

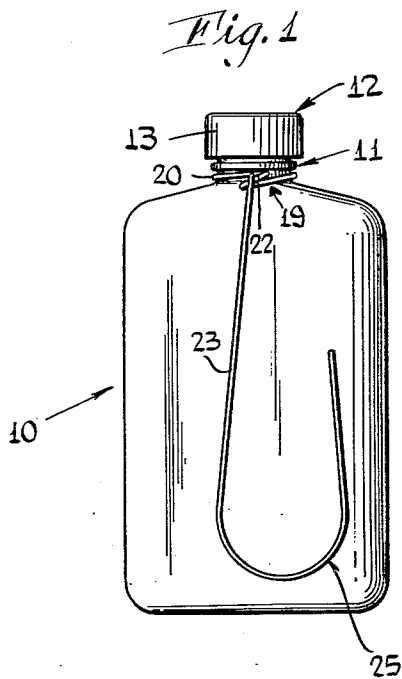
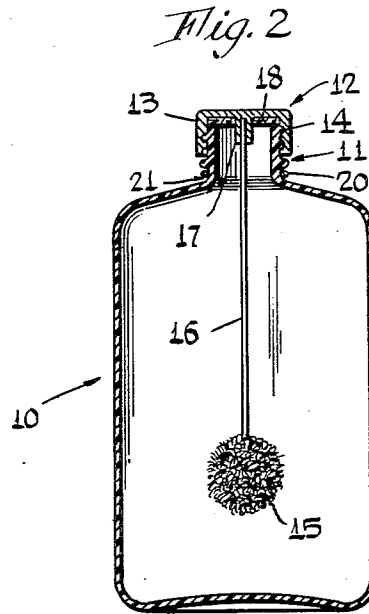
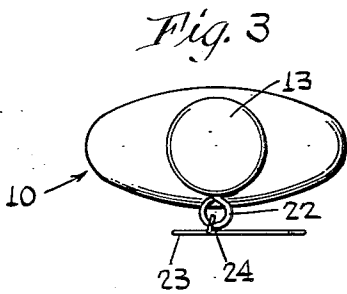
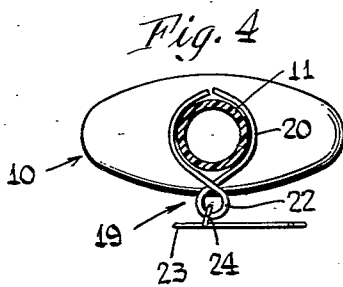
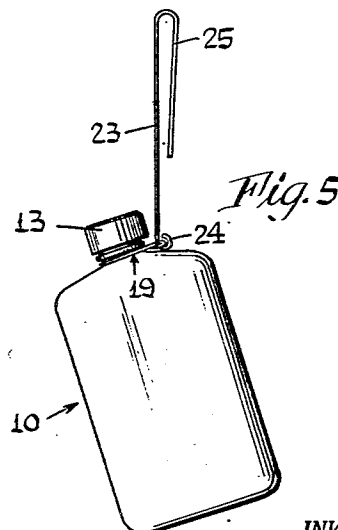
July 23, 1957

J. FALK

2,799,882

LEAK DETECTOR KIT

Filed Feb. 12, 1954



INVENTOR.
Joseph Falk
BY
Johnson and Kline
ATTORNEYS

1

2,799,882

LEAK DETECTOR KIT

Joseph Falk, Glastonbury, Conn.

Application February 12, 1954, Serial No. 409,949

3 Claims. (Cl. 15—140.3)

This invention relates to a gas detector kit, particularly for use by servicemen for determining gas leaks.

Heretofore, tin cans or other containers have been used to hold the detector liquid. These have been awkward to handle since they required two hands to operate them: one to hold the can and the other to hold the detector liquid-applying means. Also, the tin cans rusted out and had to be quickly replaced.

The present invention overcomes these difficulties by providing a device which can be supported on any convenient place for one-hand operation, and is preferably made of unbreakable rust-proof material. This is accomplished through the use of a container, preferably of plastic material, provided with a neck portion having a closure therefor. The container is supported by means of a collar extending around the neck portion and having a bendable mounting member adapted to be connected to a support to support the container therefrom so that one-hand operation may be achieved. In the preferred form of the invention, the collar is connected to the mounting member by means of an eye on the collar and an eye on the mounting means which permit the container to be freely-movable in respect to the support while the container is in a hanging position, said connection also permitting the mounting member to be folded into overlapped relation with the container for the purpose of storage.

Other features and advantages of the invention will be apparent from the specification and claims when considered in connection with the drawings in which:

Figure 1 shows a side view of the container with mounting means in overlapped relation.

Fig. 2 is a longitudinal sectional view of the container.

Fig. 3 is a top view of Fig. 1.

Fig. 4 is a view similar to Fig. 3, partly in section showing the relation of the collar and the neck.

Fig. 5 shows the container of the present invention in hanging position.

The present invention will be described in connection with a detector kit for use with illuminating gas, in which soapy water is employed as the detecting liquid. However, it is to be understood that it can be used to detect leaks in other pressurized devices, for example, cables and the like.

As shown in Fig. 1, it comprises a bottle or container 10 or oval cross-section having a neck 11 at its upper end. While the bottle may be made of any suitable unbreakable material, it is herein preferred to form the same of plastic material such as acrylic resin, polyethylene, or the like. A closure 12 is provided for the bottle. In the preferred form of the invention the closure is a threaded cap 13 adapted to be threaded on threads 14 formed on the exterior of the neck, and the closure is provided with a dauber 15 mounted on a wire 16 having one end anchored in a projecting sleeve 17 on the under-surface of the cap or closure. If desired, a sealing washer 18 can be provided in the bottom of the cap to be

2

clamped between the end of the neck and the cap. The dauber as shown in Fig. 2 is of such a size as to snugly fit the neck of the container so that as it is withdrawn, excess soapy water will be removed therefrom.

In order to provide a means for supporting the container so as to eliminate the usual two-hand operation, the present invention provides a collar 19 having a neck-embracing portion 20 adapted to be mounted in a groove 21 on the neck for rotation therearound, said collar being provided with a projecting eye 22. In the herein illustrated form of the invention, as clearly shown in Figs. 2 and 4, the groove is formed by the end of the bottle and the bottom thread 15, and the collar is formed from a piece of spring wire bent in a figure eight form so as to form the eye 22 and neck-embracing portion 20.

The mounting means for the container comprises a member 23 adapted to be connected to the collar. In the herein illustrated form of the invention, the member 23 is formed of a bendable wire having a portion extending through the eye 20, preferably in the form of a loop 24 formed at one end so as to interlock with the eye on the collar and form a freely-movable connection therewith so that the bottle can be freely supported by the mounting member. The mounting member can have its other end formed into a loop 25 such as shown in Fig. 5, which can be passed over the belt of the serviceman or slipped over the edge of this pocket to securely support the container in hanging position, or it can be readily bent around a pipe or other supporting member to hang it therefrom as conditions may require. In either case, this eliminates the necessity of holding the bottle with one hand during the testing operation, it being merely necessary to use one hand to manipulate the dauber.

The freely-movable connection of the mounting member on the collar also enables the mounting member 23 to be folded into overlapped relation with the container 10 as shown in Fig. 1 when it is desired to store the detector kit in the tool box of the serviceman.

Thus, it will be seen that the kit of the present invention is unbreakable and rust-proof so as to have a long life, is easy to manipulate, convenient to mount or support while being used, and may be readily folded into a compact unit for storage.

Variations and modifications may be made within the scope of the claims and portions of the improvements may be used without others.

I claim:

1. A gas detector kit comprising a container for detector liquid, said container having a neck provided with a groove thereon, a closure for the container adapted to be mounted on the neck and having a dauber for applying said detector liquid adapted to be inserted into said container when said closure is in position, a split wire collar rotatably carried by the neck, seated in said groove, and having an eye thereon and a bendable wire mounting member having a hook portion at one end interconnected with said eye to form a freely-movable connection therewith and a supporting portion at the other end adapted to be bent into a loop to support said container in a hanging position, said wire being movable about said connection into overlapped relation with the container for storage.

2. A gas detector kit comprising an unbreakable container of plastic material adapted to receive detector liquid, said container having an externally-threaded neck thereon and provided with a groove, a closure for the container adapted to be threaded on the neck and having a dauber for applying said detector liquid adapted to be inserted into said container when said closure is in position, a split wire collar rotatably carried by said groove in the neck and having an integrally formed eye pro-

3

jecting therefrom and a bendable wire mounting member having a portion at one end looped through said eye to form a freely-movable connection therewith and having another portion at the other end adapted to engage a supporting means to support said container therefrom in a hanging position.

3. A gas detector kit comprising an unbreakable container of plastic material adapted to receive a detector liquid, said container having a neck projecting beyond the end of said container, said neck having threads for receiving a closure having a dauber depending therefrom for applying said detector liquid, said dauber being adapted to be inserted into said container and snugly received by said neck so that upon withdrawal excess liquid will be removed therefrom, a wire collar disposed in a groove formed by the end of the container and lowermost neck thread, said wire collar having a figure 8 bend to form a mounting portion and an eye portion, said mounting portion being retained in said groove and loosely engaging said neck so as to be freely rotatable on said neck groove and a bendable wire hanger having a hook at one end for engaging the eye of the collar to form a freely movable connection therewith and a loop

4

portion on the other end of the hanger adapted to hook over a suitable support, said hanger being adapted to be freely movable between operative hanging positions to inoperative overlapped position relative to the container for storage.

References Cited in the file of this patent

UNITED STATES PATENTS

193,023	Newton	July 10, 1877
520,053	Hopkins	May 22, 1894
1,605,195	Lewis	May 8, 1953
2,160,662	Jenkins	May 30, 1939
2,182,046	Crabbe	Dec. 5, 1939
2,623,229	Brinton	Dec. 30, 1952
2,643,408	Decker	June 30, 1953

FOREIGN PATENTS

16,556	Great Britain	of 1907
--------	---------------	---------

OTHER REFERENCES

Leak-Tec Publication, received May 8, 1953.