Feb. 28, 1928. 1,660,627

H. C. SEGELKEN

GASOLINE HOSE NOZZLE

Filed March 5, 1926

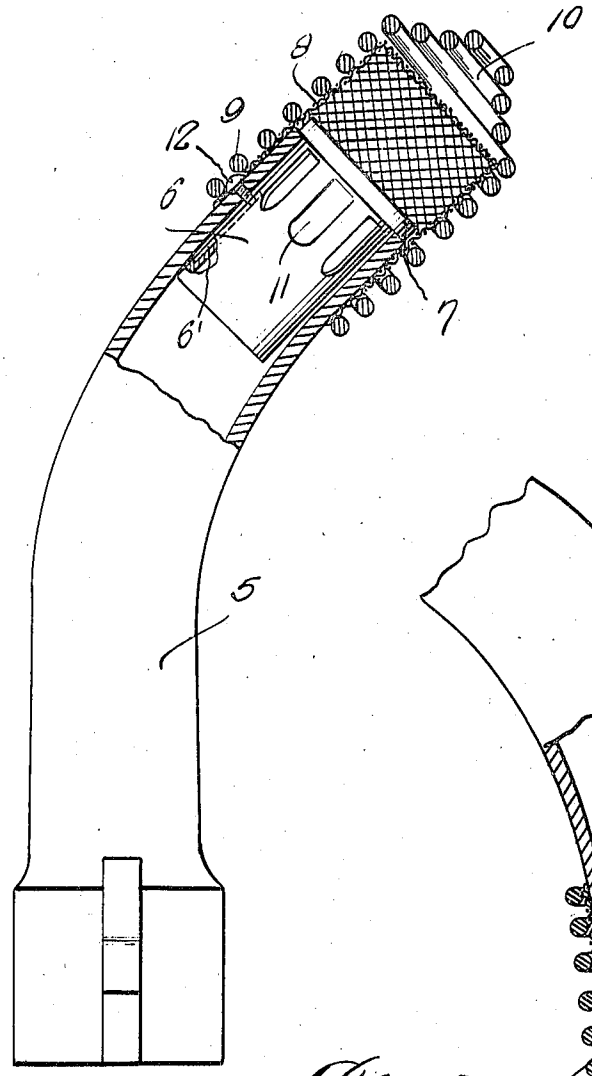


Fig. 1.

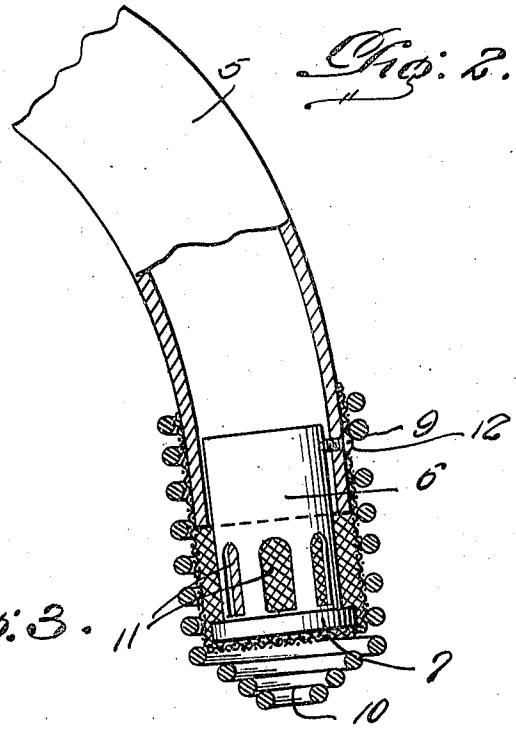
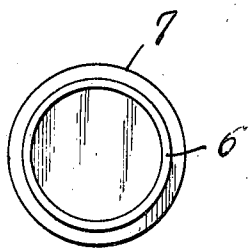


Fig. 2.

Fig. 3.



Inventor
H. C. Segelken,
By Clarence A. O'Brien
Attorney

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UNITED STATES PATENT OFFICE.

HERBERT C. SEGELKEN, OF PHOENICIA, NEW YORK.

GASOLINE-HOSE NOZZLE.

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This invention relates to nozzles for gasoline dispensing hoses, and has for its primary object to provide means that will automatically close the nozzle when the hose is supported upon the gasoline tank or other support for preventing the inlet of rain, dirt, or the like into the hose and the consequent discharging of the same into the gasoline tanks of automobiles which is frequently the case resulting in the inefficient operation of the automobile engine and the clogging of the gasoline feed pipe.

A further object of the invention is to provide a means adapted for association with conventional types of nozzles now on the market in order that the same will automatically close when they have been moved to a vertical or substantially vertical position which is the usual position of support of the same.

A further object is to provide such a means that will automatically open when the nozzle is disposed within the gasoline tank to permit of the free discharge of the gasoline through said nozzle.

Other objects will become apparent as the nature of the invention is better understood, the same comprising the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawing, and claimed.

In the drawing wherein like reference characters indicate corresponding parts throughout the several views:

Figure 1 is a view in side elevation and partly in cross section of a conventional gasoline hose nozzle equipped with my improved automatic closing means, said means being disposed in closed position.

Figure 2 is a fragmentary view of the nozzle, mostly in cross section disclosing said means in open position for permitting of the discharge of gasoline therethrough, and

Figure 3 is an inner end elevation of the valve member of the automatic closing means.

Now having particular reference to the drawing, 5 indicates a conventional form of hose nozzle that is so constructed at one end as to provide means for facilitating the attachment of the nozzle to the usual hose leading from a gasoline dispensing pump, while the other end thereof is slightly curved as shown.

My invention per se constitutes the provision of a cylindrical sleeve 6, that is adapted for positioning within the discharge end of the nozzle 5 and to have free sliding movement therein, the diameter of said sleeve being slightly less than the diameter of the bore within said nozzle as clearly shown in Figure 1. The forward end of this sleeve 6 is closed and is provided with a circular flange 7 seatable upon the end of the nozzle for closing the same and for limiting the inward sliding movement of the sleeve within said nozzle. It will be apparent that when said sleeve is disposed within the nozzle in a manner as shown in Figure 1 the discharge end thereof will be closed for preventing the inlet of rain or dirt therein.

Arranged over the discharge end of the nozzle 5 is a cylindrical sleeve of wire mesh screening 8, the outer closed end of which is arranged in spaced relation to the end of the nozzle and serves as a means for limiting the outward sliding movement of the sleeve 6 with respect to the nozzle and for serving as a guide for the same in order that said sleeve will move to the position shown in Figure 1 when the nozzle is inverted from the discharging position shown in Figure 2.

In order to protect the wire mesh sleeve 8 from damage due to the engagement of the nozzle within gasoline tank filler openings and the like, there is arranged around the same a protecting sleeve 9 which is in the form of a spirally bent strip of steel wire which in its normal aspect is of substantially the same or slightly less cross-sectional area than the cross-sectional area of the nozzle 5 in order that the same will serve as an attaching means for the wire mesh screen.

The wire forming the sleeve 9 is so bent at its outer end as to provide gradually reduced convolutes that effect a head 10 for protecting the end of the wire mesh sleeve 8 from being engaged by the gasoline tanks or other receptacles being filled.

The sleeve 6 within the discharge end of the nozzle 5 is provided at a point directly in back of the end shoulder 7 with spaced longitudinal slots 11 in order that when the nozzle is inverted as shown in Figure 2 and the sleeve moved outwardly of the nozzle, the fluid may pass therethrough and then into the receptacle being filled in an obvious manner.

In order that the nozzle may be employed without the protecting screening 8, and sleeve 9, if desired, the valve sleeve 11 is formed with a longitudinal slot 6', with which engages the inner end of a screw 12 threaded through an opening in the nozzle as clearly shown in Figure 1. Obviously when the nozzle is employed without the screening 8 and sleeve 9, said valve sleeve 6 will be prevented from sliding entirely out of the nozzle, in an obvious manner.

It will thus be seen that I have provided a highly novel means for association with conventional hose nozzles wherein the discharge end thereof will automatically be closed when in substantial vertical position to prevent the entrance of rain, dirt, dust and the like and that is otherwise well adapted for the purposes heretofore designated.

Minor changes may be made in the invention without affecting the spirit and scope of the appended claims.

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

1. In combination with a hose nozzle of the character described, a sleeve valve arranged for sliding movement within the open end of the nozzle, the outer end of said sleeve valve being closed, said sleeve valve being operable to move within the discharge end of the nozzle when the same is in a substantially vertical position and being further operable to slide outwardly of the nozzle when the same is inverted for permitting the discharge of the fluid therefrom, a sleeve of foraminous material surrounding the nozzle and having a foraminous end in spaced relation to the adjacent end of the nozzle, and a protecting member in the form of a helix having one end arranged about said foraminous sleeve to hold the same on the nozzle, and the other end of said helix merging into a cone-like coil tapering away from the helix beyond the foraminous end of the sleeve.

2. In combination, with a hose nozzle of the character described, a sleeve valve arranged for sliding movement within the open end of the nozzle, the outer end of said sleeve valve being closed and formed with an outwardly extending annular flange seatable on the end of the nozzle, a sleeve of foraminous material surrounding the nozzle and having a foraminous end in spaced relation to the adjacent end of the nozzle, and a protecting member in the form of a helix having one end arranged about said foraminous sleeve to hold the same on the end of the nozzle.

In testimony whereof I affix my signature.

HERBERT C. SEGELKEN.