

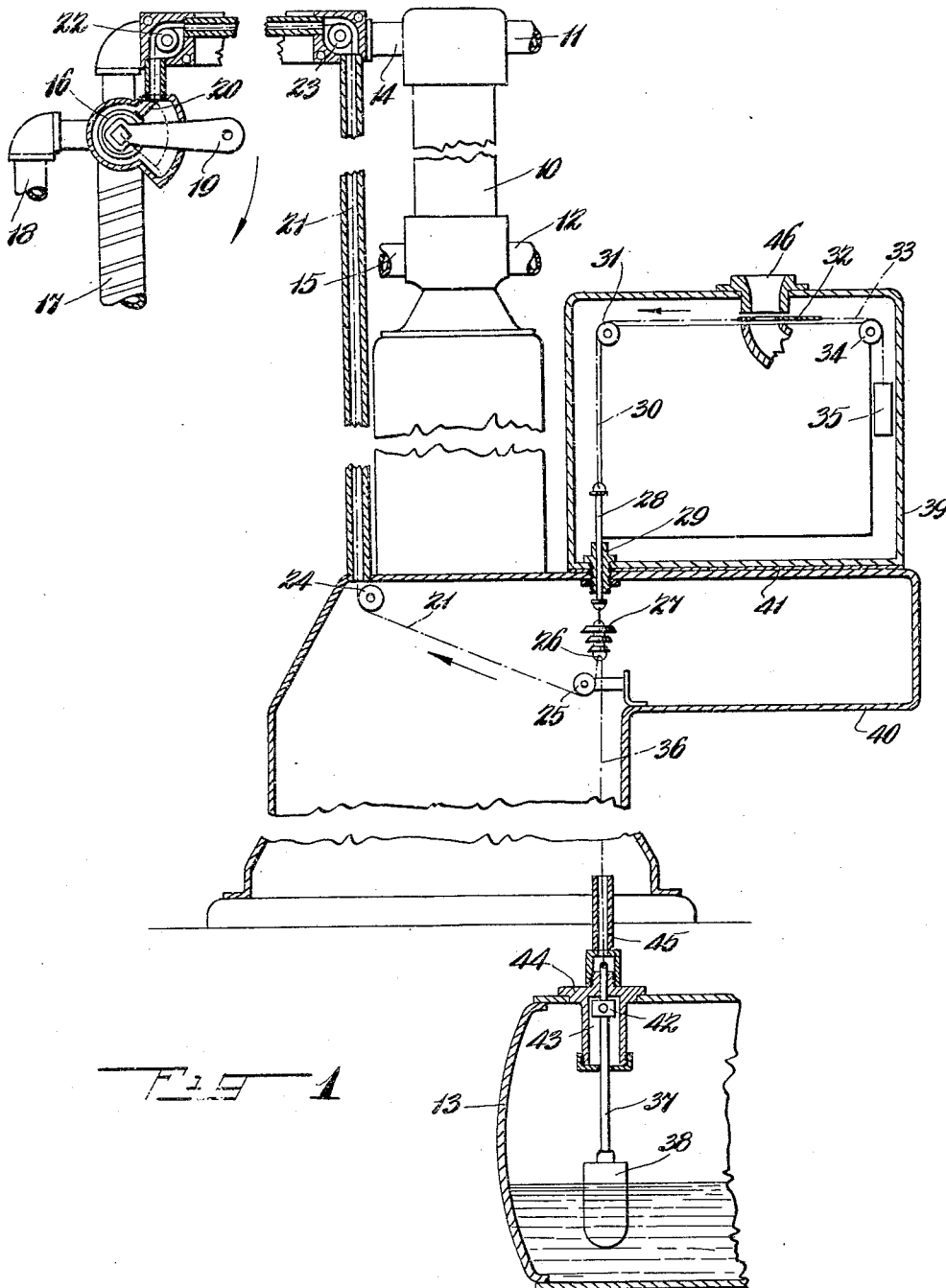
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COIN, SLOT CLOSER

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COIN SLOT CLOSER

Original application filed October 8, 1929, Serial No. 398,161. Divided and this application filed September 19, 1930. Serial No. 483,041.

This application is a division of my application for automatic liquid fuel dispensers filed October 8, 1929, Serial No. 398,161, the scope of this application covering improvements in coin slot closers particularly of the class used in conjunction with coin actuated liquid fuel dispensers.

An object of this invention is to provide means for automatically shutting the coin deposit slot when the flow of fuel through the outlet hose is stopped, and also when the supply of fuel in the storage tank is less than a predetermined amount. A further object is to provide, in a device of this kind proper insulating means to prevent the conduction of electrical charges along the cables forming part of this invention, and in this way to electrically separate the pump and fuel storage tank from the electrically operated coin control box. Other objects will appear from the description hereinafter given.

Referring to the drawing,

Figure 1 is a fragmentary and partial sectional elevation of my invention, showing the arrangement of the coin slot shutter mechanism, as controlled by the hand outlet valve, and by the float in the fuel supply tank.

In the drawing, the pump 10 contains the fuel inlet pipes 11 and 12 connected by suitable piping to the main supply tank 13, and the outlet pipes 14 and 15 connected by suitable piping to the three-way valve 16, the specific arrangement of piping being fully described in the abovementioned parent application of which this is a division. Connected to the valve 16 are the outlet hose 17 and the return line 18, the latter communicating with the said supply tank 13. The handle 19 is attached to the three-way valve 16, and permits manual operation thereof.

The pin 20 in valve 16, which is movable in the direction of the arrow, has tied to it the end of cable 21, which is mounted over the pulleys 22, 23, 24 and 25. The end 26 of this cable is attached to the insulator 27, to which is attached the rod 28 which passes through the gland 29 and to which is secured the cable 30 mounted over the pulley 31. The coin slot shutter 32 is fastened to

cable 30, and to cable 33 which is mounted over pulley 34 and attached to the counterweight 35.

Attached to the insulator 27 is the cable 36, to the lower end of which is fastened the float rod 37 which is secured to the float 38, contained within the fuel supply tank 13. The casings 39 and 40 are separated by a sheet of insulation 41.

Mounted on the float rod 37 is the block 42 which is movable within the chamber 43 of the flanged cover cap 44. The tube 45 serves as a protective housing for the underground portion of cable 36.

When a coin is deposited in the coin slot 46, it actuates certain coin control mechanism which in turn operates the pump 10, a complete description of such apparatus being given in my application filed October 8, 1929, Serial No. 398,162, as well as in my application of October 8, 1929, Serial No. 398,161, the latter being the parent application of which this is a division. Hence a repetition of such description will not be attempted herein.

The operation of the pump causes fuel to be alternately drawn in through pipes 11 and 12, and to be discharged alternately through the pipes 14 and 15 and through the three-way valve 16. Ordinarily the fuel flows through this valve and out through the hose 17. If for some reason it becomes necessary to stop the flow of fuel through the hose, the handle 19 is turned in the direction of the arrow, thereby operating the three-way valve 16 to close the outlet to the hose 17 and keep the outlet to the return line 18 open, so that any fuel being discharged from the cylinder at such a time will be caused to return to the storage tank 13.

When the handle 19 is so turned, the pin 20 follows the movement of this handle, and carries with it the end of the cable 21. As a result, the cable moves over the pulleys 22, 23, 24 and 25, and causes a downward movement of the rod 28. The cable 30, mounted over the pulley 31, moves the shutter 32 in the direction of the arrow, against the action of the counterweight 35. This brings the solid portion of shutter 32 underneath the slot 46 and

prevents the deposit of a coin therethrough.

The coin slot shutter 32 is also actuated by the float 38, so that should there be no fuel in the supply tank 13, or not sufficient fuel
 5 for one dispensing cycle of the pump, the coin deposit slot 46 will become closed. When the float 38 is lowered to a predetermined level, this downward movement is transmitted to cable 30, moving the shutter 32 to the
 10 left, to its closed position.

When the tank 13 is filled to capacity, or when the level of fuel therein reaches a predetermined height, the block 42 comes into contact with the roof of chamber 43, thereby limiting the upward movement of the float
 15 38 and in this way preventing an undue slackening of cable 36.

The coin control box 39 is electrically separated from the casing 40 by the insulation 41
 20 and the insulator 27. This keeps the entire pump and supply tank insulated from the electrically operated coin control box, which is highly desirable in view of the combustible vapors that may be prevalent in the pump
 25 portion of this apparatus.

The particular form of apparatus disclosed in the drawing and in the description herein given, constitutes but one of several different mechanical forms that may be embodied in
 30 my invention.

What I claim is:

1. In a coin actuated liquid fuel dispenser, a coin slot closer comprising, in combination,
 35 a coin deposit slot, a coin slot shutter, a fuel outlet valve, a fuel storage tank, a float contained within said tank, a system of cables and pulleys connecting said shutter with said valve and said float, and means operable upon
 40 said system and coacting therewith and with said valve and said float to actuate said shutter.

2. In a coin actuated liquid fuel dispenser, a coin slot closer containing a coin deposit slot, a shutter adapted to coact with said coin
 45 slot, a valve, a pin secured to the movable element in said valve, a system of cables and pulleys, the said pin being connected to and operable upon said system, the said shutter being connected with and operable by said
 50 system, a counterweight connected to said shutter and operable thereon against the action of the cables in said system, a pump, a coin control box, electric insulating means attached to said system and positioned between
 55 said pump and said coin control box, and a housing for said system.

3. In a coin actuated liquid fuel dispenser, a coin slot closer containing a coin deposit slot, a shutter adapted to coact with said
 60 coin slot, a fuel storage tank, a float contained within said tank, a system of cables and pulleys, a vertically disposed movable member connecting said float with said system, means to limit the vertical movement of
 65 said member, the said shutter being con-

nected with and operable by said system, a counterweight connected to said shutter and operable thereon against the action of the cables in said system, a coin control box, electric insulating means attached to said system and positioned between said tank and
 70 said coin control box, and a housing for said system.

4. In a coin actuated liquid fuel dispenser, a coin slot closer comprising, in combination,
 75 a coin deposit slot, a coin slot shutter, a fuel outlet valve, a fuel storage tank, a float contained within said tank, a system of cables and pulleys connecting the said shutter with said valve and said float, a pin secured to the movable element in said valve, said pin being connected to and operable upon said system, a vertically disposed movable member connecting said float with said system, a chamber secured to said tank and through
 85 which said member extends, an element fixed on said member and movable within and abutable with opposite ends of said chamber to limit the movement of said member, the said shutter being connected with and operable
 90 by said system, a counterweight connected to said shutter and operable thereon against the action of the cables in said system, and a plurality of housings enclosing said systems.
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In testimony whereof I affix my signature.
 CHARLES BRAHY.

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