July 5, 1927. 1,634,775

L. E. FOGEL

CLOSURE CAP FOR GAS TANKS AND RADIATORS

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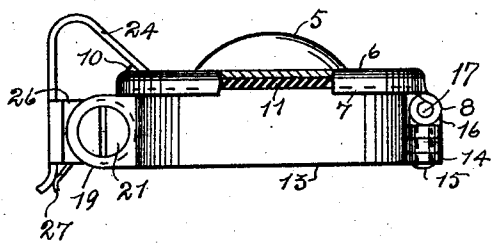


Fig 1

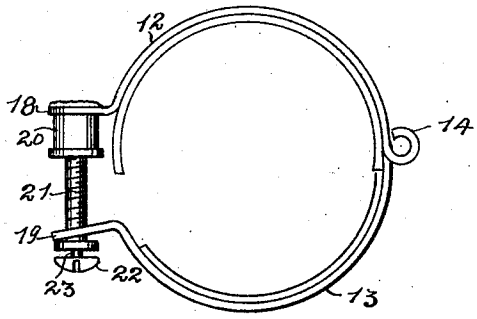


Fig 3

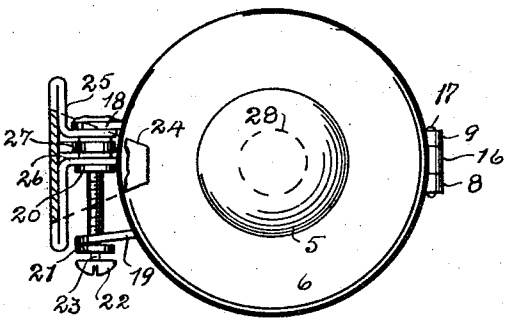


Fig 2

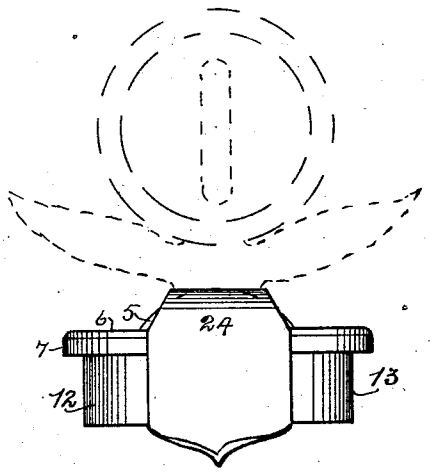


Fig 4

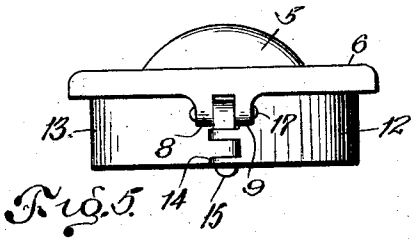


Fig 5

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UNITED STATES PATENT OFFICE.

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CLOSURE CAP FOR GAS TANKS AND RADIATORS.

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The device, the subject of this invention is a cap for gas tanks and radiators having a hinged closing means. The member which engages the threaded portion of the tank or radiator nipple is intended and adapted to be more or less permanently secured upon the threaded portion of the tank or radiator nipple and I use the terms, more or less permanently, for the reason that it is not intended that this member should be removed when it is desired to fill the tank or radiator, but it may, with some difficulty, be removed, if it should ever be necessary so to do.

An object of my invention then, is to provide a hinged closure cap and means for supporting it.

A further object of my invention is to provide a supporting means that can only be removed with considerable difficulty and will therefore, be, to a very great extent, theft proof and a still further object of my invention is to provide a closure cap having an adjustable supporting means so that a cap of a given size may be used in conjunction with tank or radiator nipples of varying diameters and a still further object of my invention is to provide a cap, cheap in construction, though efficient and one that can be readily operated. The last requisite, that of ready operation, is important, in that the cap may be opened and closed quickly and even with heavily gloved hands.

With these objects in view, the following is what I consider the best means of carrying out my invention and the accompanying drawing should be referred to for a complete understanding of the specification which follows.

In the drawing:—

Fig. 1, is a side elevation of my cap.

Fig. 2, a plan view thereof.

Fig. 3, a plan view of the supporting means, and

Fig. 4, a front elevation, showing the addition of a motometer to a radiator cap.

Fig. 5, shows my device in elevation, the view being taken at the side opposite to that shown in Fig. 4.

Similar reference numerals indicate like parts in all the figures where they appear.

The closure cap is an inverted saucer shaped member formed of suitable material and in my preferred construction this member will be of stamped or spun brass. The cap will be provided with a centrally disposed dome 5, for decorative purposes only and with an outwardly extending and annular flat portion 6 and a downwardly depending flange 7.

Formed integral and as an extension from the flange are cylindrical projections 8 and 9, forming a part of a hinge and at the side opposite the hinge 8—9 is a slight upward projection 10, which will be later referred to and which assists in the locking of the cap.

Within the cap and resting upon the flattened annular portion thereof I arrange a suitable packing gasket 11 of a width equal to the flat portion 6. This gasket is the member which rests upon the support, which I am about to describe.

The member which supports the cap is an adjustable band formed of two main parts 12 and 13. At one end of each of these bands I produce cylindrical projections as indicated at 14 forming, between them, a hinge.

Extending through the hinge as shown in Fig. 5 is a pintle 15 having a block 16 at the upper end thereof. The projections 8 and 9 from the cap are arranged one at each side of the block 16 and a pin 17, passing through the block, hinges the cap thereto.

The free ends of the band members 12 and 13 are out-turned as shown at 18 and 19. In a perforation in the projection 18 from the band 12, I secure a screw threaded thimble 20 and through the perforation in the projection 19 from the band member 13, I pass a screw 21. The screw 21 is as long as may be desired but must be a sufficient length to allow an adjustment of the band members 12—13. The head 22 of the screw 21 is connected to the body of the screw by a portion of metal of reduced diameter, as indicated at 23, so that when the screw is set up, the head 22 may be broken off and while this does not entirely prevent the removal of the screw 21, it does make the removal of this screw quite difficult.

The locking means for the cap consists of a spring pressed latch having an inwardly turned portion or hook 24, the inner free end of which engages over the projection 10 in the cap.

This locking member 21 should be formed with inwardly and outwardly turned portions 25 and 26 as shown in Fig. 2 and which are arranged upon the thimble 20, with freedom to rotate thereon. The spring 27, which may be a flat spring, engages the lower end of the locking member, retaining

the upper locking end thereof, inward, in engaged relation with the top of the cap.

It will be noted that the hooked member 24 is arranged on a slant, so that when the cap is depressed, the locking member will move backward and snap inward over the cap.

As shown in Fig. 4, the locking member may be given a fanciful or a decorative shape and in this Fig. 4 I have given it the shape of a conventional shield.

As shown in Fig. 4, a motometer and decoration may be supported upon my cap. This is now considered essential if the device is to be used as a radiator cap. To support such a device it is only necessary to produce, in the dome 5 of the cap, a hole as indicated by the dotted lines 28 in Fig. 2.

I will provide a packing member within the band members 12 and 13 and this packing member will not only serve as a means for protecting the threads of the tank or radiator nipple, but will also provide means for obtaining an adjustment within certain limits.

Modifications may be made within the scope of the appended claims, without departing from the principle or sacrificing the advantages of the invention.

Having carefully and fully described my invention, what I claim and desire to obtain is:—

1. A closure cap for tanks and the like comprising a cap member having a hinging member projecting therefrom, a supporting member for said closure member, said supporting member being formed of two parts hinged together, a thimble in one said part and a screw extending through the other said part and into said thimble, for retaining said parts in adjustable relation and a latch for said cap, said latch comprising a plate having inwardly projecting portions rotatable upon said thimble and a hooked portion adapted to engage upon said cap when said cap is closed.

2. A device of the character described comprising a flanged cap member having a packing therein, supporting means for said cap member comprising an adjustable band in two parts and a packing member within said band, a hinge for said band, the pintle of said hinge having a block to which said cap is hinged, means for adjustably securing the parts of said band, said securing means including a thimble and a locking means rotatable upon said thimble and having an inwardly projecting part for engaging said cap and a spring for retaining said locking means in a locking position.

Signed at the city, county and State of New York, this 21 day of February, 1925.

LOUIS E. FOGEL.