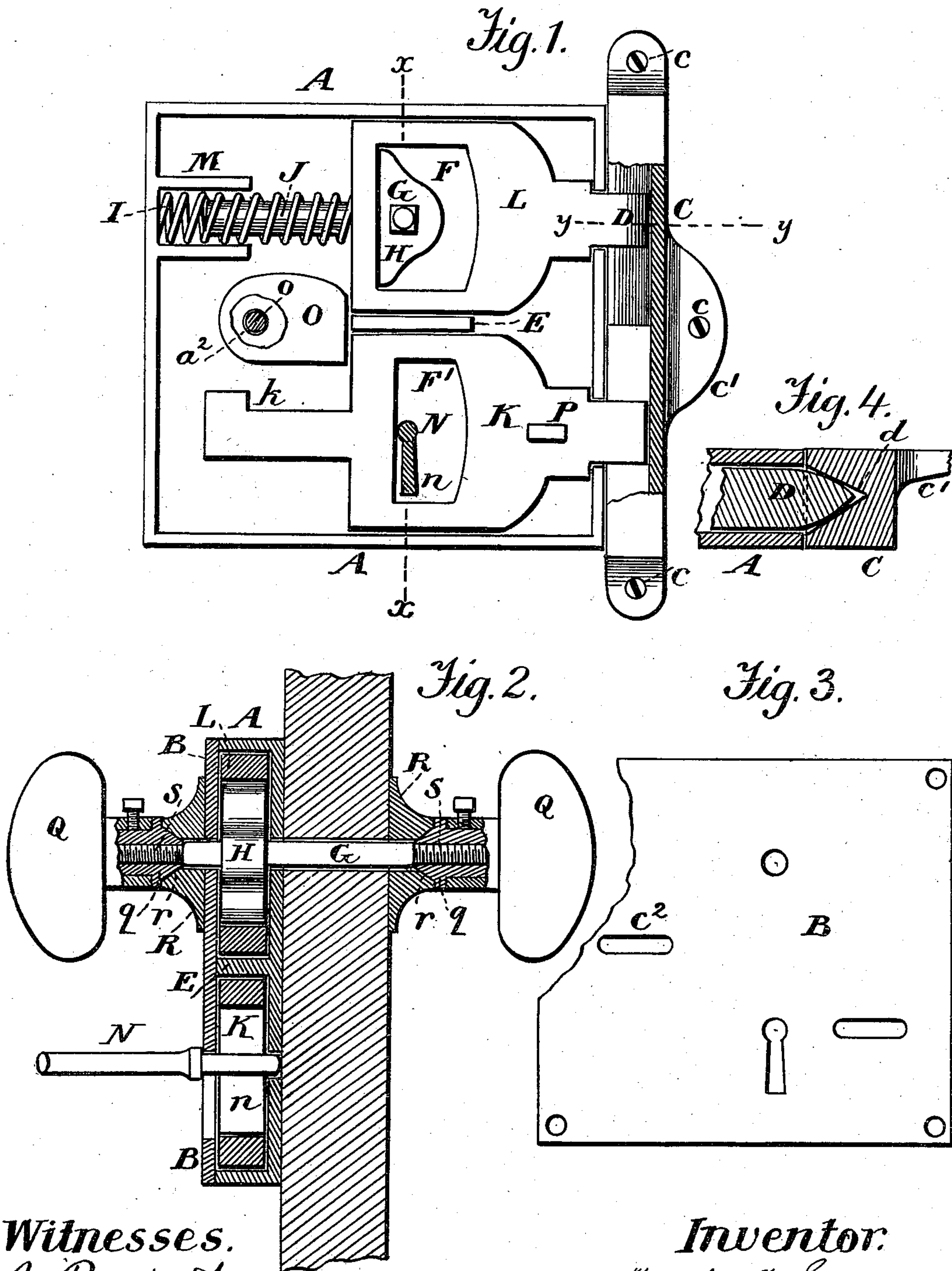


(No Model.)

F. F. SWANSON.
LOCK AND LATCH COMBINED.

No. 504,482.

Patented Sept. 5, 1893.



Witnesses.
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H. A. Daniels

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Per

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UNITED STATES PATENT OFFICE.

FRANK F. SWANSON, OF GALLIPOLIS, OHIO.

LOCK AND LATCH COMBINED.

SPECIFICATION forming part of Letters Patent No. 504,482, dated September 5, 1893.

Application filed June 21, 1892. Serial No. 437,487. (No model)

To all whom it may concern:

Be it known that I, FRANK F. SWANSON, a citizen of the United States, residing at Gallipolis, in the county of Gallia and State of Ohio, have invented certain new and useful Improvements in Locks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The special object of the invention is to make a lock on whose spindle the knobs will not rattle from wind or any other cause; also to provide a device which will lock both the keybolt and knob-latch and lock or unlock the keybolt; also to make the inside so that it will not be liable to get out of order; also to provide a catch fastened at each end and at the middle by screws so that it cannot work loose.

Figure 1 is an elevation with the cover removed from the inside of the lockcase; Fig. 2 a vertical section on the dotted line xx of Fig. 1, and Fig. 3 a plan view of the cover. Fig. 4 is a detail view showing the corresponding bevels on the latch and keeper.

In the drawings, A represents the lockcase, B its cover and C the keeper, the latter being held by three screws $c c c$, one at each end and one in a middle flange c' which serves as a brace to prevent the catch from getting loose and tilting back. It also has a beveled cavity d in which the wedge-shaped knob-bolt D fits snugly. This and the brace c' make the catch-box as solid as a rock and not liable to work loose.

On the inside of case A, I arrange the key-bolt K and the knob-latch L which are movable on opposite sides of a small partition E and are provided respectively with the holes F F'. The knobspindle G passes through the hole F and has a fast double cam H

which is turned in either direction to shoot the latch back against a spiral spring I encircling the tailpiece J, the parts I J working between the guides M M. The bolt K is locked or unlocked ordinarily by the key N whose beard n turns in the hole F' for that purpose.

O is a cam turned by a key o pivoted at the end in a hole a^2 of the case and passing through the slot c^2 of the cover. This cam works in a rectangular notch k of the key-bolt and when at its greatest eccentricity bears against both the keybolt and knob-latch so that neither can be unlocked from the outside.

P is a thumbpiece by which the keybolt may be locked or unlocked from the inside.

Q represents the knobs, each of which carries a conical nut q which works on the threaded end of a spindle S and into a conical pocket r of the washer R. By this construction and combination of parts, the knobs cannot work loose or rattle from any cause whatever which is likely to occur.

Having thus described all that is necessary to a full understanding of my invention, what I claim as new, and desire to protect by Letters Patent, is—

In a lock, the keybolt K having the key-hole F' and a rear arm with the shoulder k , the knob-latch L having the hole F for the knobspindle cam, and the cam O; all combined and arranged as shown; whereby the cam O may prevent both keybolt and knob-latch from being unlocked from the outside as set forth.

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

FRANK F. SWANSON.

Witnesses:

W. P. BEALL,

ALFRED F. MOORE.