V. ROSENLOF.

RADIATOR CAP.

APPLICATION FILED MAY 23, 1921.

1,433,912. Patented Oct. 31, 1922.

FIG. 1

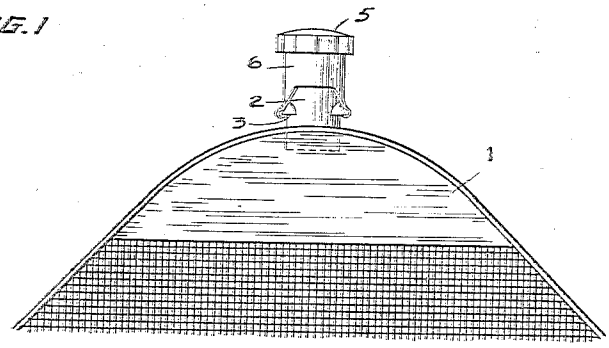


FIG. 2

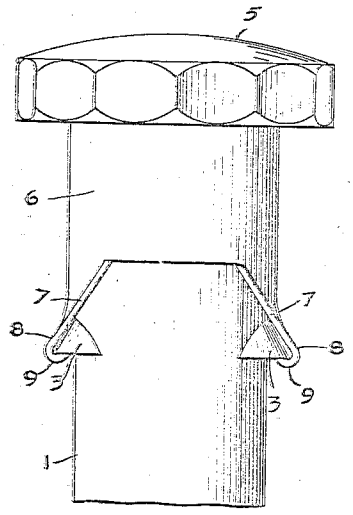


FIG. 3

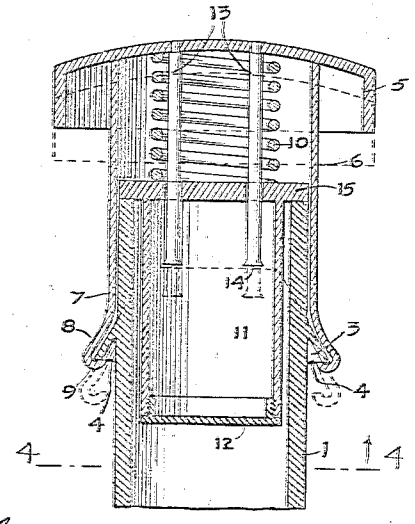
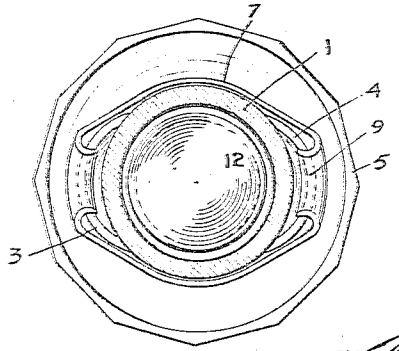


FIG. 4



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UNITED STATES PATENT OFFICE.

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RADIATOR CAP.

Application filed May 23, 1921. Serial No. 472,015.

To all whom it may concern:

Be it known that I, VECKTOR ROSENLOF, a subject of Finland, residing at Reedley, in the county of Fresno and State of California, have invented new and useful Improvements in Radiator Caps, of which the following is a specification.

This invention relates to improvements in automobile radiator caps and has for its primary object to provide a simply constructed and inexpensive cap which may be more easily and quickly fitted into place on and removed from the filling nipple, than the ordinary screw cap; the use of screw threads being unnecessary, whereby difficulties attending use of the screw cap such as worn threads, failure of the cap to fit properly and loss of the cap due to its working loose and dropping off the nipple, are entirely dispensed with.

Another object is to provide a cap of the character described, the use of which does not require any change in the construction of the filling nipple of the radiator save for the welding to or otherwise providing on said nipple, lugs or lips with which lugs or lips the cap is adapted to interlock.

The invention possesses other advantages and features some of which, with the foregoing will be set forth at length in the following description where I shall outline in full that form of the invention which I have selected for illustration in the drawings accompanying and forming a part of the present specification. In said drawings I have shown one form of the construction of my invention, but it is to be understood that I do not limit myself to such form since the invention as expressed in the claim may be embodied in a plurality of forms.

Referring to the drawings:

Figure 1 is a fragmentary front elevation of an automobile radiator showing the cap of my invention in place thereon.

Figure 2 is a side elevation of the cap showing a part of the filling nipple.

Figure 3 is a vertical sectional view of the cap and part of the nipple.

Figure 4 is a sectional view of line 4—4 of Fig. 3, showing in the direction of the arrows.

In the embodiment of the invention shown in the accompanying drawings, the radiator 1 has the usual filling nipple 2 provided on opposite sides below the upper ends thereof with downwardly and outwardly inclined lips or lugs 3 which may be welded on or formed integral with the nipple so as to provide downwardly opening pockets 4.

A cap is provided for the nipple and comprises a flanged top piece 5 from the underside of which a cylindrical body portion 6 depends. This body portion is adapted to telescope and snugly receive the nipple 2 and is cut away on opposite sides at its lower end so as to provide tapering arms 7, the lower ends of which are inclined outwardly as at 8 and are then turned inwardly to provide hook portions 9. These hook portions are adapted to engage under the lips or lugs 3 into the pocket 4 so as to hold the cap in place.

To provide for withdrawably holding the hooks 9 in the pockets, a helical expansion spring 10 is mounted in the cylindrical body 6 and arranged to bear at its ends upon the top piece 5 and a cylindrical guide member 11. The member 11 has openings 12 therein, which openings receive spaced guide and retaining pins 13 that depend into the body portion 6 from the top piece 5. The lower ends of the pins may be enlarged as at 14, so as to prevent the guide member 11 from dropping off of the pins. The spring forces the guide member downwardly so as to project below the body portion 6 and the guide member has a lateral annular flange 15 adapted to engage the upper end of the nipple 2.

To place the cap in position the guide member 11 is inserted into the nipple until the flange 15 engages upon the upper end of the nipple and by pressing downwardly upon the cap the spring is compressed until the hook portions 9 extend below the pockets 4 provided by the lugs 3. By now turning the cap the hook portions will be moved under the lugs and into the pockets 4 and when thus positioned, the pressure on the cap is released so as to allow the spring to expand. This will force the portions 9 tightly into the pockets and securely hold the cap in place. The portions 9 fit snugly in the pockets and prevent turning of the cap as well as rattling thereof.

Thus it will be seen that the cap may be quickly and easily put on and locked by a simple operation requiring first a downward push and then a turn so as to bring the hooks 9 under the lugs 3. To remove the

cap, the cap is pushed downwardly and turned to remove the hooks 9 from the pockets and this operation can be effected much more quickly and easily than with the ordinary screw cap.

I claim:

The combination with an automobile radiator filling nipple, of a cap for the nipple having a body adapted to telescope the nipple and a top piece on the upper end of the body, said nipple having projections extening outwardly from the sides thereof at points spaced from its upper end, downwardly and outwardly directed hooked portions on the lower end of the body portion adapted to engage with the projections on the nipple, a guide member adapted to be inserted into the nipple and having a flange on its upper end for engagement with the upper end of the nipple, pins fixed to the top piece and slidably extending into the guide member and an expansion spring surrounding the pins interposed between and engaging the top piece and guide member.

VECKTOR ROSENLOF.