R. STIRLING, JR.

FILLING NIPPLE AND ACCESSORY LOCK.

APPLICATION FILED APR. 14, 1920.

1,361,922. **Patented Dec. 14, 1920.**

2 SHEETS—SHEET 1.

FIG. 1.

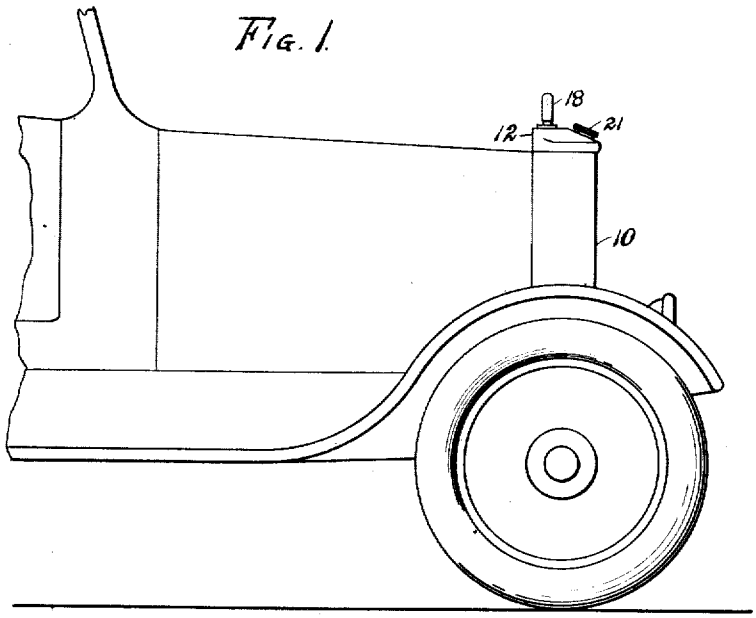


FIG. 3.

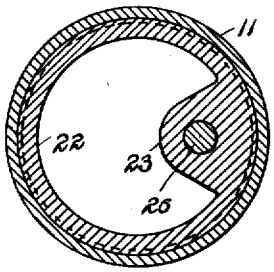


FIG. 2.

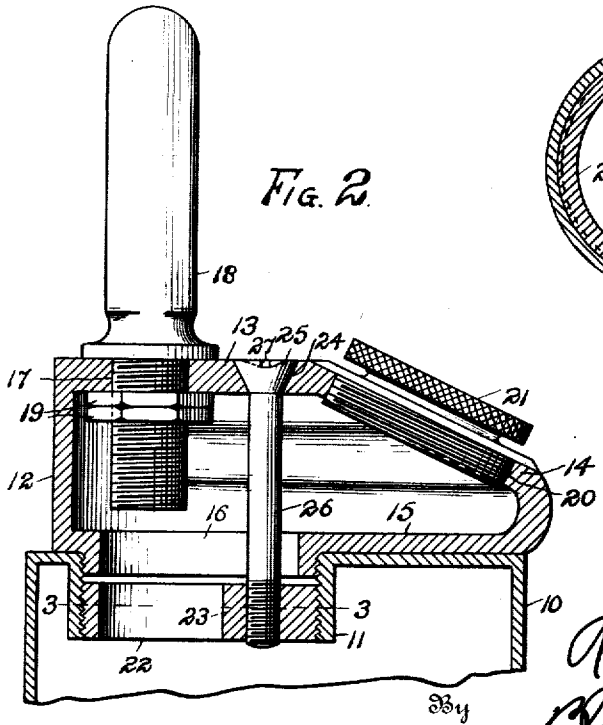
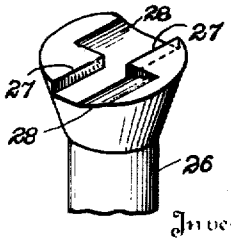


FIG. 4.



Inventor

Robert Stirling, Jr.,

By

R. B. Porter

Attorney

R. STIRLING, JR.

FILLING NIPPLE AND ACCESSORY LOCK.

APPLICATION FILED APR. 14, 1920.

1,361,922. **Patented Dec. 14, 1920.**

2 SHEETS—SHEET 2.

Fig. 5.

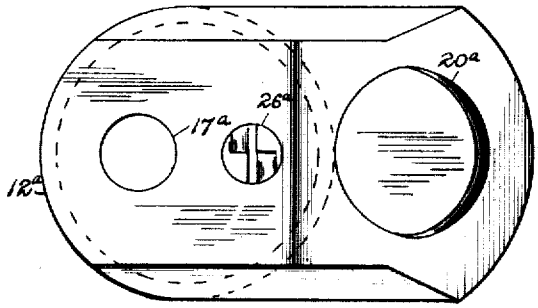


Fig. 6.

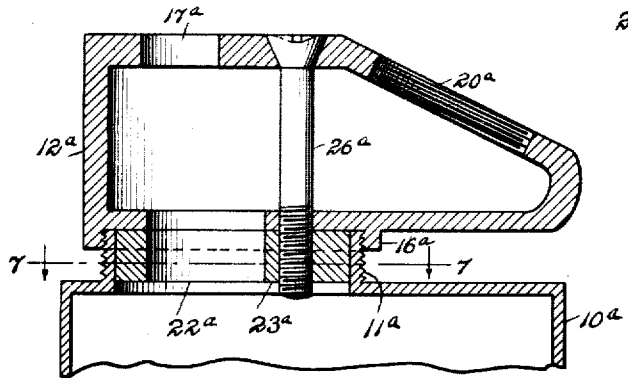


Fig. 7.

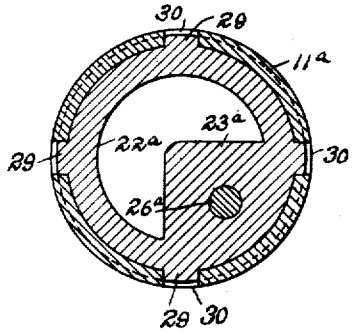


Fig. 8.

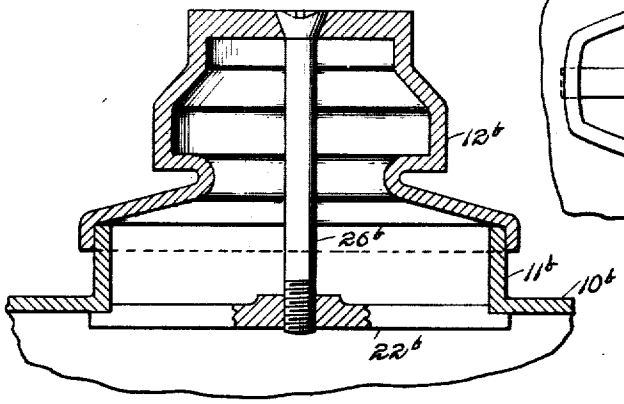
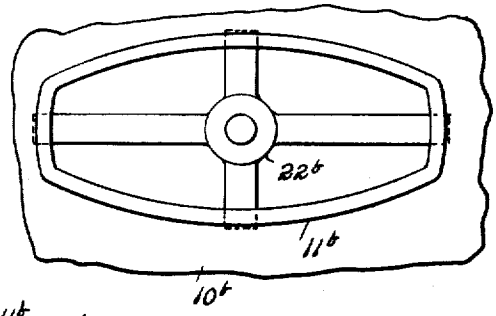


Fig. 9.



Inventor

Robert Stirling, Jr.

By R. D. Foster

Attorney

UNITED STATES PATENT OFFICE.

ROBERT STIRLING, JR., OF EAST CHICAGO, INDIANA.

FILLING-NIPPLE AND ACCESSORY LOCK.

1,361,922. Specification of Letters Patent. Patented Dec. 14, 1920.

Application filed April 14, 1920. Serial No. 373,829.

To all whom it may concern:

Be it known that I, ROBERT STIRLING, Jr., a citizen of the United States, residing at East Chicago, in the county of Lake and State of Indiana, have invented certain new and useful Improvements in Filling-Nipples and Accessory Locks, of which the following is a specification.

As is well known, it is the custom to mount certain accessories, as for example, temperature indicators, in the filling nipple of the automobile radiator. As a consequence, it is necessary to remove these devices whenever the radiators are filled. Being removable, they are apt to be stolen, and moreover are often broken when removed for legitimate purposes, as in filling.

One of the primary objects of the present invention is to provide an attachment that can be placed on any well known type of filling nipple, and in which the accessory can be permanently secured, said attachment having means whereby the radiator can be filled without the necessity of removing the indicator.

A further object is to provide means that can be readily applied, and is effectively locked against unwarranted removal.

A still further object is to so position the filling opening that it is readily accessible, and will permit the radiator to be filled with greater convenience than is the case with the vertically disposed nipple now in common use.

Several embodiments of the invention are illustrated in the accompanying drawings, but it will be understood that other forms and structures may be utilized within the scope of the appended claims.

In the drawings:—

Figure 1 is a side elevation of the front portion of an automobile, showing one of the devices in place,

Fig. 2 is a vertical sectional view on an enlarged scale through the attachment,

Fig. 3 is a cross sectional view on the line 3—3 of Fig. 2,

Fig. 4 is a detail perspective view of the head of the connecting screw bolt,

Fig. 5 is a plan view of a slightly modified form of structure,

Fig. 6 is vertical sectional view therethrough.

Fig. 7 is a horizontal sectional view on the line 7—7 of Fig. 6.

Fig. 8 is a vertical sectional view through another embodiment of the invention,

Fig. 9 is a plan view of the anchor element illustrated in Fig. 8, and showing the same in the standard nipple.

Referring first to the embodiment disclosed in Figs. 1–4 inclusive, the radiator of the automobile is designated 10, and is provided with the usual internally threaded filling nipple 11. The accessory is in the form of a head 12 that rests upon the top of the radiator, and may be of any desired ornamental form or configuration. Said head has a top, comprising a substantially horizontal rear portion 13 and a downwardly and forwardly inclined front portion 14. The bottom 15 has on its rear portion a depending externally threaded boss 16 that screws into the nipple, as clearly shown in Fig. 2. The horizontal portion 13 of the top is provided with an opening 17 adapted to receive the temperature indicator 18, or other accessory, which may be permanently fixed in place by any suitable means, as for example, lock nuts 19. The inclined portion 14 is provided with a filling opening 20 adapted to be covered by any desired form of closure, as for example, a screw plug 21.

For the purpose of effectively mounting the nipple member above described in place, an anchor member in the form of a collar 22 is threaded into the nipple 11, and is provided on one side with an internal lug 23 having a threaded opening. The horizontal portion 13 of the top is provided between the openings 17 and 20 with a tapered opening 24 adapted to receive the correspondingly shaped head 25 of a screw bolt 26 that is threaded into the opening of the lug 23. The head 25 of the screw, as shown in Fig. 4, is notched, but said notch is provided with bearing shoulders 27 solely to engage a tool for the purpose of screwing the bolt into its locking position, the usual opposite shoulders being cut away, as illustrated at 28.

With this construction, it will be noted that the supplemental nipple, which can be produced as a complete article of manufacture, may be readily placed in position and effectively locked against removal. Furthermore when in position, the temperature indicator becomes a permanent part of the same and does not have to be removed when

the radiator is filled. It, in turn, can be permanently secured in position. The filling opening moreover is placed close to the front of the radiator, and being set at an inclination, is more readily accessible, and the filling operation can be more conveniently performed than with the vertical nipple now commonly employed.

The invention can be modified in various ways, so that it may be employed for different types of radiators, and in fact on other structures besides automobile radiators. Figs. 5, 6 and 7 disclose an example of a different form of structure. In this embodiment, the radiator is designated 10^a, and has an upstanding externally threaded nipple 11^a. The nipple member 12^a has a depending internally threaded boss 16^a that is screwed upon the upper end of the nipple 11^a. The top is provided with an opening 17^a to receive the accessory, and has a forwardly inclined portion provided with a filling opening 20^a. The anchor member, designated 22^a, fits within the nipple and has an internal lug 23^a to receive the connecting screw bolt 26^a. In this embodiment the anchor element has outstanding lugs 29, and the nipple in this instance must be filed away to provide sockets, as 30 to receive the lugs. It will be clear that when the parts are assembled, as illustrated in Fig. 6, the attachment is effectively held against removal, and thus has all the advantages of the structure illustrated in Fig. 2.

Where the nipple is elongated and unthreaded, as is sometimes the case, the structure disclosed in Figs. 8 and 9 may be employed. In said figures a portion of the radiator is shown at 10^b, and the upstanding elongated unthreaded nipple is illustrated at 11^b. The nipple member 12^b is provided with a depending boss that fits over the nipple 11^b. The anchor member is in the form of a spider 22^b, the hub of which receives the locking screw 26^b. The spider 22^b is engaged with the lower end of the nipple 11^b, and the two members are connected by a bolt, as illustrated in Fig. 8.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. A filling nipple having an upwardly disposed intake opening and a downwardly disposed outlet opening, said openings being offset from each other, an anchor element adapted to be interfitted with the container to which the nipple is to be applied, and a locking device that connects the nipple and anchor element to secure the former, said locking device extending into the outlet opening.

2. A filling nipple having a top, an upwardly disposed intake opening and a downwardly disposed outlet opening, said openings being offset from each other, an anchor element adapted to be placed beneath the nipple and interfitted with the container to which the nipple is to be applied, and a locking device that engages the top of the nipple, extends through the outlet opening and engages the anchor member.

3. A filling nipple having an internal chamber provided with an upper inlet opening and a lower outlet opening, said openings being offset from each other, an anchor member adapted to interfit with the container to which the nipple is applied, and a locking device that engages with the top of the nipple, extends through the chamber into the outlet opening and engages the anchor member to secure the nipple and member together.

4. A filling nipple member provided with an upper intake opening and a lower outlet opening offset from the inlet opening, a separate anchor member adapted to be detachably interfitted with the container to which the nipple member is to be applied, and a locking device for connecting the nipple member to the anchor member to secure the two together and thereby lock both members against removal from the container.

5. A filling nipple having a top provided with an intake opening and an accessory receiving opening spaced from the intake opening, said nipple having a bottom provided with an outlet opening that alines with the accessory receiving opening, an anchor member adapted to engage with a container to which the nipple is to be applied, and a locking device that engages with the top of the nipple and the anchor member through the outlet opening.

6. A filling nipple member having an internal chamber provided with a lower outlet opening and an upper filling opening, a separate anchor member for detachably interfitting with the usual nipple below the nipple member, and a bolt for connecting the members to lock the nipple member in place and having means for permitting the operation of said bolt to connect the members but preventing its operation to effect their disconnection.

7. A filling nipple member having an offset filling opening, an anchor member for interfitting with the usual nipple, and a screw bolt passing through one of the members and having a threaded engagement with the other, said screw bolt having a head

seated in the nipple member and provided with shoulders in a position to be engaged by a tool solely to couple the members.

8. A filling nipple member having a depending outlet boss to interfit with the usual nipple and having a head provided with an opening alined with the boss and adapted to receive a temperature indicator, said head having an offset portion provided with a filling opening, an anchor member adapted to interlock with the usual nipple, and a device for connecting the two members to secure the nipple member in place.

In testimony whereof, I affix my signature in the presence of two witnesses.

ROBERT STIRLING, JR.

Witnesses:
HENRY W. PETERSTA,
WILLIS E. ROE.