

T. HILL.
ATTACHMENT MEANS FOR RECEPTACLE COVERS.
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Fig. 1.

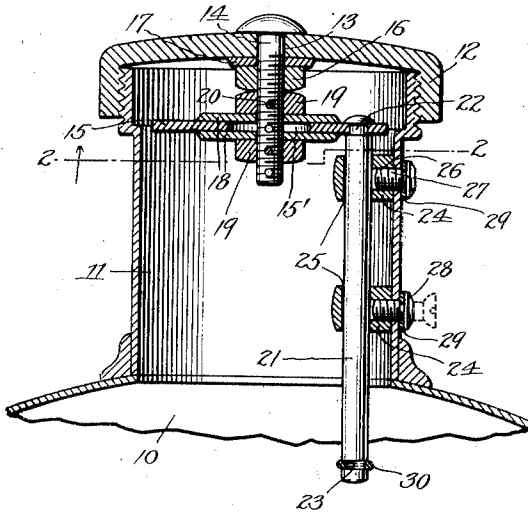


Fig. 2.

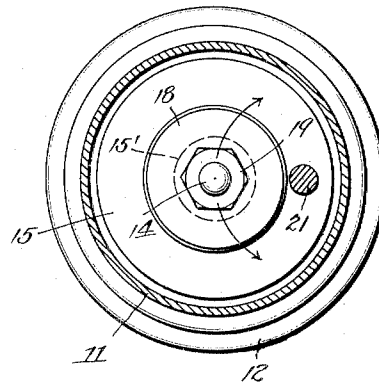


Fig. 3.

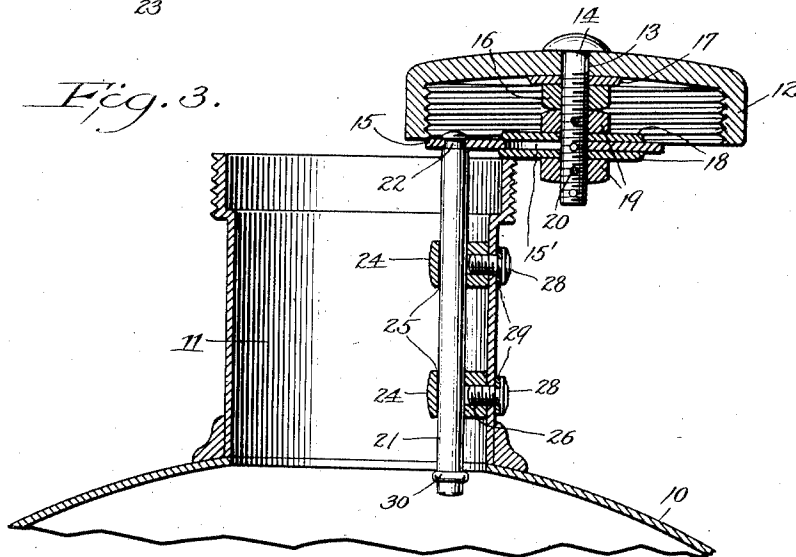
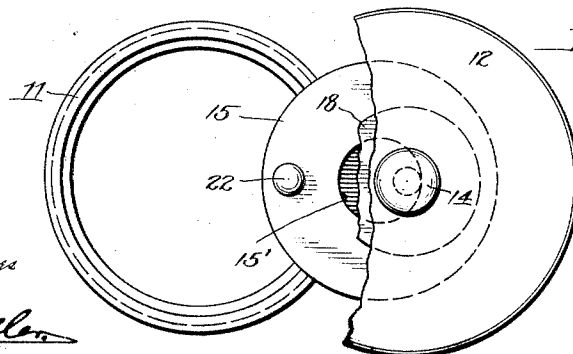


Fig. 4.



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ATTACHMENT MEANS FOR RECEPTACLE-COVERS.

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To all whom it may concern:

Be it known that I, THOMAS HILL, a citizen of the United States, and a resident of the city of New York, borough of Manhattan in the county and State of New York, have invented a new and Improved Attachment Means for Receptacle-Covers, of which the following is a full, clear, and exact description.

This invention relates to receptacle covers and while I indicate the same as applicable particularly to the removable caps for automobile radiators I wish it to be distinctly understood that in its broader aspects the invention is not to be unnecessarily restricted to the application illustrated.

Among the objects of the invention is to provide a permanent connection between a radiator cap and the radiator, said connection providing for the usual manipulation of the cap, but preventing loss thereof from the radiator by any means except upon the application of special tools or extreme force.

A further object of the invention is to provide a simple, reliable and convenient means to prevent the loss of a radiator cap such as is frequently incident to such causes as theft or the laying of the cap on the frame of the machine or the like during the filling operation, and then forgetting it. In this connection it is to be observed that whereas many radiator caps nowadays are fitted with mascots, motometers, or other indicating or the like devices, they are common subjects for a pilferer.

With the foregoing and other objects in view the invention consists in the arrangement and combination of parts hereinafter described and claimed, and while the invention is not restricted to the exact details of construction disclosed or suggested herein, still for the purpose of illustrating a practical embodiment thereof reference is had to the accompanying drawings, in which like reference characters designate the same parts in the several views, and in which—

Figure 1 is a vertical sectional view of a radiator neck and its cap showing my improvement applied thereto, the cap being closed.

Fig. 2 is a horizontal section on the line 2—2 of Fig. 1 looking upward.

Fig. 3 is a vertical sectional view similar to Fig. 1 but with the cap unscrewed and swung to open position.

Fig. 4 is a plan view corresponding to Fig. 3 but with a portion of the cap broken away.

Referring now more specifically to the drawings I show at 10 a receptacle having a tubular neck 11 fixed thereto and to the upper end of the neck is shown screwed a cap 12 of any suitable design, construction, or material.

At any suitable point, preferably the center, the cap is provided with a hole 13 through which projects downward a center pin 14 which may be the screw or shank of a mascot or any other equivalent member providing for permanent attachment to a carrier shown in the form of a disk 15 having an open center 15'. The center pivot 14 is preferably fixed rigidly in the hole 13 by means including a nut 16 bearing against a washer 17 against the under or inner surface of the cap.

On the opposite faces of the carrier 15 are arranged a pair of washers 18 which preferably span the opening 15' of the carrier but with a sliding connection. That is to say the pivot 14 and parts attached thereto are adapted to be moved laterally with respect to the carrier except as limited by the periphery of the opening 15'. A pair of nuts 19 are screwed upon the pivot 14 adjacent to the washers and said nuts may be locked by keys 20, or their equivalent, to prevent the removal thereof by any one except by the use of tools and a considerable amount of time and care. Furthermore the parts are held from accidental separation due to vibration of the machine or otherwise.

21 indicates a pedestal in the form of a round rod of any suitable length and of uniform cross section except that it is provided at its upper end with a headed neck 22 and adjacent to its lower end with a groove 23. Fitted upon said neck 22 is one side of the carrier 15, said connection being either rigid or loose as may be desired. The pedestal is fitted for vertical longitudinal movement as well as free rotation in any suitable bearing members shown as lugs 24 fitted on the inner surface of one side of the neck 11 and as close to said surface as is mechanically convenient.

Each of the lugs just referred to is shown as comprising a small block of metal having a vertical hole 25 serving as a bearing for the pedestal rod and having at its outer end

a threaded hole 26 at right angles to the bearing hole 25 for the reception of a locking screw 27. This screw may be of any suitable construction adapted for the purpose, but the screw I prefer to employ is one which has a removable head or so constructed that after the screw is driven tightly into the bearing lug the head may be either broken or filed off as flat as possible so as to afford little or no means for unscrewing it. The screw furthermore is provided with a flange or shoulder 28 bearing against a locking spring washer 29 which will prevent any possible loosening of the screw due to vibration.

As indicated the two lugs 24 are arranged with their holes 25 in vertical alinement and the pedestal 21 is fitted therein for free longitudinal sliding movement as well as for rotation. When the screws 27 have been tightened as shown the lugs 24 are both locked rigidly against the wall neck. At no time can either of the lugs rotate or otherwise move with respect to the neck wall because of the locking of the screws from loosening or loss. The carrier 15 is locked or otherwise fixed as by upsetting the headed end of the neck 22 to the pedestal and furthermore the pedestal can not be removed from the neck because it is limited in such movement by a spring ring 30 snapped upon the lower end thereof in the groove 23.

With the parts constructed and assembled as set forth the operation will be readily understood as follows: The receptacle cover or cap 12 being closed as shown in Fig. 1 may be unscrewed and removed from closed position in precisely the same manner as in the usual practice, that is to say the operator simply unscrews the cap and during this upward screwing action the carrier connected to the cap and pedestal rod 21 connected to the carrier move upward bodily. The rod 21 is enough longer between the lower lug 24 and the spring ring 30 to permit the operator to then lift the cap and swing it to wide open position as shown in Fig. 3, at which time the receptacle neck will be open to re-

ceive the water or the like. After the filling is completed the cap is returned to its place and screwed down as usual. The established design or appearance of the receptacle neck and cap or cover is not changed in any respect by the use of this device and the usual manipulation of the cover or cap likewise remains substantially the same as usual except that the possibility of loss of the cap is avoided.

I claim:

1. The combination with a receptacle neck and its cover fitted to the neck, of permanent attachment means between the cover and the neck, said attachment means including a pedestal, means securing the pedestal on the inside of the neck and serving to hold it in a fixed vertical line but permitting vertical sliding thereof, a flat member pivoted to the upper end of the pedestal and adapted to swing in a plane perpendicular to the axis aforesaid, said member having a vertical hole therethrough at one side of the pedestal, a pivot member connected to the cap and extending through said hole, and means on opposite sides of the member and cooperating with the cap pivot to hold the latter permanently to the member having the hole.

2. The combination with a receptacle and its cover, of permanent attachment means between the cover and the receptacle, said attachment means comprising a vertical pedestal, means carried by the receptacle to hold the pedestal vertical but permit it to slide up and down, a carrier in the nature of a flat member pivoted to the upper end of the pedestal and adapted to swing freely around said pivot, said carrier having a large central opening, a pivot fixed to the cap at one side of the pedestal and passing freely through said carrier opening, and washer and nut means carried by the cap pivot serving to fix the cap to the carrier and yet provide for lateral movement of the cap with respect to the carrier as would be permitted by the large opening, substantially as set forth.

THOMAS HILL.