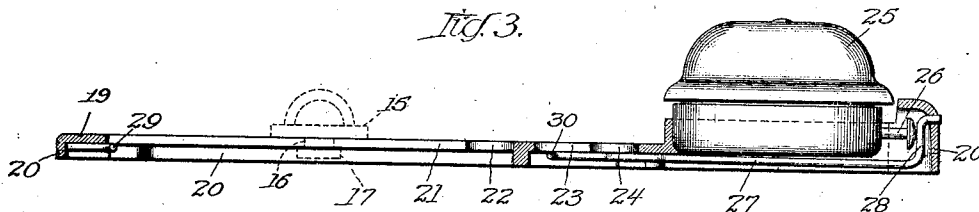
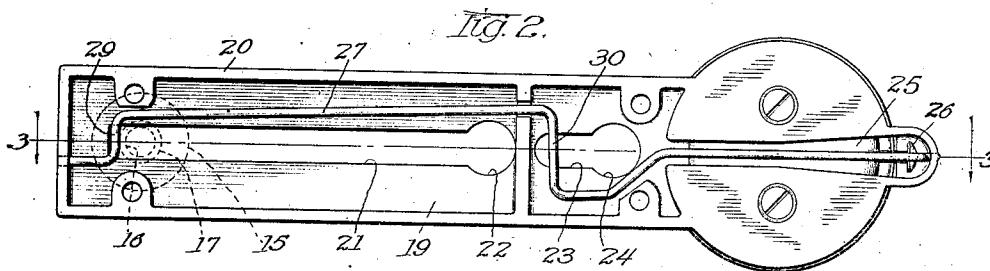
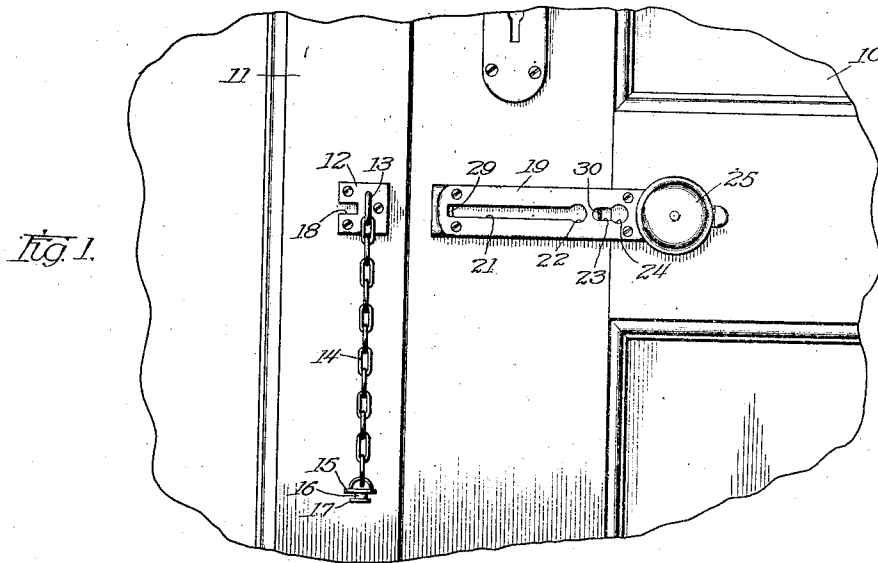


S. E. GREENBERG.
DOOR SECURING DEVICE.
APPLICATION FILED JUNE 15, 1912.

1,062,965.

Patented May 27, 1913.



Witnesses

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UNITED STATES PATENT OFFICE.

SAMUEL E. GREENBERG, OF CHICAGO, ILLINOIS.

DOOR-SECURING DEVICE.

1,062,965.

Specification of Letters Patent.

Patented May 27, 1913.

Application filed June 15, 1912. Serial No. 703,780.

To all whom it may concern:

Be it known that I, SAMUEL E. GREENBERG, a citizen of the United States; residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Door-Securing Devices, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

My invention pertains to door-securing devices of the kind which include a chain adapted to be secured to the door frame and a socket adapted to be secured to the door and to detachably receive the end of the chain, and which are provided with an alarm adapted to be actuated by the chain when the latter is subjected to a strain owing to an attempted opening of the door.

It is the object of my invention to improve upon door-securing devices of the character described above, particularly with a view to producing a device which will be safer, more sure in operation, less liable to get out of order, and of a more simple and economical construction than devices of the same general nature as it has hitherto been proposed to construct them.

I have described in the following specification, and shown in the accompanying drawing an embodiment of my invention which I have constructed and tested and found to be satisfactory. It is to be understood, however, that changes may be made in the construction which is shown and described, without exceeding the scope of my invention as defined in the appended claims.

In the drawing:—Figure 1 is a view of a fragment of a door and door frame having my improved door securing device mounted thereon; Fig. 2 is a rear view of the socket which receives the end of the door chain; and Fig. 3 is a sectional elevation of this socket, the section being taken on the line 3—3 of Fig. 2, looking in the direction of the arrows.

Like reference characters refer to like parts throughout the following specification and the several figures of the drawing.

Referring now to the drawing, 10 indicates the door and 11 the door frame. Se-

cured to the door frame 11, by means of screws or the like, is a bracket 12 provided with an outwardly extending staple 13. The door chain 14 is hung from the staple 13, and is provided at its end with a button 15, the latter including a shank 16 and a bottom flange 17. The bracket 12 is formed, at one side, with a notch or recess 18 of a size to conveniently receive the shank 16 of the button 15 when the chain is not in use to secure the door. When the chain is out of use, the button 15 is supported from the bracket 12 by inserting its shank in the recess 18, the flange 17 engaging behind the bracket.

Secured to the door 10, opposite to the bracket 12, is the chain socket 19. This socket is provided with a downwardly extending flange 20, a chamber thus being formed between the front wall of the socket and the door. The socket has an elongated slot 21 formed therethrough, which slot has an enlargement 22 at its rear end. At the rear of the slot 21 is a second slot 23 having an enlargement 24. The slots 21 and 23 are of such a width as to conveniently receive the shank 16 of the button 15; and the enlargements at the ends of these slots are of a sufficient size to permit the bottom flange 17 of the Button 15 to pass there-through. When it is desired to secure the door so that it can be opened for a slight distance but not farther, the button 15 is inserted in the slot 21 and moved down to the front end of the same, withdrawal of the button being prevented by reason of the engagement of its bottom flange 17 behind the edges of the slot 21. With the button in this position, the door can be opened to the length of the chain 14, but not farther. When it is desired to secure the door so that it cannot be opened at all, the button is inserted in the slot 23, which is so positioned that the chain must be tightened to the utmost extent before the button can be inserted into this slot. When the button 15 is in the slot 23, the door cannot be opened at all.

Secured to the socket 19, at the rear end thereof, is a bell 25 which, in the form of my invention now being described, is of the well known kind which is operated by a

spring contained in the bell and adapted to be released when pressure is applied to a button 26. The bell shown is of a kind which may be purchased upon the market, and does not require further description here.

Mounted in the chamber, formed by the flange 20, behind the front wall of the socket, is a longitudinally extending rod 27, the ends of which pass through apertures in the flange 20 at the ends of the socket 19, whereby the rod 27 is guided in its longitudinal movement. The rod is bent, at its rear end, to form a jog 28 which engages against the button 26 of the bell, so that when the rod 27 is pulled to the left (Fig. 3) the bell button 26 will be operated to cause the bell to ring, the spring of the bell effecting the return of the rod 27 when the latter is released. The rod 27 is so formed as to avoid the slots 21 and 23, at the rear ends of the same; but is bent so as to form two jogs 29 and 30 which cross the slots 21 and 23, respectively, adjacent the front ends of the same, one or the other, of the jogs 29 and 30 being adapted to be engaged by the flange 17 of the button when strain is applied to the chain 14, according as the button is present in one or the other of the slots 21 and 23.

Supposing that the button 15 is in position in the slot 21, if an attempt be made to open the door, the result will be that owing to the tension imparted to the chain, the button will apply pressure to the jog 29 of the rod 27, and the latter will be moved to the left (Figs. 2 and 3) against the action of the bell spring, the bell being thus caused to ring. If an unauthorized person is trying to enter, the alarm will thus be given. If, on the other hand, the attempt to open the door was made by an ordinary caller, attention is thus drawn to the need for unchaining the door. The bell will be operated in a like manner if an attempt is made to open the door when the button 15 is in the slot 23, the button operating upon the jog 30 in this instance. The return of the rod 27 to its normal position is effected by the bell spring. The jogs 29 and 30 are disposed sufficiently close to the ends of the slots 21 and 23 so that after the rod 27 has been moved, the button will engage against the end of the slots, whereby any further strain is taken by the socket 19 itself. The construction is simple and the device may be produced at a low cost; moreover it is strong enough to withstand heavier strains than would ever be placed upon it. There are no parts which are liable to get out of order, and the construction is such that the bell cannot fail to ring whenever strain is imparted to the chain. It will also be noted that, owing to the particular construction

of bell employed in connection with the sliding rod, the bell will be set in operation upon a very slight strain being imparted to the chain, this having the desirable effect that the bell is caused to ring even when a cautious attempt is made to open the door.

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

1. A door securing device comprising a chain, a socket having a slot therein for receiving said chain to secure the door, a member mounted so as to be movable with respect to said socket, and having a portion extending across said slot, whereby said member is engaged and moved by said chain when a strain is imparted to the latter, and a spring-actuated bell having a releasing button, such button being disposed in the path of said member so as to be actuated when the latter is moved.

2. A door securing device comprising a chain, a socket, having a front wall and a side flange extending from said front wall, the front wall having a slot therein for receiving said chain to secure the door, a rod slidably mounted in the flange of said socket, and having a portion extending across said slot, whereby said rod is engaged and moved by said chain when a strain is imparted to the latter, and an alarm adapted to be actuated by said rod when the latter is moved.

3. A door securing device comprising a chain, a socket, having a front wall and a side flange extending from said front wall, the front wall having a slot therein for receiving said chain to secure the door, a rod slidably mounted in the flange of said socket, and having a bent portion, said bent portion being disposed so as to extend across said slot, whereby said rod is engaged and moved by said chain when a strain is imparted to the latter, and an alarm adapted to be actuated by said rod when the latter is moved.

4. A door securing device comprising a chain, a socket having a slot therein for receiving said chain to secure the door, a member mounted so as to be movable with respect to said socket and having a portion extending across said slot, whereby said member is engaged and moved by said chain, when a strain is imparted thereto, an alarm, and a spring-retained button for actuating said alarm, said button being disposed in the path of said member so as to be actuated when the latter is moved, and so as to return said member when the latter is released.

5. A door securing device comprising a chain, a socket, having two slots therein, each adapted to receive said chain to secure the door, one of said slots being disposed so as to permit a slight opening of said door, and the other slot being disposed so as not to permit such opening, a member mounted

so as to be movable with respect to said socket, and having portions extending across said slots whereby said member is engaged and moved by said chain when a strain is
5 imparted to the latter, and an alarm adapted to be engaged and operated by said member when the latter is moved.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.

SAMUEL E. GREENBERG.

Witnesses:

CHARLES G. COPE,
MABEL REYNOLDS.