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LOCK FOR AUTOMOBILES

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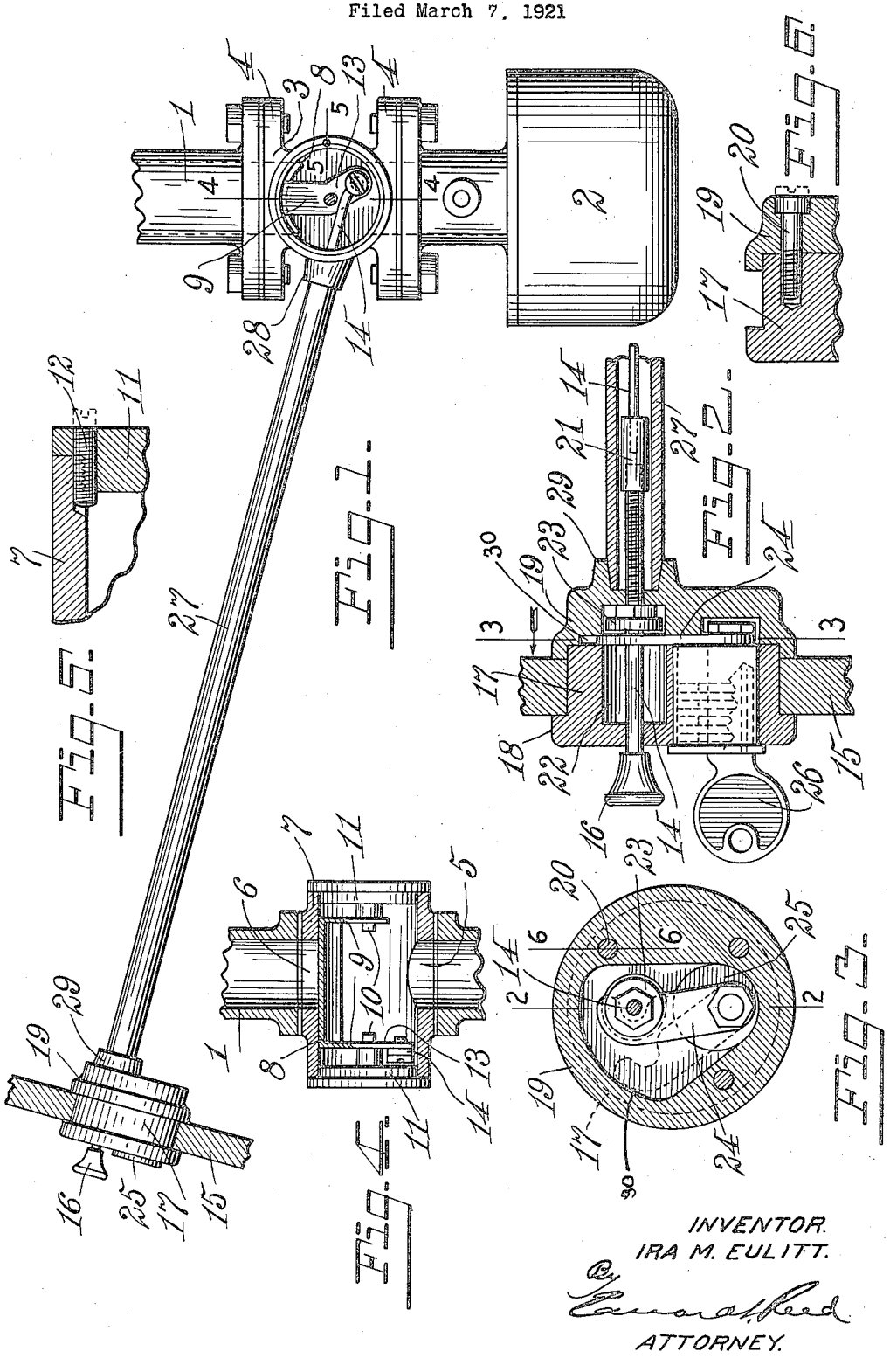


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

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LOCK FOR AUTOMOBILES.

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To all whom it may concern:

Be it known that I, IRA M. EULITT, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Locks for Automobiles, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a lock for automobiles and more particularly to a lock comprising a cut-off interposed in the intake conduit through which the engine is supplied with fuel, and adapted to be locked in its closed position. It has been proposed heretofore to provide such a locked cut-off but the arrangement has been such as to render the manipulation thereof inconvenient because the lock was applied directly to the cut-off and in order to release the same it was necessary to raise the hood, which was very undesirable.

The object of the present invention is to provide a cut-off of this kind with actuating devices which can be manipulated at a point remote from the cut-off to move the latter into and out of its operative position and which can be locked at said remote point to retain the cut-off in its closed position, thus enabling the cut-off to be controlled wholly from the dash, or instrument board, of the automobile.

A further object of the invention is to provide a lock of this kind which will be simple in its construction and operation and inexpensive to manufacture.

Other objects of the invention will appear as the device is described in detail.

In the accompanying drawings Fig. 1 is an elevation of a portion of the intake conduit showing the actuating device for the cut-off mounted in the instrument board; Fig. 2 is a sectional view of the locking device taken on the line 2—2 of Fig. 3; Fig. 3 is a transverse section of the locking device taken on the line 3—3 of Fig. 2; Fig. 4 is a section through the cut-off taken on the line 4—4 of Fig. 1; Fig. 5 is a fractional detail section taken on the line 5—5 of Fig. 1; and Fig. 6 is a fractional detail section of the lock casing taken on the line 6—6 of Fig. 3.

In these drawings I have illustrated one embodiment of my invention and have shown the same as comprising a cut-off interposed in the intake conduit 1 between the carbureter 2 and the cylinders of the engine, which are not here shown. In the form here shown the cut-off comprises a valve casing 3 having flanges 4 by means of which it may be attached to the adjacent ends of the two parts of the conduit and having an inlet opening 5 and an outlet opening 6 in line with the conduit. The valve casing also comprises a transverse cylindrical portion 7 forming a valve chamber and having movably mounted therein a valve member 8 which, in the present instance, is in the form of a shutter having inwardly extending ears 9 mounted upon pivot pins 10 extending inwardly from heads, or end walls, 11 which close the respective ends of the valve chamber. These heads may be secured to the valve chamber in any suitable manner but it is preferable that they should be so attached thereto that they can not be readily removed therefrom so as to permit access to be had to the valve, and I have, therefore, shown the same as adapted to be attached to the ends of the cylindrical valve chamber by screws 12 of such a character that when they are fully seated in the valve casing the slotted ends thereof will project beyond the outer surface of the heads and can be cut or broken off flush with the surface of the head, thus leaving no part to which an implement can be applied.

One of the ears 9 of the valve member 8 extends beyond its axis as shown at 13 and has connected therewith an actuating device, or rod, 14 which extends through an opening in the side of the valve chamber 7 to a point remote from the valve, from which point it is desired to operate the valve. Usually the actuating rod extends through and is slidably mounted in the dash or instrument board 15 of the automobile at a point adjacent to the driver's seat, although it will be apparent that it may be mounted on any suitable part of the atuomobile. In the present construction the actuating rod extends through and is slidably mounted in a lock casing mounted upon the instrument board and is provided at its rear end with a knob 16 by means of which it may be actuated to move the valve member either into or out of its closed position. The lock casing may take any suitable form but, as here shown, it com-

prises a cylindrical body 17 mounted in an opening in the instrument board 15 and having a flange 18 bearing against the rear surface of said instrument board. The cylindrical portion 17 extends beyond the forward surface of the instrument board and projects into a recess formed in a removable portion 19 of the lock casing, which when attached to the part 17 bears against that side of the instrument board opposite the flange 18 and serves to clamp the casing firmly in position thereon. Preferably the two parts of the lock casing are connected one with the other by screws 20, the ends of which can be cut off after the screws are seated to provide the same with smooth ends flush with the surface of the casing. That portion of the operating rod which extends through the lock casing is preferably of greater diameter than the main portion of the rod and I have, therefore, shown the rod as formed in two parts which are connected one to the other by a coupling 21. The lock casing has formed therein and in both portions 18 and 19 thereof an internal chamber 22 through which the rod extends and a stop or nut 23 is rigidly and adjustably secured to the rod within this chamber, and by its contact with the ends of the chamber serves to so limit the movement of the rod as to position the valve member 8 either in its closed or its open positions, when the rod is at one or the other of the limits of its movement.

Also mounted within the lock casing is a locking member adapted to be moved into the path of the stop 23 on the actuating rod to lock the latter against movement and, as here shown, this locking member is in the form of an arm 24 pivotally mounted within the lock casing and adapted to be moved into the path of the stop 23 when the rod is in its forward position, that is, in a position to retain the valve member in its closed position. The arm 24 moves in a depression 30 in the removable portion or cap 19 which, together with the body portion, 18, forms a guide for said arm, thereby preventing the same being distorted when an attempt is made to force the movement of the rod 14. The movement of the locking member may be controlled by any suitable locking device and as here shown the locking arm is mounted on the inner end of a barrel 25 forming a part of a well known pin and cylinder lock, which is actuated by a key 26. Consequently, when the key is inserted in the lock and the barrel rotated, the locking arm will be moved into or out of its operative position. Preferably the locking device is of that form from which the key can not be removed until the barrel is restored to its initial position and the arrangement of the locking arm with relation to the barrel is such that the locking arm must be in its operative position before the key can be removed. Thus, upon leaving the automobile, the driver has only to thrust the actuating rod forwardly and remove the key from the lock to effectually prevent any fuel being delivered to the engine. It is desirable that some means be provided to prevent the actuating device, or rod, 14 from being manipulated or from being in any way interfered with and I have, therefore, shown the same as extending through a tubular conduit 27 which is mounted at one end in a boss 28 surrounding the opening through which the rod passes from the valve chamber 7 and at its other end in a boss 29 mounted on the lock casing in line with the opening therein. This tubular conduit is preferably of steel and may, if desired, be hardened so that it can not be readily cut.

The operation of the device will be readily understood from the foregoing description and it will be apparent that I have provided a fuel cut-off mounted in the intake leading to the cylinders of the engine which may be locked in its closed position and in which both the means for actuating the cut-off, in both directions, and the lock, therefor, are mounted in a position where they can be readily operated by the driver of the car without leaving his seat. Further, it will be apparent that the device is simple in its construction and operation, is not likely to get out of order and can be produced at a relatively low cost.

While I have shown and described one embodiment of my invention I wish it to be understood that I do not desire to be limited to the details thereof as various modifications may occur to a person skilled in the art.

Having now fully described my invention what I claim as new and desire to secure by Letters Patent is:

1. In a device of the type specified, a lock formed of two portions and provided with a chamber which extends into both portions thereof, a rod slidingly mounted in said casing extending through said chamber and adapted to be connected to a valve in the intake of an internal combustion motor, a stop mounted on said rod and within said chamber and the movement of which is limited by the ends of said chamber, and a lock mounted in said casing and in operative relation with said stop.

2. In a device of the type specified, a lock casing formed of a body portion and a cap portion, one of said portions being provided with an internal depression, a rod mounted in said casing and adapted to be connected to a valve in the intake of an internal combustion motor, a stop mounted on said rod, an arm movable in said depression and guided by both portions of said casing, a stop mounted on said rod and in operative

relation with said arm, and a lock in said casing controlling said arm.

3. In a device of the type specified, a lock casing formed of two portions and provided with a chamber which extends into both portions, one of said portions being provided with a depression, a rod mounted in said casing and adapted to be connected with a valve in the intake of an internal combustion motor, a stop mounted on said rod and within said chamber and the movement of which is limited by the ends of said chamber, an arm movable in said depression and guided by both portions of said casing, said arm cooperating with said stop to lock said rod, and a lock in said casing controlling said arm.

In testimony whereof I affix my signature hereto.

IRA M. EULITT.