March 2, 1926. 1,575,429

J. F. LAWRENCE

CHAIN DOOR FASTENER

Original Filed Nov. 16, 1922

Fig. 1

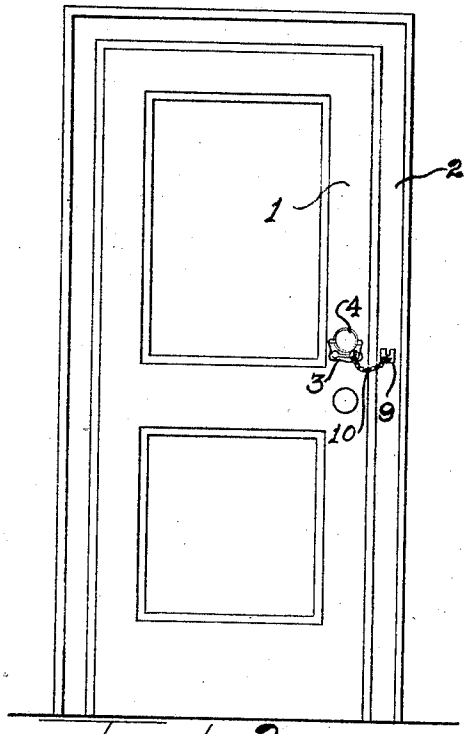


Fig. 5

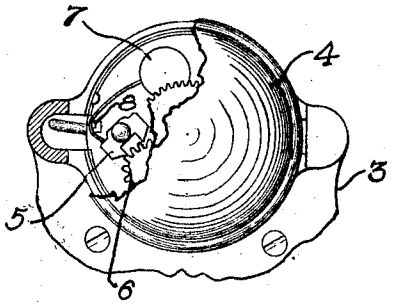


Fig. 4

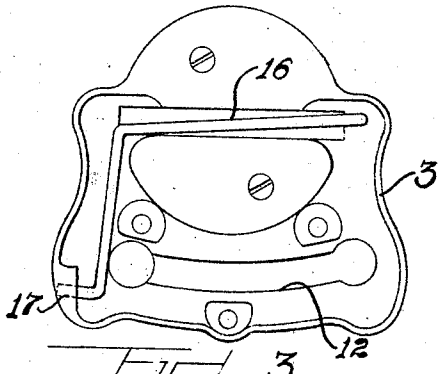


Fig. 2

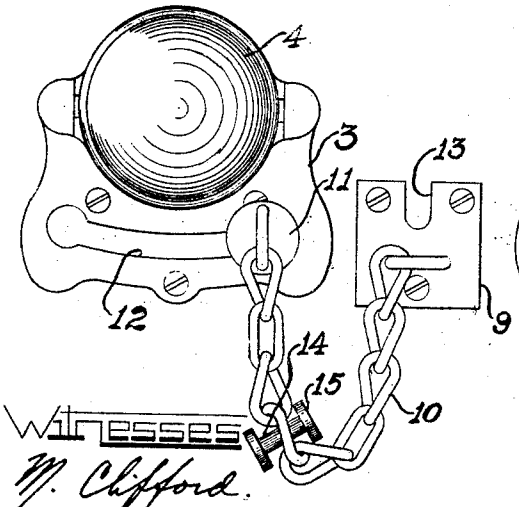
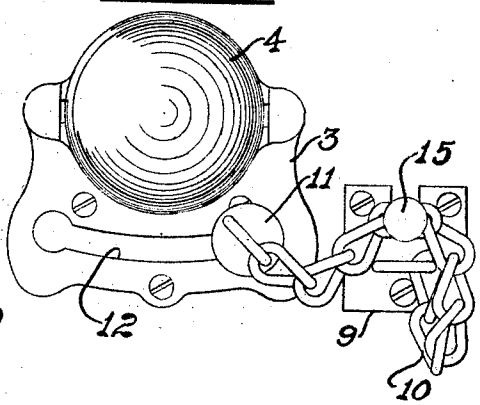


Fig. 3



Witnesses

M. Clifford.

Carlson & Hill

Inventor

Jay F. Lawrence

By Charles W. Hills Atty

Patented Mar. 2, 1926. 1,575,429

UNITED STATES PATENT OFFICE.

JAY F. LAWRENCE, OF CHICAGO, ILLINOIS.

CHAIN DOOR FASTENER.

Application filed November 16, 1922, Serial No. 601,235. Renewed January 20, 1926.

To all whom it may concern:

Be it known that I, JAY F. LAWRENCE, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Chain Door Fasteners, and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the numerals of reference marked thereon, which form a part of this specification.

This invention relates to a combined closure fastener and alarm whereby any extraordinary strain on the fastener sets off a suitable alarm. The present invention relates to a simplified and improved form of alarm lock of this type.

It is an object of this invention to eliminate a number of parts previously required to operate an alarm and in this way to simplify and render more certain the operation of an alarm lock.

It is a further object of this invention to permit the use of a chain door fastener as a night latch, holding the door entirely closed and to allow a shift to the usual partly open position of a chain latch without danger of releasing the door entirely while making the shift so that if a house-breaker should ring the doorbell he could not force the door while the housekeeper was shifting the latch to permit partially opening the door to interrogate the caller.

It is a further object of this invention to provide a flexible closure fastener for doors and the like adapted to be arranged to allow partial opening of the door for ventilation or other purposes and to be set up closely when it is desired to prevent the door being opened sufficiently to permit the insertion of a tool capable of severing the flexible fastener.

It is also an important object of this invention to provide a lock or fastener of the class described which is adapted to be locked in a plurality of positions and which at the same time is sufficiently narrow to permit attachment thereof to an ordinary door frame.

Other and further important objects of this invention will be apparent from the disclosures in the specification and the accompanying drawings.

The invention (in a preferred form) is illustrated in the drawings and hereinafter more fully described.

On the drawings:

Figure 1 shows an elevation of a door with the device of this invention installed thereon.

Figure 2 is an enlarged elevation of the device of this invention in position with the fastening member arranged with the maximum slackness possible.

Figure 3 is a view similar to Figure 2, with the slackness for the fastening member taken up.

Figure 4 is a slightly enlarged rear elevation of the alarm actuating mechanism.

Figure 5 is a fragmentary view of the mechanism of a spring actuated alarm showing how the actuating mechanism is connected thereto.

As shown on the drawings:

The numeral 1 in Figure 1 refers to a door hinged in a door jamb 2. My device comprises a suitably formed plate 3 mounted adjacent the free edge of the door and having a spring actuated bell 4 mounted thereon. One common form of bell actuating mechanism comprises a watch spring (not shown) which is wound up by turning the bell itself and drives an escapement 5 through a train of gearing 6. A striker 7 is connected to the escapement and rapidly vibrated thereby, striking the inner surface of the bell. A dog or detent 8 normally engages the striker to prevent movement thereof, and when displaced inwardly releases the striker which operates until either the spring runs down or the detent is returned to its normal position.

A second plate 9 is adapted to be mounted on the door jamb adjacent the first mentioned plate and has one end of a chain 10 attached thereto. The other end of the chain carries a member 11 adapted to engage in a curved slot 12 in the plate 3. When not in use this member 11 rests in a keeper or slot 13 in the plate 9.

A spool 14 is inserted in an intermediate link of the chain 10 and has shoulders 15 sufficiently large to prevent slipping through the link after being once secured therein.

Either spool shoulder 15 can be inserted in the slot 13 of the plate 9 to take up practically all the slack in the chain 10 after the member 11 has been inserted in the slot 12 of the plate 3.

As shown in Figures 4 and 5, the connec-

tion controlling the alarm bell comprises a wire 16 bent to pass over the inner end of the slot 12 and loosely journalled in a hole 17 in the plate adjacent thereto. The wire 16 is bent as required by the layout of the plate so that it leads to the bell detent 8 so that a pull on the chain will displace the wire to the left in Figure 4, thus releasing the detent.

The operation of this alarm is very simple and correspondingly trouble-proof, as it is used exactly like an ordinary chain latch with the additional features of a chain takeup and automatic alarm actuated by any unusual strain on the chain fastener.

I am aware that numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted otherwise than necessitated by the prior art.

I claim as my invention:

A chain door fastener, comprising a slotted plate adapted to be secured to a door jamb, a chain secured thereto at one end, a plate adapted to be secured to a door, means on the end of the chain adapted detachably to engage said door plate, and a spool secured to an intermediate point of the chain and adapted to engage the slot in said door jamb plate to shorten the span of said chain when desired, said door jamb plate slot adapted also to receive the other end of the chain when detached from the door plate.

In testimony whereof I have hereunto subscribed my name.

JAY F. LAWRENCE.