March 29, 1949. L. M. MARCH ET AL 2,465,895

RADIATOR DEFROSTER

Filed Aug. 30, 1946

FIG. 1

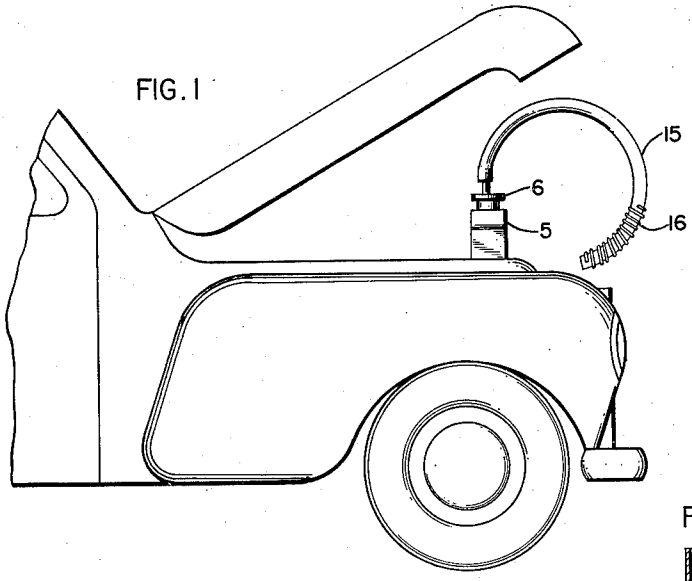


FIG. 2

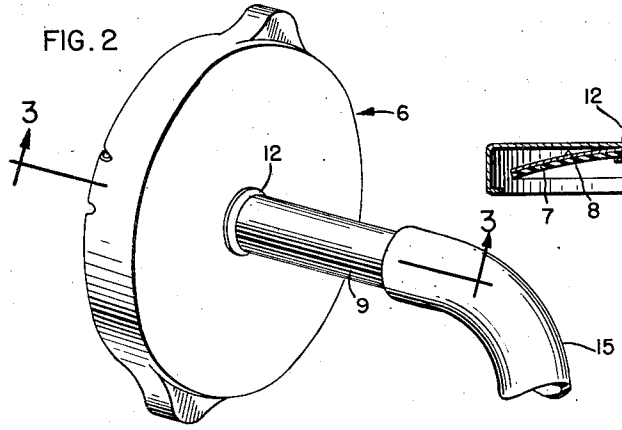


FIG. 3

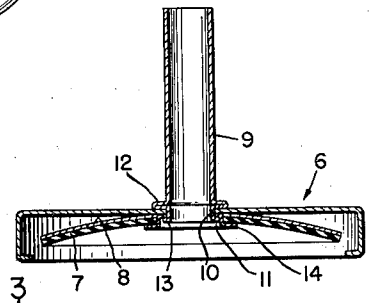


FIG. 5.

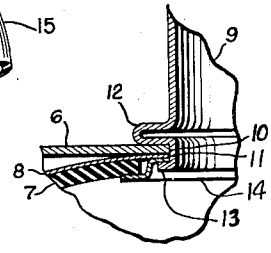
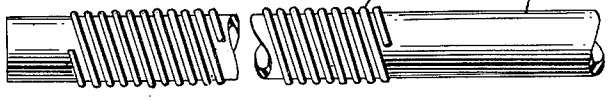


FIG. 4



INVENTORS

LOUIS M. MARCH

BENJAMIN WORKMAN

BY Joshua R. H. Potts

THEIR ATTORNEY

Patented Mar. 29, 1949 2,465,895

UNITED STATES PATENT OFFICE

2,465,895

RADIATOR DEFROSTER

Louis M. March and Benjamin Workman,
Chicago, Ill.

Application August 30, 1946, Serial No. 693,976

3 Claims. (Cl. 123—178.5)

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This invention relates to thawing devices, particularly motor thawing devices.

The object of our invention is to provide a more efficient and simple means of thawing a radiator by the use of steam.

Our invention comprehends a novel, highly improved, and more efficient means for taking the steam out of a radiator, and transmitting it into a hose, and conveying it to thaw a radiator.

Among other things, our invention includes the uniting of a tube, for example, a brass tube, with a radiator cap.

Our invention also comprehends a sturdy structure which will not leak steam.

According to the principle of our invention, we provide a brass tube which is extended to form a bead to place the tube on the cap. Also, mounted on the tube are, in addition to the cap, three washers, preferably one large metal washer, one composition washer and one small metal washer.

The tube is preferably flattened at its end to hold the parts together, as will be manifest from what appears hereinafter, to those skilled in the art.

The structure just described provides a very simple and effective method of securing the tube to the cap, for the passage of the steam. When a radiator is frozen, the regular cap will be removed and the cap with the tube will be attached in its place, it being understood that similar types of caps will be used, both when the tube is used and when it is not used.

When the cap and tube of our invention are in place, then the hose will be attached to the tube, and the steam will be conveyed to the end of the tube. Then the end of the tube may be grasped by the hand to apply the steam, to thaw the radiator.

In case the rubber should get too hot, we provide a spring for a hand grip. The spring is approximately slightly larger than the hose in diameter.

The foregoing and other objects and advantages will appear and be brought out more fully in the following specification, reference being had to the accompanying drawings, in which:

Fig. 1 is an elevation of the device applied to a radiator of an automobile.

Fig. 2 is a perspective view of the cap and the tube which is secured to the cap.

Fig. 3 is a vertical section on the line 3—3 of Fig. 2.

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Fig. 4 is a view of the hose with the spring, as will hereinafter more fully appear.

Figure 5 is an enlarged fragmentary view of a part of Figure 3.

Referring to the drawings in detail, in which we have shown the preferred form for the purpose of illustrating the principle of our invention, we have shown a radiator 5, which has a cap 6 removably secured to it.

The cap is the usual cap. There is also provided a composition washer 7, and a metal washer 8. These parts are all secured together with a metal tube 9, which is also secured to the cap and the washer.

Apertures 10 and 11 are located in washers 7 and 8, respectively, and the tube is extended, as at 12, to form a bead, and is rolled, as at 13. The washers are mounted on the tube between the bead and the cap and the roll 13. A smaller washer 14 is secured between the roll and the composition washer 7.

I have also provided a hose 15 to be secured to the tube. This, in turn, is provided with a coil spring 16 as a hand grip.

It is believed that the operation of the device, to thaw the radiator, will be manifested to those skilled in the art without further description.

While we have illustrated and described the preferred form of construction for carrying our invention into effect, this is capable of variation and modification without departing from the spirit of the invention. We, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail ourselves of such variation and modifications as come within the scope of the appended claims.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

1. The combination with a radiator cap having means adapted for engagement with the exterior of the neck of the radiator; of a conduit tube extending through and beyond the exterior surface of said cap, said tube having a bead bearing upon the exterior of said cap and having an interior shoulder; sealing means disposed interiorly of said cap, and engageable with the neck of said radiator; and a holding member having an inwardly turned flange engageable with the exterior shoulder of said tube to clamp the same in position, and an outwardly turned flange for clamping said sealing means in position in said cap.

2. The combination with a radiator cap having means adapted for engagement with the exterior of the neck of the radiator; of a conduit tube ex-

tending through and beyond the exterior surface of said cap, said tube having a bead bearing upon the exterior of said cap and having an interior shoulder; sealing means disposed interiorly of said cap, and engageable with neck of said radiator; and a holding member having an inwardly turned flange engageable with the exterior shoulder of said tube to clamp the same in position, and an outwardly turned flange for clamping said sealing means in position in said cap; said interior shoulder and said outwardly turned flange comprising metal portions rolled into clamping position and adapted to hold all parts of said cap permanently assembled.

3. The combination with a radiator cap having means adapted for engagement with the exterior of the neck of a radiator; of a conduit tube extending through said cap and beyond the exterior surface of said cap, said tube having a bead bearing upon the exterior of said cap and having also an interior shouldered portion; sealing means disposed interiorly of said cap and engageable with the neck of said radiator, said sealing means including a concave sealing washer having its marginal periphery spaced from said cap and a concave metallic washer interposed

between said sealing washer and the adjacent wall of said cap, and having its marginal periphery spaced from said wall and operable to back up said sealing washer; and a holding member having an inwardly turned flange engageable with the exteriorly shouldered portion of said tube to clamp the same in position and an outwardly turned flange for clamping said sealing means in position in said cap.

LOUIS M. MARCH.
BENJAMIN WORKMAN.

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