W. Sharts,

Bolt.

No. 101,051. Patented Mar. 22. 1870.

Fig. 2.

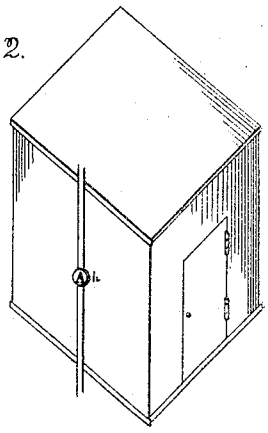
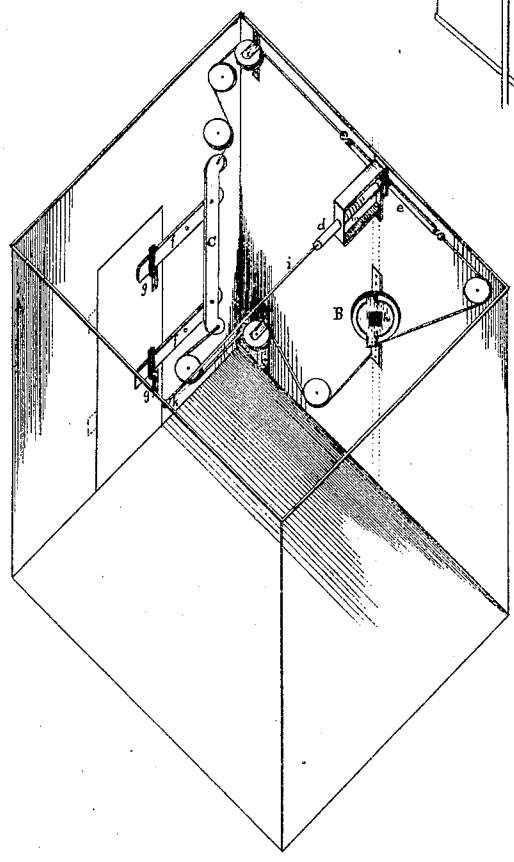


Fig. 1.



Witness: Wheeler H. Clarke
Alex. S. Rowley

Inventor: W. Sharts

United States Patent Office.

WILLIAM SHARTS, OF ATHENS, NEW YORK.

Letters Patent No. 101,051, *dated March* 22, 1870.

IMPROVEMENT IN BOLTS FOR SAFES.

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

I, WILLIAM SHARTS, of Athens, in the county of Greene and State of New York, have invented a new and improved Mode of Fastening or Locking Bank-Safes, of which the following is a description and specification.

Nature and Objects of the Invention.

This invention consists of a combination of mechanical devices so arranged within the safe that they cannot be operated or even meddled with without alarming the person having it in charge.

The object is to dispense with all the ordinary modes of fastening with locks and keys, combination or otherwise, and with such apertures or openings through the shell of the safe as are required to reach these locks, and thus to prevent the depositing of gunpowder or other explosive material within the same, and to render them generally more secure than any now in use.

Description of the Accompanying Drawings.

Figure 1 is a perspective view of the locking-mechanism in the interior of this safe.

Figure 2 is a perspective view of the exterior of the safe before being inclosed in a brick or stone wall.

General Description.

The case or shell of my safe (see fig. 2) is constructed in the usual rectangular form, in the most approved manner, and of the best materials, to render it both burglar-proof and fire-proof.

Instead of using a lock of any of the ordinary constructions, which are inclosed in a separate box or case and attached to the inside of the door for a fastening, with an aperture or key-hole leading into this case, I employ a system of chains or metal cords and pulleys which operate a bolt and bars within, none of which are confined or inclosed in a separate case or box, nor can they be operated or disturbed without the knowledge of the guard or officer having charge of the safe.

The opening-knob A (see fig. 2) may be on a gas-pipe, its shaft or spindle passing through the same, and used as a check or stop-valve. This use of it, however, would only be to avoid suspicion of its being employed for another purpose.

The draw-wire *i*, extending across the under side of the top plate, is attached to the lock-bolt *d* at one end, and is provided with a loop, *k*, at the opposite end, which may be connected with a bell or alarm in the bed-room or other place of retirement of the officer or guard who has the safe in charge. This loop need not project outside the safe, but may pass up through the top plate and wall to any place of retirement of the officer or guard.

Any movement of the loop *k*, or of the wire attached, sufficient to withdraw the bolt *d* from the slotted slide *e*, will forthwith sound the bell or the alarm in the watchman's room; but merely withdrawing the bolt *d* does not alone enable the door of the safe to be opened. It is necessary at the same time to draw out the spindle of the knob A sufficient for its inner end, *h*, which is square, to fit into the mortise or socket of same form in the face of pulley B, and then, by revolving knob A in the right direction the door may be opened.

The operation of the mechanism for locking and unlocking the door will be easily understood by referring to fig. 1 of the accompanying drawings.

When the bolt *d* is withdrawn the knob A, fig. 2, must also be drawn out, so that the opposite end, *h*, of the spindle, (which spindle is also the axis of pulley B,) fits into the square mortise or socket in the face of this pulley; then, by revolving the knob A from rear to front, (the door being in the front,) the cord or chain passing from the operating-pulley B down and around the lower series of pulleys, and which is attached to the lower end of the vertical connecting-bar C, will draw this bar downward toward the floor or bottom of the safe, and thus elevate the ends of the swing or lock-bars *f f* out of the brackets *g g*, which are attached to the inside of the door. The door is thus unlocked.

By revolving the knob A from front to rear operates the cord or chain which passes over and around the upper series of pulleys, and, being attached to the upper end of connecting-bar C, draws it upward, throwing the opposite or outer ends of the locking-bars *f f* down and behind the brackets *g g*. The door is thus locked.

The spiral spring *m*, enveloping bolt *d*, serves to restore it to its place when the wire *i* is not being used for unlocking the door, and the slotted slide *e* is in position to allow the bolt to enter it, which locks the door.

It will be seen that the operating-spindle is of sufficient length to extend through a wall of any thickness, inclosing the safe.

Claims.

What I claim is—

1. The combination of the vertical connecting-bar C with its lever-bars *f f*, spindle *h*, and system of cords or wires and pulleys, as set forth.

2. In combination with the elements of the above claim, the check-bolt *d*, when employed as and for the purposes herein described.

3. Extending the operating-spindle *h* through one of the walled or inclosed sides, instead of through the door or exposed side of the safe, substantially as and for the purposes set forth.

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Witnesses:

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