

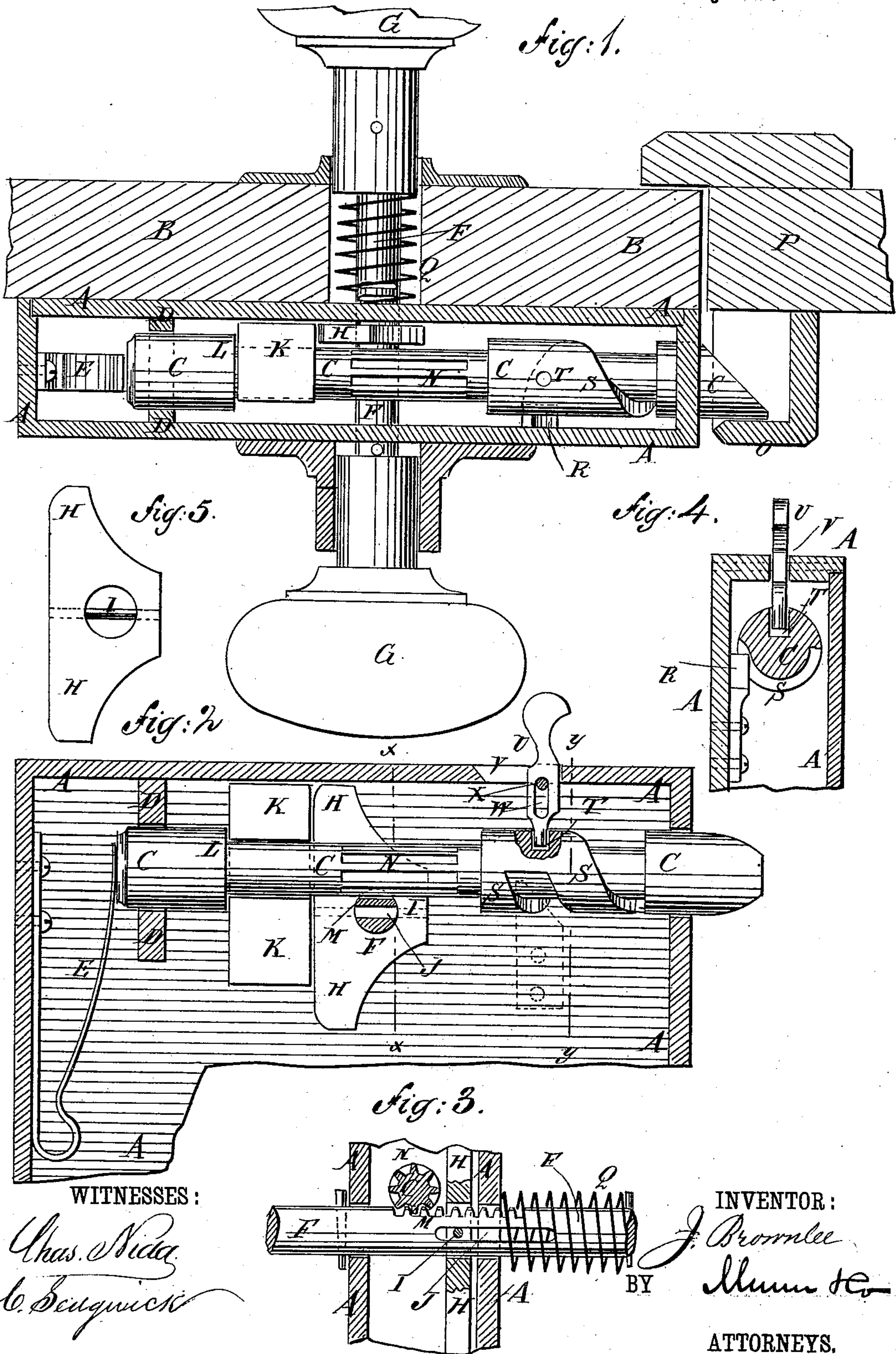
(Model.)

J. BROWNLEE.

LATCH.

No. 260,934.

Patented July 11, 1882.





# UNITED STATES PATENT OFFICE.

JOHN BROWNLEE, OF EVANSVILLE, INDIANA.

## LATCH.

SPECIFICATION forming part of Letters Patent No. 260,934, dated July 11, 1882.

Application filed October 27, 1881. (Model.)

*To all whom it may concern:*

Be it known that I, JOHN BROWNLEE, of Evansville, in the county of Vanderburg and State of Indiana, have invented certain useful Improvements in Door-Latches; of which the following is a full, clear, and exact description.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improvement, showing the latch-case, catch, door, and casing in section. Fig. 2 is a side elevation of the improvement, the latch-case and knob-spindle being shown in section. Fig. 3 is a sectional elevation of a part of the same, taken through the line *x x*, Fig. 2. Fig. 4 is a sectional elevation of a part of the same, taken through the line *y y*, Fig. 2. Fig. 5 is a plan view of the cam.

The invention consists in combining, constructing, and arranging parts connected with a door-latch, as hereinafter described.

A represents the case of the latch, which is secured to a door, B, in the ordinary manner.

C is the latch, which slides and rotates in apertures in the forward end of the case A and in a partition, D, secured in the said case near its rear end. The latch C is held forward by a spring, E, which rests against the rear end of the said latch, and is attached to the rear end of the said case, as shown in Figs. 1 and 2.

F is the knob-spindle, which passes through apertures in the side plates of the case A, and has knobs G attached to its ends in the ordinary manner. The knob-spindle F also passes through the cam H, and is connected with it by a pin, I, which passes through the said cam and through a slot, J, in the said spindle, so that the cam H will be operated by turning the spindle F.

Upon the rear part of the latch C is loosely placed a block, K, which rests against a shoulder or collar, L, formed upon or attached to the said latch in such a position that when the latch C is at the end of its forward movement the block K will rest against the cam H, so

that the latch C will be forced back to release the door as the block K is forced back by the cam H when the knob-spindle F is turned.

Upon the side of the knob-spindle F are formed teeth M, which mesh into the long teeth N, formed upon or attached to the latch C, so that the said latch will be turned by the longitudinal movement of the said spindle. The spindle F is so arranged that when at the end of its outward movement the latch C will be in its normal position, as shown in Fig. 2, ready to fasten the door automatically when the door is swung shut. When the spindle F is forced inward by pushing the outer knob or pulling the inner knob, the latch C will be turned, bringing the inclined side of its forward end against the edge of the catch O, attached to the door casing P, so that if the said pushing or pulling is continued the latch C will be forced back and the door unfastened. When the knob is released the spindle F is forced out to its former position by a spring, Q, which may be a spiral spring, placed upon the said spindle within the aperture in the door through which the said spindle passes, with its inner end resting against the latch-casing A and its outer end resting against the inner end of the shank of the outer knob, G, as shown in Fig. 1; or the spring Q may be straight, V-shaped, or of other suitable shape, and may be placed within and attached to the latch-case A, with its free end resting against a shoulder or collar formed or placed upon the knob-spindle F.

If desired, the latch C can be forced inward, when revolved by the inward movement of the knob-spindle F, by a pin, cleat, or other stop, R, which rests against a spiral shoulder, S, formed upon or attached to the said latch C, to force the said latch C inward as it is revolved by the inward movement of the knob-spindle F. The forward edge of the catch O is beveled upon both its outer and inner sides to lessen the friction between it and the beveled end of the latch C.

In the upper side of the latch C is formed a hole, T, to receive the lower end of a bolt, U, to lock the catch C in place. The bolt U passes up through a short slot, V, in the top

of the case A, and has a slot, W, formed in it longitudinally to receive the pin X, that secures it to the said case A and limits its movements. The upper end of the bolt U is made  
5 heavy, so that when the said bolt U is withdrawn from the hole T and turned down a little the weight of the said upper end will hold the lower end of the said bolt away from the latch C and allow the said latch C to work freely.  
10 Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A knob-spindle made longitudinally movable and provided with the teeth M, in com-

bination with a latch, C, having the teeth N, 15 and adapted to be retracted as it is turned by means substantially as described, whereby the latch may be unfastened by simply pulling or pushing the knob-spindle.

2. The combination, with a fixed stop, R, of 20 a latch, C, adapted to be turned, and having a spiral shoulder, S, to work against the pin, as and for the purpose specified.

JOHN BROWNLEE.

Witnesses:

E. E. JENKINS,  
C. S. FENDRICH.