

April 27, 1926.

1,582,425

E. N. PAGELSEN

WHEEL LOCK

Filed August 25, 1924

2 Sheets-Sheet 1

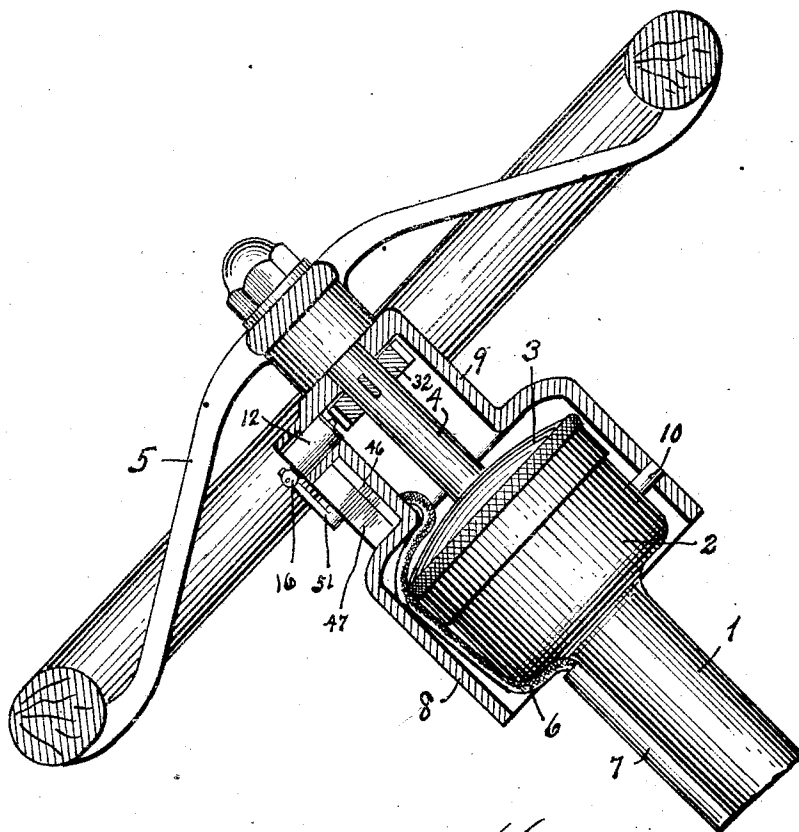


Fig. 1

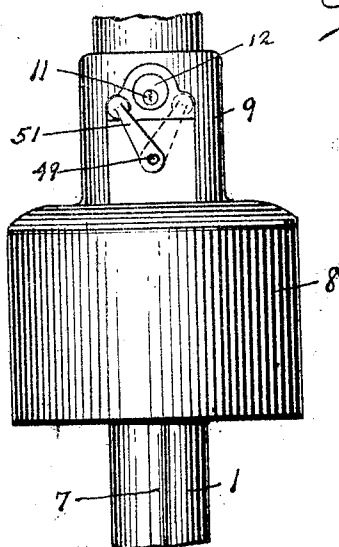


Fig. 2

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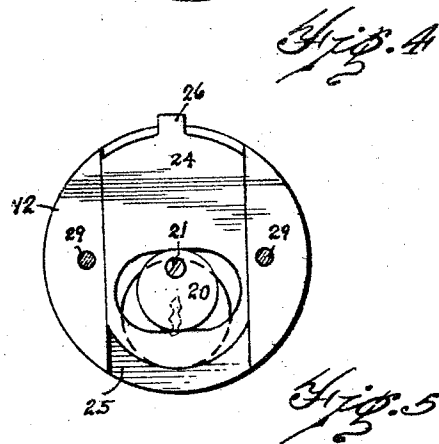
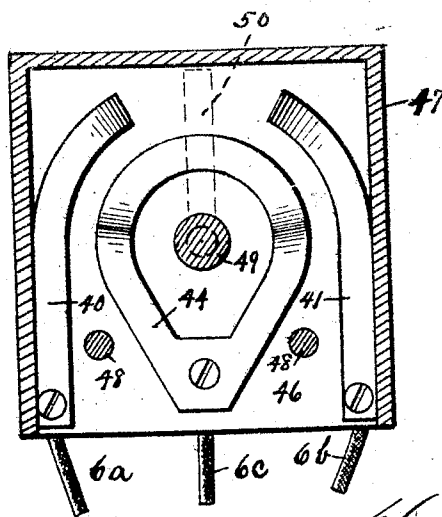
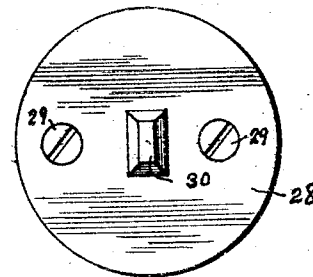
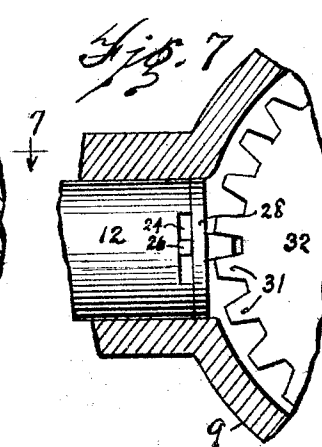
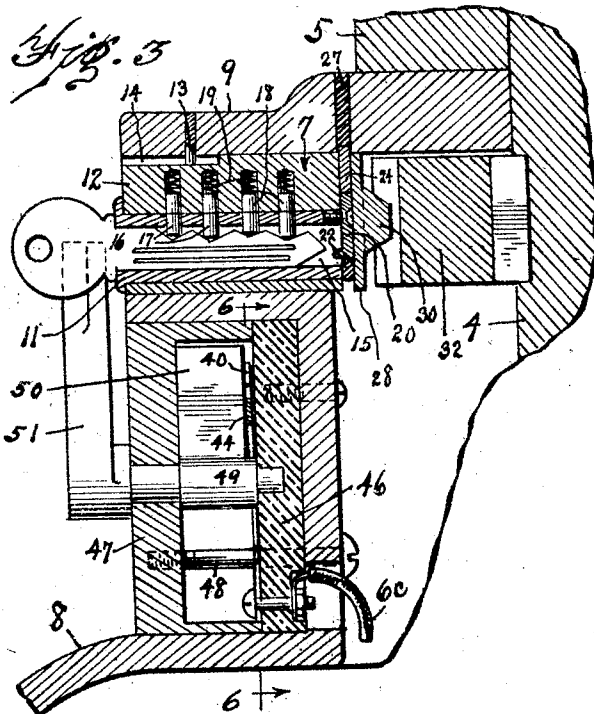
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2 Sheets-Sheet 2



INVENTOR.

Edward N. Pagelsen

UNITED STATES PATENT OFFICE.

EDWARD N. PAGELSEN, OF DETROIT, MICHIGAN, ASSIGNOR TO SEWELL CUSHION WHEEL COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF DELAWARE.

WHEEL LOCK.

Application filed August 25, 1924. Serial No. 733,991.

To all whom it may concern:

Be it known that I, EDWARD N. PAGELSEN, a citizen of the United States, and residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and Improved Wheel Lock, of which the following is a specification.

This invention relates to means for preventing theft of automobiles by forcing the operator to lock his steering wheel before he can stop his engine, and consists in a device of this character which is substantially fool proof and embodies a minimum number of parts.

In the accompanying drawings, Fig. 1 is a vertical central section of my improved steering wheel lock and safety switch. Fig. 2 is a rear elevation thereof. Fig. 3 is a vertical section of the lock on a larger scale. Fig. 4 is an elevation of the locking pin. Fig. 5 is an end elevation of the lock barrel. Fig. 6 is an elevation of the switch plates. Fig. 7 is a section on the line 7—7 of Fig. 3.

Similar reference characters refer to like parts throughout the several views.

Many automobiles are stolen because their operators fail to use the locks provided for their protection. My present invention is designed to compel such use by preventing the engine being stopped until the lock is used.

The drawings show the lock applied to the well-known Ford car, the steering column 1, gear casing 2 and the cap 3, therefore, being of standard construction. The upper steering shaft 4 is slightly longer than those of standard construction and the wheel 5 is of any desired character. While the ignition wires 6 are shown extending into a separate conduit 7, they may pass down within the steering column. The skirting 8 and neck 9 of this improved lock casing are preferably of hard steel to prevent injury to the switch and lock. A pin 10 may be driven through a hole in the skirting and into a hole in the casing 2, to prevent removal of the lock and to hold the lock rigidly relative to the steering column.

A lock body 12 of well-known construction is slidable in a proper recess in the neck of the lock casing and is prevented from turning therein by a pin 13 which extends into a groove 14 in the body 12 and so limits

its outward movement. The lock barrel 11 is formed with a groove 15 to receive the key 16, and the well-known tumblers 17 and 18 and springs 19 select the key which will operate the lock. An eccentric disk 20 is attached to the end of the lock barrel by the screw 21, and is prevented from turning by the small projection 22 extending into the key groove.

A yoke 24 is slidable in a groove 25 in the inner end of the lock body and has a transverse hole to receive the disk 20 on the lock barrel as when that is turned the tongue 26, at the upper end of this yoke, may move into and out of a hole in the casing. The upper portion of this hole may be filled by a pin 27. A plate 28 is attached to the inner end of the lock body by means of screws 29 and carries a finger 30 adapted to enter the spaces between the teeth 31 of the gear 22 attached to the steering shaft 4. This plate 28 also holds the yoke 24 in position.

When the lock barrel and body are in the positions shown in Fig. 3, the shaft is prevented from turning by the finger 30. The tongue 26 prevents the lock body from moving and the key can be withdrawn. By turning the key and lock barrel, the tongue 26 is withdrawn permitting the lock body to be drawn outwardly by the key and the gear 32 released. But when so withdrawn, the key can not be removed but must remain in the lock until the steering wheel is locked.

The switch mechanism is simple and embodies three wires, one to the battery, one to the magneto and one to the timing mechanism of the engine. The spring contact 40 and 41 connect to the wires 6^a and 6^b which connect to the magneto and battery but it will be understood that either contact may be omitted or both wires may connect to either battery or magneto. A third spring 44, between the other two, connects to the timing mechanism by a wire 6^c, and all three contacts are mounted on a block 46 of insulating material, this being held in a recess in the casing by means of a recessed cap plate 47 and screws 48. This wiring may be changed to suit the different makes of automobiles.

Mounted in the cap plate 47 and block 48 is a short shaft 49 having a contact member 50 attached to it to slide over the spring contacts 40, 41 and 44, and an operating handle 51 is attached to the outer end of this shaft.

When the automobile is to be used, the operator swings the handle 51 to cause a connection between the battery and timing wires, the handle moving from central neutral position to the position shown in either dotted or solid position in Fig. 2. If only one wiring is employed, the handle will be left in that position, but when a separate wire leads to the magneto, the handle is swung to the opposite position as soon as the engine is running. The operator can then insert his key and unlock the steering wheel. He cannot swing the handle to central neutral position to stop his engine until the key has been withdrawn as the handle is so made that the key hole is covered thereby at the time the contact member disengages the side spring contacts.

The simplicity of the construction and the strength of all the parts renders the danger of this device getting out of order very remote. The details may however, be changed by those skilled in the art without departing from the spirit of my invention as set forth in the following claims.

I claim:

1. In a device of the kind described, the combination with a steering wheel, a lock to control the operation of said wheel and a key for said lock, an ignition switch, and

a handle to operate the switch, said handle being so positioned relative to the lock to swing across the key hole thereof so that the switch cannot be operated while the key is in the lock.

2. In a device of the kind described, the combination with a steering wheel, a casing, a lock slidable in the casing to prevent and permit turning of the steering wheel, a key slidable into and out of the lock when the steering wheel is prevented from turning, an ignition switch, and a handle to open and close the switch, said handle being positioned to swing across the key hole and to hold the switch open when over said key hole so that the switch cannot be opened while the key is in the lock.

3. In a device of the kind described, means to control the operation of a vehicle, a lock to govern the operation of said control means, a key for said lock, an ignition switch embodying a pair of stationary contacts and a movable contact to connect the stationary contacts when in one position and to disconnect them when in another position, a handle attached to the movable contact and so positioned as to cover the key hole of the lock when the switch is open to prevent the insertion of the key until the switch is closed.

EDWARD N. PAGELSEN.