Nov. 20, 1928. 1,692,178

A. C. LIPPERT

RADIATOR CAP LATCHING DEVICE

Filed Feb. 13, 1925

Fig. 1.

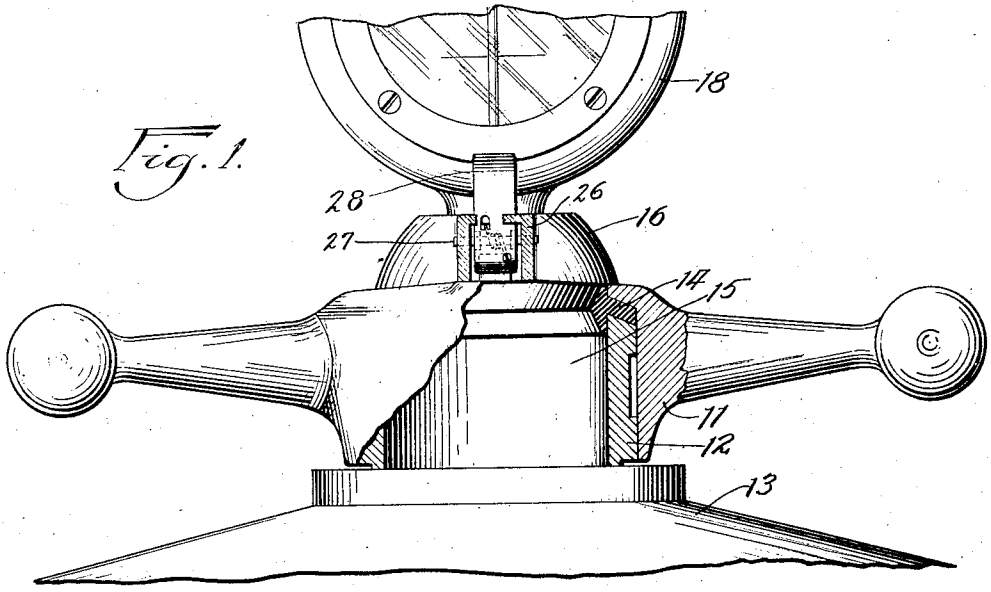


Fig. 2.

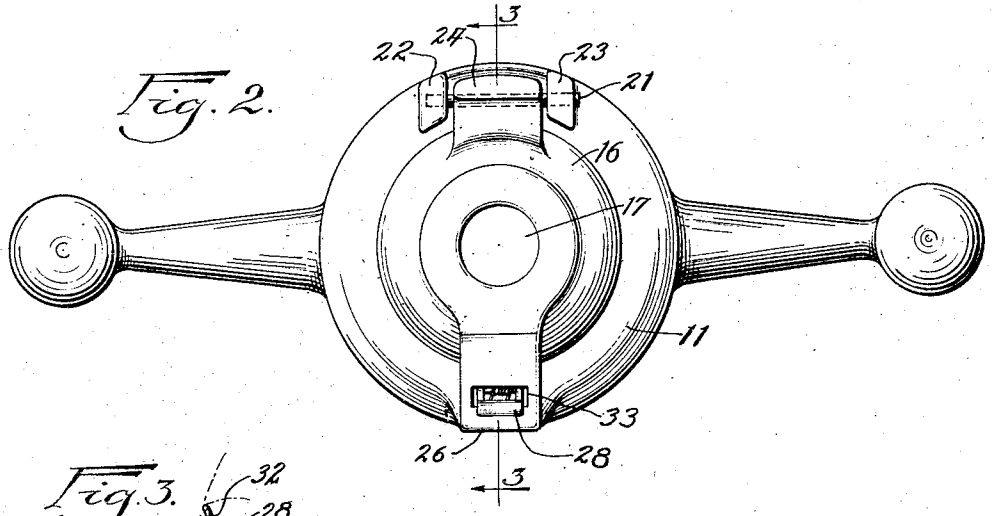
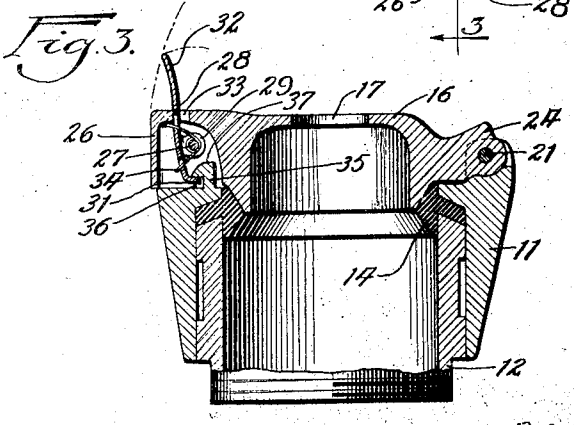


Fig. 3.



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Patented Nov. 20, 1928. 1,692,178

UNITED STATES PATENT OFFICE.

ALOYSIUS C. LIPPERT, OF KENOSHA, WISCONSIN, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO THE NORLIPP COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

RADIATOR-CAP-LATCHING DEVICE.

Application filed February 13, 1925. Serial No. 8,943.

My invention relates in general to a radiator cap for automobiles and the like, and more particularly to that type of radiator cap adapted to be locked upon a radiator neck having a filling opening and a hinged cover for closing the filling opening.

The principal object of the invention is the provision of a device for the hinged cover of a radiator cap which will effectively lock the cover in closed position and may be readily released for filling the radiator or the like.

Another important object is to provide such a device with an enclosed latching mechanism to prevent accidental opening or damage to the latch.

Another important object is to provide such a device that may be economically manufactured and assembled, and that will be symmetrical and pleasing in appearance.

Numerous other objects and advantages will be apparent as the invention is better understood from the following description, which, taken in connection with the accompanying drawings, discloses a preferred embodiment thereof.

Referring to the drawings:

Fig. 1 is a front elevation partially broken away of a radiator cap embodying my invention.

Fig. 2 is a plan view thereof.

Fig. 3 is a section taken substantially on line 3—3 of Fig. 2.

While it is possible to use the device upon any type of radiator cap, to illustrate my invention, I have shown a body 11 of a radiator cap which is positioned over an inner collar or adapter 12 that is provided to secure the radiator cap 11 against removal having screw threaded or other suitable engagement in the neck of a radiator 13, a flexible gasket 14 is secured in the opening 15 to provide a tight seal, and a cover 16 having an opening 17 into which a condition indicating device or motor meter 18 may be secured or hinged to the body 11 by a pin 21 having bearings in upstanding lugs 22 and 23 of the body 11 and the hinge lug 24 of the cover 16.

A housing 26 is formed integral with the cover 16 and extends over a portion of the body 11, preferably opposite the hinge and carries a pin 27 upon which is pivoted a latch 28 having lugs 29 engaging the pin 27. The latch 28 is provided at its lower end with a hooked portion 31 and an upwardly extending portion 32 extending through an aperture 33 in the housing 26. A spring 34, which may be of any suitable construction, and in the present instance is coiled about the pin 27 is provided to urge the latch 28 in a counter-clockwise direction, this movement being limited by the walls of the aperture 33. A lug 35 of suitable width is formed integral with and extends up from the body 11, is undercut to provide a recess 36 and is chamfered at 37. While in the present instance the lug 36 is positioned adjacent the opening and the recess 36 is on the side of the lug away from the opening, it will be apparent that the lug may be reversed or positioned adjacent the periphery of the body 11 with the recess toward the opening and the latch 28 may also be reversed to suit the desired position of the lug 35, if desired.

When it is desired to open the cap for filling the radiator or the like, the upwardly extending portion 32 of the latch is pressed backward or toward the motor meter 18 by a slight pressure of the thumb and a hook 31 is thereby disengaged from the recess 36 permitting the free opening of the cover 16. Upon again closing the cover 16, the hook 31 in the latch 28 engages the chamfered corner 37 at the lug 35 and is forced back in a clockwise direction about the pivot 27 against the force of the spring 34 until the cover is completely closed at which time the hook 31 will snap into the recess 36 and hold the cover in closed position until released as above mentioned.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description, and will be apparent that various changes may be made in the form, construction and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. A latching device for use with a radiator cap, having a body, means for attaching said body to the threaded filling opening of

a radiator, and a cover hinged to said body, said device comprising a hooked member pivotally mounted in the front end of the cover, a hook portion on the upper part of the body and a spring mounted on the pivot of said hooked member and engaging the latter in manner to normally urge the same into engagement with said hook portion, the opposite ends of said spring engaging respectively in the apertures in said hooked member above and below the pivot point thereof.

2. A latching device for use with a radiator cap, having a body, means for attaching said body to the threaded filling opening of a radiator, and a cover hinged to said body, said device comprising a hooked member pivotally mounted in the front end of the cover, a hook portion on the upper part of the body and a spring engaging said hooked member for normally urging the same into engagement with said hook portion, the cover having a recess on the under side thereof within which the latching mechanism, with the exception of the engageable portion of the hooked member which protrudes above the cover, is disposed whereby said mechanism is concealed from view and protected from injury.

3. A latching device for use with a radiator cap, having a body, means for attaching said body to the threaded filling opening of a radiator, and a cover hinged to said body, said device comprising a hooked member pivotally mounted in the front end of the cover, a hook portion on the upper part of the body and a spring engaging said hooked member for normally urging the same into engagement with said hook portion, the cover having a recess on the under side thereof within which the latching mechanism, with the exception of the engageable portion of the hooked member which protrudes above the cover, is disposed whereby said mechanism is concealed from view and protected from injury, the cover having a forward projection in which said recess is formed.

4. A latching device for use with a radiator cap having a body, means for attaching said body to the threaded filling opening of a radiator, and a cover hinged to said body, said device comprising a hooked member pivotally mounted in the front end of the cover, a hook portion on the upper part of the body and a spring engaging said hooked member for normally urging the same into engagement with said hook portion, the cover having a recess on the under side thereof within which the latching mechanism, with the exception of the engageable portion of the hooked member which protrudes above the cover, is disposed whereby said mechanism is concealed from view and protected from injury, the cover having a forward projection in which said recess is formed and which terminates substantially in the plane of the outer circumference of the body.

ALOYSIUS C. LIPPERT.