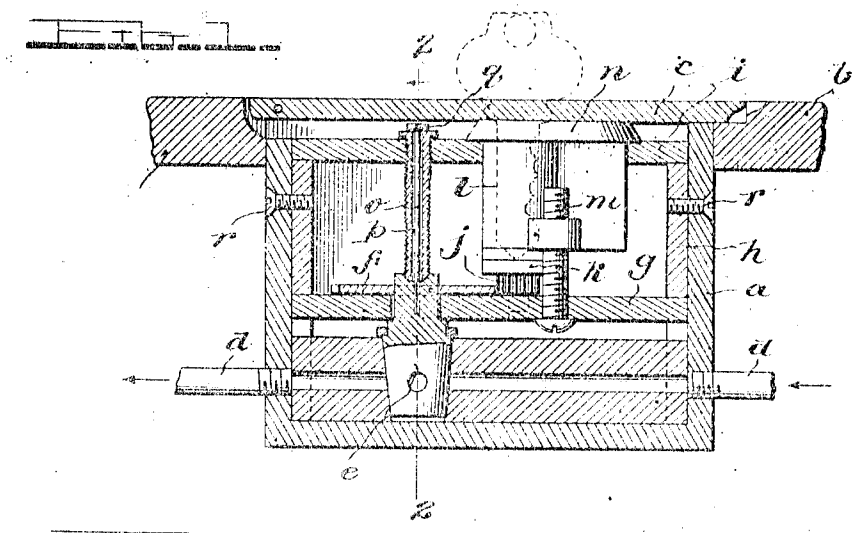
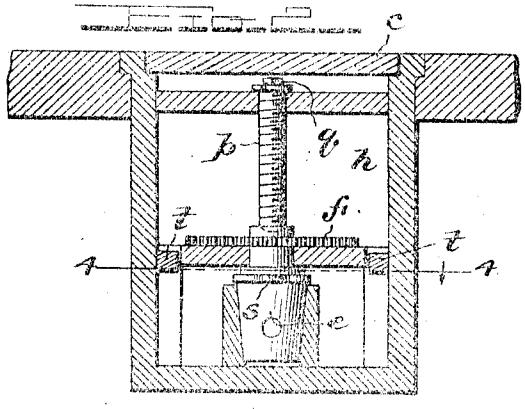
A. W. JOYNES.

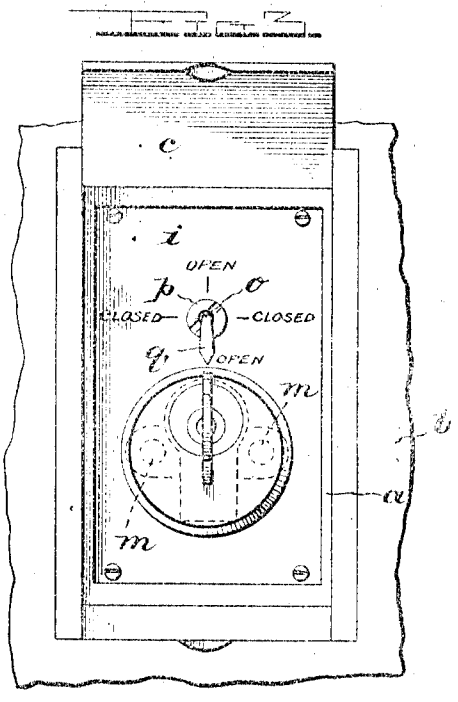
LOCK CONTROLLED VALVE.

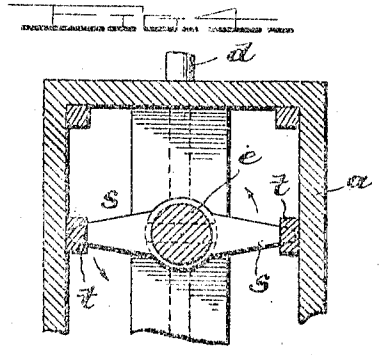
APPLICATION FILED FEB. 12, 1914.

1,107,800. Patented Aug. 18, 1914.









Witnesses

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UNITED STATES PATENT OFFICE.

ALBERT W. JOYNES, OF NORFOLK, VIRGINIA.

LOCK-CONTROLLED VALVE.

1,107,800. Specification of Letters Patent. Patented Aug. 18, 1914.

Application filed February 12, 1914. Serial No. 818,211.

To all whom it may concern:

Be it known that I, ALBERT W. JOYNES, a citizen of the United States of America, and a resident of Norfolk, county of Norfolk, State of Virginia, have invented certain new and useful Improvements in Lock-Controlled Valves, of which the following is a full and clear specification, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical longitudinal section of a device embodying one form of my invention; Fig. 2 is a vertical transverse section thereof taken on the line 2—2 of Fig. 1; Fig. 3 is a plan view with the cover plate thrown back; and Fig. 4 is a detail horizontal sectional view on the line 4—4 of Fig. 2.

This invention has relation to that class of devices employed for locking a valve closed or open, its especial purpose being to control the supply of liquid fuel to the internal combustion engine of a motor-vehicle, whereby the valve may be locked in a closed position to cut off the gasolene tank from the engine and thus prevent evil-disposed persons from running the vehicle without authority, as more fully set forth.

In the drawing, *a* designates a suitable open-topped casing set down in a hole in the floor *b* of the motor-vehicle, the upper edge or rim of the casing being flush with the upper surface of the flooring, and a hinged lid *c* being provided to cover the casing, this lid being also flush with the surface of the flooring, so that the apparatus will not present any obstruction upon the floor.

Extending longitudinally through the casing *a*, near its bottom, is the gasolene supply pipe *d* and mounted rotatably therein is a stop cock *e* of the usual form. Affixed to the upper end of the stem of the valve plug *e* is a spur gear *f*, and secured between this spur gear and a shoulder on the stem of the plug is a bottom plate *g* of a frame adapted to be slid into and out of the casing *a* through the upper open side thereof, said casing consisting additionally of an upright end plate *h* and a top plate *i*.

The gear *f* meshes with a pinion *j* affixed to the lower projecting end *k* of the key-operated cylinder of any well known lock of Yale or permutation type. This key cylinder is mounted in the usual key barrel *l*, and this key barrel is fastened to the bottom plate by screws *m*. The screws *m* hold the key barrel in place, the flange *n* on the key barrel being held tightly by said screws against the upper face of the top bar *i* of the removable casing.

The ratio of the gears *f* and *j* is four to one, so that a complete revolution of the key cylinder with its gear *j* serves to turn the plug one-quarter and thus either open or close the cock, as the case may be. With each revolution of the key cylinder, the key may be removed, as usual, from the lock to permit the cover plate *c* to be swung downwardly into place. To indicate whether the cock is open or closed, I affix thereto a rod *o* and extend the same up through a screw *p* to the upper face of the top plate *i* of the removable frame, the upper end of the rod being provided with an indicating finger *q*, and the upper face of the top plate *i* being provided with suitable marks or symbols to indicate to the observer whether the cock is open or closed. The screw *o* is tapped down through the upper plate *i* and bears centrally against the upper end of the plug *e*, so that the plug may be tightened from time to time to insure a liquid-tight joint. The removable frame *g*, *h*, *i* is fastened in place by suitable screws *r* inserted through holes in the vertical walls of the pendant casing *a*. By removing these screws the frame may be removed from the casing, carrying with it all the operating mechanism, so that the parts of the apparatus are easily assembled as well as easily removed for repair and cleaning. To prevent surreptitious removal of the mechanism from the casing, I provide an automatic locking device which insures the locking of the frame as well as all the connected parts in the casing whenever the valve plug is adjusted to closed position. This locking device embodies a radial arm or arms *s* affixed to the stem of the plug at a point just under the plate *g*, so as to turn with the plug, the ends of these arms being adapted, when the plug is turned to closed position, to pass under lugs *t* projecting inwardly from the side walls of the casing *a*, thus rendering removal of the operating parts from the casing impossible without entirely dismantling the apparatus.

Having thus described my invention, what I claim is—

1. In combination, a casing open at its upper end, a fluid-supply conduit passing through the lower end of the casing, a frame slidable into and out of the upper side of the casing, a valve plug carried by said frame

and adapted to control the passage of fluid through said conduit, a key lock affixed to said frame, and means connected therewith for rotating the plug, and means connected to the plug for locking said frame in said casing, when the plug is closed.

2. In combination, a casing open at its upper side and having a fluid conduit passing through its lower part, a frame slidable into and out of the casing through the upper side of the casing, a plug carried by said frame, a key lock and means connected therewith for rotating the plug, and a screw tapped down through the frame bearing upon the upper end of the plug to insure a tight fit of the plug.

3. In combination, a casing open at its upper side and having a fluid conduit passing through its lower part, a frame slidable into and out of the casing through the upper side of the casing, a plug carried by said frame, a key lock and means connected therewith for rotating the plug, a screw tapped down through the frame bearing upon the upper end of the plug to insure a tight fit of the plug, and an indicating rod [illegible] to the plug and extending up through said screw to a point adjacent to the key slot of the lock.

4. In combination, a casing open at its upper side, a fluid supply conduit passing through the lower end of the casing, a valve plug rotatively mounted in said conduit, a frame in the casing, a gear wheel affixed to the stem of the valve plug, a key lock embodying a key cylinder and having a key opening, and being mounted in said frame, a pinion affixed to the key cylinder and meshing with the aforesaid gear wheel, and an indicating rod affixed to the valve plug and extending up through said frame and provided with an indicating finger adapted to indicate whether the cock is open or closed, said indicating finger being located adjacent to the key opening.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

ALBERT W. JOYNES.

Witnesses:
J. V. PITT,
W. I. GILKESON.