No. 707,655. Patented Aug. 26, 1902.

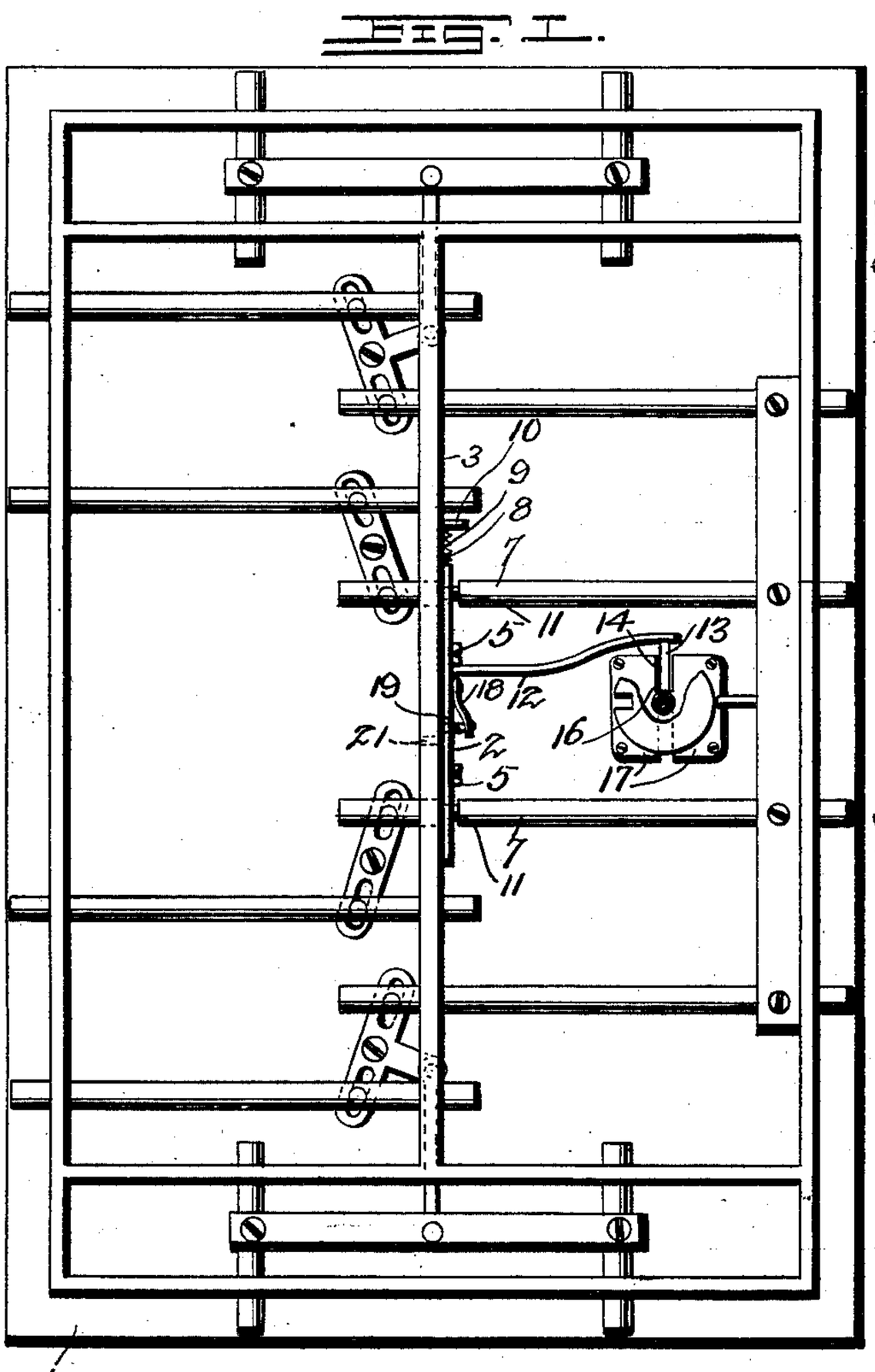
H. H. TISLOW.

SAFE DOOR LOCK.

(Application filed Dec. 2, 1901.)

(No Model.)

FIG. 1.



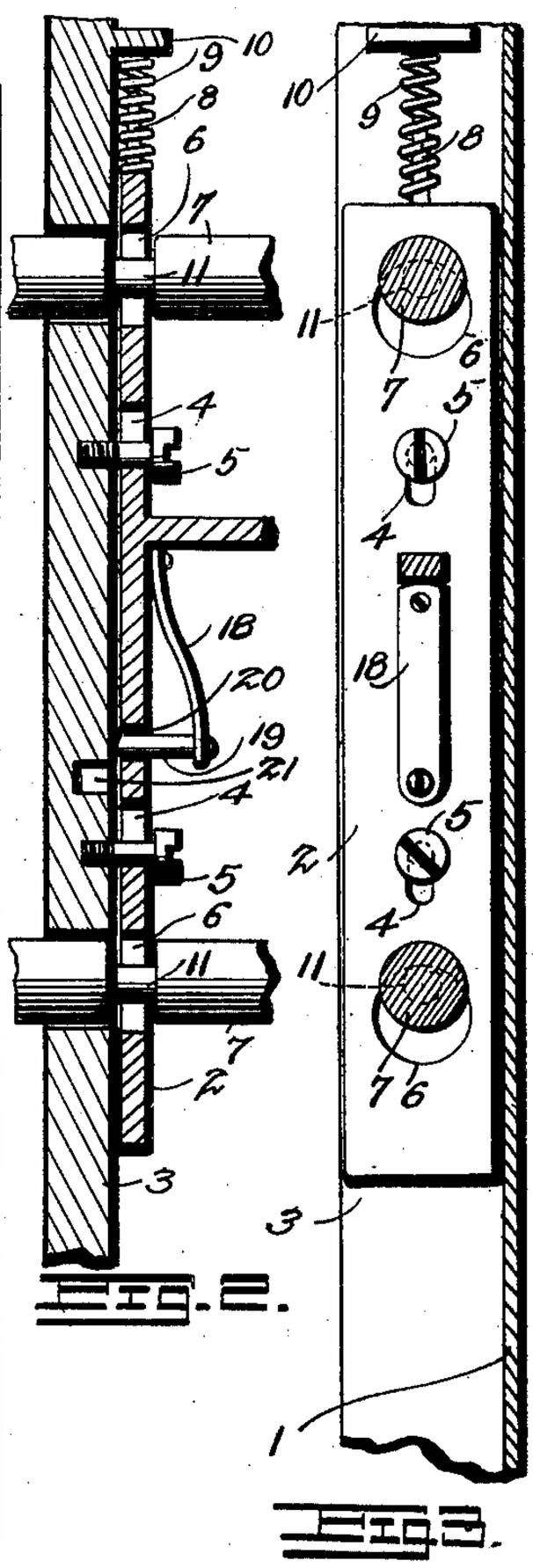


FIG. 2.

FIG. 3.

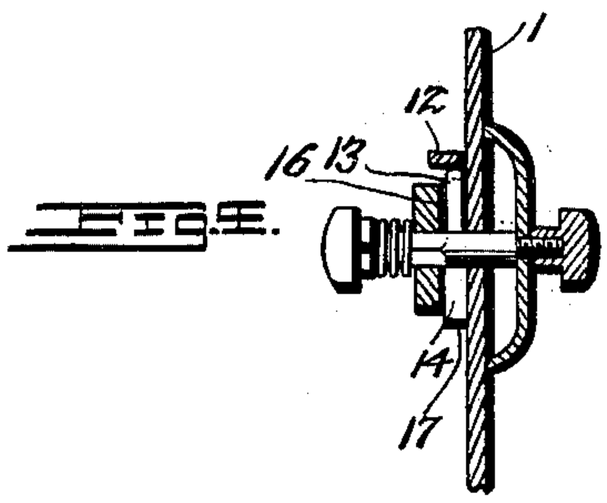


FIG. 5.

Witnesses:
E. F. Stewart
R. M. Elliott.

Hovey H. Tislow, Inventor:
by Church & Co
Attorneys.

UNITED STATES PATENT OFFICE.

HOVEY H. TISLOW, OF PETERSBURG, INDIANA, ASSIGNOR OF ONE-HALF TO PHILIP K. HEURING, OF PETERSBURG, INDIANA.

SAFE-DOOR LOCK.

SPECIFICATION forming part of Letters Patent No. 707,655, dated August 26, 1902.

Application filed December 2, 1901. Serial No. 84,415. (No model.)

To all whom it may concern:

Be it known that I, HOVEY H. TISLOW, a citizen of the United States, residing at Petersburg, in the county of Pike and State of Indiana, have invented a new and useful Safe-Door Lock, of which the following is a specification.

This invention relates generally to locks, and particularly to a novel form of burglar-proof lock for safe-doors.

As is well known, in burglarizing safes the common practice is to drill holes around or into the combination-dial, pour nitroglycerin or dynamite into the openings thus formed, and explode the charges, thereby blowing out the combination-spindle and leaving the knobs actuating the bolts free to be turned to release the door.

The object of this invention is in a ready, simple, thoroughly practical, and positive manner to render a safe-door proof against being opened except in the proper manner, even though the combination-spindle be blown out.

A further object is to dispose the mechanism for rendering the lock burglar-proof in such manner as to make it impossible, without previous knowledge of the construction of the safe-door, to ascertain its location.

A further object is to obviate any marked change in the structural arrangement of safe-doors already in use or in the bolt mechanism thereof in applying the device of the present invention thereto.

With these and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a safety attachment for safe-doors, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like numerals of reference indicate corresponding parts, there is illustrated a form of embodiment of the invention capable of carrying the same into practical operation, it being understood that the elements therein exhibited may be varied or changed as to shape, proportion, location, and exact manner of assemblage without departing from the scope of the invention, and in these drawings—

Figure 1 is a view in elevation, exhibiting a safe-door equipped with the present invention. Fig. 2 is an enlarged sectional detail view showing more particularly the disposition of the supplemental locking device with relation to the bolts, the said device being in its unlocked position. Fig. 3 is an enlarged detail view, in front elevation, showing the supplemental locking device in its locked position. Fig. 4 is a detail view in section, taken through the safe-door.

Referring to the drawings, 1 designates a safe-door provided with the usual bolts and operating mechanism therefor. As the number, arrangement, and construction of the bolts and their operating mechanism may be of the usual or any preferred construction, and as these specifically form no part of the present invention, detailed illustration thereof is deemed unnecessary.

The present invention resides in an emergency or supplemental locking mechanism which is normally inactive and is automatically rendered active upon removal of the combination-spindle. The mechanism comprises a plate 2, mounted for sliding movement in this instance upon one of the bolt-guides 3, it being understood that this plate may be located at any other point on the inside of the door that may be preferred, the location herein illustrated being one of many that may be employed. The plate is provided with a plurality of slots 4, through which pass screws 5, that engage openings in the bolt-guides, and with a plurality of openings 6, through which project in this instance two of the horizontally-disposed bolts 7, the openings 6 being of a size to permit the bolts easily to slide therethrough under normal conditions. While but two of the bolts are herein shown as projecting through the plate 2, it is to be understood that a greater or less number may be similarly disposed with relation thereto, as will be perfectly obvious. The upper end of the plate is provided with a stem or spindle 8, around which is coiled a spring 9, that bears against a projection 10, carried by the bolt-guide, the spring operating normally to project the plate downward. That portion of each of the bolts inclosed by the openings 6 when the bolts are shot is provided with a circumferential recess

or depression 11 to be engaged by the plate when the latter is projected downward, and thereby hold the bolts from being shifted from locked position when the combination-spindle has been blown or otherwise forcibly removed from the safe-door. The plate is further provided at any preferred point intermediate of its ends with an arm 12, which projects laterally over the combination-spindle, as clearly shown in Fig. 1. The means for holding the plate normally raised to permit the bolts freely to slide through the openings therein consists of a rest or pin 13, the lower portion of which projects into the lock 14 and loosely bears upon the combination-spindle, the rest being disposed in a guide 16, formed between two plates or abutments 17 adjacent to the lock. The upper end of the rest is borne upon by the arm 12, thus to hold the plate 2 in raised or inoperative position. Thus so long as the rest is in the position shown in Fig. 1 the bolt-locking plate 2 will be held raised thereby to permit the bolts freely to slide through the openings therein; but should the combination-spindle be forced from the door in the manner described or otherwise the rest, owing to the fact that it is impermanently or detachably associated with the combination-spindle, will drop out of the guide 16, and thus instantly release the arm 12, whereupon the spring 9 will project the plate 3 downward and into engagement with the recesses of the bolt, thereby positively locking these against retraction and leaving the door more difficult to open than before.

As a matter of further improvement there is combined with the locking-plate 2 a locking device which by engagement with an opening in the locking-plate and with a fixed part of the door will positively prevent the said plate from being lifted through the medium of the arm 12 should such an attempt be made to free the bolts. This supplemental device comprises a spring 18, secured to the plate 2 and having a toe 19 to project through an opening 20 in the plate and into an opening 21, provided for the purpose in the bolt-guide, these openings being normally out of register, but being brought into register when the locking-plate is released in the manner described.

It will be understood that this locking device may be disposed at other points on the bolt-guide than that shown, so that without previous knowledge of its exact location it would be practically impossible to release it, and thus the locking-plate. Hence even if a burglar succeeded in removing the combination-spindle he would be met with as great difficulties in shooting the bolts as those which confronted him at the outset of his operations.

While the device of this invention is shown and described as applied to a safe-door and to one having a plurality of longitudinally and vertically slidable bolts, it is to be understood that it is equally adaptable in connection with locks of other forms than that shown, and as this will be perfectly obvious detailed illustration thereof is deemed unnecessary.

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

1. In a safe-lock, a rest removably associated with the operating-spindle, in combination with emergency locking mechanism having means to engage the rest, and means operating automatically to secure the locking mechanism when in locked engagement with the bolts.

2. In a safe-lock, the combination with the operating-spindle and the bolts, of a bolt-locking plate, a removable rest supported by the spindle, and an arm on the locking-plate to engage the rest and thus hold the plate out of engagement with the bolts.

3. In a safe-lock, the combination with the operating-spindle and the bolts, of a spring-actuated locking-plate, a removable rest supported by the spindle, an arm on the locking-plate to engage the rest to hold the plate out of engagement with the bolt, and means operating automatically to lock the plate against lifting when in locked engagement with the bolts.

4. In a safe-lock, the combination with the bolts provided with recesses, of a spring-actuated locking-plate through which the bolts project, an arm carried by the plate, and a removable rest supported by the operating-spindle and upon which the arm bears to hold the locking-plate normally out of engagement with the recesses of the bolts.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HOVEY H. TISLOW.

Witnesses:
E. E. DOYLE,
FRANK S. APPLEMAN.