

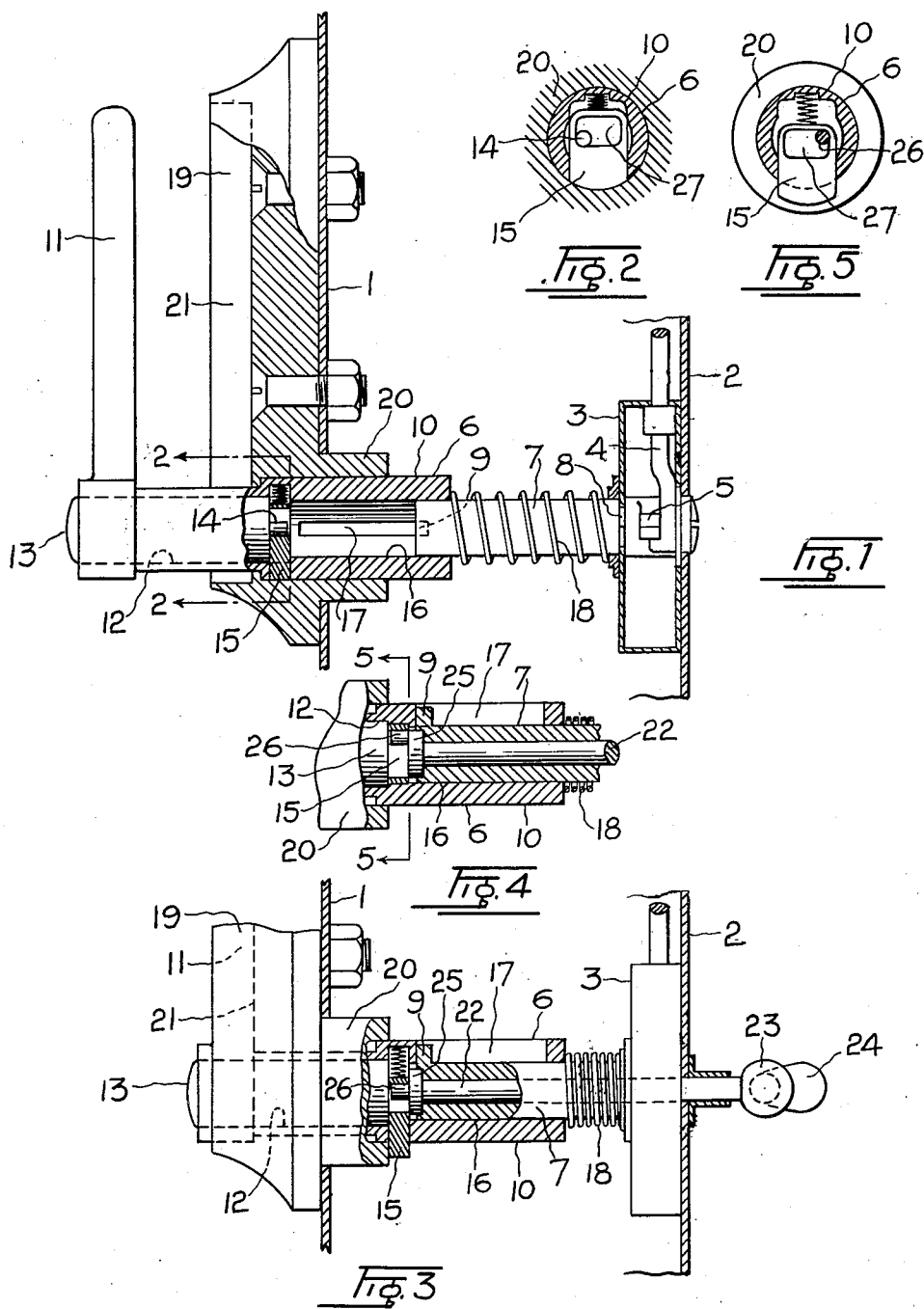
Oct. 24, 1933.

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1,932,048

DOORLATCH SPINDLE

Filed Dec. 19, 1932



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1,932,048

DOORLATCH SPINDLE

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Application December 19, 1932
Serial No. 647,907

4 Claims. (Cl. 70—91)

My invention relates to improvements in door latch spindles which are particularly adapted for use on closed motor cars and the like.

The objects of the invention are to provide means whereby the handle of a motor car door or the like may be so disposed when the door is locked that access cannot be had to it to wrench it off or destroy the lock in order to open the door to which said handle is affixed; to provide such means as will apply to the door having a key lock and also such doors which are not so provided.

The invention consists of a lock or latch spindle and handle wherein the handle is thrust towards the door and into a recess in which it is completely housed when in locked position, and means for restoring the handle to operative position when access to the car is desired by means of a key or turn button, as will be more fully described in the following specification and shown in the accompanying drawing, in which:—

Fig. 1 is a longitudinal sectional view of the invention.

Fig. 2 is a transverse section taken on the line 2—2 of Figure 1.

Fig. 3 is a longitudinal section of a modification.

Fig. 4 is a longitudinal section of the release spindle.

Fig. 5 is a transverse section taken on the line 5—5 of Figure 4.

In the drawing like characters of reference indicate corresponding parts in each figure.

The numeral 1 indicates generally the front panel of a motor car door, 2 is the rear panel and 3 is a latch or lock casing of any suitable type having a bolt and the usual lugs 4 which are drawn to unlatch the door by the usual latch cam 5.

The numeral 6 indicates generally the lock spindle which consists of an inner spindle 7 rockingly mounted in the lock casing 3 having a squared end 8 which engages the cam 5 to turn it, the inner end of this spindle is fitted with a projecting key 9 shown in dotted line in Figure 1 and in section in Figure 4, and also an outer portion 10 with which is integrally formed a handle 11. The outer spindle portion 10 is provided with a central bore 12 to accommodate the usual lock cylinder 13 which is adapted, on the key being turned, to retract by means of a pin 14 on the end of the lock cylinder a spring operated bolt 15 which is slidably housed in a slot extending transversely of the spindle portion 10. The inner end of the spindle portion 10 is bored concentrically as at 16 and is provided with a longitudinal slot 17 in which the key 9 of the inner spindle 7 is engaged to rotatively couple the two spindle portions together. A coil spring 18 surrounds the inner spindle 7 and abuts the lock casing 3 at one end and the spindle portion 10 at the other for the purpose of thrusting the latter outwardly.

An escutcheon or handle housing 19 is fitted to the front panel 1 of the door, which is provided with a bearing 20 extending through the panel, and an elongated recess 21 into which the handle 11 is adapted to be pushed, the handle when in position within the recess being substantially flush with the top of the housing and filling the recess so completely as to prevent a wrench or other tool being applied to it to turn it.

When the handle is housed within the recess 21, the bolt 15 is in a position to be thrust outwardly from the spindle portion 10 to engage the inner end of the bearing 20, thus preventing the return of the handle to its outer or normal position as shown in Figure 1.

In the modification shown in Figures 3, 4 and 5, the inner spindle 7 is concentrically bored and journaled within it is a release spindle 22 having at its inner end a handle 23 which is weighted as at 24 or provided with any suitable means for returning the spindle to its normal position as shown in Figure 3, the opposite end of the release spindle 22 is fitted with a circular head 25 which carries a crank pin 26 and is adapted to enter the orifice 27 of the spring projected bolt 15 when the spindle portion 10 is thrust inwardly to the limit of its stroke. The orifice 27 is of such dimension as to allow for the endwise movement of the bolt 15 as said bolt passes beyond the confines of the bearing 20 that it may engage the end of said bearing without moving the crank pin 26, provided the handle 23 is in its depending or normal position as shown in Figure 3. The bolt 15 of the modification as shown in Figure 5, shows the crank pin in a position corresponding to the normal position of the handle 23.

To operate the device as shown in Figures 1 and 3, it suffices to thrust the door handle 11 inwardly until it becomes housed within the recess 21 of the escutcheon 19, when the bolt 15 slides transversely to project from the spindle portion 10 and engage the end of the bearing 20 to retain it in such position, thus preventing any grip being obtained of the door handle 11.

To release the handle 11 in the device as shown in Figure 1, it suffices to enter the key in the lock 13 and turn it, thus withdrawing the bolt 110

15 from engagement with the end of the bearing 20 and bringing the bolt entirely within its slot in the spindle portion 10, the bolt when so withdrawn enables the spring 18 to exert its effort and thrust the spindle portion 10 and the handle 11 outwardly so that access to the latter can be obtained to grip and turn it in order that a turning movement may be imparted through the key 9 to the inner spindle 7 and the cam 5, thus operating the door latch to open the door.

To release the latch in the modification shown in Figure 3, the upward swinging movement of the handle 23, through the crank pin 26 withdraws the bolt 15 into its slot in the spindle portion as before described, thus allowing said spindle portion and the handle 11 to slide outwardly from the outer face of the door.

What I claim as my invention is:

1. A spindle for door locks of motor cars and the like comprising inner and outer telescopic members non-rotatively connected together, one of said members adapted to operatively engage the lock to open it, the other having an operating handle, means for extending said members, and means for holding said members in telescoped position, and means extending through the lock engaging member to release the members from telescoped position.

2. A spindle for door locks of motor cars and the like comprising inner and outer telescopic members non-rotatively connected together, one of said members adapted to operatively engage the lock to open it, the other having an operating handle, a spring for extending said members, and means engaging said members to hold them

in telescoped position, and means for disengaging said engaging means whereby the spring returns the members to extended position, said disengaging means comprising a spindle extending through the lock engaging member.

3. A spindle for door locks of motor cars and the like comprising inner and outer telescopic members non-rotatively connected together, one of said members adapted to operatively engage the lock to open it, the other having an operating handle, a spring for extending said members, and means engaging said members to hold them in telescoped position, and means for disengaging said engaging means whereby the spring returns the members to extending position, said disengaging means comprising a spindle extending through the lock engaging member and having means tending to hold the spindle against rotation.

4. A spindle for door locks of motor cars and the like comprising inner and outer telescopic members non-rotatively connected together, one of said members adapted to operatively engage the lock to open it, the other having an operating handle, a spring for extending said members, and means engaging said members to hold them in telescoped position, and means for disengaging said engaging means whereby the spring returns the members to extended position, said disengaging means comprising a spindle extending through the lock engaging member, and being accessible from the side of the lock remote from the handle.

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