Mar. 6, 1923. 1,447,320.

G. B. PICKOP.

CONTAINER CAP.

FILED APR. 26, 1920.

Fig. 1.

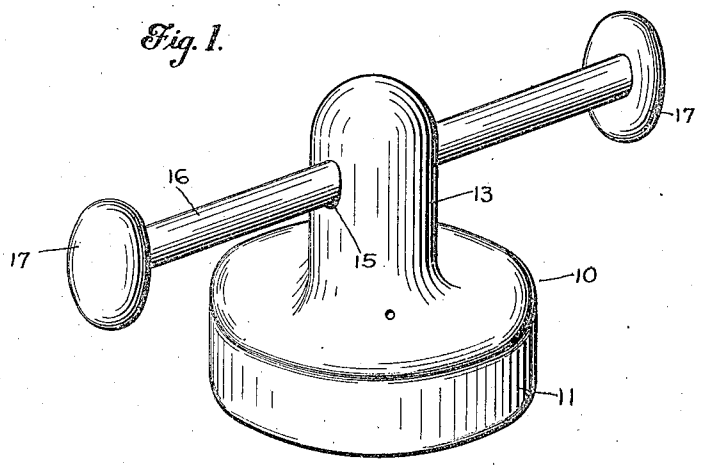


Fig. 2.

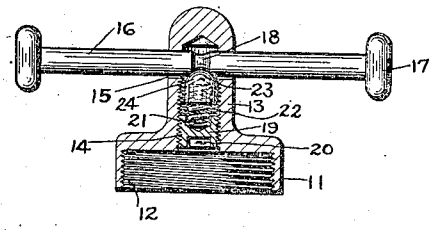


Fig. 3.

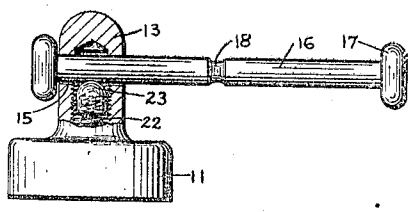


Fig. 4.

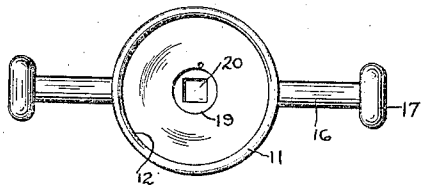


Fig. 5.

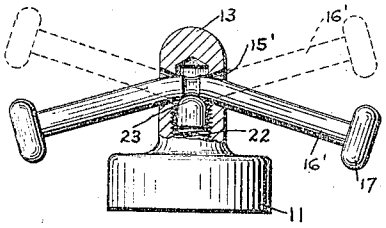
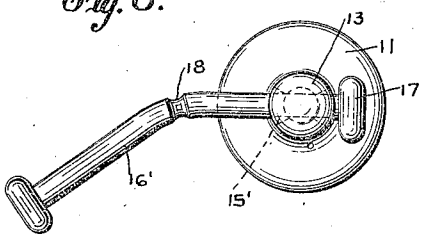


Fig. 6.



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Patented Mar. 6, 1923. 1,447,320

UNITED STATES PATENT OFFICE.

GEORGE B. PICKOP, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE MALLEABLE IRON FITTINGS COMPANY, OF BRANFORD, CONNECTICUT, A CORPORATION OF CONNECTICUT.

CONTAINER CAP.

Application filed April 26, 1920. Serial No. 376,594.

To all whom it may concern:

Be it known that I, GEORGE B. PICKOP, a citizen of the United States, residing in the city and county of New Haven, State of Connecticut, have invented certain new and useful Improvements in Container Caps, of which the following is a full, clear, and exact description.

This invention relates to caps for containers such as gasoline tanks on automobiles, or to caps for automobile radiators, or for containers of any kind, and especially to those caps which are secured to the container by being screwed thereon.

It is usual in the case of such caps to provide them with a squared neck or surface to which a wrench may be applied to tighten or loosen the cap or with outwardly extending ears to be engaged by the hand or thumbs so that they may be more easily turned.

It is the object of this invention to obviate the necessity of using a wrench, independent of the cap, to turn the same, and to provide the cap with means by which it may be turned more easily than by the usual ears.

A further object of the invention is to provide a cap which may be easily tightened upon or removed from the container without the use of a wrench.

A still further object of this invention is to provide a cap of this description in which the parts are held against rattling, when applied to a container on a moving vehicle.

A still further object of this invention is to provide a container cap, durable in construction, satisfactory in appearance and one which may be put on or removed from a container with comparative ease, and one which may be screwed upon the container so securely that danger of its being lost is reduced to a minimum.

In the accompanying drawings:

Fig. 1 is a perspective view of my improved container cap.

Fig. 2 is a vertical section thereof showing the turning bar in intermediate position.

Fig. 3 is a front elevational view, partly in section, showing the turning bar in one extreme position.

Fig. 4 is a bottom plan view of the cap.

Fig. 5 is a view similar to Fig. 3, but showing a modified form of turning bar.

Fig. 6 is a top plan view of the modification shown in Fig. 5 with the turning bar in an extreme position.

With reference to the drawings, the container cap as a whole is designated by the numeral 10. It is provided with a comparatively large open base 11 of cylindrical shape, which is threaded at 12 to enable the cap to be screwed upon the container or the like with which it is to be used. In the embodiment shown, an upstanding neck 13 is formed integral with the base 10, which neck is provided with a central bore 14, which extends from the open cylindrical base of the cap nearly to the upper end of the neck.

Near the upper end of this bore the neck 13 is pierced by a transverse opening 15 which passes entirely through the neck and communicates with the bore 14. A turning bar 16 is loosely mounted in this opening 15 so that it may be moved longitudinally through the opening if, when turning the cap on the container, a part of the container or other fixed object should interfere with the movement of one of the ends of the bar. Enlarged ends 17 prevent the bar passing entirely through the opening 15. The bar may, of course, be rotated about its longitudinal axis. This latter movement is of no great importance in the case of the straight bar shown in Figs. 1–4, but becomes an important feature of a bent bar such as the one shown in Fig. 5.

Near the middle of the bar 16 is provided an annular recess 18, the purpose of which will be presently explained.

In the lower end of the bore 14, is threaded a plug 19, the lower side of which is provided with a squared countersink or recess 20 for the reception of a wrench or tool to turn this plug into place. The plug 19, is hollowed out at 21 from the upper side, which faces the bore 14 in the neck 13, for the reception of a coil spring 22 which rests on the base of this hollowed out portion. On the upper end of this spring 22 is a thimble-shaped plunger 23, the lower, open, hollow portion of the plunger slipping over the upper end of the spring while the outer, rounded upper end 24 is urged, by the spring 22, into the annular recess 18, near the middle of the turning bar, when this bar is in intermediate position, as shown in Figs. 2

and 5. This is a very effective means for yieldingly holding the turning bar from sliding loosely back and forth in the neck unless moved positively by the operator and will prevent all rattling of parts such as would take place if the bar were merely loosely mounted in the neck. While the engagement of the plunger in the recess 18 will firmly hold the turning handle against accidental displacement and rattling, it does not prevent its being moved to its extreme position, as shown in Fig. 3, in order to obtain a greater leverage for screwing up or unscrewing the cap or to avoid the interference of one end with some fixed object when turning the bar, when positively urged to this position by the operator.

It has been found to be very advantageous in the case of the cap being applied to gasoline tanks on automobiles and the like to provide a curved or bent turning bar, as shown at 16′ in Fig. 5, instead of a straight bar, as shown in the other figures of the drawing. This is similar to principle illustrated by the ordinary wrench where the opening between the jaws is usually set at an angle to the handle instead of in alignment therewith, also this often enables the operator to clear the back of the car or other fixed object which may be in the path of the bar when in the position shown in full lines in Fig. 5, by simply turning the bar about the longitudinal axis of the opening 15′ to its dotted line position. Then when the bar is slipped through the opening to one of its extreme positions the bent or curved end often enables the operator to get his hand back of the bar next to the body of the automobile, where in case of a straight bar there would not be sufficient room for the hand or fingers.

In order to allow freedom of movement of the bent or curved bar 16′, the ends of the opening 15′ must be enlarged so that they are considerably larger than the size of the bar. Instead, however, of boring a large opening of uniform diameter through the neck 13, this opening is formed in the shape of an hour glass, or of two cone frustums placed end to end. This form of opening reduces the amount of play which would be allowed the spring 22 and plunger 23 if the opening were as large at its central portions as at the ends. At the same time it allows perfect freedom of movement of the curved bar.

Although but one practical embodiment of the invention is illustrated, it will be apparent that various changes may be made within the scope of the claims without departing from the spirit of the invention.

What I claim is:

1. A container cap provided with a relatively broad hollow base having threads therein to engage a container or the like, and an upstanding hollow neck thereon, a turning bar slidably mounted through said neck transversely of the bore thereof, and a spring pressed plunger mounted in the bore of the neck to engage said bar, said bore opening into the hollow portion of said base whereby the spring and plunger may be inserted below the bar.

2. A container cap comprising a hollow base, a centrally disposed upstanding neck thereon, said neck being provided with communicating transverse and longitudinal bores, a turning bar mounted in one of said bores and a spring-pressed plunger mounted in the other thereof to yieldably hold said bar against movement, said last named bore communicating with said base whereby the spring and plunger may be inserted through the lower end thereof.

3. A container cap including a threaded base portion, an elongated neck portion upstanding therefrom, a turning bar movably mounted transversely in said neck portion, a recess in the body of said bar, and spring-pressed means entering said recess to hold said bar against movement.

4. A container cap including a base portion, a neck upstanding therefrom, an opening of hour glass shape through said neck and a turning bar loosely mounted in said opening, said turning bar being bent to present an obtuse angle between its ends.

5. A container cap comprising a hollow base portion adapted to be secured upon a container by a turning movement, a hollow neck portion the interior of which communicates at one end with said hollow base portion, a turning member movably mounted in said neck portion and slidable therethrough, resilient means in said hollow neck portion to yieldably hold said member against movement, and a plug inserted in the communicating end of said neck portion to hold said means in position.

6. A container cap comprising a base portion recessed to provide interior threads for attachment to a container, an upstanding, dome-shaped neck having a vertical bore therein communicating with the recess in said base and a transverse bore therethrough intersecting said vertical bore, a turning bar within said transverse bore, extending without same at each side of said neck and transversely slidable in either direction, and a spring-pressed plunger mounted below said bar, in the vertical bore of said neck, to yieldingly retain said bar against transverse movement.

7. A container cap comprising a base portion recessed to provide interior threads for attachment to a container, an upstanding, dome-shaped neck having a vertical bore therein communicating with the recess in said base and a transverse bore of hour-glass form intersecting said vertical bore

with the two cone frustums placed end to end at the point of interception with said vertical bore, a turning bar bent to form an obtuse angle between its ends within said transverse bore, extending without same at each side of said neck and transversely slidable in either direction and a spring-pressed plunger mounted below said bar, in the vertical bore of said neck, to yieldingly retain said bar against transverse movement.

In witness whereof, I have hereunto set my hand on the 20th day of April, 1920.

GEORGE B. PICKOP.