrels or cans.

The object of the invention is to provide improved means for fastening the cover in place, so that it will satisfy present demands for safety, especially in the transportation of large drums, the fastening being such that it cannot be easily displaced by rough usage, whereby it will be safe in handling and in transportation.

The device also has the advantages of simplicity and quickness and ease of attachment or detachment.

The invention employs an expansible ring made in a single piece, which can be expanded to press the head or cover of the barrel against a flange or seat in the end of the barrel, formed to receive it, said ring exerting a wedge action on the cover, to hold it in place.

The invention is illustrated in the accompanying drawings in which:—

Figure 1 is a vertical section of the end of the barrel with the cover applied. Fig. 2 is a top view of the expansion ring. Fig. 3 is a top view of a modification; and, Fig. 4 is a side view of the expanding wedge shown in Fig. 3. Fig. 5 is a perspective of the expansion ring.

Referring specifically to the drawings, 6 indicates the body or shell of a metal barrel or tank. This is provided at the end with an annular end piece 7 crimped or bent over the end of the body and held in place by any suitable means. For protection and sake of strength, this end piece is sunken or pressed into the end of the barrel and is formed with a flat part 8 projecting inwardly, and with a curved seat or channel 9 bent outwardly from the inner edge of the flat part 8, on the inner side thereof, and the inner edge of the channel is expanded inwardly to form a seat to receive the cover plate or head 11 which is small enough to be passed through the ring 8, to rest against the inwardly extending flange 10. The head preferably consists of a single plate, circular in shape, to correspond to the outline of the opening.

The head is held in place by means of an expansible ring 12, the outer edge of which is inclined or shaped with a curved surface to engage within the channel 9 when the ring is expanded. The ring may conveniently consist of heavy wire flattened or oval in cross section, and of such size that when expanded it will bear against the outer flange of the channel on the outer side and against the edge of the cover 11 on the inner side, pressing said edge against the inner flange 10 of the channel.

Various means may be provided for expanding the ring. In Fig. 2 a double ended oppositely threaded screw 13 is shown, the ends of which engage in threaded holes in inwardly projecting ears or lugs 14 formed at the ends of the split ring. Obviously by turning the screw the ring can be expanded to fasten the head in place, or contracted to permit the removal thereof.

In the modified form shown in Figs. 3 and 4, a sliding wedge 15 is employed, the beveled end of which may be advanced between the ends of the ring by means of a screw 16 which travels in a threaded hole in an ear 17 projecting from a plate 18 which is riveted or otherwise fastened to the barrel head or cover and which has ears 19 turned up at opposite edges to form guides for the wedge 15, the end of the screw 16 having a reduced neck 20 which is rotatable in a lug 21 at the inner end of the wedging. By turning the screw, the wedge may be advanced or retracted to expand or contract the fastening ring.

Other modifications may be made within the scope of the invention.

When the ring 12 is extended into the channel formed to receive it, the head or cover is tightly held in place, and the danger of accidental displacement or loosening of the head is reduced to a minimum.

What I claim as new is:

The combination of a metal barrel or the like having an annular end piece 7 which is sunk into the body of the barrel and folded at its outer edge over the end of said body, said end piece being folded at its inner end to form an integral converging channel 9 at the inside thereof, said channel being of greater diameter than the opening in the end piece at the fold, whereby said fold overhangs the channel, and the inner flange of

said channel being extended inwardly or toward the axis of the barrel, so that it is of less diameter than said opening, a head plate adapted to be inserted through said opening and to rest on said extended flange, and means coöperating with the channel to clamp the head plate against said flange.

In testimony whereof, I do affix my signature in presence of two witnesses.

ANTHONY SCHROEDER.

Witnesses:
FRANK NUTTING,
ALBERT BECKWITH.