

C. E. ENOS.
 TOOL FOR REMOVING BULL'S EYES FROM LUBRICATORS.
 APPLICATION FILED JAN. 7, 1914.

1,150,352.

Patented Aug. 17, 1915.

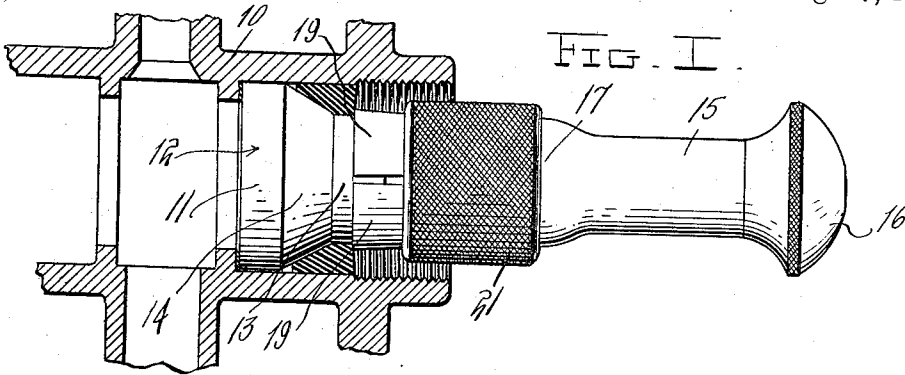


FIG. 1.

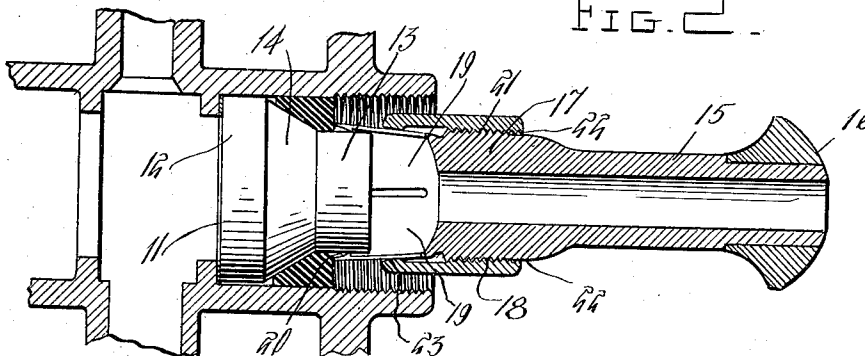


FIG. 2.

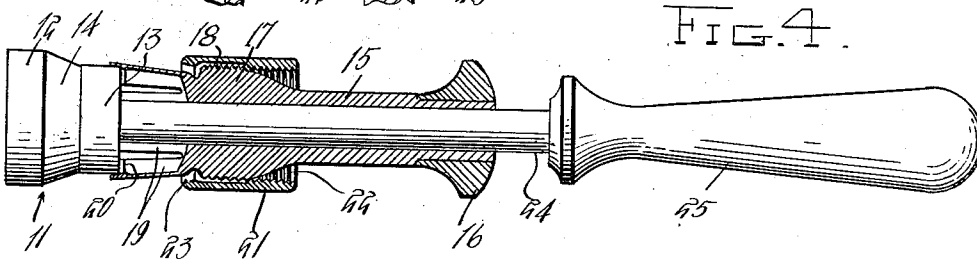


FIG. 4.

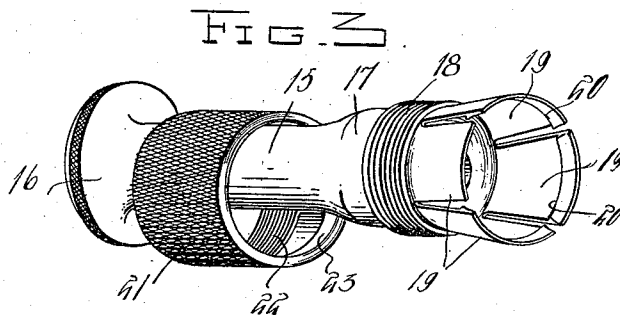


FIG. 3.

Witnesses

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TOOL FOR REMOVING BULL'S-EYES FROM LUBRICATORS.

1,150,352.

Specification of Letters Patent.

Patented Aug. 17, 1915.

Application filed January 7, 1914. Serial No. 810,868.

To all whom it may concern:

Be it known that I, CHARLES E. ENOS, a citizen of the United States, residing at Danville, in the county of Vermilion, State of Illinois, have invented certain new and useful Improvements in Tools for Removing Bull's-Eyes from Lubricators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to tools for removing bull's-eyes or observation glasses from lubricators.

The object of the invention resides in the provision of a tool of the character named through the instrumentality of which bull's-eyes may be removed from lubricators without damage to the casing of the lubricator or to the bull's-eye.

With the above and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully described and particularly pointed out in the appended claim.

In describing the invention in detail reference will be had to the accompanying drawings wherein like characters of reference denote corresponding parts in the several views, and in which—

Figure 1 is a side elevation of a tool constructed in accordance with the invention and showing the manner of applying the tool to effect the removal of a bull's-eye; Fig. 2, a longitudinal section of what is shown in Fig. 1; Fig. 3, a detail perspective view of the tool looking at the end thereof carrying the clamping fingers; and Fig. 4, a longitudinal section through the tool showing the manner of applying the ejector element for the purpose of removing a bull's-eye from the tool.

Referring to the drawings 10 indicates a fragment of a lubricator casing in which is mounted a bull's-eye or observation glass 11. This glass 11 embodies a major cylindrical portion 12, a minor cylindrical portion 13 and an intermediate tapering portion 14, said minor cylindrical portion 13 constituting the outer end of the bull's-eye.

The tool is shown as comprising a tubular

body 15 having a head 16 shrunk thereon. The end of the body 15 remote from the head 16 is enlarged as at 17 and provided with exterior threads 18. Formed integral with the body 15 and projecting from the enlarged end thereof is a plurality of clamping tongues 19 each of arcuate cross section and having a transversely disposed gripping rib 20 formed on the inner side thereof adjacent its free end. The tongues 19 are set so as to diverge outwardly to a slight extent. Encircling the body 15 is a clamping sleeve 21 provided at the end thereof adjacent the head 16 with interior threads 22 adapted to engage with the threads 18. The end of the sleeve 21 adjacent the enlarged portion 17 has its bore flared as at 23. In the use of the tool the sleeve 21 is rotated to move it toward the head 16 until the wall of the flared portion 23 of the wall of the bore of said sleeve is disposed out of engagement with the outer faces of the tongues 19. The tongues 19 are then engaged over the minor cylindrical portion 13 of the bull's-eye and the sleeve 21 rotated to force it toward the tongues and engage the wall of the flared portion of the bore with them. This movement of the sleeve 21 will cause the tongues 19 and the ribs 20 to clamp upon the minor cylindrical portion of the bull's-eye. By then pulling outwardly on the body 15 the bull's-eye can be removed without injury thereto and without injury to the casing of the lubricator.

To eject the bull's-eye from the body 15 there is employed an ejector rod 24 having a handle 25. Before attempting to eject the bull's-eye from the body the sleeve 21 is rotated to release the tongues 19 to the influence of their inherent resiliency. The rod 24 is then inserted in the bore of the body 15 and shoved sharply against the bull's-eye which will effect the removal of the latter from the tool as will be obvious.

What is claimed is:—

A tool of the class described comprising a tubular body having one end slit longitudinally at spaced points to form clamping tongues, said tongues being disposed in outward divergence, a transverse clamping rib on the inner side of each tongue, exterior threads on the body at the inner end of said tongues, a sleeve adjustable on the body and

having the end of its inner wall remote from the clamping tongue threaded for engagement with the threads on the body and the opposite end of its bore tapered inwardly to
5 cooperate with the tongues to force the latter inwardly into clamping relation to an object confined within the tongue.

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

CHAS. E. ENOS.

Witnesses:

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C. L. SANDUSKY,
J. H. LAWMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."