Sept. 18, 1923.

S. FREY

1,468,360

ATTACHABLE SPOUT FOR LIQUID CONTAINERS

Filed Jan. 9, 1922

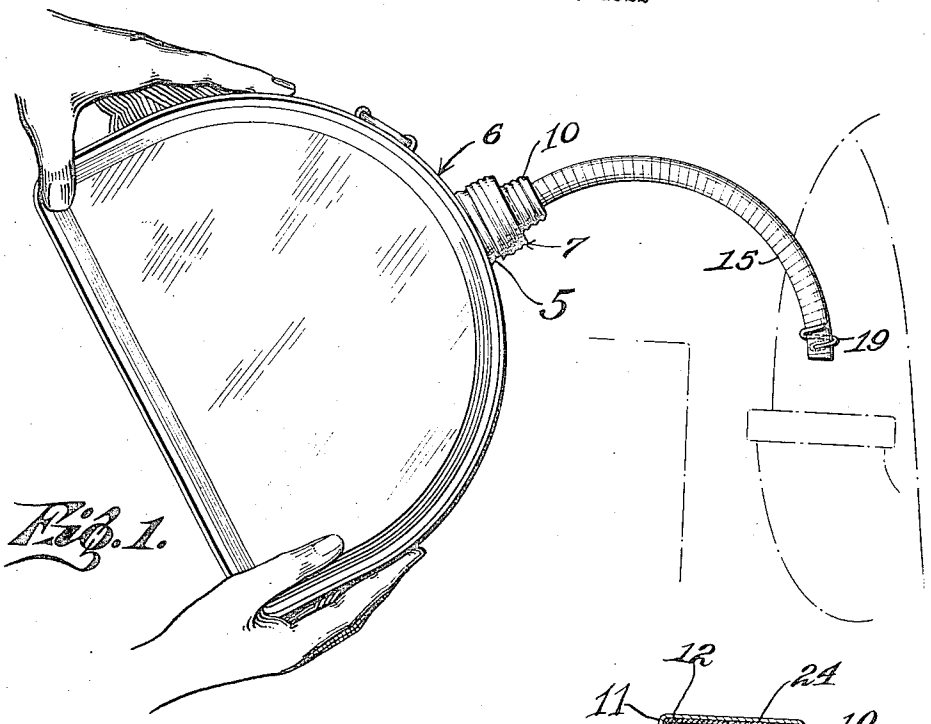



Fig. 1.

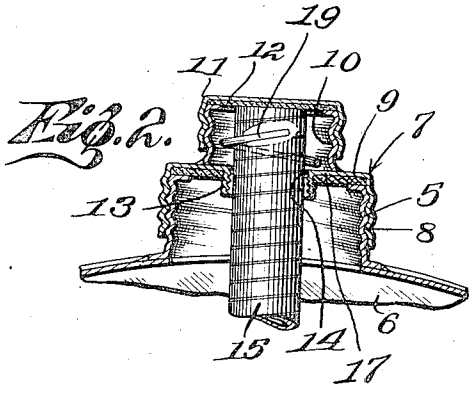



Fig. 2.

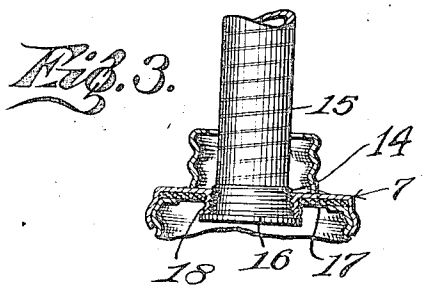



Fig. 3.

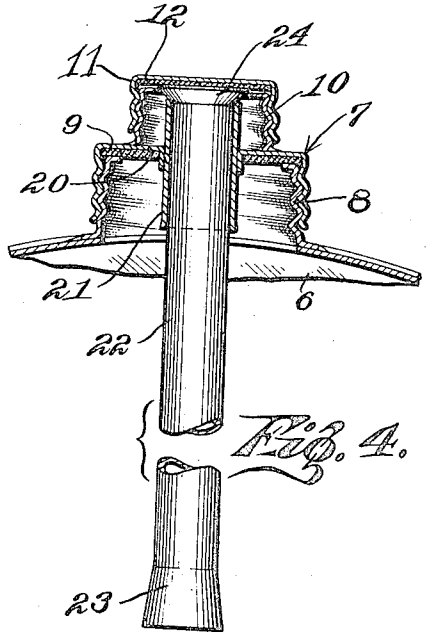



Fig. 4.

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# UNITED STATES PATENT OFFICE.

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## ATTACHABLE SPOUT FOR LIQUID CONTAINERS.

Application filed January 9, 1922. Serial No. 527,976.

*To all whom it may concern:*

Be it known that I, SIGMUND FREY, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Attachable Spout for Liquid Containers, of which the following is a specification.

This invention relates to spouts of the character employed on canteens and other liquid containers, and an object of the invention is to provide a collapsible spout which can be readily attached to the ordinary canteen, without the use of tools.

Another object is to effect the sealing of the spout against leakage, when it is not desired to discharge liquid from the container.

Another object is to provide a telescoping spout construction that will insure against rattling of the spout when telescoped within the container.

The accompanying drawings illustrate several embodiments of the invention:

Fig. 1 is a perspective view showing one form of the newly invented spout attached to a canteen, broken lines indicating a fragment of a motor car, more especially the filling neck of the crank case. The discharge tube is in extended position for discharging the contents of the canteen into the filling neck.

Fig. 2 is an enlarged fragmental section of the discharge spout shown in Fig. 1, the discharge tube being shown in closed position.

Fig. 3 is an enlarged fragmental section of the discharge spout shown in Fig. 1, as it appears in extended position for use.

Fig. 4 is a broken section of a different embodiment of the invention, the discharge tube being shown in closed position within the container.

One of the principal purposes of this invention is to provide a collapsible spout that can be readily attached to the discharge neck of a canteen or other vessel. Such a discharge neck is indicated at 5 in the drawings and constitutes a portion of a liquid container, indicated in general by the character 6. In this particular instance, the container 6 is in the form of a canteen of the type carried on motor cars for holding extra supplies of lubricating oils and gasoline.

I provide a cap 7 screw-threaded at 8 for attachment to the neck 5. Between the outer end of the neck 5 and the cap 7, there is preferably interposed a gasket or washer 9. The cap 7 is provided with a screw-threaded neck 10 which may be of somewhat smaller diameter than the screw-threaded portion 8 of the cap. A second cap 11 is adapted to be screw-threaded upon the neck 10 so as to close the outer end of said neck. Within the cap 11 is a disk-shaped gasket 12.

Now referring more particularly to Figures 1, 2 and 3 of the drawings there is secured within the cap 7 a collar 13 provided with internal screw-threads 14. Adapted to slide through the collar 13 is a discharge tube 15 provided at its inner end with screw-threads 16 to engage the screw-threads of the collar 13 when the spout is drawn out and projected from the neck 10 as shown in Fig. 3. The screw-threaded engagement of the tube 15 with the collar 13 securely holds the spout in extended position, and a flange 17 on the collar prevents flow of liquid from the neck 8 into the neck 10.

To further seal the connection of the tube 15 with the flange 17, when in extended position, the inner end of the tube is provided with an annular flange 18 adapted to seat against the flange 17. The flange 18 also prevents the tube 15 from being withdrawn from the collar 13.

In order to prevent undue looseness and consequent rattling of the tube 15 within the container, when said tube is telescoped within said container, it is advisable to attach one end of a coil spring 19 to the tube 15 near the outer end thereof. The other end of the spring 19 is adapted to engage the flange 17 and said spring, when the cap 11 is displaced from the neck 10, yieldingly supports the tube 15 with its outer end slightly above the level of the neck 10, so that when the cap 11 is screwed securely into place on the neck 10 the gasket 12 will engage the outer end of the tube 15 and force said tube inwardly against the pressure of the spring. This not only prevents looseness of the tube 15, when in closed position, but also more effectually seals the outer end of the tube than if the spring were not employed to hold the tube against the gasket.

It is understood that the tube 15 may be constructed of any suitable material, and it

may be a rigid tube or, if desired, may be flexible, as indicated. If flexible it will preferably be of the helical metal type, the construction of which is well understood in the tube-making art.

The invention operates as follows:

Normally the parts will be in the closed position shown in Figure 2 and, when it is desired to pour liquid from the container 6, the cap 11 will be detached from the neck 10 and the spring 9 will function to project the tube 15 slightly from the neck 10 so as to enable the operator to the more readily grasp the outer end of the tube. This he does and then pulls the tube outwardly until the screw-threaded end engages the collar 13. He then rotates the tube to screw it into the collar and seat the flange 18 against the flange 17.

After pouring off as much of the liquid as he desires, he rotates the tube to release it, pushes it in and then replaces the cap 11.

Now referring to Fig. 4 for those features of the invention differentiating from the embodiment shown in Figures 1 to 3, the cap 7 is connected by a flange 20 to a collar 21 which closely fits the periphery of a discharge tube 22 provided with an expanded or tapered portion 23 at its inner end to wedgedly engage the collar to provide against leakage when the tube is fully extended and to prevent withdrawal of the tube from the collar 21.

The outer end of the tube 22 is provided with a tapered shoulder 24 adapted, when the tube is pushed inwardly, to engage the outer end of the collar 21 and thereby prevent the tube from slipping inwardly out of the collar and prevent leakage between the tube and collar 21 when the tube is pushed in. The distance between the outer end of the collar 21 and the outer end of the neck 10 is slightly less than the width of the tapered shoulder 24 so that, when the tube is housed within the container, the outer end of said tube projects slightly above the level of the neck 10. This permits the gasket 12 to tightly engage the outer end of the tube 22 so as to effectually seal said tube against leakage of liquid therefrom.

The operation of the form of the invention illustrated in Fig. 4 will be understood from the description of the operation of the form illustrated in Figs. 1 to 3, practically the only difference being that the tube 22 is simply drawn out to its full extent and not turned, since no screw-threaded connection of the tube with the collar is provided. In this instance the snug fit of the tube 22 within the collar 21 prevents leakage of the liquid therebetween.

I claim:

1. A discharge spout, comprising a screw-threaded cap provided with a neck and with a flange extending inwardly from the neck, said flange having a hole, a collar mounted in said hole, a tube in sliding contact with the collar, and a second cap detachably fitting the neck.

2. A discharge spout, comprising a screw-threaded cap provided with a neck, a second cap detachably fitting the neck, a straight collar mounted within the first cap, and a tube having a comparatively long straight portion closely fitting in the collar and slidable therein, said tube having a tapered portion at its inner end adapted to wedgedly engage the inner end of the collar when the tube is pulled out to hold the tube friction tight against being pushed inwardly.

3. In a discharge spout, the combination of a screw-threaded cap provided with a neck, a second cap detachably fitting the neck, a collar mounted within the first cap, a tube slidable in the collar, said tube being provided with a tapered portion at its outer end to wedgedly engage the collar to prevent leakage and to limit inward movement of the tube.

Signed at Los Angeles, California, this 3d day of January, 1922.

SIGMUND FREY.

Witnesses:
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