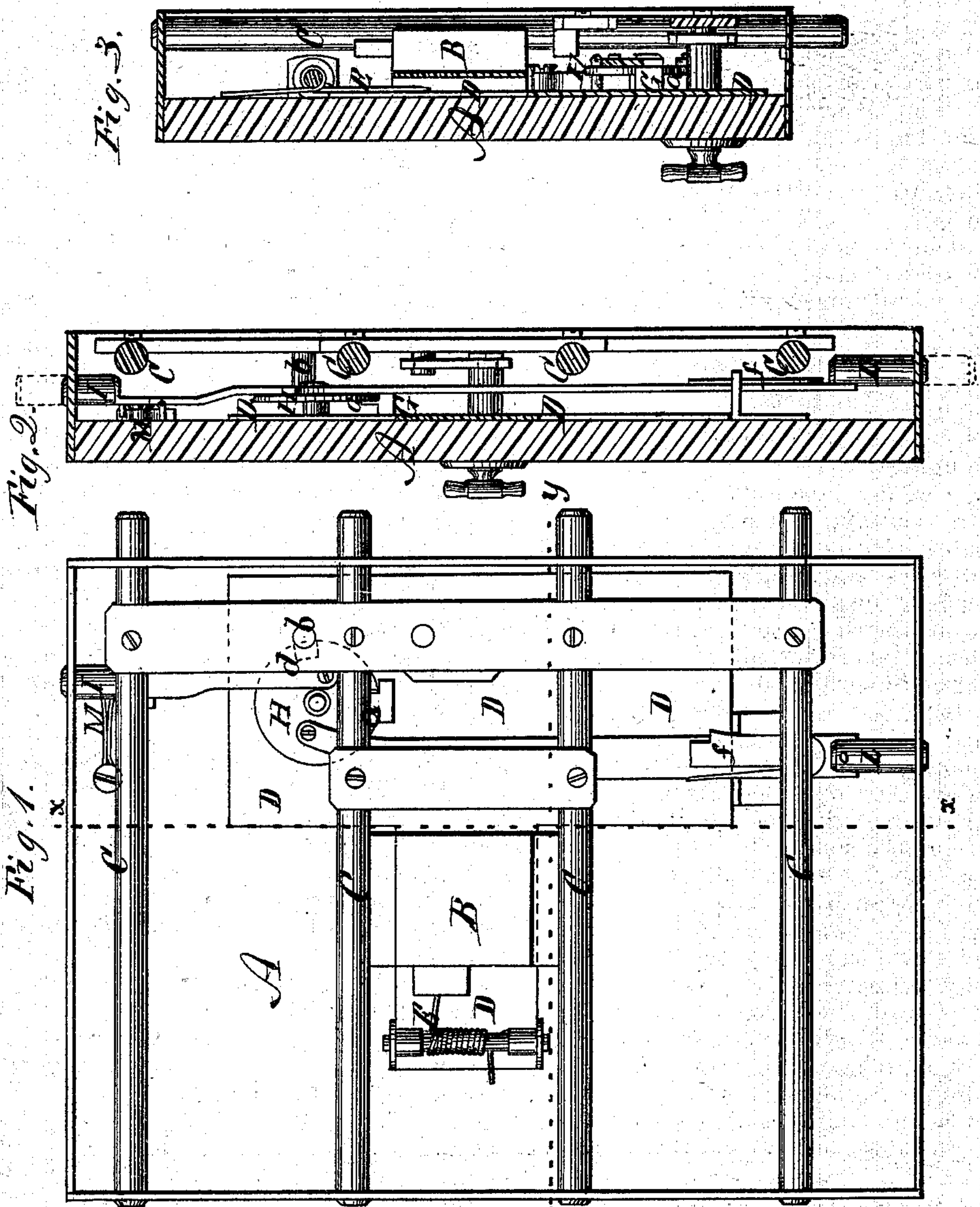


**J. C. E. RICHARDSON.**  
**Bolt-Works for Safe-Doors.**

No. 146,782.

Patented Jan. 27, 1874.



Witnesses,  
*E. M. Gallaher,*  
*J. C. Lyons*

Inventor,  
*Jefferson C. E. Richardson,*  
*By his atty,*  
*J. S. Brown.*



# UNITED STATES PATENT OFFICE.

JEFFERSON C. E. RICHARDSON, OF CHARLESTON, SOUTH CAROLINA.

## IMPROVEMENT IN BOLT-WORKS FOR SAFE-DOORS.

Specification forming part of Letters Patent No. **146,782**, dated January 27, 1874; application filed December 29, 1873.

*To all whom it may concern:*

Be it known that I, JEFFERSON CHARLES EDWARD RICHARDSON, of Charleston, in the county of Charleston and State of South Carolina, have invented an Improvement in Locks for Burglar-Proof Safes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings making part of this specification—

Figure 1 being a view of the inner side of a burglar-proof safe-door provided with my improved lock attachment; Fig. 2, a vertical transverse section thereof in a plane indicated by the line *x x*, Fig. 1; Fig. 3, a horizontal transverse section of the same in a plane indicated by the line *y y*, Fig. 1.

Like letters designate corresponding parts in all of the figures.

The nature of my invention consists in a plate of hard material situated back of the door-wall, and in front of and covering the lock and bolt-work, and capable of a little lateral movement inward when pressed against by a burglar in the act of drilling or punching through it, so as to set one or more auxiliary bolts free to spring out and fasten the door, which bolts, having no direct connection with the lock, and being entirely out of exterior reach, cannot be released by any tampering with the lock, or any other means, except by the destruction of the door itself, substantially as herein specified.

In the drawings, let A represent the door of a burglar-proof safe; B, the lock of the same; and C C C C the bolt-work connected with the lock. All of these parts may be of any ordinary or desired construction. Inside or back of the body or wall of the door A, and before the lock B and bolt-work C C C C, is located a plate, D, of hardened steel, case-hardened iron, franklinite, or other sufficiently hard material, of sufficient length and width to cover and shield the lock and bolt-work as far as necessary, so that a burglar cannot injure those parts except by first getting through the said plate by drilling or punching. This plate has a slight play or movement sidewise, and is held close to the door by a spring or springs, E, of sufficient strength to prevent the plates moving back by the ordinary use and movements of the door and lock, but to yield when

pressure, as of a drill or punch, is applied with force enough to perforate or break the plate. This backward movement or yielding of the plate also moves a catch or dog, G, attached to or connected with it, and so arranged, when the plate is pressed forward to the door, as to enter a notch, *a*, in a disk, H, or its equivalent, which has a partial turning or revolving movement on its axis, and thereby throws out, or allows to be thrown out, two (one or more) bolts, I L, pivoted to or otherwise connected with the said disk. The thrusting out of the bolts I L is automatically effected by a spring or springs, M, acting on one of the bolts, as I, or on the disk H. Thus when the plate D is pushed even a little distance from the door, the said catch or dog is thereby moved out of the notch *a* of the disk, and sets the bolts free to spring outward. The bolts I L are ordinarily kept drawn in, so as not to interfere with the ordinary locking and unlocking of the door. This setting of the spring-bolts is effected by simply pushing them inward, or turning around the disk H, till the catch or dog G is forced into the notch *a* by the force of the spring E bearing against the plate D. And further protection may be provided against accidentally throwing out the bolts I L when the door is open, by having a projection, *b*, on one of the parts of the bolt-work C C C C to slide into another notch, *d*, in the edge of the disk as the bolt-work is thrown back. The bolts I L are or may be held thrown out by means of a spring-catch, *f*, so that it will be very difficult to tamper with the bolts and force them back by any means when once thrown out.

Thus a very great additional security is furnished against the attacks of burglars at a very small cost, and by very simple means.

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

A movable lock-covering plate, D, of hard material, in combination with a spring-bolt or bolts, I L, additional to the ordinary bolt-work, applied to the lock and bolt-work of a burglar-proof safe, and operating substantially as and for the purpose herein specified.

JEFFERSON C. E. RICHARDSON.

Witnesses:

I. A. EVANS,  
B. M. SHEA.