June 14, 1960 C. R. TAYLOR, SR 2,940,344

RADIATOR CAP REMOVING WRENCH

Filed Oct. 15, 1958

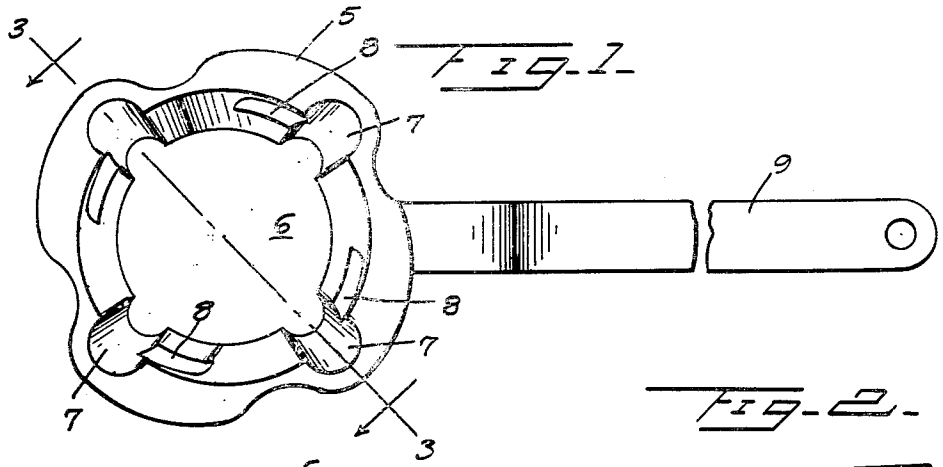


Fig. 1.

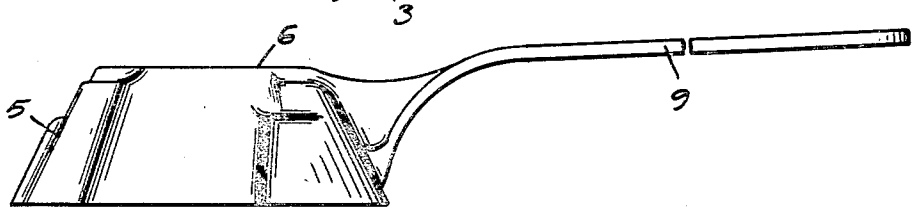


Fig. 2.

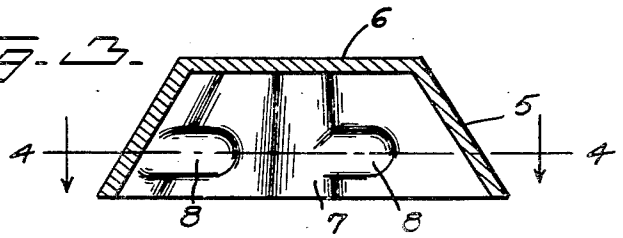


Fig. 3.

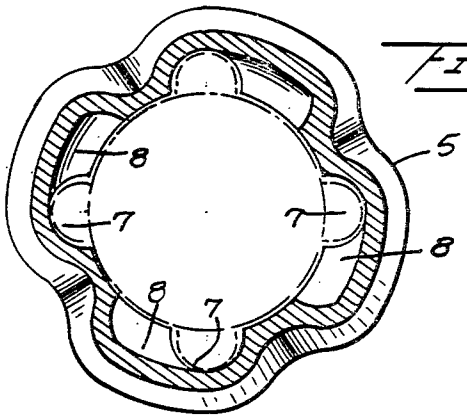


Fig. 4.

INVENTOR,
CALVIN R. TAYLOR, SR.

BY C. A. Snow & Co.
ATTORNEYS.

United States Patent Office

2,940,344

Patented June 14, 1960

2,940,344

RADIATOR CAP REMOVING WRENCH

Calvin R. Taylor, Sr., 1201 Jackson St., Tampa, Fla.

Filed Oct. 15, 1958, Ser. No. 767,339

1 Claim. (Cl. 81—90)

By way of illustration, it might be stated that attendants at gasoline filling stations are frequently burned or injured by steam and hot water escaping onto the hand when removing the usual radiator filling caps of motor vehicles to inspect the water level in radiators.

It is, therefore, the primary object of the present invention to provide a radiator cap removing wrench wherein the inner surface of the head of the wrench is formed with grooves that fit over the lugs of a radiator cap holding the cap and at the same time releasing excessive steam and hot water generated in the radiator of high compression engines prior to the attendant making an inspection.

Another object of the invention is to provide a wrench of this character having grooves arranged in the inner surface thereof which grooves accommodate the usual lugs of a radiator filling cap locking the filling cap within the head of the wrench against accidental displacement when the wrench with the filling cap held therein is placed on a supporting surface preparatory to replenishing the water of the motor cooling system.

A still further object of the invention is to provide a radiator cap wrench having an exceptionally long handle for effecting operation of the wrench so that the attendant's hand operating the wrench will be out of range with the escaping steam and hot water.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts, hereinafter more fully described and pointed out in the claim, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawing:

Figure 1 is a bottom plan view of a radiator cap wrench constructed in accordance with the invention.

Fig. 2 is an edge elevational view of the wrench.

Fig. 3 is a sectional view taken on line 3—3 of Fig. 1.

Fig. 4 is a sectional view taken on line 4—4 of Fig. 3.

Referring to the drawing in detail, the reference character 5 indicates the head of the wrench, and more particularly the peripheral wall thereof, which may be flared and projects in axially outstanding relation from the closed end or generally circular base 6 which makes the wrench head generally cup-shaped.

The head 5 is hollow so that it may be readily fitted over the conventional radiator cap, the inner surface of the head 5 having a pair, or two pairs, of lengthwise grooves 7 that are disposed diametrically opposite each other in the head, said grooves 7 extending inwardly from the open edge of the head toward the base, as better shown by Fig. 1 of the drawing.

Communicating with one side only of each of said grooves 7, is circumferential grooves 8. These circumferential grooves are spaced about midway between the closed end of the head 5 and open end thereof, being thus so located that when the wrench is fitted over a radiator cap to remove the same from the radiator, the lugs will enter a pair of the lengthwise grooves 7 and become seated in the circumferential grooves when the wrench is rotated a quarter turn more or less. Thus the radiator cap lugs, not shown, will become locked within the circumferential grooves. It follows that upon further rotation of the wrench, the radiator cap will be rotated to a degree to permit the removal of the cap. The removed radiator cap is now held within the head of the wrench and may be readily replaced without removing the radiator cap from the wrench by reversely rotating the head to engage the sides of the lengthwise grooves, at the ends of the circumferential grooves, with the lugs, thus leaving the replaced cap free of the head for easy lifting of the wrench from the cap.

A substantially long handle 9 forms an integral part of the wrench and affords means for effecting handling and manipulation of the wrench without the danger of injury to the operator's hand due to steam or hot water escaping from the radiator from which the radiator cap is being removed.

It will also be seen that when the wrench head has been properly positioned and is rotated to remove the radiator cap, the grooves 7 provide exhaust channels permitting steam and hot water to pass from the radiator prior to the removal of the cap.

Having thus described the invention, what is claimed is:

A wrench for rotatably removing and replacing an automotive vehicle radiator cap having diametrically projecting lugs, said wrench comprising a hollow cup-shaped head having a generally circular base and a peripheral wall outstanding from the marginal edge of the base, the interior surface of the peripheral wall having a pair of diametrically opposed grooves open to the free outer edge of the wall and extending substantially lengthwise thereof to the base and having a circumferential groove extending from one side only of each of said lengthwise grooves, and a handle extending radially from said head whereby the head may be fitted onto the radiator cap with the lugs of the cap entering the lengthwise grooves and seated in the circumferential grooves upon rotation of the head in one direction to unscrew the cap and hold it captive by engagement of the lugs in the circumferential grooves and whereby the head may be rotated in the opposite direction to replace the cap by engaging the lugs with the side walls of the lengthwise grooves at the ends of the circumferential grooves.

References Cited in the file of this patent

UNITED STATES PATENTS

975,174	Stock	Nov. 8, 1910
1,188,305	Noertman	June 20, 1916
2,599,668	Taylor	June 10, 1952

FOREIGN PATENTS

622,651	France	Mar. 7, 1927