My invention relates to improvements in hose connections, and more particularly pertains to the nozzle used on the end of the filling hose employed at gasoline filling stations to deliver the gasoline to the tank of the customer's motor-vehicle.

It is general practice at these stations, after supplying the customer's needs in this line, to hang up the hose with the open end of the nozzle pointing upwardly. This allows rain, snow, or dirt to enter the hose, from which it will later be discharged into the tank of the next customer served.

A particular object of my present invention is to provide a simple, conveniently operated closure for the open end of the nozzle whereby, when the hose is not in use, its interior may be kept clean and protected against the entrance of foreign matter which would pollute the next supply of gasoline pumped therethrough.

In placing the hose nozzle in the customer's gasoline tank, neglect on the part of the attendant to properly insert it often results in its falling off the tank and on to the ground,—with a consequent loss of fuel.

It is therefore a further object to provide means whereby the nozzle may be temporarily secured in the tank while it is being filled, so that accidental displacement therefrom cannot take place.

In the accompanying drawing I have illustrated one embodiment, which at the present time I consider preferable to other possible forms of my invention, and in the drawing—

Fig. 1 represents a gasoline pumping stand, showing my improved nozzle attached to the hose;
Fig. 2 is a perspective view of the device;
Fig. 3 is a longitudinal sectional elevation thereof;
Fig. 4 is a view showing the nozzle secured in a tank, and
Fig. 5 is an end view of the cover and the means provided to secure the same to the nozzle.

Similar characters of reference indicate like parts in all views.

1 represents a gasoline pumping stand, many different types and styles of which are quite generally employed to dispense gasoline to the tanks in motor-vehicles.

Extending upwardly from the pump itself (not shown) is a delivery pipe 2, connected to which is the filling hose 3. At the outer, or free end of this hose I attach my improved nozzle, comprising the cylindrical member or barrel 4, having means for securing the same to the hose coupling,—as by the threaded end 5.

On the outer end of the barrel is a hinged cover 6, having ears 7, and by means of the hinge-pin 8, which passes through the ears and through the hub 9 on the barrel, the cover may swing so as to either open or close the passage-way through the nozzle.

Outwardly of the ears 7 are depending cranks 10, so disposed as to be capable of swinging through an arc of substantially ninety degrees,—or from fully closed to fully opened positions of the cover; and projecting forwardly, or at approximately ninety degrees with the cover, is an arm 11.

Pins 8 secure the main hinge-pin 8 to the cranks and ears of the cover.

12 is the operating lever for the cover, bifurcated to provide forks 13 which make connection at 14 with the free ends of the cranks 10. Rising from the barrel 4 is a frame 15 having therein, and extending downwardly, a transversely disposed key 16, and in the lever 12 are provided key-ways 17 which, singly, may engage the key 16 for the purpose of positively holding the cover in closed or opened positions. It is obvious that intermediate key-ways may be provided to hold the cover partially opened if found desirable. A handle 18 serves as convenient means by which to actuate the lever and a spring 19 normally holds the lever in keyed engagement with the member 16.

Bars 20 project laterally from the barrel 4 and are used to support the hose and nozzle in an upright position when not in use, by placing the nozzle within the forks of the bracket 21 usually supplied on these gasoline pumping stands.

Where the cover abuts on the end of the barrel a groove may be made in the face of the former and a suitable packing inserted therein for the purpose of making a tighter joint between cover and barrel, as at 22.

In Fig. 1 the nozzle is shown with the cover tightly closed thereover, thus sealing the nozzle against the admission of any foreign matter.

In Fig. 4 I illustrate the nozzle with the cover swung at ninety degrees, fully open-
ing the passage-way through the barrel.

This view also shows the arm 11 rotated ninety degrees from its former position, or as seen in Fig. 1, and discloses its function to prevent the displacement of the nozzle from the opening in the motor-vehicle gasoline tank 28.

Locked as the nozzle now is in the tank, it cannot accidentally fall out neither can it be purposely withdrawn therefrom until the lever 12 is actuated and the cover and arm swung inwardly sufficient to allow them to pass out through the opening in the tank.

The actuation of the device is accomplished simply by pressing the lever 12 toward the barrel 4 of the nozzle, this effecting the release of the key 16 from either one of the key-ways 17, and then moving the lever forwardly or backwardly along the barrel, to open or close, respectively, the end of the nozzle.

It is obvious that the act of opening or closing the nozzle must be performed, when dispensing gasoline, subsequently to the insertion of the nozzle in the gasoline tank—or in other words, while the nozzle is within the tank.

From the foregoing description it is thought to be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof, and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice, except as hereinafter claimed.

What I claim is:

1. In a device of the character described comprising in combination, a cylindrical member having its outer end cut square with its axis and provided with a passage-way therethrough, hose-attaching means on the inner end of said member, a cover hingedly connected to and at the outer end of said member and adapted to seat on the square cut surface thereof, an arm extending at substantially a right angle from the outer side of said cover, and means whereby said cover may be swung and fixed in a position fully opening the passageway through said cylindrical member and disposed so that its sides lie in planes parallel to the axis of said member.

2. In a device of the character described comprising in combination, a cylindrical member having its outer end normal to its axis and provided with a passageway therethrough, a hinged cover adapted to close the passageway through said member and disposed at the outer end thereof, packing means on the inner side of said cover, adjacent said member, an arm extending from the outer side of said cover and at a right angle thereto and adapted, when said cover is opened and within a tank being filled with gasoline, to prevent the displacement of said nozzle from the tank, and means whereby said cover may be fixedly held in various positions on said cylindrical member, either to fully close or fully open the passageway therethrough.

3. In a device of the character described comprising in combination, a cylindrical member having its outer end cut normal to its axis and provided with a passageway therethrough, hose-attaching means on the opposite end of said member, a cover adapted to seat on the outer end of said member and to constitute means to close the passageway therethrough, a hinge-pin mounted on said member and fixed to said cover, a crank on said hinge-pin, a lever pivotally secured to the free end of said crank, means to fixedly secure said lever in various positions on and relative to said member, an arm on said cover disposed normal to the outer side thereof and adapted to project laterally, outside of the said member when said cover is in open position, and a bar extending laterally from said cylindrical member, on each side thereof, adapted to serve to suspend said member in a vertical position when not in use.

In testimony whereof I affix my signature.

John C. Seidel.