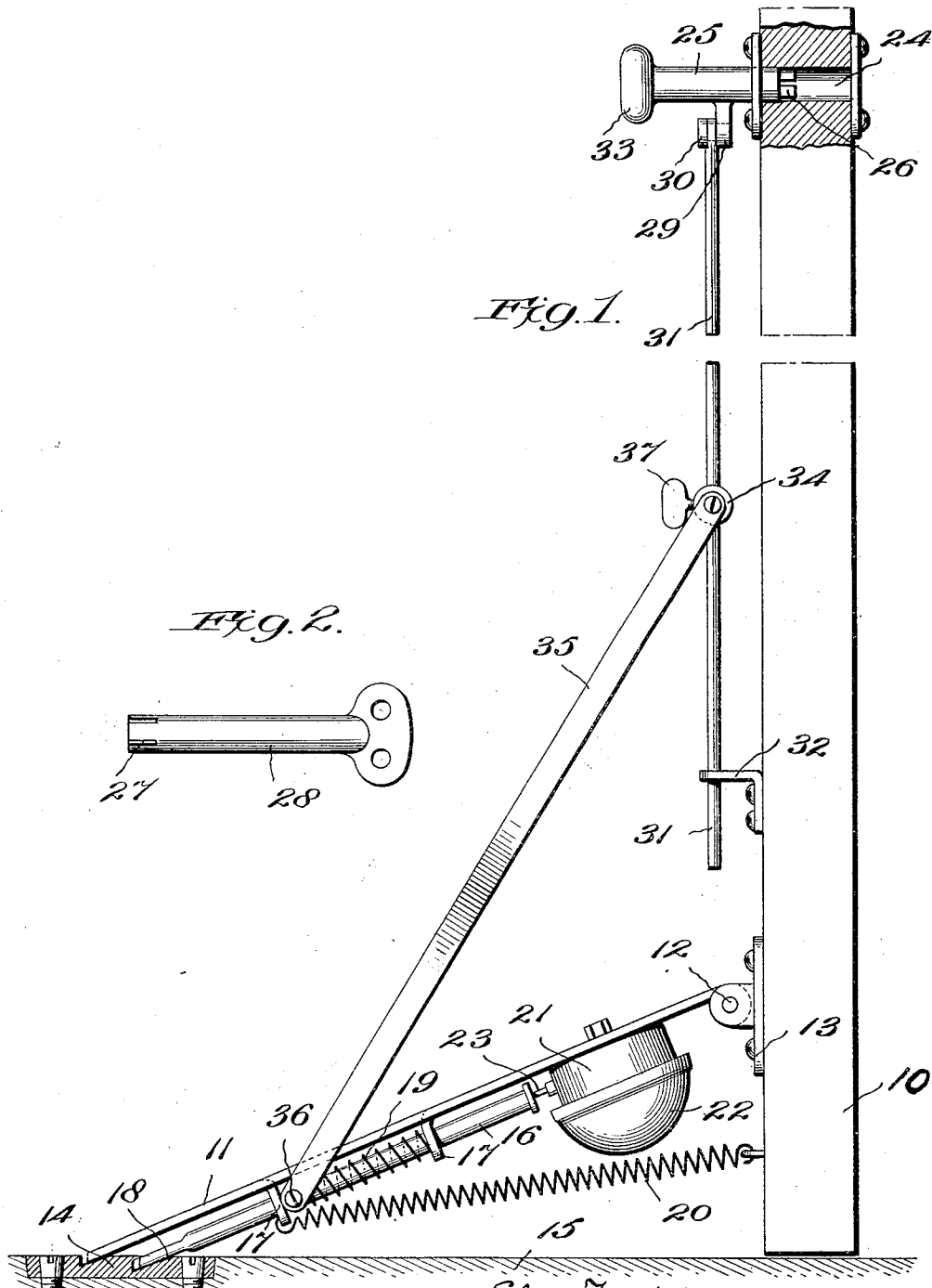


E. TROETEL.
SAFETY ATTACHMENT FOR DOORS.
APPLICATION FILED APR. 26, 1912.

1,054,151.

Patented Feb. 25, 1913.



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UNITED STATES PATENT OFFICE.

ELIAS TROETEL, OF NEW YORK, N. Y., ASSIGNOR TO TROETEL BURGLAR ALARM-LOCK COMPANY, A CORPORATION OF NEW YORK.

SAFETY ATTACHMENT FOR DOORS.

1,054,151.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ELIAS TROETEL, a subject of the Queen of the Netherlands, residing at the city of New York, in the State of New York, have invented certain new and useful Improvements in Safety Attachments for Doors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention has particular relation to an improvement in a former device of my invention for securing doors and windows from entrance by burglars, whereby, after the setting of the device for the night, the same can be easily released by an authorized person from outside.

It is one advantage of my improvement that it can be adapted to be made further secure by making the releasing means inoperative after entrance of the authorized person, or when it is not expected that any such person will have occasion to use it.

The invention is exemplified in the drawing by a side elevation shown in Figure 1 thereof. Fig. 2 shows one form of key whereby the device can be operated from without.

A common door is shown in edge view at 10, the same being secured by any ordinary lock. In order to prevent forcing such a door, I provide a strong metal brace 11, pivotally secured at 12 to a suitable plate 13, screwed or otherwise fastened to the interior surface of the door. The lower end of the brace 11 is adapted to engage with a suitable groove in a stout plate 14 on the floor 15, and when so engaged, opening of the door inward is effectually prevented.

In order to permit the door to be opened, the brace must be swung upward, and this is normally prevented by the bolt 16, sliding within guides 17 on the under side of the brace, as shown, which bolt is normally thrust forward into a socket 18, by means of the spring 19. The spring 20 acts normally to press the outer end of the brace 11 against the floor.

Fastened to the brace 11 I employ a well known form of alarm bell, 21, adapted to be wound up by means of the bell top 22, and caused to operate continuously as long as the stem 23 is pressed inward. The details of structure of such a bell need no descrip-

tion as they form no part of my present invention.

The upper end of the bolt 16 abuts against the stem 23, so that, when the bolt is withdrawn to liberate the brace 11, the alarm bell 22 will be rung. Any form of alarm bell is within my invention in this connection, and any means or arrangement whereby such a bell is made to ring by movement of the bolt 16 is consistent with the improvement herein claimed.

In order to enable an authorized person to release the bolt and brace from the floor from outside the door, I employ substantially the following means: The door is pierced, as at 24, and into the opening thus made, the shaft 25 projects from the inside sufficiently to establish a firm bearing therein. The extremity of the shaft 25 is provided within the opening 24 with such a conformation as enables it to be suitably engaged by a key from without. For this purpose a simple cross 26 may be used, for instance, which is adapted to enter the slits 27 in the end of a tubular key 28, shown in Fig. 2.

The shaft 25 carries a projection 29, pivotally connected at 30 to the upper end of an operating rod 31, the lower end of which is guided by the suitably perforated bracket 32. The knob 33 may be formed on the shaft 25 to facilitate operation from within.

The operating rod 31 passes through an opening in the socket 34, to which is pivoted the upper end of a lifting bar 35, whose lower end is pivotally attached to the bolt 16, by means of a cross pin 36. By means of a set screw 37, or equivalent device, carried by the socket 34, said socket may be easily fixed upon the rod 31, or may be made loose thereon, at will.

It is obvious that, whenever the shaft 25 is turned in either direction, the rod 31 will be caused to move upward parallel to the door, and that the bar 35 will thereupon act to first withdraw the bolt 16 from its socket and then to lift the brace 11, thereby releasing the device and permitting the door to be opened. At the same time the alarm bell 21 will be rung, until the bolt 16 is released again.

When no authorized person is expected, further security may be obtained by loosening the set screw 37, or otherwise releasing the socket 34 from the lifting rod 31, where-

upon the rotation of the shaft 25 will, of course, have no effect.

What I claim is—

1. A safety attachment for doors comprising in combination a brace pivotally attached to the inner side of the door, a bolt carried by said brace, a revoluble shaft mounted in a suitable opening in the door and a mechanical connection between said shaft and bolt adapted to draw said bolt and lift said brace when said shaft is revolved, substantially as described.

2. A safety attachment for doors comprising in combination a brace pivotally attached to the inner side of the door, a bolt carried by said brace, a revoluble shaft mounted in a suitable aperture traversing said door and furnished with means at its outer end for facilitating operative engagement with a suitable key, and a mechanical connection between said shaft and bolt adapted to draw said bolt and lift said brace when said shaft is revolved, substantially as described.

3. A safety attachment for doors comprising in combination a brace pivotally attached to the inner side of the door, a bolt carried by said brace, a revoluble shaft mounted in a suitable opening in the door, a lifting rod, a crank connection between said rod and said shaft, and a lifting bar pivotally connected at its opposite ends to said bolt and said lifting rod respectively, substantially as described.

4. A safety attachment for doors comprising in combination with a brace pivotally attached to the inner side of the door, a bolt carried by said brace, a revoluble shaft mounted in a suitable opening in the door, a lifting rod, a crank connection between said rod and said shaft, a lifting bar pivotally connected to said bolt and a temporary mechanical connection between said bar and said rod, adapted to be rendered readily operative at will, substantially as described.

5. A safety attachment for doors comprising in combination with a brace pivotally

attached to the inner side of the door, a bolt carried by said brace, a revoluble shaft mounted in a suitable opening in the door, a two-part lifting connection between said shaft and bolt, and manually operated means for temporarily connecting the two parts of said lifting connection, substantially as described.

6. A safety attachment for doors comprising in combination a brace pivotally attached to the inner side of the door, a lifting member mounted on said door, a second lifting member attached to said brace and manually operated means for temporarily connecting said lifting members, substantially as described.

7. A safety attachment for doors comprising in combination a brace pivotally attached to the inner side of said door, a lifting rod mounted so as to be slidable vertically on the door, means on the door for causing vertical movement of said rod, a socket adapted to slide loosely upon said rod, a lifting bar attached to said socket and to said brace, and means on said socket for locking the same to said lifting rod, substantially as described.

8. A safety attachment for doors comprising in combination a brace pivotally attached to the inner side of said door, a lifting rod mounted so as to be slidable vertically on the door, a revoluble shaft mounted in an opening in said door, a crank connection between said shaft and said rod, a socket adapted to slide loosely upon said rod, a bolt slidably mounted on said brace, a lifting bar pivotally attached at opposite ends respectively to said bolt and to said socket, and a set screw on said socket for locking it to said lifting rod, substantially as described.

In testimony whereof, I affix my signature, in presence of two witnesses.

ELIAS TROETEL.

Witnesses:

H. S. MacKAYE,
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