

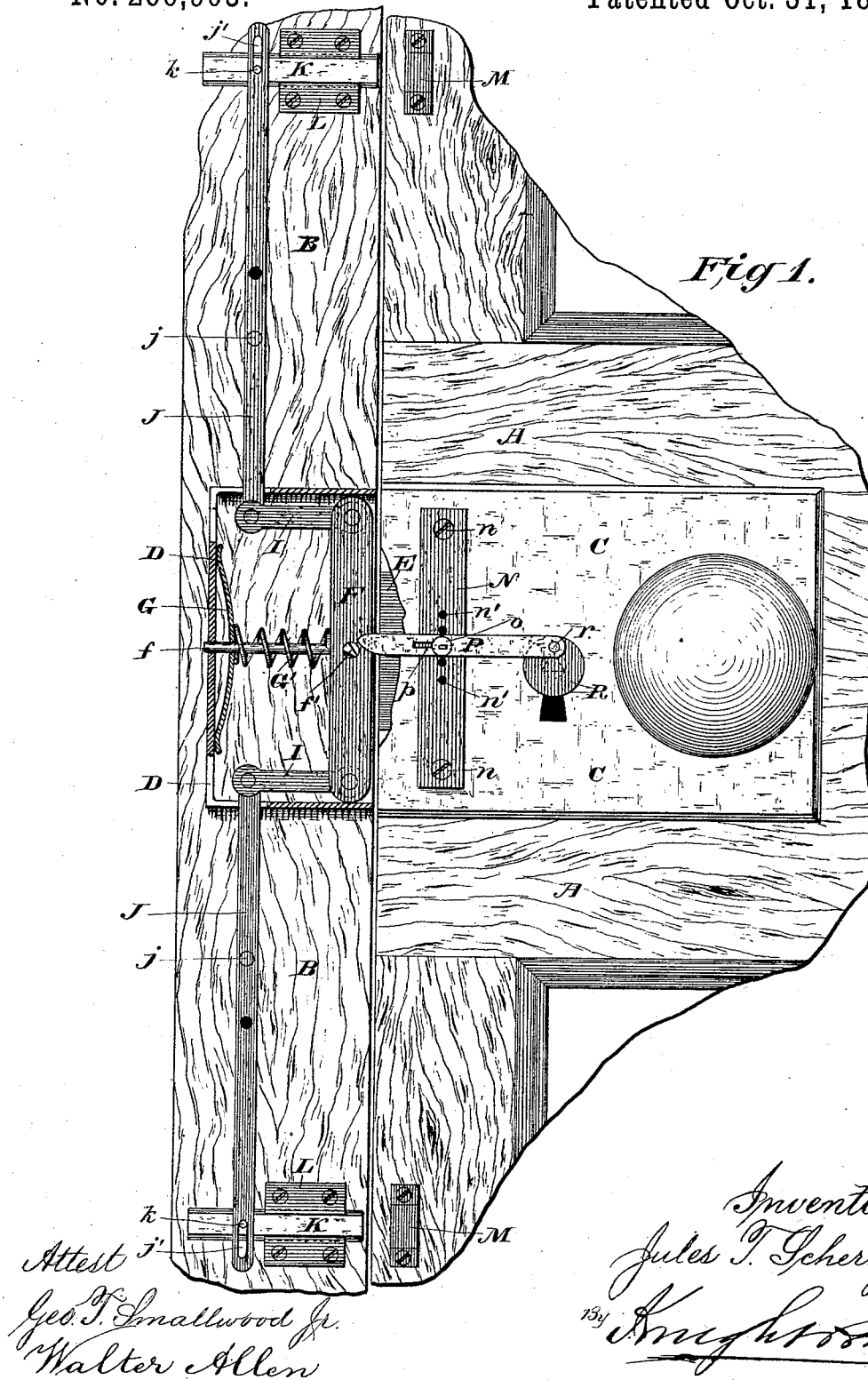
(No Model.)

2 Sheets—Sheet 1.

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DOOR FASTENING DEVICE.

No. 266,903.

Patented Oct. 31, 1882.



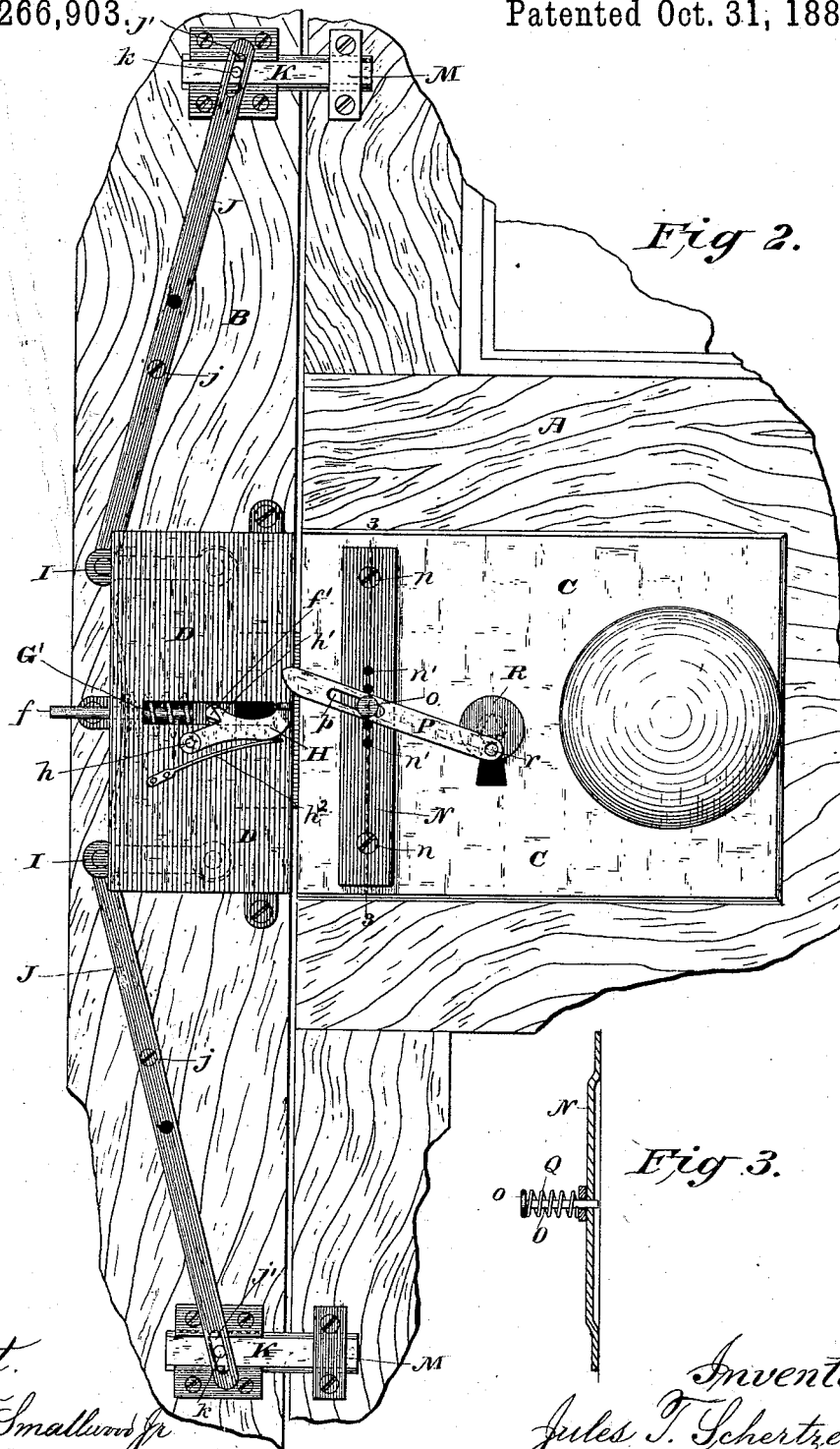
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Attest.  
Geo. F. Smallwood Jr  
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Inventor:  
Jules T. Schertzer  
By Knight Bros attys.

# UNITED STATES PATENT OFFICE.

JULES T. SCHERTZER, OF THE UNITED STATES ARMY, ASSIGNOR OF ONE-HALF TO CHARLES H. SCHMIDT, OF JEFFERSON BARRACKS, MO.

## DOOR-FASTENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 266,903, dated October 31, 1882.

Application filed May 24, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, JULES T. SCHERTZER, (of the United States Army,) of Jefferson Barracks, St. Louis county, State of Missouri, have invented a certain new and useful Door-Fastening Device, of which the following is a specification, reference being had to the accompanying drawings, forming part of the same.

My invention consists, first, of a bolt or bolts thrown into engagement with the door by lever or levers operated by the bolt of the door-lock as it enters the keeper upon the door-post, and relates to a device for releasing the locking-bolts from the outside by means of the door-key.

Figure 1 is a front view of my improved fastening, the device being shown in its locked condition. Fig. 2 is a front view, showing the device unlocked. Fig. 3 is a section on the line 3 3, Figs. 1 and 2.

A is a part of the door, and B part of the door-post against which the door closes. C is an ordinary door-lock. The door is shown closed and locked in Fig. 1, the position of the levers and bolts when unlocked being shown in Fig. 2.

D is the keeper upon the post B. Within the keeper is a vertical bar, F, against which the lock-bolt E impinges as it enters the keeper and pushes it into the position shown by broken lines in Fig. 1. The bar F has a horizontal guide pin or finger, *f*, passing through a hole in the back of the keeper.

G is a semi-elliptic spring, and G' is a spiral spring. The finger *f* passes through both these springs. They bear against the back of the keeper and the bar F and tend to push the bar forward toward the door-lock.

*f'* is a pin projecting from the bar F through a horizontal slot in the keeper.

H is a ratchet, pivoted at *h* to the keeper, and having an inclined or ratchet tooth, *h'*, engaging the pin *f'* when the bar is in its rear position, as shown in full lines. The ratchet-tooth is shown upon the upper side of the catch-bar, and the bar is shown as held upward by a spring, *h<sup>2</sup>*; but it is obvious that it might be reversed in position, the tooth *h'* being on the under side. Then it would act by gravity and the spring *h<sup>2</sup>* might be dispensed with.

I are links connecting the ends of the bar F to the ends of levers J, fulcrumed to the door-post B at *j*.

The levers J are slotted at their outer ends at *j'* for the passage of pins *k*, projecting outward from the bolts K. The bolts K work between guides L, attached to the door-post, and when locked pass within keepers or staples M upon the face of the door. These staples are not essential, but impart added strength.

The device, as described, is complete if access can be had to the interior to unlock the door.

I will now describe the device for releasing the pin *f'* from the ratchet *h'* by a suitable key from the outside.

N is a strap secured to the outside of the lock by the ordinary screws, *n n*, by which the outer end of the lock is attached to the door. This strap has a number of pin-holes, *n'*, into any one of which a fulcrum-pin, O, is inserted, this arrangement being made to accommodate the lever P to key-holes of different positions in the lock. The lever P is slotted at *p* for the passage of the fulcrum-pin O. The pin O has a head, *o*, and between the head and the lever is a spiral spring, Q, which bears against the outside of the lever and keeps it in contact with the strap. One end of the lever P is connected by an eccentric pin, *r*, to a disk, R, having a key-stud that is inserted in the key-hole of the lock from the inside and turns therein. Thus it will be seen that by turning the disk R the end of the lever P, connected thereto, is raised or lowered and the free end *p'* of the lever is moved in the opposite direction.

It will be understood that the disk is turned by a key introduced into the key-hole from the outside. The movement of the lever brings its free end against the free end of the ratchet H, and by pressure against the same disengages its tooth from the pin *f'* to allow the bar F to move toward the door, which it then does, under the influence of the spring G, and draws back the bolts. The end of the lock-key is made with a stud to enter the disk, so that the bolt E is thrown back by the same movement that releases the bar-pin *f'* from the ratchet or detent tooth *h'*, so that there is no impediment to the described movement of the bar F in releas-

ing the door from the bolts K. There is a key-hole in the disk.

I claim as my invention—

1. The combination, with a door-lock on one member, of a bar, lever, and bolt on the other member, the bar and lever being operated by the lock-bolt of the door-lock to throw the other bolt into engagement with the opposite member, as set forth.

2. The bar F, actuated by the lock-bolt E, with detent H to hold the bar F, lever J, and bolt K in locking position, substantially as set forth.

3. The combination, with the detent H, of

the lever P, fulcrumed to the door and actuated by the disk R, substantially as set forth.

4. The combination of lock C, keeper D, and bar F, connected with levers J and bolts K, for the purpose set forth.

5. The combination of disk R, made to fit the end of the door-key, lever P, detent H, bar F, lock-bolt E, and lever J and bolt K, for the purpose set forth.

JULES T. SCHERTZER.

Witnesses:

SAML. KNIGHT,  
GEO. H. KNIGHT.