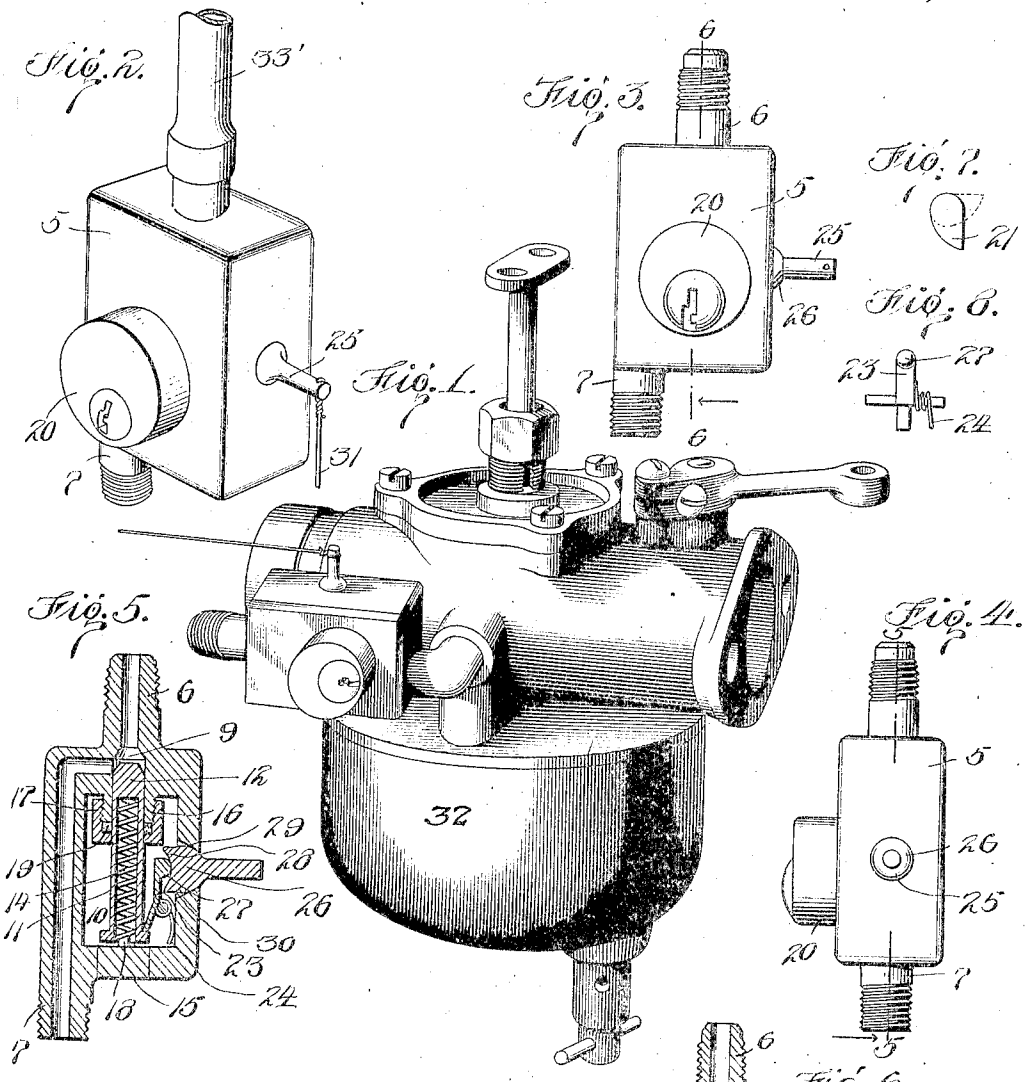
R. E. BIRD.

FUEL LINE LOCK.

APPLICATION FILED OCT. 16, 1918.

1,346,480.

Patented July 13, 1920.



WITNESSES

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RICHARD E. BIRD, OF WICHITA, KANSAS.

FUEL-LINE LOCK.

1,346,480. Specification of Letters Patent. Patented July 13, 1920.

Application filed October 16, 1918. Serial No. 258,443.

To all whom it may concern:

Be it known that I, RICHARD E. BIRD, a citizen of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Fuel-Line Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to fuel-line locks designed to prevent the theft of automobiles, and has particular regard to a device of this character which will continue to function despite any surreptitious severance and reconnection of the gasolene *per se*, as well as the provision of a lock which may be actuated from the dash of the automobile.

These and other novel features are hereinafter described, embraced within the scope of the appended claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of the lock attached directly to a conventional type of carbureter.

Fig. 2 is a perspective view of the lock detached.

Fig. 3 is a front elevation of the lock.

Fig. 4 is a side elevation of the lock.

Fig. 5 is a sectional view taken along lines 5—5 of Fig. 4.

Fig. 6 is a sectional view taken along lines 6—6 of Fig. 3.

Fig. 7 is a front elevation of the lock cam, and

Fig. 8 is a detail view of the detent.

Referring more specifically to the drawings, 5 denotes a casing having screw-threaded extensions 6 and 7 at opposite ends, both the body of the casing and the extensions being longitudinally bored as at 8. This bore is substantially continuous, although at one extremity of the body it is formed with a right angular deflection intercepted by a valve seat 9. Otherwise, the interior of the casing is hollowed out, as at 10, to serve as a chamber for the operative parts of the lock. Of these, the valve 11 is the most important, and as will be seen upon reference to Figs. 5 and 6, it is of tubular formation, excepting, of course, the solid head 12 which coöperates with the valve seat 9. The object of the tubular part 13 is to inclose the coil spring 14, the outer end of which bears against the nut 15, and normally constrains the valve toward the seat 9. To guide the valve at one end, I make use of a boss 16 and a cap 17, while at its opposite end there is provided a small stud 18 on the nut 15 which projects a slight distance within the adjacent end of the tubular portion of the valve. I also preferably employ a gasket, as 19, between the boss 16 and cap 17, to preclude the entrance of gasolene or other fuel into chamber 10.

For actuating the valve, I utilize two separate and distinct means. One comprises a conventional type of lock 20 having its barrel formed with a cam 21 which engages the annular flange 22 of the valve. The other actuating means consists of a detent 23 pivoted transversely of the chamber 10, a spring 24, and a lever 25. One end of the detent engages the annular flange 22 and the other end of the detent contacts with the inner rotund base portion 26 of the lever 25 which extends outwardly through the side of the casing. The contacting surfaces 27 and 28 of the detent and the base of the lever, and the similar surfaces 29 and 30 of the casing and rotund portion of the lever, are rounded to permit a universal movement of the lever, and constant contact of the lever with the detent, so that regardless of the position in which the device, as an entirety, may be installed, it can be operated with facility. A wire 31, cable, chain, or the like may be attached to the outer free end of the lever 25 and trained to the dash or other accessible point of the automobile.

Under normal running conditions, the valve is held open to permit an unrestricted flow of gasolene into the carbureter. This position of the valve is obtained by inserting the proper key in the barrel of the lock and turning it until the cam 21 forces the valve well from its seat, at which moment the flange 22 will become engaged by the detent and be maintained securely against retrograde movement as exhibited in Figs. 5 and 6—and in actual practice, despite the most violent vibrations, it has been found that this relationship is not disturbed. Now when it is desired to leave the car standing, the wire 31 is pulled from the dash. Through lever 25 the detent is instantly disengaged from the flange 22, and the coil spring 14 overcomes the resistance of the lock-cam and forces the valve to its seat. The only way in which the valve can be opened is by inserting the proper key into

the lock and resetting the parts, and inasmuch as the proper key is invariably in the possession of the owner or driver of the car, the chances of the car being taken and operated for any considerable distance by some unauthorized person are reduced to a minimum. The element of theft may be reduced to an almost absolute certainty if the valve is thrown while the motor is running and in gear just prior to the time a given destination is reached, for this would cut off the supply from the main tank and completely exhaust the supply in the float chamber of the carbureter.

Another important feature, as will be found upon inspection of Fig. 1, is that the invention is applicable directly to the carbureter 32, and not intermediate the ends of the fuel-line pipe, at which latter point that portion of the pipe sustaining the device could be cut out from the line, and the adjacent ends of the line then reconnected by a short piece of rubber tubing—thus easily defeating the very object of the invention.

I claim—

1. A device of the character described, comprising a casing having a bore extending therethrough, a valve for said bore, said valve having a flanged base, a locking cam designed for engagement with a portion of said base, and a detent adapted for engagement with another portion of said base.

2. A device of the character described, comprising a casing having a bore extending therethrough, a valve for said bore, a detent for said valve, and a universally operable lever engageable with said detent and projecting through said casing.

3. A device of the character described, comprising a casing having a bore extending therethrough, a valve for said bore, an annular flange formed on end of the valve, a cam for opening said valve, a spring for closing said valve, a detent pivoted to the casing and engageable with said flange for locking the valve in open position, and means for actuating said detent to release said valve.

4. A device of the class described, comprising a casing having a bore extending therethrough, a valve for said bore, a detent pivoted to said casing and engageable with said valve, and a lever contacting with and adapted to actuate the detent, the contacting surfaces of the lever and detent being rounded to permit universal movement of the lever.

In testimony whereof I affix my signature.

RICHARD E. BIRD.