Aug. 22, 1950 R. H. DAVIES 2,519,358

NOZZLE ATTACHMENT FOR TANKS

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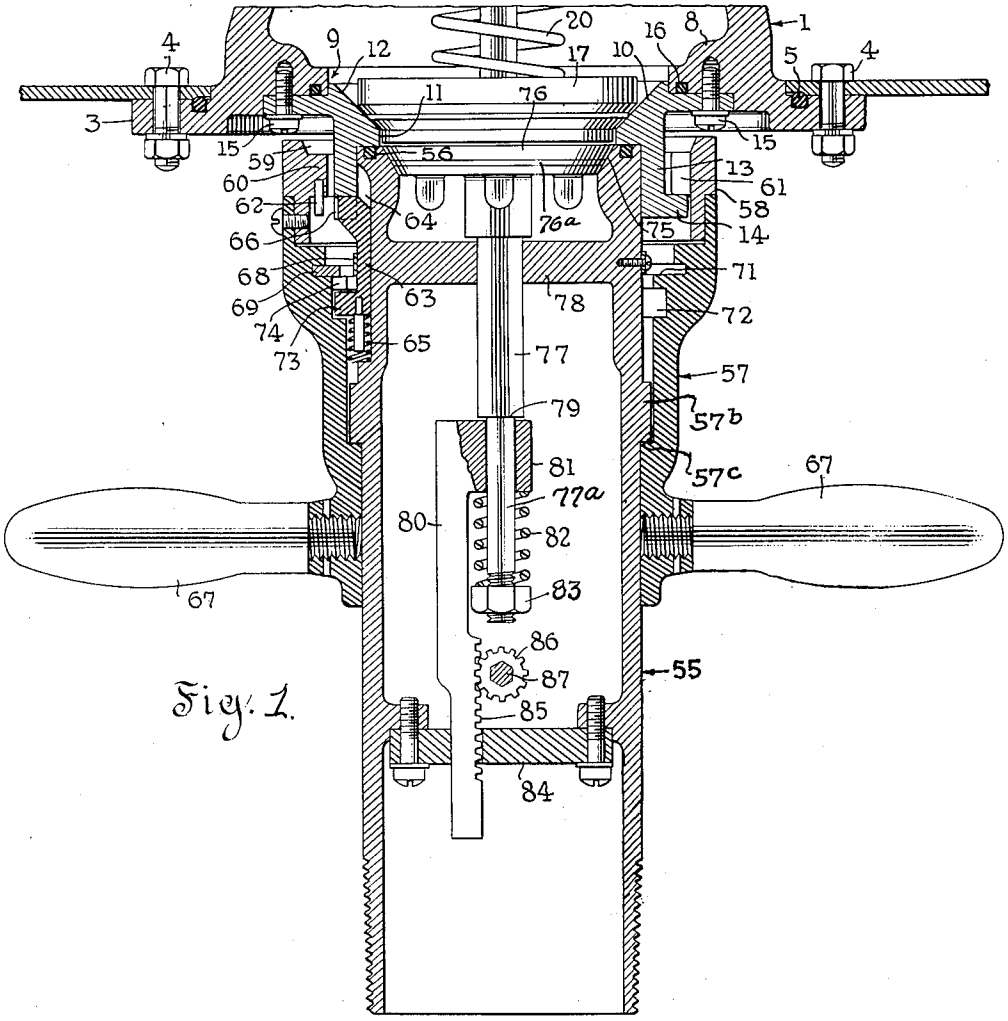


Fig. 1.

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Fig. 2.

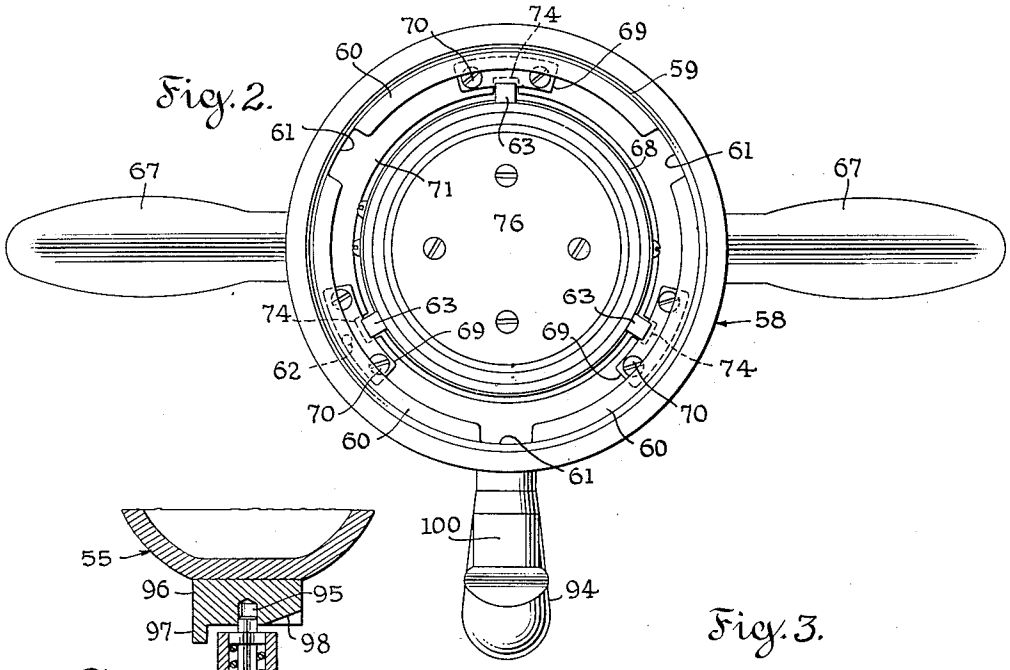


Fig. 6.

Fig. 3.

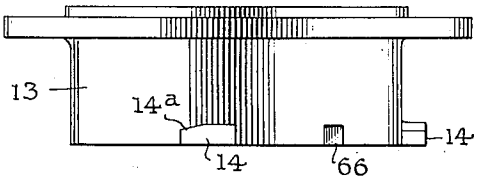


Fig. 4.

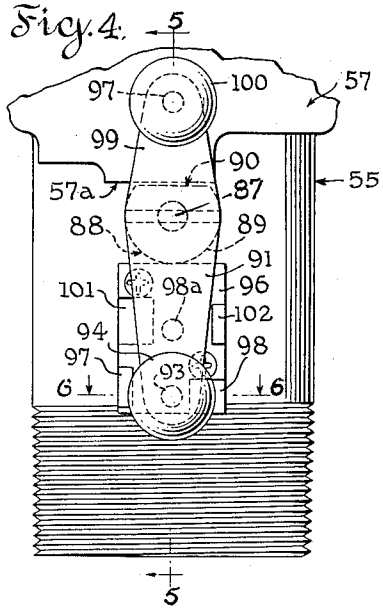
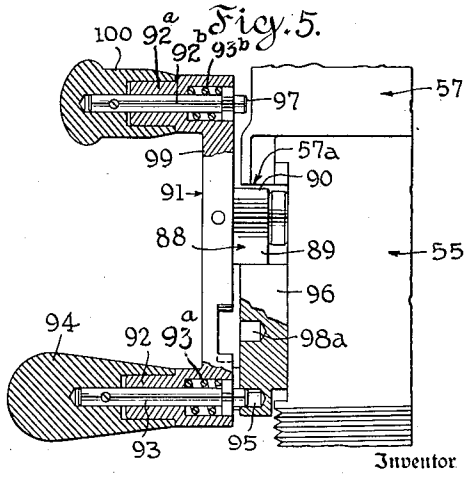


Fig. 5.



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2,519,358

NOZZLE ATTACHMENT FOR TANKS

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Application June 12, 1947, Serial No. 754,302

15 Claims. (Cl. 284—4)

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The invention relates to new and useful improvements in a nozzle attachment for filling tanks and more particularly a nozzle attachment which is adapted to be detachably connected to an intake housing in the bottom wall of a tank.

An object of the invention is to provide a nozzle attachment which includes an inner sleeve connected to the supply and an outer sleeve provided with means cooperating with devices on the tank intake housing for securing the inner sleeve in sealed engagement with said tank housing.

A further object of the invention is to provide an attachment of the above type wherein the nozzle is equipped with a manually operated valve for controlling the flow of fluid from the nozzle into the tank.

A further object of the invention is to provide a locking means for preventing the opening of the nozzle valve until the attachment is connected in sealed engagement with the tank intake housing.

A still further object of the invention is to provide a locking means for preventing detaching of the nozzle until the nozzle valve has been moved to closed position.

These and other objects will in part be obvious and will in part be hereinafter more fully described.

In the drawings:

Figure 1 is a longitudinal sectional view through the improved nozzle and also through the tank housing showing the nozzle in sealed engagement with the tank housing;

Figure 2 is an end view of the nozzle attachment detached from the tank housing;

Figure 3 is a detailed view in side elevation of a portion of the tank housing showing one of the lugs to which the nozzle attachment is secured and also one of the notches which receives keys for preventing the turning of the inner sleeve of the nozzle during the attachment of the same to the tank housing;

Figure 4 is a side view of a portion of the nozzle and showing the crank for opening and closing the nozzle valve and also the locking means associated therewith;

Figure 5 is a sectional view on the line 5—5 of Figure 4; and

Figure 6 is a sectional view on the line 6—6 of Fig. 4.

For the purpose of securing the nozzle attachment to the tank, said tank is provided with an intake housing having an inlet opening leading to the tank with which a valve is associated for closing the inlet when the nozzle is detached from

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the tank housing. The nozzle includes an inner sleeve which is adapted to be connected in sealed engagement with the tank housing. There is an outer sleeve rotatably secured to the inner sleeve for detachably connecting said inner sleeve to the tank housing. This inner sleeve is connected to the fluid supply. Within the nozzle is a valve for closing the passage leading through the nozzle. The valve opens outwardly in the present embodiment of the invention and is positioned and dimensioned so that when the valve is moved to open position it will contact the inlet valve in the tank housing and force the same to open position.

There is means associated with the nozzle for manually opening the nozzle valve and there is also means associated with the nozzle which prevents the opening of the nozzle valve until the nozzle is in sealed engagement with the tank housing. There is likewise a means for preventing the detachment of the nozzle from the housing until the nozzle valve has been moved to full seated position.

Referring more in detail to the drawings, a tank to which the improved nozzle attachment is connected is provided with a tank housing 1. This tank housing is preferably secured to the bottom wall of the tank. The housing has a flange 3 which engages the outer face of the tank wall and the flange is secured to the tank wall by means of bolts 4. There is a gasket 5 between the tank wall and the housing for sealing the connection. The housing is provided with an inwardly projecting portion 8 having an opening 9 therethrough. Attached to the under side of this inwardly projecting portion 8 is an annular member 10 having a passage 11 therethrough and this passage 11 is surrounded on the upper face of said member 10 by an inclined wall 12 forming a valve seat. This annular member 10 has a depending sleeve 13 carrying projecting lugs 14, 14 to which the nozzle attachment is connected, as will be hereinafter more fully described.

The annular member 10 is secured to the under side of the inwardly projecting portion 8 by suitable bolts 15, 15. There is a gasket 16 which seals the connection between the housing and this annular member 10. The passage 11 serves as an inlet passage through which fluid may be supplied to the tank. This passage is controlled by a valve 17 which is mounted for vertical movement and a spring 20 normally moves the valve into engagement with the seat for closing the inlet for the tank. The nozzle attachment which is adapted to be detachably connected to the tank

housing for the filling of the tank includes an inner sleeve 55 and an outer sleeve 57. This inner sleeve is so dimensioned that it fits within the sleeve 13 on the tank housing. There is a gasket 56 carried in the end wall of the sleeve which is adapted to engage the inwardly extending ledge surrounding the opening 11 in the tank housing through which the tank is filled. This gasket 56 makes a sealed connection between the inner sleeve of the nozzle and the housing. As noted above, this inner sleeve is connected to the fluid supply for furnishing fluid under pressure. The outer sleeve 57 is mounted on the inner sleeve so that it may be rotated thereon. Said outer sleeve is provided with a shoulder 57c adapted to cooperate with a projecting member 57b on the inner sleeve for forcing the sleeve endwise into sealing engagement with the tank housing. The outer sleeve 57 is provided at its outer end with a ring 58 which is fixed to the outer sleeve. The ring is provided with a tapered opening 59 which facilitates the placing of the nozzle on the downwardly projecting sleeve portion 13 of the tank housing. This ring 58 has an inwardly projecting ledge 60 provided at spaced intervals with openings 61 which are preferably 120 degrees apart (see Figure 2). These openings are adapted to receive lugs 14 carried by the sleeve 13 of the tank housing. After the lugs have passed through these openings 61, then the outer sleeve is turned in a clockwise direction, as viewed in Figure 2, until the lugs are brought into contact with limiting stop 62 carried by the ring 58.

In order to prevent the inner sleeve of the nozzle attachment from turning on its seat when the outer sleeve is turned to secure the nozzle to the housing, keys 63 are provided. Each key is mounted in a slot 64 in the outer face of the inner sleeve 55. Each key is pressed by a spring 65 in a direction toward the sleeve 13 on the housing. Said sleeve is provided with a slot 66 for each key. There are three keys and three slots for preventing the inner sleeve from turning on the housing when the outer sleeve is turned. These keys are shown in Figure 2. The keys are so positioned relative to the slots that when the lugs in the housing are in alignment with the slots in the nozzle, the keys in the nozzle are also in alignment with the slots in the sleeve member 13 of the tank housing. Therefore, when the lugs pass through the slots 61 and permit the movement of the inner sleeve into contact with the ledge on the housing, the keys will enter the slots and thus hold the inner sleeve of the nozzle from turning.

The outer sleeve 57 is provided with two handles 67, 67 which may be grasped by the operator to facilitate the placing of the nozzle on the housing and then the turning of the sleeve to carry the lugs underneath the inwardly projecting ledge 60. The keys 63 are retained from radial movement in the slot 64 by a metal band 68. The keys are held in the slots with a limited longitudinal movement by plates 69, which plates are secured to the outer sleeve by means of screws 70 (see Figure 2). The outer sleeve 57 has an inwardly projecting ledge 71 and beneath the ledge is a groove 72. The ledge is provided with slots 74. There are three slots which are in alignment with projecting portions 73 on the keys when the sleeve is in a position for the detaching of the nozzle from the tank. The projections 73 will therefore enter the slots 74 and prevent the sleeve from being turned. When, however, the nozzle is attached to the tank, the keys will enter the slots 66 and these keys and slots are so dimensioned that the seating of the inner sleeve will move the projections 73 on the keys out of the slot 74 into the groove beneath the ledge 71 so that the sleeve is free to return to accomplish the locking of the nozzle to the tank housing. The inner sleeve 55 has a projecting portion 57b thereon adapted to be engaged by the shoulder 57c on the outer sleeve. This enables the inner sleeve to be forced against the seat on the housing when the outer sleeve is turned. The lugs 14 have tapered portions 14a which serve as a camming action for drawing the inner sleeve into tight engagement with the seat thereof.

The inner sleeve 55 of the nozzle is provided with a tapered portion forming a valve seat 75. A valve 76 is adapted to engage said seat 75. Said valve when opened is moved out of the nozzle. The valve is mounted on a stem 77 which in turn is mounted for reciprocation in a spider 78 formed integral with the inner sleeve 55 of the nozzle. The valve stem 77 is provided with an extension 77a of reduced diameter, thus providing a shoulder 79. A rack member 80 has an offset sleeve portion 81 provided with an opening through which the valve stem extension 77a passes. A spring 82 abuts at one end against the offset sleeve 81 of the rack member 80 and at its other end against a nut threaded on to the valve stem extension. There is sufficient clearance between the shoulder 79 and the portion 81, when the valve is closed, so that the spring presses the valve against its seat. Said rack member 80 is provided with a rack 85 with which a gear 86 meshes. This gear is carried by the shaft 87 mounted in bearings carried by the inner sleeve 55. When the shaft is rotated in a clockwise direction, as viewed in Figure 1, the valve 56 will be moved away from is seat and when the shaft is rotated in the opposite direction, then the valve will be brought in contact with its seat. Any further movement of the shaft will compress the spring 82 and merely hold the valve firmly seated.

Mounted on the outer end of the shaft 87 is a collar 88. The collar has a semi-cylindrical portion 89 and a flat portion 90. The sleeve 57 has a laterally projecting lug provided with a flat face 57a lying in a plane at right angles to the axis of the inner sleeve 55. When the flat face of the lug 57a is opposed to the flat face 90 of the collar 88, then the shaft 87 cannot be turned, as the collar is pinned to the shaft. This flat portion 57a on the sleeve is so disposed that the flat portions are positioned relative to each other, as shown in Figure 4, when the nozzle is first attached and before the outer sleeve is turned for locking the inner sleeve to the housing. When this outer sleeve is turned for securing the inner sleeve in sealed engagement with the housing, the flat portion 57a will move out of range of the flat portion 90. This flat portion 57a is so dimensioned that the outer sleeve must be turned so as to firmly lock the inner sleeve in firm engagement with the tank housing before the shaft 87 can be turned for opening the valve 76. Assuming that the flat portion 57a has been moved from engagement with the flat portion 90 and that the valve has been opened by the turning of the shaft 87, this will bring the semi-circular portion 89 on the collar 88 so it will lie in the path of movement of the projection portion carried by the outer sleeve. Therefore the outer sleeve cannot be turned for disconnecting the nozzle from the tank housing until the nozzle valve has been

moved to fully seated position and the flat portion 90 of the collar 88 placed as shown in Figure 4. This will permit the sleeve to be turned. When the nozzle is detached from the housing, the lugs 73 on the keys which are moved endwise by the springs 65 will be seated in the notches 74 and therefore the outer sleeve 57 cannot be turned on the inner sleeve so as to move the flat portion 90 of the collar from its position opposed to the flat section 90 on the lug, and this will prevent any possible opening of the nozzle valve accidentally when the nozzle is detached from the tank housing.

When it is desired to fill the tank, the nozzle is attached to the tank housing and the outer sleeve turned so as to firmly secure the inner sleeve in sealed engagement with the housing. Then the shaft controlling the nozzle valve is free to be turned, as the flat section 57a on the outer sleeve is moved out of contact with the flat section 90 on the collar 88 pinned to the shaft 87.

In the present embodiment of the invention, as the nozzle valve is moved away from its seat, it is so dimensioned that it passes through the opening 11 and contacts with the inlet valve 17 and lifts it from its seat, compressing the spring 20. After these valves are moved to open position, the fluid under pressure is directed from the hose connected to the inner sleeve through the inlet opening into the tank. After the tank has been filled, the shaft 87 is turned so as to close the nozzle valve and this will permit the inlet valve also to move to closed position. It is only when the nozzle valve has been fully seated that the flat face 90 on the sleeve 88 is brought into alignment with the flat face 57a on the outer sleeve and this permits the outer sleeve to be turned for the disconnecting of the nozzle from the tank housing.

Attached to the shaft for turning the same is a crank 91. This crank extends diametrically across the axis of the shaft and projects from each side of the shaft. One of the outer ends of the crank is provided with a sleeve 92 and mounted in the sleeve for endwise movement therein is a locking pin 93. A spring 93a disposed in a recess in the sleeve bears at one end against a member rigid with the locking pin and at its other end against the bottom of the recess. This normally forces the pin out of the sleeve. A handle member 94 is attached to the pin. This handle member telescopes in part the sleeve and contacts with a shoulder on the sleeve so as to limit the outward movement of the pin. The handle serves as a means for moving the pin so as to retract it into the sleeve. There is a locking plate 96 secured to the inner sleeve 55. Said locking plate at one side thereof carries a stop 97 with which the crank will contact to limit the turning movement of the shaft. It also is provided with a cam face 98 so that when the crank arm is turned to a position for closing the valve, the locking pin 93 will engage said inclined face and this will lift the pin until it is brought into register with the opening 95 in the plate 96. When the pin 93 is in register with the opening, the spring will force the same into the opening and this will lock the crank from turning in either direction. The pin and opening are so disposed relative to the flat side 90 that when the pin is in the opening, the flat side will be in alignment with the flat side 57a so as to permit the sleeve 57 to be turned when the nozzle is to be detached from the tank housing. At the other end of the crank arm 91 is a sleeve 92a in which a locking pin 92b is mounted. The spring 93b forces the pin out of the sleeve. A handle member 100 is attached to the locking pin 92b. The plate 96 is provided with an inclined portion 101 and a stop 102. When the shaft is turned so as to open the valve, the pin 93a will engage the inclined surface 101 and be retracted, and then when not registering with the opening 98a, it will be moved into said opening and lock the crank from turning. In order to turn the crank to close the valve, the operator grasping the handle 100 lifts the pin from the recess and then the shaft can be turned so far as these manually operated locking devices are concerned.

However, as noted above, the shaft cannot be turned for opening the valve until the nozzle is attached in sealing engagement with the housing and the outer sleeve on the nozzle cannot be turned for detaching the nozzle until the valve has been moved to closed position. Furthermore, the outer sleeve cannot be turned on the inner sleeve after the nozzle has been detached, as the keys will prevent this occurrence.

This nozzle attachment for filling a tank may be used in connection with a manually opened inlet valve associated with the filling opening for the tank. It may likewise be used in connection with a fluid pressure actuated inlet valve.

The nozzle attachment may not only be used for the filling of a tank, but also in connection with the draining of the tank and has particular advantages when so used, as fully shown and described in my co-pending application, Serial No. 751,488 filed May 29, 1947.

It is obvious that many changes in the details of construction and arrangement of parts may be resorted to without departing from the spirit of my invention as set forth in the appended claims.

I claim:

1. A filling attachment for tanks having an inlet housing comprising an inner sleeve adapted to be connected with a fluid supply and adapted to be detachably connected to the inlet housing of the tank, an outer sleeve rotatably mounted on said inner sleeve, said outer sleeve having means cooperating with devices on said housing for securing said inner sleeve in sealed engagement with the housing means for preventing rotation of said inner sleeve during the attachment of the same to the housing, a manually actuated valve for controlling fluid flow from said inner sleeve, and means for preventing the opening of said valve before said inner sleeve is in sealed engagement with said housing.

2. A filling attachment for tanks having an inlet housing comprising an inner sleeve adapted to be connected with a fluid supply and adapted to be detachably connected to the inlet housing of the tank, an outer sleeve rotatably mounted on said inner sleeve, said outer sleeve having means cooperating with devices on said housing for securing said inner sleeve in sealed engagement with the housing means for preventing rotation of said inner sleeve during the attachment of the same to the housing, a manually actuated valve for controlling fluid flow from said inner sleeve, and means for preventing operation of the securing means for detaching the sleeve before said inner sleeve valve has been moved to closed position.

3. A filling attachment for tanks having an inlet housing comprising an inner sleeve adapted to be connected with a fluid supply and

adapted to be detachably connected to the inlet housing of the tank, said sleeve having a valve seat, a valve adapted to engage said seat for controlling fluid flow from said inner sleeve, a shaft mounted in said inner sleeve, means actuated by said shaft for moving said valve to and from closed position, an outer sleeve rotatably mounted on said inner sleeve, means carried by said outer sleeve and cooperating with devices on said housing for securing said inner sleeve in sealed engagement with the housing, manual means for turning said shaft for opening and closing the valve, and means associated with said outer sleeve for preventing the turning of the shaft for opening of the valve before said inner sleeve is in sealed engagement with said housing.

4. A filling attachment for tanks having an inlet housing comprising an inner sleeve adapted to be connected with a fluid supply and adapted to be detachably connected to the inlet housing of the tank, said inner sleeve having a valve seat, a valve adapted to engage said seat for controlling fluid flow from said inner sleeve, a shaft mounted in said inner sleeve, means actuated by said shaft for moving said valve to and from closed position, an outer sleeve rotatably mounted on said inner sleeve, means carried by said outer sleeve and cooperating with devices on said housing for securing said inner sleeve in sealed engagement with the housing, manual means for turning said shaft for opening and closing said valve, and means associated with said manual turning means for preventing operation of the outer sleeve for detaching the inner sleeve before said shaft has been turned so as to move the valve to closed position.

5. A filling attachment for tanks having an inlet housing comprising an inner sleeve connected with a fluid supply and adapted to be detachably connected to the inlet housing of the tank, said inner sleeve having a valve seat, a valve adapted to engage said seat for controlling fluid flow from said inner sleeve, a shaft mounted in said inner sleeve, means actuated by said shaft for moving said valve to and from closed position, an outer sleeve rotatably mounted on said inner sleeve, means carried by said outer sleeve and cooperating with devices on said housing for securing said inner sleeve in sealed engagement with the housing, manual means for turning said shaft for opening and closing said valve, a collar fixed to said shaft and having a flat portion on its periphery, said outer sleeve having a projecting lug with a flat face opposed to the flat face on the collar when said outer sleeve is positioned for connection to the tank housing, and when the valve is in closed position, whereby manual operation of the shaft to open the valve is prevented until said outer sleeve has been rotated relative to the inner sleeve so as to connect said inner sleeve in sealed engagement with the housing.

6. A filling attachment for tanks having an inlet housing comprising an inner sleeve connected with a fluid supply and adapted to be detachably connected to the inlet housing of the tank, said inner sleeve having a valve seat, a valve adapted to engage said seat for controlling fluid flow from said inner sleeve, a shaft mounted in said inner sleeve, means actuated by said shaft for moving said valve to and from closed position, an outer sleeve rotatably mounted on said inner sleeve, means carried by said outer sleeve and cooperating with devices on said housing for securing said inner sleeve in sealed engagement with the housing, manual means for turning said shaft for opening and closing said valve, a collar fixed to said shaft and having a flat portion on its periphery, said outer sleeve having a projecting lug with a flat face opposed to the flat face on the collar when said outer sleeve is positioned for connection to the tank housing, and when the valve is in closed position, whereby manual operation of the shaft to open the valve is prevented until said outer sleeve has been rotated relative to the inner sleeve so as to connect said inner sleeve in sealed engagement with the housing, said collar having a cylindrical portion projecting into the path of movement of the lug on the outer sleeve when the inner sleeve is connected to the tank for preventing the disconnection of the inner sleeve from the housing until said valve shaft has been turned to close the valve and place the flat section on the collar in alignment with the flat section on the lug.

7. A filling attachment for tanks having an inlet housing comprising an inner sleeve connected with a fluid supply and adapted to be detachably connected to the inlet housing of the tank, means carried by the inner sleeve and cooperating with devices on said housing for securing said sleeve in sealed engagement with the housing, a valve disposed within said inner sleeve for controlling fluid flow from the sleeve, a shaft mounted in said inner sleeve, means actuated by the shaft for moving said valve to and from closed position, a crank arm attached to said shaft, a handle carried by said shaft for turning the same, a locking pin associated with said handle a recess for receiving said locking pin for locking the crank arm when the valve has been turned to full open position a spring for moving said locking pin to holding position and a cam associated with said recess for retracting the pin so that it may enter the recess when brought into alinement therewith.

8. A filling attachment for tanks having an inlet housing comprising an inner sleeve connected with a fluid supply and adapted to be detachably connected to the inlet housing of the tank, means carried by the inner sleeve and cooperating with devices on said housing for securing said sleeve in sealed engagement with the housing, a valve disposed within said inner sleeve for controlling fluid flow from the sleeve, a shaft mounted in said inner sleeve, means actuated by the shaft for moving said valve to and from closed position, a crank arm attached to said shaft, a handle carried by said shaft for turning the same, a locking pin associated with said handle, said inner sleeve having a recess for receiving said locking pin for locking the crank arm when the valve has been turned to full open position, said crank arm having an extension and a handle secured to said extension, a locking pin associated with said second named handle said inner sleeve having a recess adapted to receive said second locking pin for locking the crank arm when the valve has been turned to full closed position.

9. The combination of a tank having a housing secured to the bottom wall thereof, said housing having an inlet opening and a depending sleeve concentric to said opening and spaced outwardly therefrom to provide a seating ledge, said sleeve having holding lugs at spaced intervals thereon and a nozzle attachment including

an inner sleeve adapted to fit within the sleeve on the housing and make sealed engagement with said seating ledge, said inner sleeve being connected with a fluid supply, an outer sleeve rotatably mounted on said inner sleeve and having means adapted to cooperate with said lugs on the housing sleeve for holding said inner sleeve in sealed engagement with the housing and a stop for limiting the rotation of the outer sleeve, and means for preventing rotation of said inner sleeve durling attachment of the same to the housing, a valve mounted in said inner sleeve for controlling fluid flow from the inner sleeve to the tank, a shaft mounted in said inner sleeve, means actuated by the shaft for moving said valve to and from closed position, and manual means for turning said shaft.

10. The combination of a tank having a housing secured to the bottom wall thereof, said housing having an inlet opening and a depending sleeve concentric to said opening and spaced outwardly therefrom to provide a seating ledge, said sleeve having holding lugs at spaced intervals thereon and a nozzle attachment including an inner sleeve adapted to fit within the sleeve on the housing and make sealed engagement with said seating ledge, said inner sleeve being connected with a fluid supply, an outer sleeve rotatably mounted on said inner sleeve and having means adapted to cooperate with said lugs on the housing sleeve for holding said inner sleeve in sealed engagement with the housing and a stop for limiting the rotation of the outer sleeve, and means for preventing rotation of said inner sleeve during attachment of the same to the housing, a valve mounted in said inner sleeve for controlling fluid flow from the inner sleeve to the tank, a shaft mounted in said inner sleeve, means actuated by the shaft for moving said valve to and from closed position, and manual means for turning said shaft, locking means associated with said manual means for securing the valve in closed position and locking means associated with said manual means for locking the valve in open position.

11. The combination of a tank having a housing secured to the bottom wall thereof, said housing having an inlet opening and a depending sleeve concentric to said opening and spaced outwardly therefrom to provide a seating ledge, said sleeve having holding lugs at spaced intervals thereon and a nozzle attachment including an inner sleeve adapted to fit within the sleeve on the housing and make sealed engagement with said seating ledge, said inner sleeve being connected with a fluid supply, an outer sleeve rotatably mounted on said inner sleeve and having means adapted to cooperate with said lugs on the housing sleeve for holding said inner sleeve in sealed engagement with the housing, a valve mounted in said inner sleeve for controlling fluid flow from the inner sleeve to the tank, a shaft mounted in said inner sleeve, means actuated by the shaft for moving said valve to and from closed position, and manual means for turning said shaft, locking means associated with said manual means for securing the valve in closed position and locking means associated with said manual means for locking the valve in open position, and means for preventing the opening of said valve after the locking means is released before said sleeve is in sealed engagement with the housing.

12. The combination of a tank having a housing secured to the bottom wall thereof, said housing having an inlet opening and a depending sleeve concentric to said opening and spaced outwardly therefrom to provide a seating ledge, said sleeve having holding lugs at spaced intervals thereon and a nozzle attachment including an inner sleeve adapted to fit within the sleeve on the housing and make sealed engagement with said seating ledge, said inner sleeve being connected with a fluid supply, an outer sleeve rotatably mounted on said inner sleeve and having means adapted to cooperate with said lugs on the housing sleeve for holding said inner sleeve in sealed engagement with the housing, a valve mounted in said inner sleeve for controlling fluid flow from the inner sleeve to the tank, a shaft mounted in said inner sleeve, means actuated by the shaft for moving said valve to and from closed position, and manual means for turning said shaft, locking means associated with said manual means for securing the valve in closed position and locking means associated with said manual means for locking the valve in open position, means for preventing the opening of said valve after the locking means is released before said sleeve is in sealed engagement with the housing, and means for preventing operation of the securing means for detaching the sleeve before the valve has been released from its holding means and been moved to full closed position.

13. A filling attachment for tanks having an inlet housing comprising an inner sleeve adapted to be connected with the fluid supply and adapted to be detachably connected to the inlet housing of the tank, an outer sleeve rotatably mounted on said inner sleeve, said outer sleeve having means cooperating with devices on the housing for securing said inner sleeve in sealed engagement with the housing, means for preventing rotation of the outer sleeve on the inner sleeve when the inner sleeve is disconnected from the inlet housing, and means for releasing the outer sleeve for free rotation on said inner sleeve and for preventing said inner sleeve from rotating on the housing during the attachment of the inner sleeve to the housing.

14. The combination of a tank having a housing secured to the bottom wall thereof, said housing having an inlet opening and a depending sleeve concentric to the said opening and extended outwardly therefrom to provide a seating ledge, said housing sleeve having holding lugs at spaced intervals thereof and a nozzle attachment including an inner sleeve adapted to fit within said housing sleeve and make sealed engagement with said seating ledge, said inner sleeve being connected with a fluid supply, an outer sleeve rotatably mounted on said inner sleeve and having means adapted to cooperate with the lugs on the housing sleeve for holding said inner sleeve in sealed engagement with the housing, means carried by said inner sleeve for preventing rotation of the outer sleeve on the inner sleeve when the inner sleeve is disconnected from the inlet housing, and means for releasing the outer sleeve for free rotation on said inner sleeve and for preventing said inner sleeve from rotating on the housing during the attachment of the inner sleeve to the housing.

15. A filling attachment for tanks having an inlet housing comprising an inner sleeve adapted to be connected with the fluid supply and adapted to be detachably connected to the inlet housing of the tank, an outer sleeve rotatably mounted on said inner sleeve, said outer sleeve having means cooperating with devices on the housing for securing said inner sleeve in sealed

engagement with the housing, a movable key carried by said inner sleeve and inter-engaging with the slot in said outer sleeve for preventing rotation of said outer sleeve upon the inner sleeve when the inner sleeve is disconnected from the outlet housing, and means on said housing for engaging said key during the attachment of the inner sleeve to the housing for moving said key to release the outer sleeve for free rotation, said key engagement with the housing operating to prevent rotation of the inner sleeve on the housing during the connection of the inner sleeve to said housing.

ROBERT H. DAVIES.

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