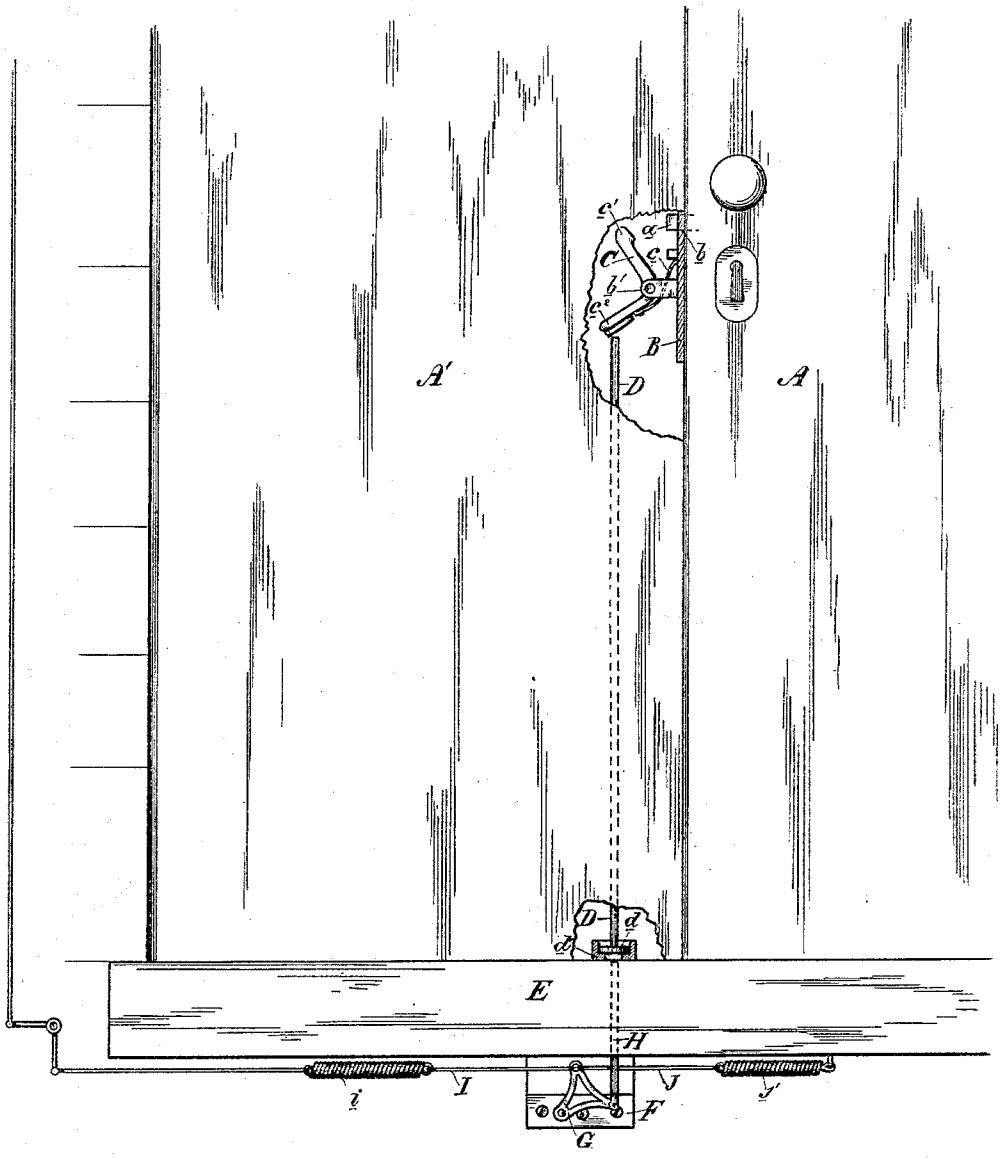
(No Model.)

J. FINCK.

DOOR OPENER.

No. 323,308. Patented July 28, 1885.



Witnesses,
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UNITED STATES PATENT OFFICE.

JULIUS FINCK, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO WILL & FINCK, OF SAME PLACE.

DOOR-OPENER.

SPECIFICATION forming part of Letters Patent No. 323,308, dated July 28, 1885.

Application filed April 13, 1885. (No model.)

To all whom it may concern:

Be it known that I, JULIUS FINCK, of the city and county of San Francisco, and State of California, have invented an Improvement in Door-Openers; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a new and useful device, the object of which is to enable one to open a door from a distance; and my invention consists of a bell-crank spring-lever pivoted to the back of the striking-plate, one end being adapted to act against and push back the latch, a vertically-moving rod, the upper end of which bears under and operates the bell-crank lever, its lower end extending to the sill and provided with a plunger-foot, a vertically-moving rod passing upwardly through the sill and bearing under the plunger-foot of the upper rod, a pivoted bell-crank lever, by which the lower rod is operated, and suitable drawing-wires attached to and adapted to operate said bell-crank lever, all of which I shall hereinafter fully explain.

Though my invention is applicable to a single door, its particular application is to a double door, in which connection I shall herein describe it.

Referring to the accompanying drawing, the figure is an elevation of a double door, showing the application of my invention.

A is one door of a double door, and A′ is the other. The former door carries the lock, the latch *a* of which is adapted to engage the socket *b* of the striking-plate B, secured on the adjacent edge of the door A′. Extending rearwardly from the back of plate B are lugs *b′*, in which is pivoted at its angle the bell-crank lever C, which is influenced by a spring, *c*. The upper arm of this lever is provided with a head, *c′*, and its lower arm with a bearing-plate, *c²*.

D is a rod passed upward in a suitable chamber or socket in the door A′. Its upper end bears under the plate *c²* of the bell-crank lever C. Its lower end is provided with a plunger-foot, *d*, fitted, guided, and confined in a tubular socket, *d′*, secured to the under edge or bottom of door A′, its lower portion being above the door-sill E.

Secured by a plate, F, at some point below the sill is a pivoted bell-crank lever, G, the lower arm of which has pivoted to it a vertical rod, H, extending upwardly through the sill, and adapted, when raised, to bear up directly under the plunger-foot *d* of rod D.

To the other arm of the bell-crank lever G is secured a wire, I, which leads off over suitable guide-pulleys to any desirable portion of the house. Another wire, J, with a spring, *j*, let into it, is also connected with the upper arm of the bell-crank lever, to return it to position after being operated. The wire I has a spring, *i*, let into it also, as shown.

The operation of the device is as follows: By pulling on wire I the rod H is raised, the upper end of which, bearing up under the plunger-foot *d*, raises rod D, which, bearing against the bell-crank lever C, causes said lever to push back the latch of the lock, and thus to free the door.

The applicability of this arrangement to double doors lies in the fact that there is a break in the power-transmitting rods right at the surface of the sill—namely, between the upper end of rod H and the lower end of rod D. Therefore both doors can be opened, when desired—a result which could not be accomplished if the rods D H were made as a single rod; but for single doors said rods could be so made, because, being located in the door-frame, and not in the door, a single rod would be possible; but having the two rods breaking connection at the level of the sill, this device may be applied to both double and single doors.

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

1. In a door-opening device, the bell-crank spring-lever C, pivoted to the back of the striking-plate, in combination with a vertically-moving rod adapted to bear against one arm of said lever to cause it to throw its other arm against and force back the latch, and means for operating said lever, substantially as herein described.

2. In a door-opening device, the bell-crank spring-lever C, pivoted to the back of the striking-plate, in combination with a vertically-moving rod adapted to bear against and operate the lever to force the latch, as described, a bell-crank lever connected with the bottom

of the rod, and suitable wires for operating said lever to raise the rod, substantially as herein described.

3. In a door-opening device, the bell-crank spring-lever C, pivoted to the back of the striking-plate, in combination with the vertically-adjustable rod D, adapted to bear against and operate the lever to force the latch, as described, the lower end of said rod terminating with or above the level of the door-sill, the vertically-adjustable rod H, passing through the sill and adapted, when raised, to bear up under the rod D, and to fall below the level of the sill when lowered, the wire I, and a suitable intermediate connection between said wire and the rod H, for operating said rod, substantially as and for the purpose herein described.

4. A door-opening device comprising the bell-crank spring-lever C, pivoted to the back of the striking-plate, its upper arm being adapted to bear against and force back the latch, the rod D, the upper end of which bears under the lower arm of lever C, said rod having a plunger-foot, *d*, on its lower end, confined and guided in a socket, *d'*, the rod H, passing through the sill and adapted to rise up under the plunger-foot of rod D, the pivoted bell-crank lever G, to one arm of which the rod H is connected, and the wires I J, with springs *i j*, by which the bell-crank lever G is operated, all arranged and adapted to operate substantially as herein described.

In witness whereof I have hereunto set my hand.

JULIUS FINCK.

Witnesses:
C. D. COLE,
J. H. BLOOD.