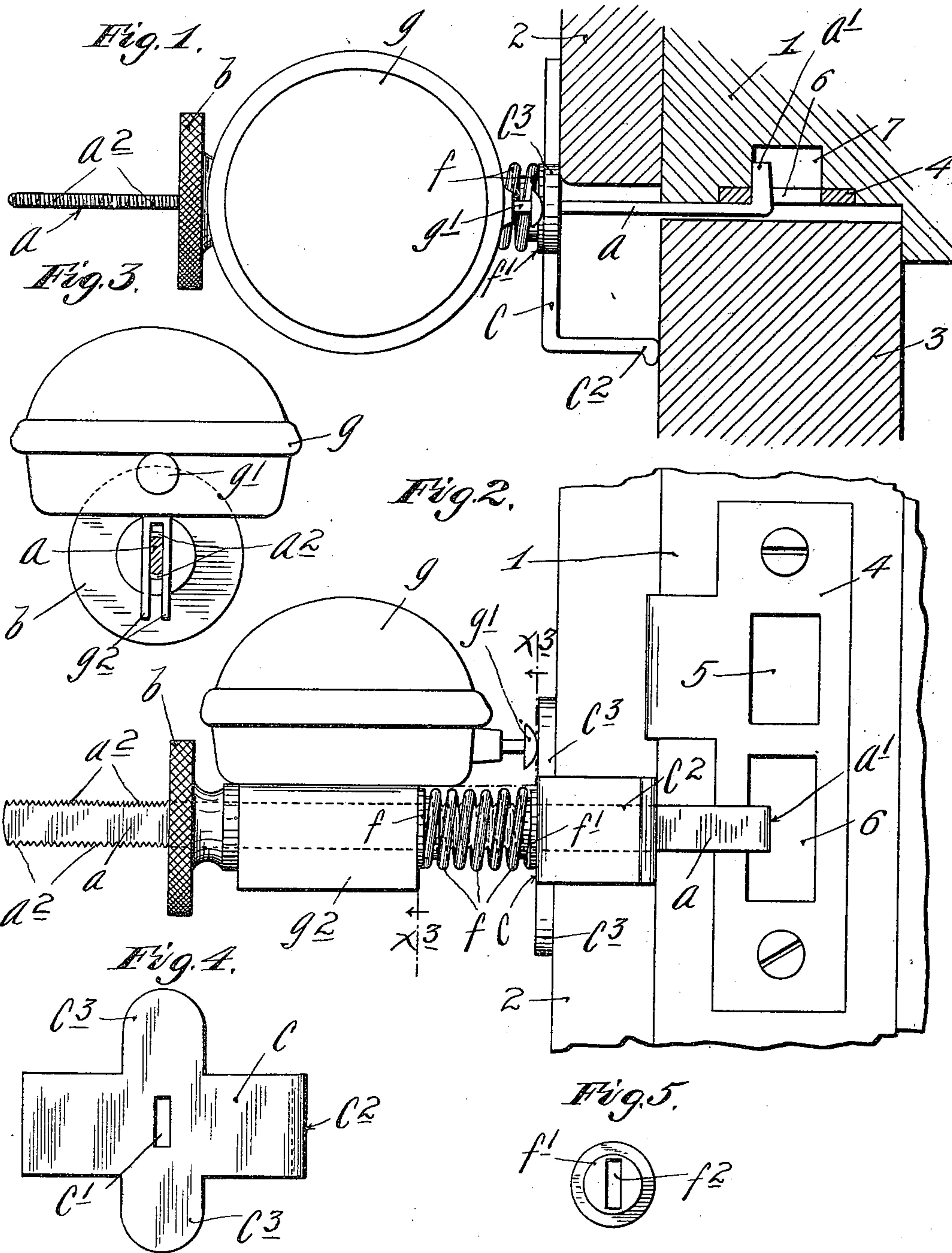


A. L. SHORE.  
PORTABLE DOOR LOCK AND ALARM.

(Application filed Nov. 5, 1900.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

ANTHONY L. SHORE, OF MINNEAPOLIS, MINNESOTA.

## PORTABLE DOOR-LOCK AND ALARM.

SPECIFICATION forming part of Letters Patent No. 667,799, dated February 12, 1901.

Application filed November 5, 1900. Serial No. 35,454. (No model.)

*To all whom it may concern:*

Be it known that I, ANTHONY L. SHORE, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Portable Door-Locks and Alarms; 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.

My present invention has for its object to provide an improved door-lock and alarm and is in the nature of an improvement on the device set forth and claimed in my United States Letters Patent No. 555,523, of date August 7, 1900, entitled "Portable door-lock and alarm."

The invention consists of the novel devices and combinations of devices hereinafter described, and defined in the claims.

The invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Figure 1 is a view, partly in plan and partly in section, showing my improved door-lock and alarm applied to lock a door. Fig. 2 is a view in side elevation of the parts shown in Fig. 1, the door being removed. Fig. 3 is a vertical section on the irregular line  $x^3 x^3$  of Fig. 2. Fig. 4 is a face view of a reversible angle plate or bracket, and Fig. 5 is a face view of one of the spring-caps.

The numeral 1 indicates a door-frame having a casing 2, and the numeral 3 indicates the door. The door-frame 1, as is usual, is provided with a latch-plate 4, which, as shown, has a latch-receiving perforation 5 and a bolt-receiving perforation 6, in line with the latter of which said frame is provided with a recess 7.

The letter  $a$  indicates a flat stem or bar formed at its inner end with a laterally-projected lock-lug or detent  $a'$ , which when the inner end of said stem is placed between the door-frame and the closed door, as indicated in Fig. 1, projects through the lock-bolt passage 6 and is held within the recess 7. The outer portion of the stem  $a$  is provided with screw-threads  $a^2$ , cut in the edges thereof.

A large clamping-head, afforded by a nut  $b$ , having a knurled flange, is screwed onto the threaded end of the stem  $a$ .

The letter  $c$  indicates a so-called "angle plate or bracket" which is provided with an elongated perforation  $c'$ , through which the flattened stem  $a$  is passed. This angle-plate  $c$  has a laterally-bent leg  $c^2$  and is provided with oppositely-projected portions  $c^3$ .

The letter  $f$  indicates a coiled spring which surrounds the flattened stem  $a$  outward of the plate  $c$  and is provided at its ends with spring caps or plugs  $f'$ , formed with elongated perforations  $f^2$ , which loosely fit upon the stem  $a$ .

$g$  indicates the alarm-bell, which may be of any suitable construction. As shown, I employ one of the standard bicycle-bells, the alarm-actuating mechanism of which is thrown into action by pressing inward a projecting stem  $g'$ . I provide this bell at its under side with a depending slotted plate or pronged keeper  $g^2$ , which is adapted to straddle and closely fit the flattened stem  $a$ .

In applying the device in operative position on the door the inner or detent end of the stem  $a$  is secured, as already indicated. The angle-bracket  $c$  is then placed with its leg  $c^2$  against the door 3 and with its other extremity against the casing 2. The spring  $f$  is then slipped against the plate  $c$ . The bell is then placed in working position, with the head of its actuating-stem  $g'$  in line with the upturned projection  $c^3$  of the plate  $c$ , this being done simply by placing the slitted keeper  $g^2$  astride of the stem  $a$ . To finally adjust the device, the nut or clamping-head  $b$  is screwed against the outer extremity of the keeper  $g^2$ , thereby forcing the other extremity of said keeper against the outer end of a spring  $f$  and compressing the said spring until the head of the bell-actuating stem  $g'$  is brought against or very close to the upper projection  $c^3$  of the plate or bracket  $c$ .

When the device is set as above described, the action will be as follows: If an attempt is made to open the door, the initial opening movement thereof will press the angle plate or bracket  $c$  outward and throw the upturned projection  $c^3$  against the bell-actuating stem  $g'$ , thereby causing the bell to be rung or



sounded. However, but a very slight opening movement of the door is permitted, as the spring  $f$  soon becomes compressed to its limit and then acts as a positive stop to prevent further opening movement of the door.

The construction above described permits the bell at any time to be quickly lifted from an operative position or to be applied in operative position on the stem  $a$ . This is important, as it permits the spring  $f$  and angle-plate 3 to be slipped outward far enough to permit the door to be readily opened without removing any other part from the stem  $a$ . Furthermore, if at any time it may be desired to lock the door without the use of the bell, and thereby to prevent any opening movement whatever of the door, it is only necessary to lift the bell from working position and then screw the nut or clamping-head  $b$  against the spring  $f$  until the said spring is compressed to its limit. The oppositely-projected portions  $c^3$  of the angle-plate  $c$  permit the same angle-plate to be used on doors that swing either toward the right or toward the left, for no matter which way the plate is turned one of the said projections will always be turned upward for engagement with the head of the bell-actuating stem  $g'$ . In applying the device to a door the frame of which has no casing the leg  $c^2$  of the angle-plate  $c$  will be turned outward.

What I claim, and desire to secure by Let-

ters Patent of the United States, is as follows:

1. The combination with the flat screw-threaded stem  $a$ , having the detent  $a'$ , of the door-engaging plate on the said stem, a coiled spring on said stem, outward of said plate, a nut or clamping-head on the outer end of said flattened stem, and a bell having the projecting actuating-stem  $g'$  and the slitted keeper  $g^2$ , which keeper  $g^2$  is adapted to embrace said stem, and to removably secure the bell in operative position, substantially as described.

2. The combination with the flat stem  $a$  screw-threaded at  $a^2$  and provided with the detent  $a'$ , of the angle-plate  $c$  with laterally-projecting leg  $c^2$  and opposite projections  $c^3$ , and having the perforation  $c'$  through which said stem  $a$  is passed, the spring  $f$  with end caps  $f'$  formed with elongated perforations  $f^2$  through which said stem is passed, the clamping-nut  $b$  working on the threads  $a^2$  of said stem  $a$ , and the bell  $g$  having the actuating-stem  $g'$  and the slitted keeper  $g^2$ , which keeper straddles said stem  $a$  and which stem is actuated by the upturned projection  $c^3$  of said angle-plate  $c$ , substantially as described.

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

ANTHONY L. SHORE.

Witnesses:

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