

(Model.)

T. LYONS.
SLIDING DOOR PULL.

No. 287,039.

Patented Oct. 23, 1883.

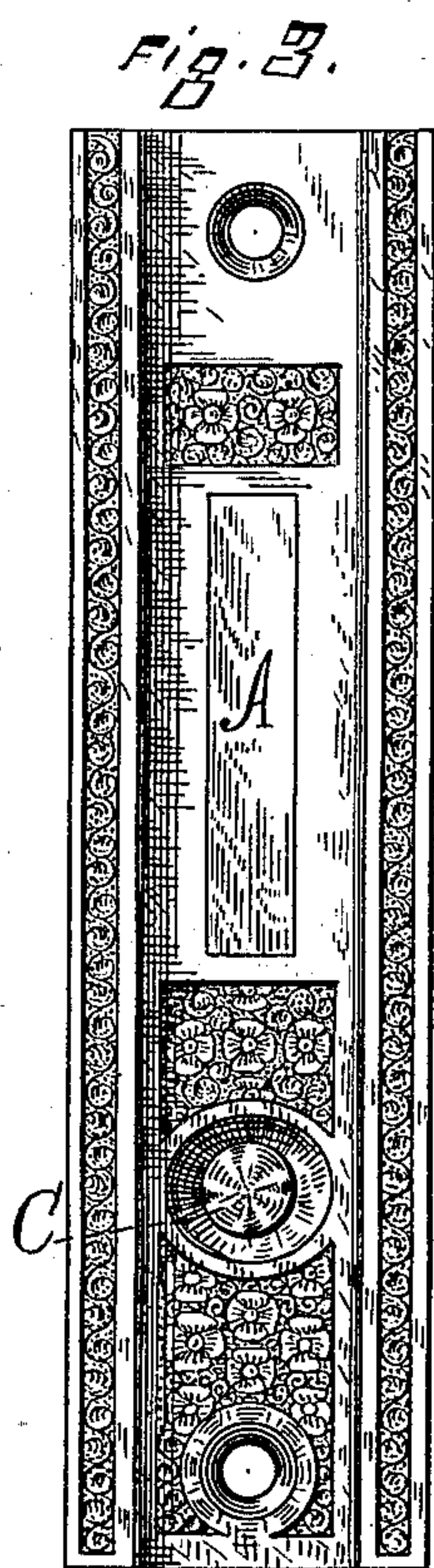


Fig. 1.

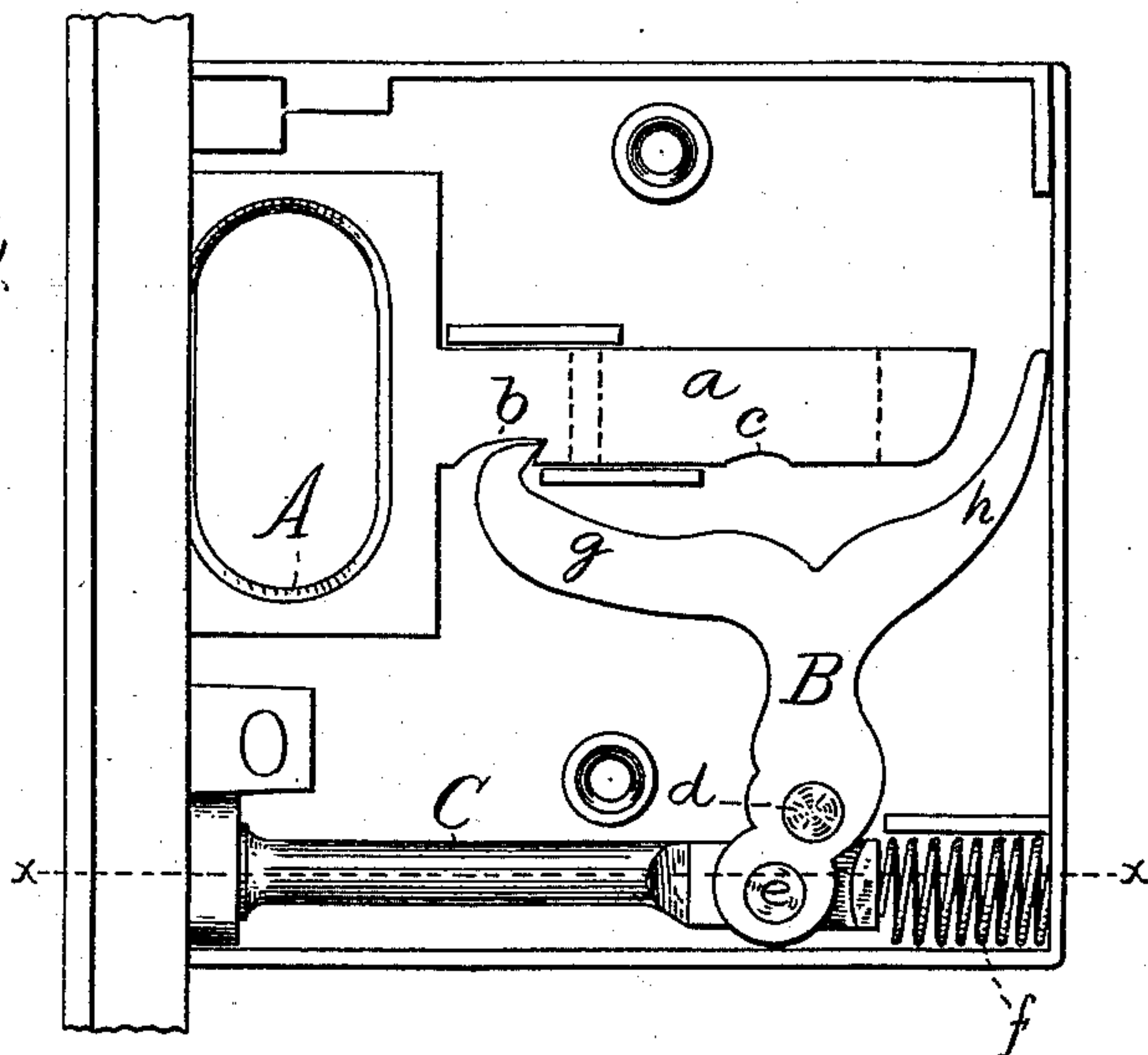


Fig. 2.

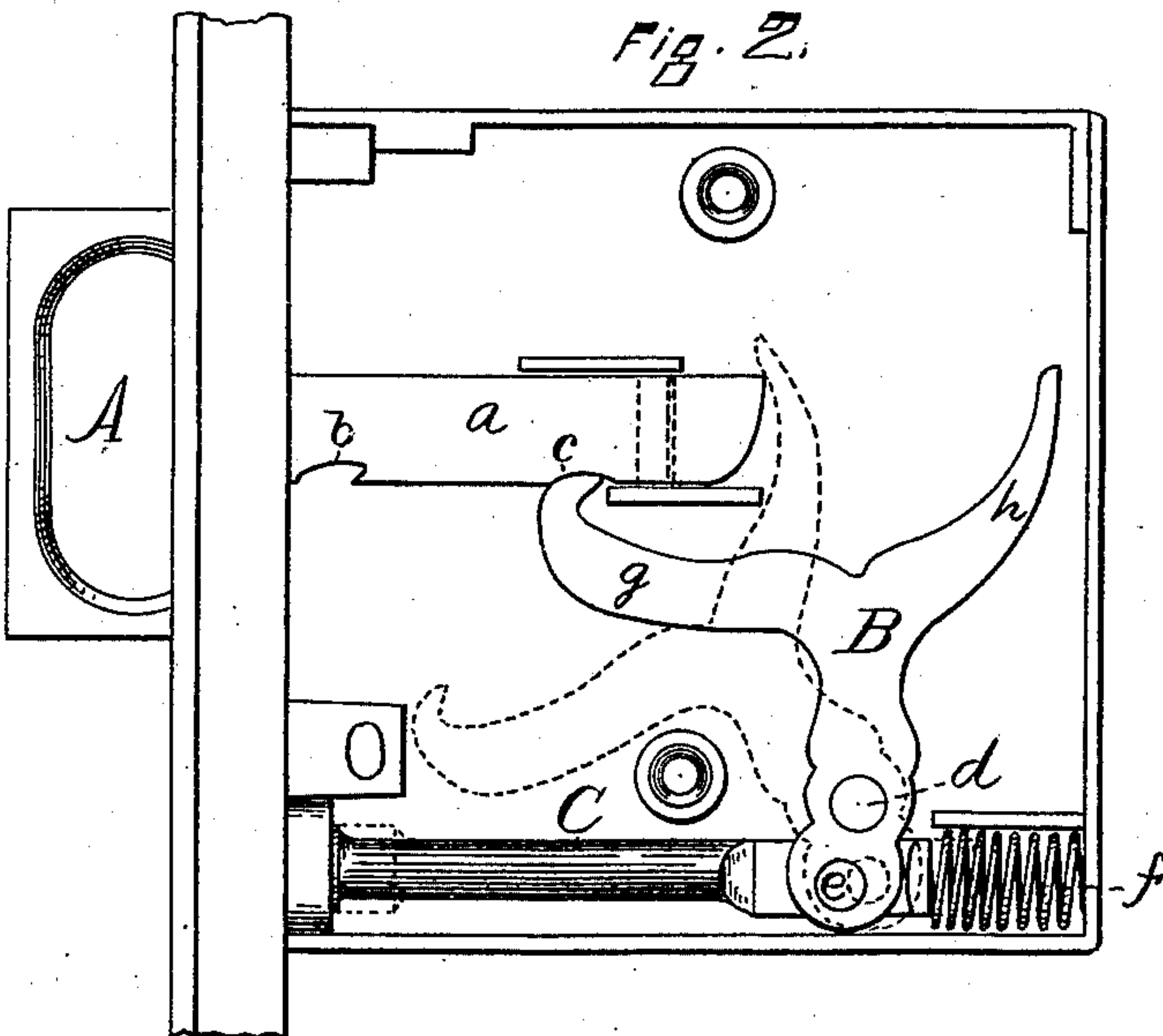
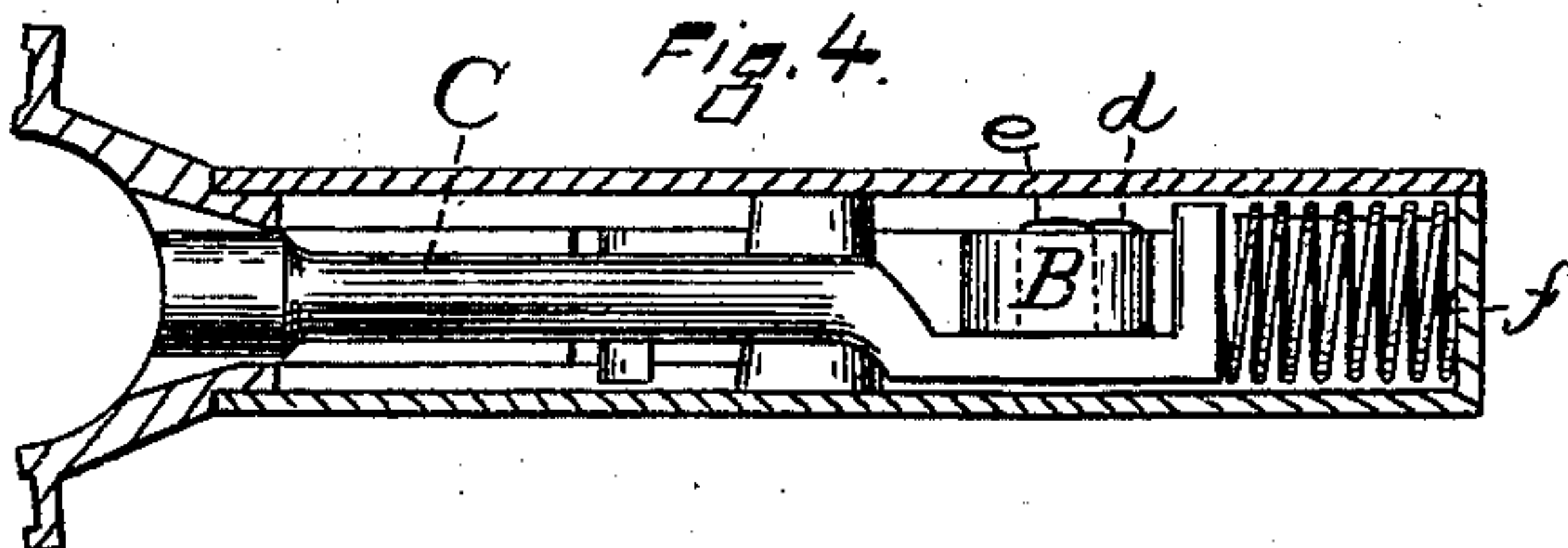


Fig. 4.



Witnesses.

John Edwards Jr.
Martin A Pond

Inventor.

Thomas Lyons
By James Shepard
Atty.

UNITED STATES PATENT OFFICE.

THOMAS LYONS, OF HARTFORD, ASSIGNOR TO THE RUSSELL & ERWIN
MANUFACTURING COMPANY, OF NEW BRITAIN, CONNECTICUT.

SLIDING DOOR-PULL.

SPECIFICATION forming part of Letters Patent No. 287,039, dated October 23, 1883.

Application filed July 25, 1883. (Model.)

To all whom it may concern:

Be it known that I, THOMAS LYONS, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Sliding Door-Pulls, of which the following is a specification.

My invention relates to improvements in sliding door-pulls; and the objects of my invention are to so arrange the push-pin and its connecting-lever as to throw the handle out of the door to the full extent of its movement; also, to have the throwing-lever engage the pull and hold it in position when it is either wholly within or wholly out of the case. I attain these objects by the simple construction illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my pull, with the cap of the case removed. Fig. 2 is a like view of the same, with the pull thrown outward, and with one position of the throwing-lever indicated by broken lines. Fig. 3 is a view looking upon the face-plate of my pull, and Fig. 4 is a horizontal section of the case on line *x x* of Fig. 1, with the other parts in elevation as looking upward from below. The case may be of any ordinary construction.

A designates the pull proper, the inner end or shank, *a*, of which rests between suitable guides on the case, and its lower edge is provided with two holding-notches, *b* and *c*. The throwing-lever B is pivoted to the case at *d*, and to the push-rod C at *e*. A spiral spring, *f*, with one end resting against the side of the case and its other end against the end of the push-rod, acts with a constant tendency to hold the push-rod and the throwing-lever in the positions shown in the drawings. When the pull is wholly within the case, as shown in Fig. 1, the arm *g* of the throwing-lever enters the hooked notch *b* on the shank of the pull and positively locks the pull against an outward movement until said lever is withdrawn. By depressing the end of the push-rod the arm *g* is withdrawn from the hooked notch *b*, and immediately thereafter the arm *h* of the throwing-lever engages the rear end of the shank of the pull. By a continued movement of the push-rod the pull A is thrown into the position indicated in Fig. 2, and the lever B is thrown into that position which is indicated by broken lines in said figure. Upon releasing the push-rod the spring throws the

rod and the throwing-lever back again, when the hooked arm enters the curved recess *c* in the under side of the shank of the pull, and holds the same in its extended position. The engaging surface of the hook and this rounded recess is not very abrupt, so that the arm *g* can be disengaged from the notch by sufficient pressure upon the outer end of the pull. By referring to the two positions of the throwing-lever, as shown in Fig. 2, it will be seen that it has sufficient throw to carry the pull outward to its full extent. The pull is prevented from being thrown or drawn wholly from the case by means of a stop-lug on the case between the two guide-lugs, as indicated by the transverse broken lines in Figs. 1 and 2. The shank of the pull is made thin for the greater portion of its length, and the flat side of said thin portion rests upon said stop-lug. The end of the shank is thickened to form a shoulder, as indicated by the transverse broken line near the end of said shank, as most clearly shown in Fig. 1. When the pull is drawn out, as represented in Fig. 2, this shoulder engages the stop-lug and prevents a further outward movement of the pull. Other means may be employed for this purpose, if desired.

I am aware that sliding pulls have been heretofore combined with a push-rod, throwing-lever, and either a spring or a weight, but of a different construction from that herein shown, and I hereby disclaim the same.

I claim as my invention—

1. The combination of a sliding pull, the throwing-lever pivoted to the case at *d*, and having the arm *h*, which engages the rear end of the shank of the pull and throws the pull outward, the push-rod pivoted to the short end of the throwing-lever, and the spring which acts upon the push-rod to force it outward, substantially as described, and for the purpose specified.

2. The combination of the pull having a holding-notch, *b*, in the lower end of its shank, the spring-pressed throwing-lever having the arm *g*, which engages said holding-notch, and the arm *h*, which engages the rear end of the shank of the pull, substantially as described, and for the purpose specified.

THOMAS LYONS.

Witnesses:

M. S. WIARD,
W. C. RUSSELL.