No. 630,762. Patented Aug. 8, 1899.

S. WILSON.

DOOR CHECK.

(Application filed May 4, 1899.)

(No Model.)

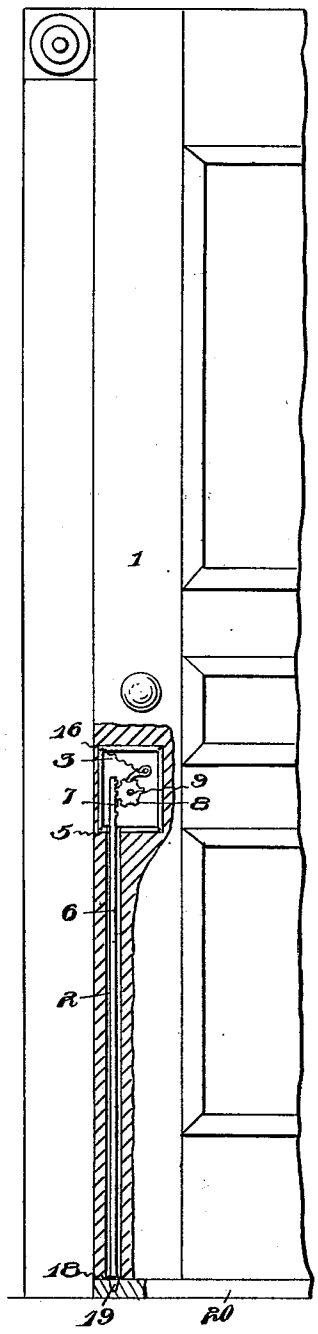


Fig. 1.

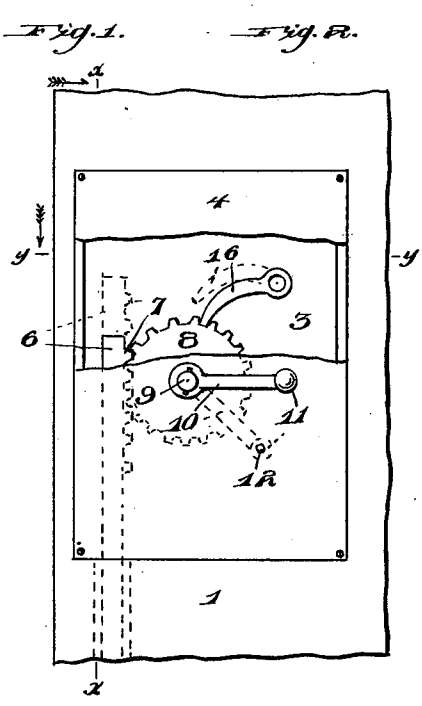


Fig. 2.

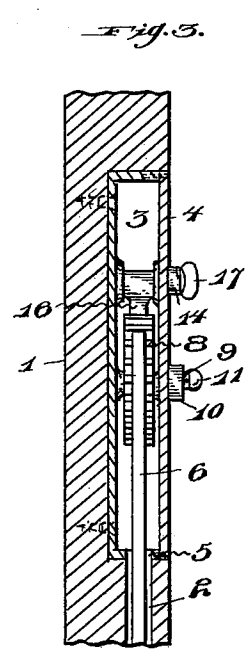


Fig. 3.

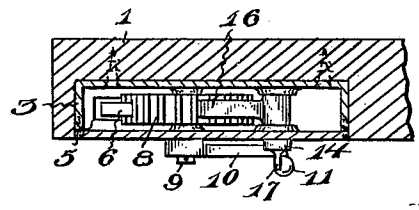


Fig. 4.

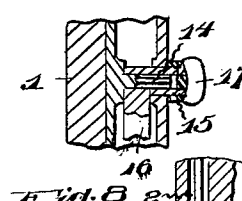


Fig. 5.

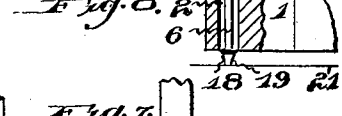


Fig. 8.

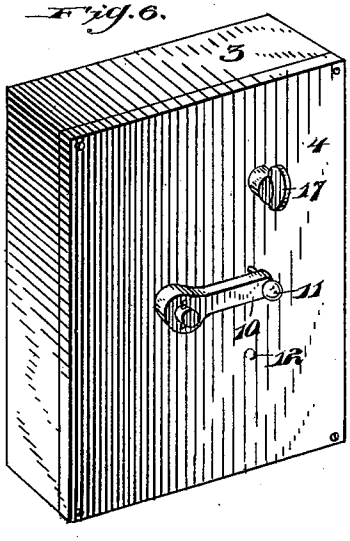


Fig. 6.

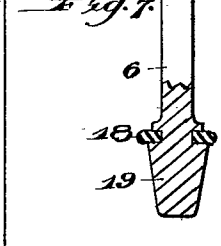


Fig. 7.

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SPRINGER WILSON, OF CONNELLSVILLE, PENNSYLVANIA.

DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 630,762, dated August 8, 1899.

Application filed May 4, 1899. Serial No. 715,609. (No model.)

To all whom it may concern:

Be it known that I, SPRINGER WILSON, a citizen of the United States of America, residing at Connellsville, in the county of Fayette and State of Pennsylvania, have invented certain new and useful Improvements in Door-Checks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in door-checks.

The invention has for its object to construct a device so arranged as to be operated in a vertical movement to throw the locking-rod into engagement with the floor for holding the door at any desired position.

Briefly described, my invention consists in constructing the stile of a door with a recess and a vertical channel extending from the recess to the lower end of the door. Within this recess is arranged a casing, in which is mounted a ratchet-wheel adapted to engage and operate a vertical rod arranged in the vertical channel. A locking-pawl is arranged within the casing for engagement with the wheel to hold the same in the desired position, while suitable means is provided for operating the wheel to elevate or lower the rod. I also secure upon this rod, near its lower end, a suitable gasket, which acts as a guide for the rod during its movement.

While the principal object of my invention is to provide a door-check, I also aim to construct a device that may be employed for locking the door when the latter is closed, and the novel features of construction whereby this is obtained as well as the door held at any desired position when opened will be hereinafter more specifically described and then particularly pointed out in the appended claim.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, wherein like numerals of reference indicate corresponding parts throughout the several views thereof, and in which—

Figure 1 is a partial side and partial sectional view of a door, showing my improved device in position and being used as a lock for the door. Fig. 2 is a side view of a portion of the door, showing the casing for the operating mechanism arranged therein and partly broken away. Fig. 3 is a transverse vertical sectional view taken on the line $x\,x$, Fig. 2. Fig. 4 is a horizontal sectional view taken on the line $y\,y$, Fig. 2. Fig. 5 is a horizontal sectional view of a part of the door and the casing arranged therein. Fig. 6 is a perspective view of the casing inclosing the operating-ratchet. Fig. 7 is a side elevation of a part of the locking-rod with the lower end thereof in section. Fig. 8 is a horizontal sectional view of a portion of the door, showing the locking-rod as used for a door-check.

Referring now to the drawings by reference-numerals, 1 indicates the locking-stile of the door, which is provided in the lower part thereof with a vertically-extending channel 2, terminating at the lower end at the end of the locking-stile and at its upper end in an oblong recess provided therefor in the locking-stile at a point preferably a short distance below the lock and knob of the door. This oblong recess is adapted to receive the correspondingly-shaped casing 3, the outer face or cover 4 of which is removable and is adapted to be perfectly flush with the face of the locking-stile.

The lower end of the casing 3 is provided at a point near its outer corner with an opening 5, which registers with the vertical channel 2 in the locking-stile of the door and together with said channel is adapted to receive the locking rod or check 6, provided on its upper end with a series of teeth 7, which are adapted to be engaged by the ratchet 8. This ratchet 8 is rigidly mounted upon a shaft 9, the latter being journaled in the rear and front plates of the casing and having mounted on the end extending through the plate 4 an operating-crank 10, having a suitable handle 11, the inner end of which projects beyond the face of the crank, so as to be in frictional contact with the plate 4 when the crank is operated. In order to seat this crank, thereby holding the locking check or rod suspended, I provide a seat or recess 12 in the plate 4, into which the contacting end of the handle will engage when the rod 6 is elevated, thereby holding the same suspended.

Arranged on the inner face of the rear plate of the casing 3 is a projecting stud or pin 14, which protrudes through the front plate 4

and is adapted to receive a rotatable sleeve 15, carrying a pawl 16, adapted to engage the ratchet-wheel 8. This sleeve 15 is exteriorly screw-threaded on its projecting end to receive the operating-knob 17, by means of which the sleeve is rotated and the pawl lifted out of engagement with the ratchet-wheel 8.

The rod 6, as stated, is adapted to accomplish two purposes—namely, to hold the door at any desired position when opened and to lock the same when closed. In order to accomplish this, I provide the said rod near its lower end with a rubber or other suitable gasket 18, countersunk thereon, and which is adapted to be about the same diameter as the vertical channel 2 in order to act as a guide for movement of the rod 6 within said channel. When the rod is used as a lock for the door, a recess 19 is provided therefor in the door-sill 20, and the gasket 18 in this instance acts as a buffer to limit the downward movement of the rod. When, however, the rod is used as a check to hold the door at any desired position when opened, the lower end of the rod will be in engagement with the floor 21, as shown in Fig. 8 of the drawings.

To operate the device, the knob 17 is turned so as to lift the pawl 16 out of engagement with the ratchet 8, and the crank 10 is then moved by means of its handle 11, so as to revolve the ratchet-wheel through its engagement with the teeth 7 of the rod 6, to operate this rod either upwardly or downwardly, according to the movement imparted to the ratchet-wheel, as will be readily apparent.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a door check and lock, the combination with the locking-stile having a recess and a vertical channel registering therewith, of a casing arranged in said recess and a rod arranged within the channel, a ratchet-wheel arranged within said casing, means connected to said wheel for operating the same, a locking-pawl for holding said wheel in any desired position, means for operating said pawl, said vertical rod having a gasket arranged thereon near its lower end which engages the walls of the channel during the movement of the rod and acts as a guide therefor, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

SPRINGER WILSON.

Witnesses:
JOHN NOLAND,
H. H. PATTERSON.