

P. L. WIKHEIM.
LOCK.

APPLICATION FILED SEPT. 11, 1916.

1,244,671.

Patented Oct. 30, 1917.

Fig. 2.

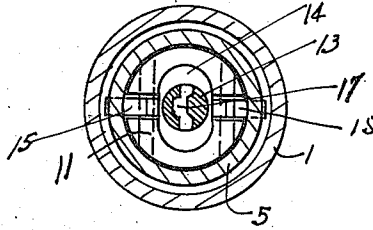
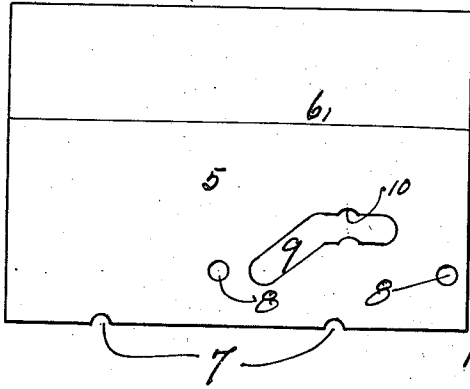


Fig. 3.

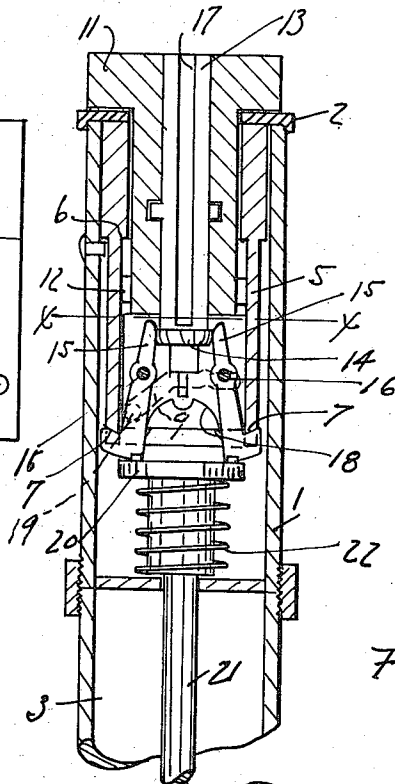
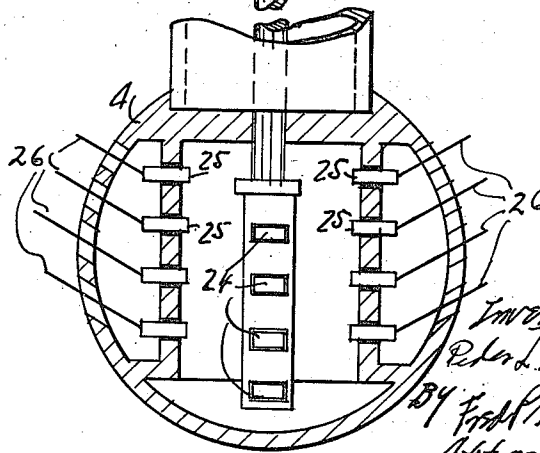


Fig. 1.



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1,244,671.

Specification of Letters Patent.

Patented Oct. 30, 1917.

Application filed September 11, 1916. Serial No. 119,431.

To all whom it may concern:

Be it known that I, PEDER L. WIKHEIM, a citizen of the United States, and a resident of Everett, in the county of Snohomish and State of Washington, have invented certain new and useful Improvements in Locks, of which the following is a full, true, and exact specification.

My invention relates to locks and more particularly to locks for ignition circuits and the like on automobiles, and has for its principal object to provide an improved and novel form of lock construction which is adapted to use on automobiles and the like for cutting out ignition circuits. A further object of my device is to provide a lock having means for retaining the lock in a neutral position from which it may be thrown to a locked or unlocked position without the use of a key, but which will require a key to release it from either the locked or unlocked position.

Other objects will appear as my invention is more fully explained in the following specification, illustrated in the accompanying drawing and pointed out in the appended claims.

In the drawings, Figure 1 is a central cross sectional elevation of my device. Fig. 2 is a sectional plan of my device taken along line X—X of Fig. 1. Fig. 3 is development of a portion of my device.

Referring more particularly to the drawings, numeral 1 indicates a cylindrical outer casing which is closed at the bottom and which is provided with a cap 2 at the top. Casing 1 may be coupled to an extension casing 3 and the lower end of which is provided with a switch casing 4. A lock cylinder 5 fits snugly within the upper portion of casing 1 and is retained against removal from said casing by the cap 2. Lock cylinder 5 is provided with a shoulder portion 6, bolt retaining notches 7 and bolt retaining holes 8. A spiral slot 9 is also cut in lock cylinder 5 and is provided with a neutral position notch 10. The cylinder 5 is retained within casing 1 in a fixed position and encompasses the locking mechanism which includes a revoluble and slidable plug 11 having a shoulder portion 12 secured to its lower end which retains the plug against withdrawal by contact with the shoulder 6. Plug 11 is tubular and contains a key operating combination lock stem 13. Stem 13 is provided with an elliptical collar 14 ad-

jacent its lower end which engages the tops of lock bolts 15. The lock bolts 15 are mounted on pins which are secured to the lower end of plug 11. It will be understood that the stem 13 is rotatable independent of the plug 11 only when released from engagement with the plug by means of a suitable and proper key which is inserted within a groove 17 in the said stem. When the key has been inserted in the stem it is possible to revolve the stem with the result that the elliptical collar 14 forces apart the tops of bolts 15, thereby withdrawing the lower or hooked end of said bolts from engagement with either the bolt notches 7 or the bolt holes 8 as the case may be. A pin 19 is secured to an extension of lower end of plug 11 and engages the slot 9 of the lock cylinder 5. When the bolts are withdrawn from engagement with the notches 7 the plug 11 may be revolved and is controlled in its movement by means of pin 19 and slot 9 so that it raises as well as revolves the plug 11. The lower portions of bolts 15 engages lugs upon the head 20 of a shouldered rod 21 so that the rod 21 will be revolved in unison with the bolts 15. The rod 21 is held up against the bolts 15 by means of a spring 22. The lower portion of rod 21 passes down through tubular casing 3 and is provided at its lower end with switches 24 which are adapted to close terminals 25 of the ignition circuits 26 which lead to the various cylinders of the engine of an automobile or the like. It will be noted that the drawing as shown illustrates the device in a locked position with the circuits broken and that as the plug 11 and its attached parts are raised and revolved the rod 21 will also be raised and revolved with the result that the switches 24 will contact with the terminals 25, thereby completing the circuits. When the bolts have been withdrawn from notches 7 and the plug has been partially raised and rotated so that the pin 19 engages the notch 10, it will be understood that the key may then be withdrawn from the plug and that the lock will be retained in a neutral position; that is, in a position in which the circuits are locked in neither closed nor open position but one from which the device may be easily moved to either of the above positions. It is only necessary to further revolve the plug 11 with the thumb or finger in either direction as the case may be in order that the lower end of bolts 15 will come into en-

gagement with either the notches 7 or the holes 8.

While I have shown a particular form of embodiment of my invention, I am aware that many minor changes therein will readily suggest themselves to others skilled in the art without departing from the spirit and scope of the invention, and I therefore desire to avoid being limited to the exact form shown and described. Having described my invention, what I claim as new and desire to protect by Letters Patent, is—

1. In a circuit breaking lock, including a stationary outer casing and a lock cylinder within said casing, the combination of a key operated lock-plug slidably and revolubly mounted in said cylinder, a shouldered rod operable by said plug, circuit breaking

switches mounted on said rod and slidable and rotatable with said lock plug, whereby the said circuits are closed when the rod is reciprocated and revolved.

2. In a switch lock, the combination of circuit terminals arranged oppositely, a terminal closing switch revolubly and slidably arranged between said terminals and adapted to connect said terminals, a revoluble key operated plug revolubly and slidably mounted in a stationary lock cylinder, lock bolts operable by said plug and adapted to lock said plug and cylinder together, and a shouldered rod secured to said switch and cooperating with said bolts, whereby the said switch revolves and slides in unison with said bolts and plug.

PEDER L. WIKHEIM.