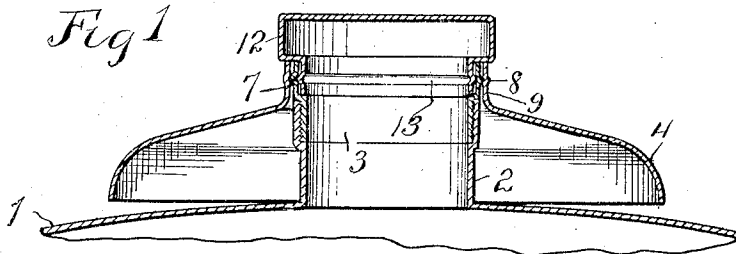
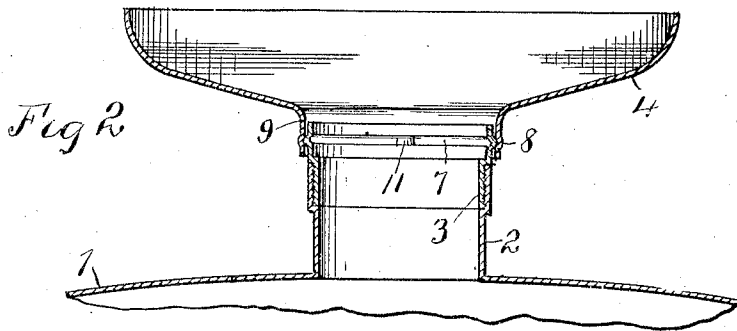
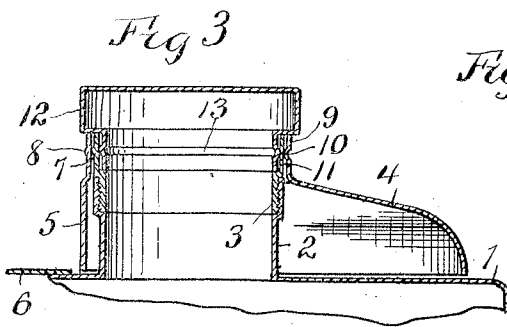
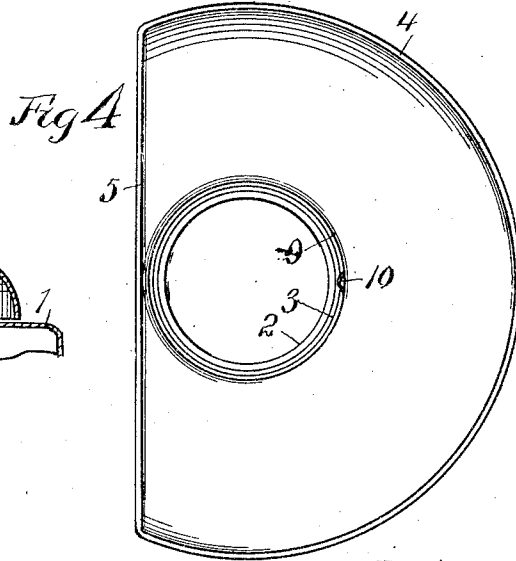


D. E. WILLIAMS.
 FUNNEL ATTACHMENT FOR AUTO RADIATORS.
 APPLICATION FILED MAR. 13, 1920.

1,365,362.

Patented Jan. 11, 1921.



Witness:

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UNITED STATES PATENT OFFICE.

DYLE EVERETT WILLIAMS, OF KANSAS CITY, MISSOURI

FUNNEL ATTACHMENT FOR AUTO-RADIATORS.

1,365,362.

Specification of Letters Patent.

Patented Jan. 11, 1921.

Application filed March 13, 1920. Serial No. 365,672.

To all whom it may concern:

Be it known that I, DYLE EVERETT WILLIAMS, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented a certain new and useful Improvement in Funnel Attachments for Auto-Radiators, of which the following is a specification.

My invention relates to improvements in funnel attachments for auto radiators.

One of the objects of my invention is to provide a device by which a funnel for filling the radiator will always be available.

A further object of my invention is the provision of a funnel arranged to be carried on the radiator filling tube in either the upright position suitable for filling purposes or in an inverted position, in which latter position dirt or dust will not collect in the funnel.

My invention also provides novel means by which the invertible funnel will in either the upright or inverted position have one side facing always in the same direction, the funnel having a rear flat side, whereby the funnel will not interfere with the manipulation of the hood covers of the machine.

My invention further provides means by which the cap or closure for the filling tube may when in the closed position, reliably hold the funnel in the inverted position on the filling tube.

The novel features of my invention are herein fully described and claimed.

In the accompanying drawing which illustrates the preferred embodiment of my invention,

Figure 1 is a central vertical sectional view of my improved attachment, the cap or closure being shown mounted on the bushing and the funnel being inverted.

Fig. 2 is a vertical sectional view showing the funnel in the upright position on the bushing the closure being removed.

Fig. 3 is a view similar to Fig. 1, the section being at right angles to that of Fig. 1.

Fig. 4 is a top view of the funnel.

Similar reference characters designate similar parts in the different views.

1 designates an ordinary auto radiator, a portion only of which is shown, and which is provided at its top with the usual filling tube 2. The tube is internally screw threaded, as is the custom, such screw threads in ordinary usage being for the fitting therein a screwcap. In my improved construc-

tion, an externally threaded bushing or connecting tube 3 is fitted in the threaded tube 2 and is adapted to have removably mounted on it a funnel 4, preferably having a rear flat side 5, so that the funnel while carried on the bushing will not interfere with the raising of the hood cover or covers 6, Fig. 3. The funnel 4 is adapted to be slipped over the bushing 3 when in the upright or in the inverted position. The bushing 3 is provided with a peripheral annular bead 7 which is adapted to snap into a similar bead 8 provided in the reduced discharge spout portion 9 of the funnel. The bead 8 at the forward side of the funnel 4 is provided with a depression 10, Figs. 3 and 4 adapted to slip into a similar depression 11 in the forward side of the bushing 3. This arrangement prevents the funnel from being slipped onto the bushing in either the inverted or upright position in any other position than the one in which the flat side of the funnel will be at the rear.

I provide a removable cap or closure 12 which has a reduced circular lower end adapted to be slipped into the bushing 3. The closure is provided with an annular bead 13 adapted to snap into the bead 7 of the bushing 3, so as to releasably hold the closure on the bushing. The closure 12 is, preferably of such a diameter that, when the funnel 4 is inverted, as shown in Figs. 1 and 3, the closure will extend over the upper edge of the funnel, thus reliably holding it from detachment from the bushing 3.

When it is desired to use the funnel 4, the closure 12 is removed and the funnel is reversed in position on the bushing 3, as shown in Fig. 2. After the radiator has been filled with water, the funnel is inverted on the bushing, and the closure 12 is applied to the bushing 3, as shown in Figs. 1 and 3.

With the use of my invention a funnel is always at hand ready for use. By carrying the funnel in the inverted position when not in use, dust and dirt will not collect therein to any extent.

I do not limit my invention to the structure shown and described, as many modifications, within the scope of the appended claims, may be made without departing from the spirit of my invention.

What I claim is:—

1. In a funnel attachment for auto radiators, the combination with the filling tube of an auto radiator, of a funnel having a

flat side, and means by which the funnel may be slid vertically in an upright or an inverted position on the filling tube and also held from rotation thereon, substantially as set forth.

2. In a funnel attachment for auto radiators, the combination with the filling tube of an auto radiator, of two members, one a funnel and the other a bushing fitted to the filling tube, one of said members having a vertical groove and the other member having a guiding projection slidably fitted in said groove, the funnel being vertically slidable on the bushing and adapted to be mounted thereon in an upright or in an inverted position, substantially as set forth.

3. In a funnel attachment for auto radiators, the combination with the filling tube of an auto radiator, of a funnel encircling the filling tube and having a flat side, and means supported by the tube and supporting the funnel in either the upright or inverted position and with which the funnel has a vertical slidable engagement, substantially as set forth.

4. In a funnel attachment for auto radiators, the combination with the filling tube of an auto radiator, of two members, one a

funnel and the other a bushing fitted to said tube, the funnel being vertically slidable on the bushing and adapted to be mounted thereon in an upright or an inverted position, one of the members having an annular peripheral projection and the other an annular peripheral groove into which said projection is adapted to be snapped for holding the funnel releasably from sliding on the bushing, one member having a vertical groove and the other a projection slidably fitted in said groove for holding the funnel from turning, substantially as set forth.

5. In a funnel attachment for auto radiators, the combination with the filling tube of an auto radiator, of two members, one a funnel and the other a bushing fitted on said tube, the funnel being vertically slidable on the bushing, said members having means for holding the funnel from rotation on the bushing and having means for releasably locking the funnel from vertical sliding movement on the bushing from a predetermined position, substantially as set forth.

In testimony whereof I have signed my name to this specification.

DYLE EVERETT WILLIAMS.