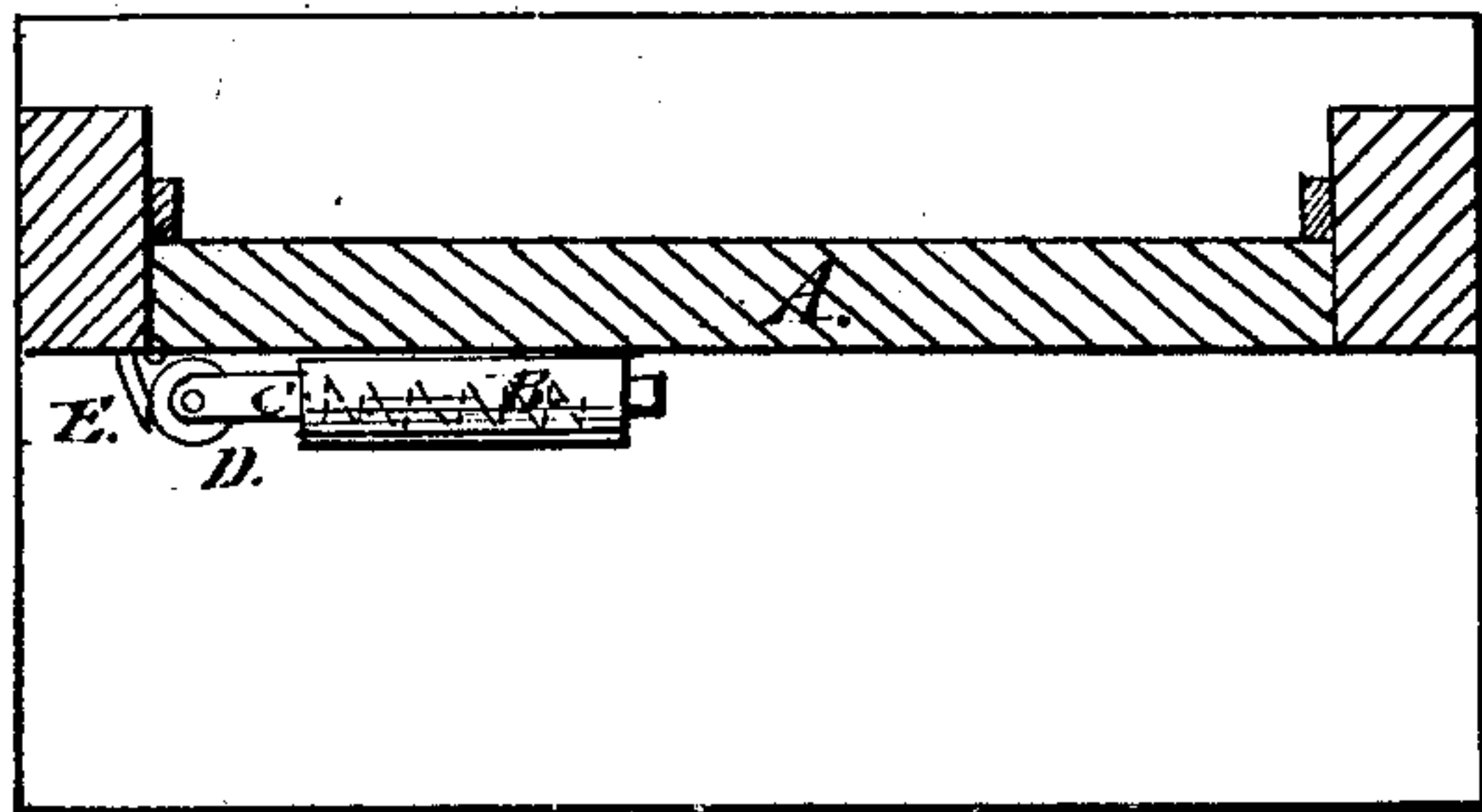
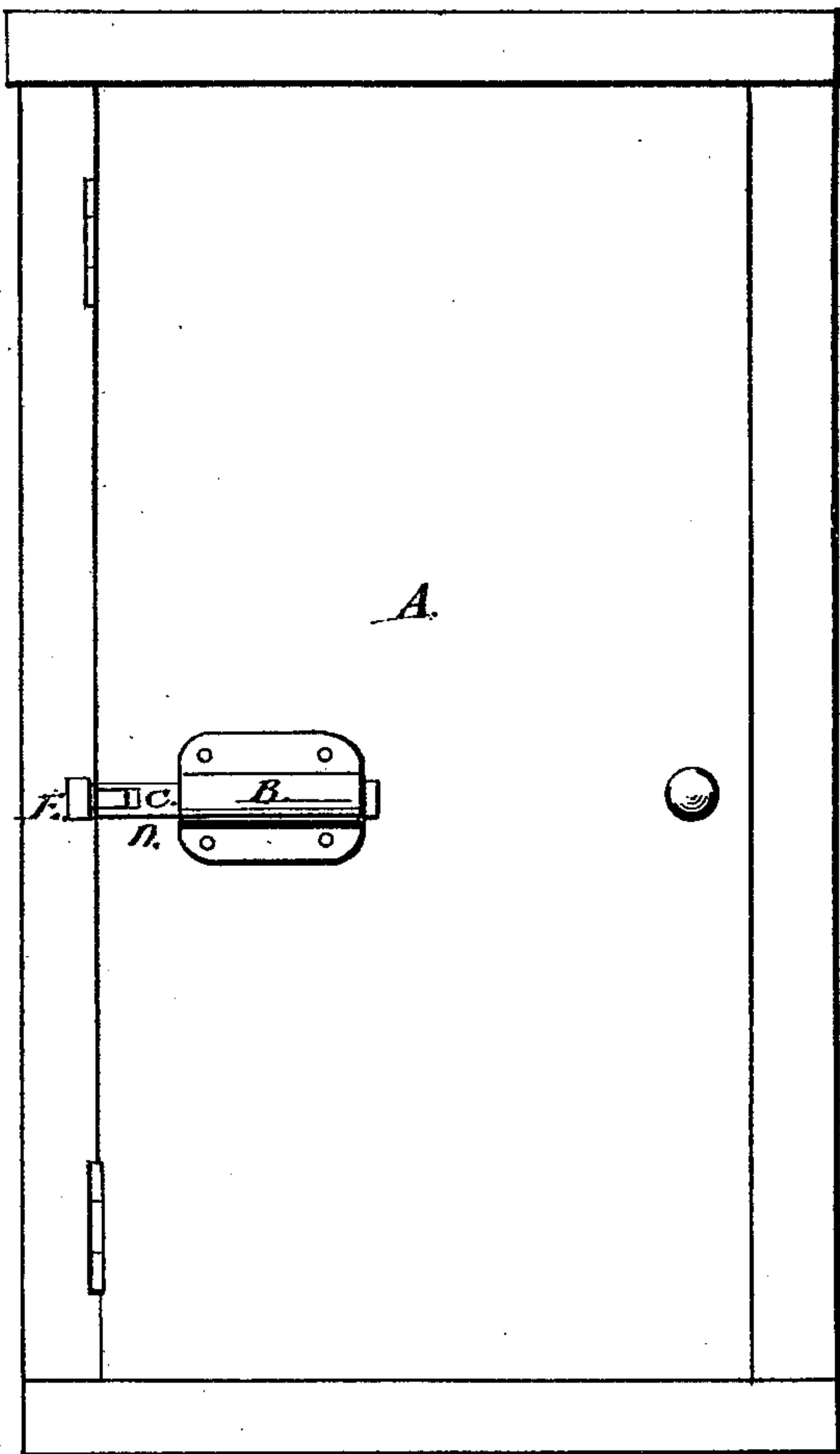


O. V. Flora,

Door Spring.

No. 91,222.

Patented June 15, 1869.



WITNESSES:

W. C. Puncback,
C. H. King.

INVENTOR:

O. V. Flora
per
A. M. Cornell & W. A. O.
attorneys.



O. V. FLORA, OF MADISON, INDIANA, ASSIGNOR TO A. BALDING
AND J. C. MOORE, OF SAME PLACE.

Letters Patent No. 91,222, dated June 15, 1869.

IMPROVED DOOR-SPRING.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, O. V. FLORA, of Madison, in the county of Jefferson, and State of Indiana, have invented an Improved Door-Spring; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification,

Figure 1 being an elevation of the door-spring, as attached to the door.

Figure 2 being a plan of the same, the door being in section.

The principal object of my invention is to so construct a spring that the door will remain open, and the spring be inoperative when the door is open half way; or, in other words, when it stands at an angle of ninety degrees with the opening. When the angle is less than this, the spring operates to close the door, in the usual manner; but if the angle is greater than ninety degrees, the tendency of the spring is to throw the door completely open.

The arrangement of the spring-case, B, containing a spiral spring and a spring-rod, C, does not differ materially from that usually employed.

But an important feature of my invention consists in providing the forked end of the rod C with a friction-roller, D, and attaching to the frame, or casing

of the door, a projecting piece, E, to operate as a fulcrum.

When the spring is properly attached to the door A, as shown in the figures, on opening the door the spring is compressed by the pressure of the roller D against the fulcrum E. The greatest pressure is exerted on the spring, and the door exhibits the strongest tendency to close, when the door has reached an angle somewhat less than ninety degrees with the opening.

The foregoing qualities of this spring enable it to be used in summer, when doors are required to remain open a considerable length of time, without removal or alteration.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The projecting fulcrum E and friction-wheel D, when arranged to operate in combination with the spring-case B, and forked rod C, to form a door-spring, substantially in the manner and for the purposes as set forth.

O. V. FLORA.

Witnesses:

HENRY CONNETT, Jr.,
W. C. STINEBACK.