(Model.)

J. C. TAYLOR.

LOCK.

No. 332,966. Patented Dec. 22, 1885.

Fig. 1.

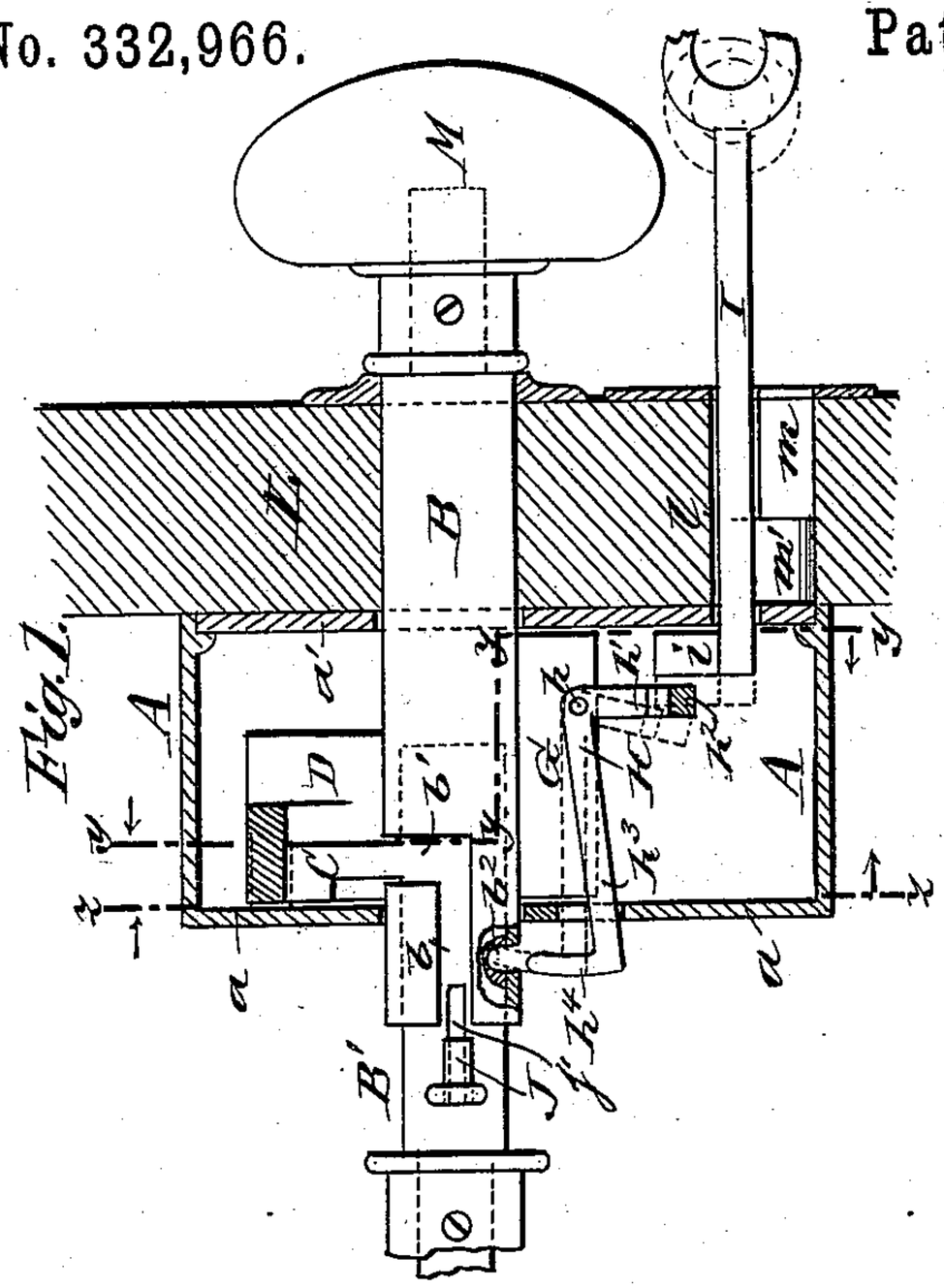


Fig. 3.

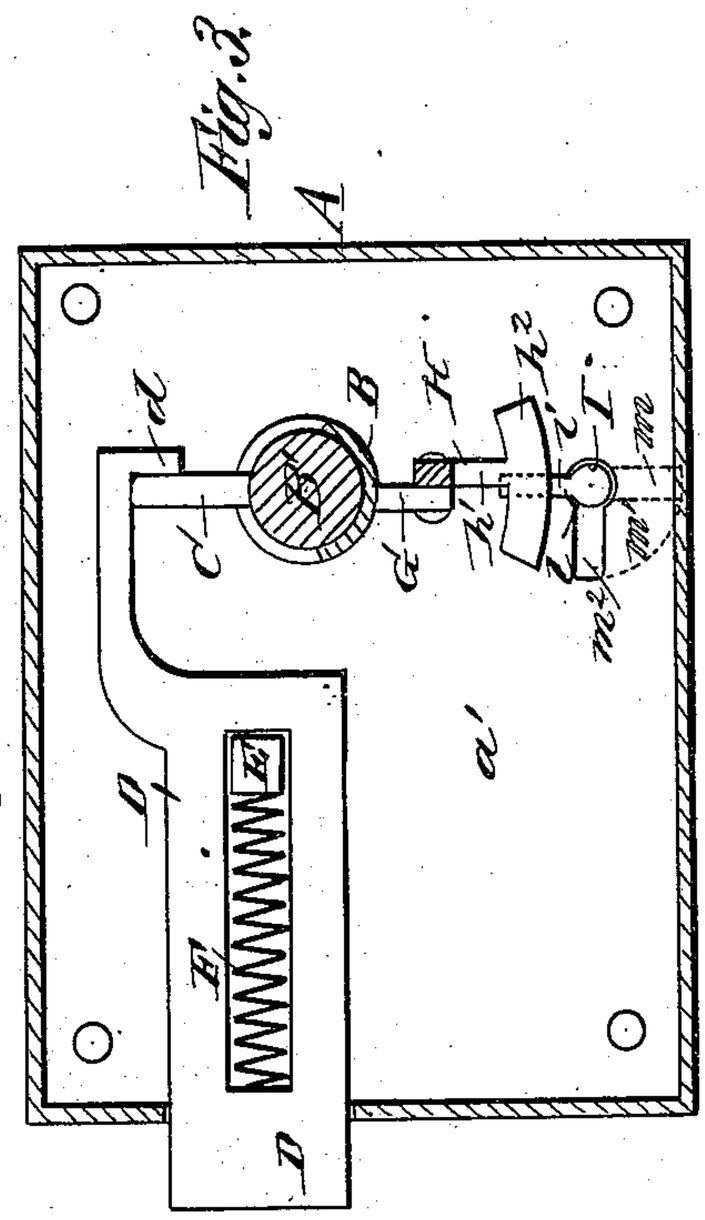


Fig. 2.

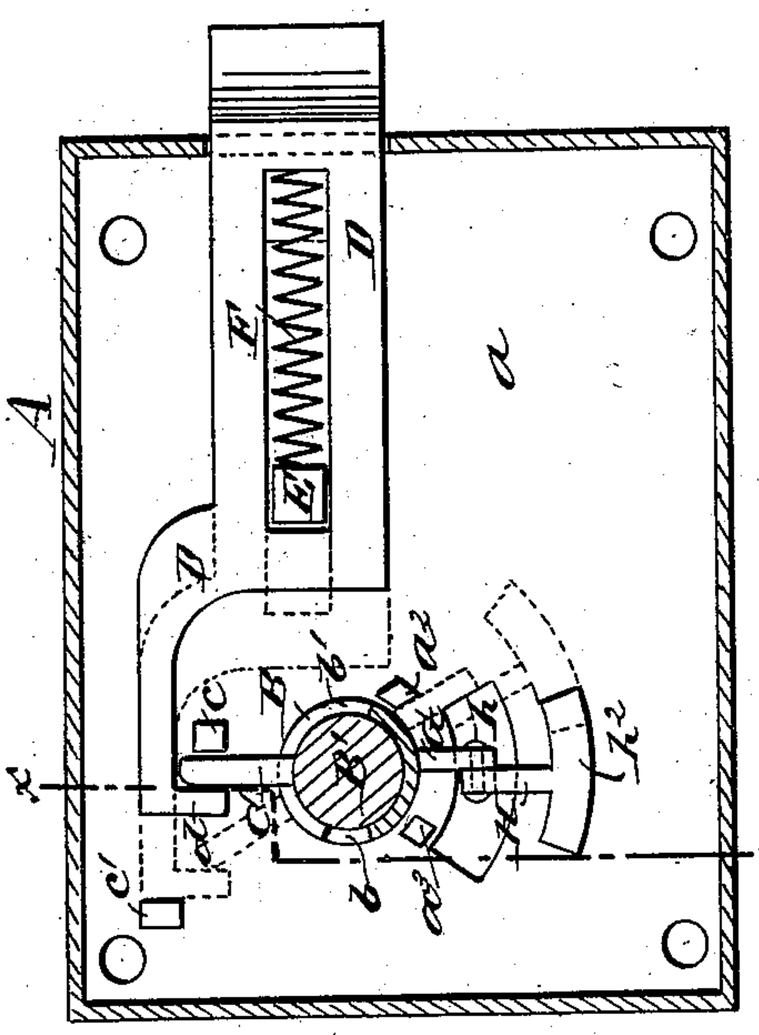
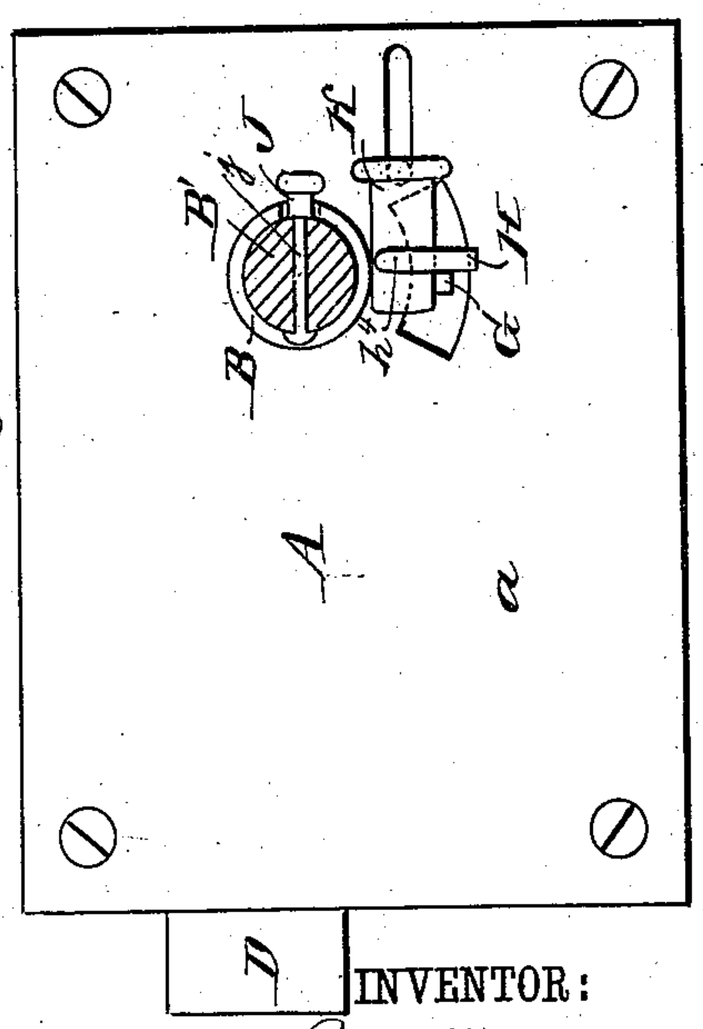


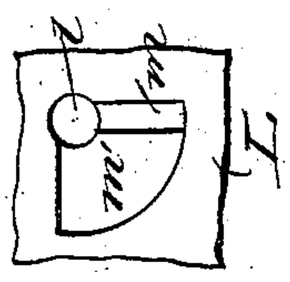
Fig. 4.



WITNESSES:

C. Sedgwick

Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN CROCKER TAYLOR, OF NILES, MICHIGAN.

LOCK.

SPECIFICATION forming part of Letters Patent No. 332,966, dated December 22, 1885.

Application filed January 19, 1885. Serial No. 153 237. (Model.)

To all whom it may concern:

Be it known that I, JOHN CROCKER TAYLOR, of Niles, in the county of Berrien and State of Michigan, have invented a new and Improved Lock, of which the following is a full, clear, and exact description.

The object of my invention is to provide an improved lock of simple, inexpensive, and durable construction, and one which may be adjusted as a latch to allow the door to be opened from both sides without using the key, and to unlock the door from the outside by using the key, and to prevent unlocking of the door by the key.

The invention consists in particular constructions and combinations of parts of the lock, all as hereinafter fully described and claimed.

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 vertical sectional elevation of my improved lock, taken on the irregular line *x x*, Fig. 2, with a part of the door to which the lock is applied shown in section and with the key adjusted to open the lock from the outside. Fig. 2 is a longitudinal sectional elevation of the lock, taken on the irregular line *y y y y*, Fig. 1. Fig. 3 is a sectional elevation taken on the line *z z*, Fig. 1. Fig. 4 is a front view of the lock with the spindle in section, and Fig. 5 is an inside view of the door at the key-hole.

The letter A indicates the lock-case, made with an outer plate, *a*, with connected side flanges, and a removable inner plate, *a'*.

The lock-spindle is made in two parts or sections—an outer hollow part, B, and an inner part, B', which is fitted loosely into the end of the part B, as in Fig. 1. The spindle-part B' has fixed to it an arm, C, which is passed through a lengthwise open slot, *b*, at the end of part B, and works through a transverse slot, *b'*, thereof in drawing the bolt D, which has a lip or stud, *d*, against which the arm C acts. The bolt D is fitted to slide in the outer end wall of the lock-case, and is slotted longitudinally, so as to work over or along a guide and stop-stud, E, cast on plate *a* of the case, between which stud and the outer end wall of the bolt-slot a spring, F, is placed, so as to project the bolt. (See Figs. 2 and 3.) A stop, *c*, on plate *a* limits the forward movement of arm C, and a stop, *c'*, limits the inward movement of the bolt.

On the spindle part B is formed or fixed a longitudinally-ranging lug, G, which fits loosely between the lock-plates *a a'*, so as to prevent endwise movement of said part B, and to the lug G is pivoted at *h* the lever H, which has a pendent arm, *h'*, provided, it may be, with a transverse foot-piece, h^2, which lies in the path of the bit *i* of the key I. The lever H has also an outwardly-projecting arm, h^3, which passes through a slot in plate *a*, and is bent upward to form a bit, h^4, which is adapted to pass through an opening of spindle B into a notch, b^2, of the part B' of the spindle, to lock the two parts of the spindle together, so they turn as one piece.

J is a catch, which has a stem, *j*, fitted to slide in a slot, *j'*, made through the part B' of the spindle, said slot *j'* extending each way from the end of the part B of the spindle, so that when the catch is slid to the outer part of the slot it will be clear of the end of spindle part B and allow the parts B B' to turn independently of each other; but when the catch J is slid to the other end of the slot *j'*, and is at the same time entered into the slot *b* of spindle part B, both parts of the spindle will be locked together, so that they will turn as one piece.

K is a sliding catch or plate, which is fitted to the lock-plate *a*, and may be passed in between the arm h^3 and the spindle to prevent the entrance of the lever-bit h^4 into the notch b^2 of the spindle. Stops a^2 a^3, cast on plate *a*, limit the turning of the part B of the spindle by contact therewith of the lug G. (See Fig. 2.)

As seen best in Figs. 1 and 5, I cut the key-hole through the door L, so as to form a straight hole, as at *l*, for the key-shank to pass through, and from the outer face of the door I make the slot *m* for the passage of the key-bit *i*, to range vertically for some distance, and then I cut away the door next the inner lock-plate, *a'*, as at *m'*, Fig. 5, and in dotted lines in Fig. 3, so that the key-bit may be turned one-quarter around next said plate *a'*, to enter the horizontally-ranging opening m^2 in plate *a'*, and the key-bit must then be turned upward to

come against the arm h' of lever H, in order to swing the lever on its pivot h to enter its end bit, h^4, into the notch b^2 of spindle-section B′ by pushing in the key. It is evident that, as the lever H stands out of line with or above the straight hole l for the key, the lever cannot be operated by passing an instrument directly through said hole, and, as the key-bit and lock-plate passages m m' m^2 are circuitous, the lock cannot easily be picked or unlocked by unauthorized persons.

If desired, the circuitous key bit passage m m' may be formed directly in a metallic hub or projection cast with the inner lock-plate, a', and so as to be fitted to a hole in the door when the lock is applied to it, and the key-bits and the holes m', through which they pass, may have a variety of forms, so that each bolt will require its own key to open it.

The general operation of the lock is as follows: When the parts B B′ of the lock-spindle are disconnected, as in Fig. 1, the part B may be turned either way until stopped by the lugs a^2 a^3 without drawing the bolt; but when the lever H is pushed inward by the key I the lever-bit h^4 will lock the two parts B B′ of the spindle together, so that the bolt D may be withdrawn from the door-casing by turning the outer knob, M, of spindle part B. When it is desired to open the door from both sides of it and without using the key, it only is necessary to slide the catch or bolt J into the notch b, which locks the two parts of the spindle together and allows the bolt D to be withdrawn by turning the knob of either part of the spindle. To adjust the lock to prevent the interlocking of the two parts of the spindle by using the key, it only is necessary to slide the catch-plate K between the spindle and the arm h^3 of lever H, which prevents lifting of the lever by the key, which then will not operate to allow the door to be opened from the outside. When the key is withdrawn from the lever H, the bit h^4 of the lever will drop from the notch b^2 of the spindle by gravity.

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

1. A lock comprising a case, a spindle made in two parts, B B′, said part B′ having an arm, C, engaging part B and bolt D, and a bent lever, H, hung to part B, and adapted to be swung by the key-bit into a notch, b^2, of part B′ to connect the two parts of the spindle, substantially as herein set forth.

2. A lock comprising a case, a spindle made in two parts, B B′, said part B′ having an arm, C, engaging part B and bolt D, and a bent lever, H, hung to a lug, G, on part B, which lug fits between the opposite lock-plates a a', and said lever being adapted to enter a notch, b^2, in part B′ of the spindle, substantially as herein set forth.

3. A lock comprising a case, a spindle made in two parts, B B′, said part B′ having an arm, C, engaging part B and bolt D, and a slide-catch, J, fitted to part B′ and adapted to be entered into a slot, b, of part B, substantially as herein set forth.

4. A lock comprising a case, a spindle made in two parts, B B′, said part B′ having an arm, C, engaging part B and bolt D, a bent lever, H, hung to part B, and adapted to be swung by the key-bit into a notch, b^2, of part B′, and a catch-plate, K, fitted to slide between the lever and spindle, substantially as herein set forth.

5. A lock comprising a case, a spindle made in two parts, B B′, said part B′ having an arm, C, engaging part B and bolt D, a bent lever, H, hung to part B, and adapted to enter a notch, b^2, of part B′, and the slide-catches J K, all connected for operation substantially as herein set forth.

6. In a lock, the combination, with the case A and the two-part spindle B B′, the part B′ having notch b^2, arm C, bolt D, and the lever H, hung to part B, substantially as specified, of a circuitous key-bit passage, m m', made in the door or in a projection from the inner lock-plate, substantially as herein set forth.

7. In a lock, the combination, with the case A and the two-part spindle B B′, the part B′ having a notch, b^2, arm C, bolt D, and the lever H, hung to part B and set out of line with the key-hole, substantially as specified, of a circuitous key-bit passage, m m', made in the door or in a projection from the inner lock-plate, substantially as herein set forth.

JOHN CROCKER TAYLOR.

Witnesses:
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ISAAC TAYLOR.