

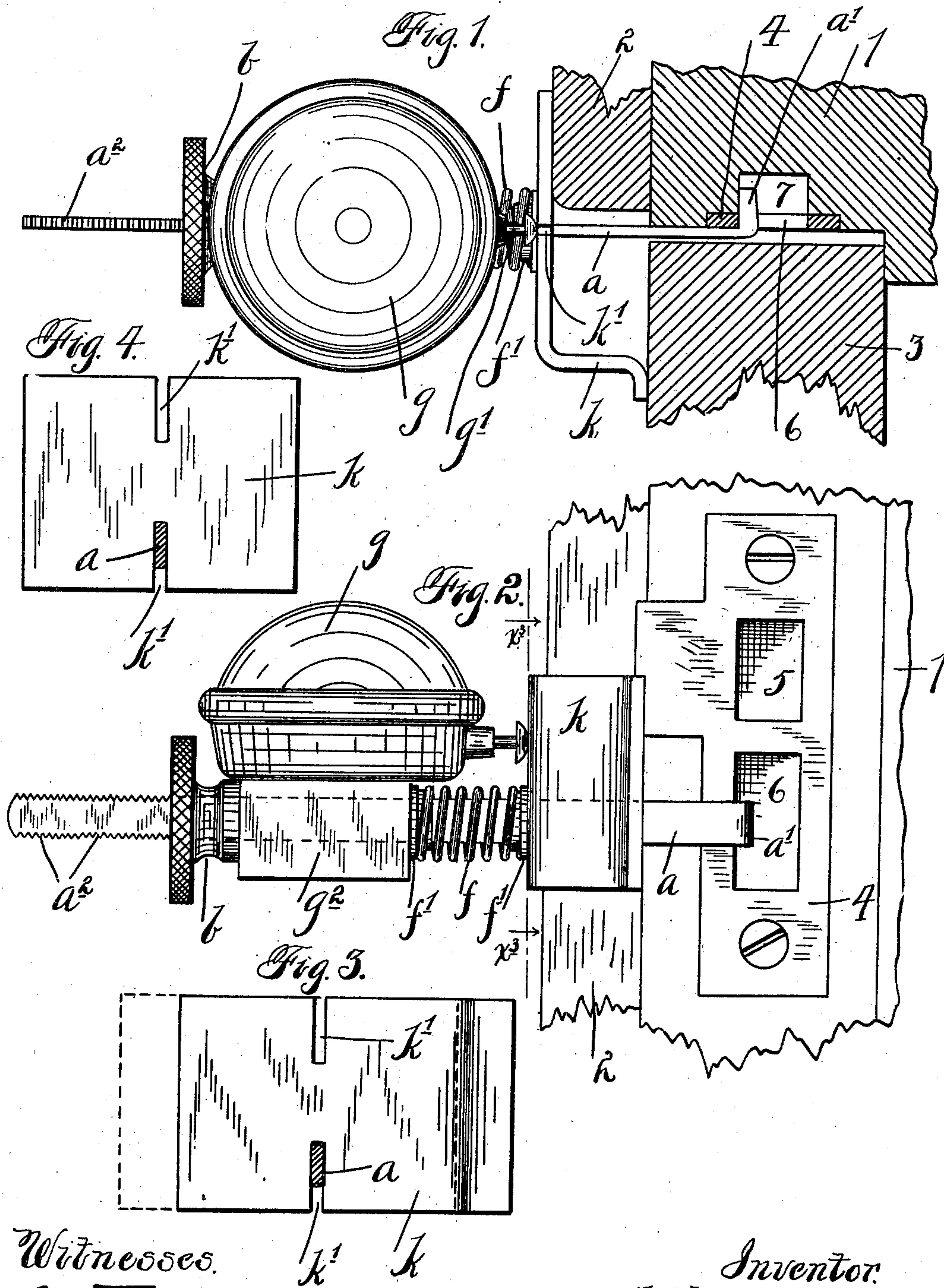
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Patented Nov. 5, 1901.

A. L. SHORE.  
DOOR LOCK AND ALARM.

(Application filed Mar. 25, 1901.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

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## DOOR-LOCK AND ALARM.

SPECIFICATION forming part of Letters Patent No. 685,877, dated November 5, 1901.

Application filed March 25, 1901. Serial No. 52,724. (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 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. 667,799, of date February 12, 1901, entitled "Portable door-lock and alarm."

The invention consists of the novel devices and combinations of devices hereinafter described, and defined in the claims, and the same 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 horizontal section, showing my improved door-lock and alarm applied in working position to lock a door. Fig. 2 is a view in side elevation, showing the parts illustrated in Fig. 1, but with the door removed. Fig. 3 is a section on the line  $x^3 x^3$  of Fig. 2; and Fig. 4 is a view corresponding to Fig. 3, but showing a clamping-plate formed flat instead of angular, as in Fig. 3.

The numeral 1 indicates a door-frame, having a casing 2.

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 the said frame is provided with a recess 7.

The character  $a$  indicates a flat stem or bar provided at its inner end with a laterally-projecting lug or detent  $a'$ , which when the inner end of said stem is placed between the door and the frame, the door being closed, 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 there-

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

The character  $f$  indicates a coiled spring which surrounds the flattened stem  $a$  and is provided at its ends with springs, caps, or plugs  $f'$ , which loosely fit upon the said stem  $a$ .

$g$  indicates an 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  $g'$ . This bell at its under side is provided with a slotted plate or pronged keeper  $g^2$ , which is adapted to straddle and closely fit the flattened stem  $a$  between the clamping head or nut  $b$  and the outer end of the spring  $f$ .

The construction so far described is identical with that set forth in my prior patent above identified. In that prior patent, however, the so-called "angle-plate" or "clamping-bracket" was provided with a perforation through which the flattened stem  $a$  had to be passed endwise to apply the said angle-plate or bracket in working position or to remove the same therefrom. This required, of course, that the nut or clamping-head  $b$  be first removed from the stem  $a$ . There are frequently times when it is important to be able to quickly remove the so-called "angle-plate" from the stem, and, furthermore, this is always desirable in packing the device in small quarters.

In accordance with my invention I provide this angle-plate or clamping-bracket (indicated by the letter  $k$  in Figs. 1, 2, and 3) with one or more slots  $k'$ , which open at the edge or edges thereof. These slots  $k'$  adapt the said plate to be placed in working position simply by moving it downward on the stem  $a$ , so that the downturned slot or notch  $k'$  straddles or embraces the said stem, as best shown in Fig. 3. As is evident, the angle-plate may at any time be quickly lifted from its working position, thereby rendering the device inoperative and permitting the door to be opened.

With the slots or notches  $k'$  located in the opposite edges of the plate  $k$  the plate may be readily reversed, so that its offset portion



will project to the one side or the other, as indicated by dotted lines in Fig. 3. It will of course be understood that it is necessary to throw the offset portion of the plate *k* to the one side or the other, according to the direction in which the door is mounted to swing. The clamping-plate (indicated in Fig. 4 and also designated by the character *k*) is a simple flat plate provided with the notches *k'*, same as in the previously-described construction.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. The combination with a flat screw-threaded stem *a* provided at its inner end with means for securing it between a closed door and its frame, of a clamping-nut, bell and a spring on said stem, and a clamping plate or bracket *k* having a notch or open slot *k'* adapted to

be placed straddle of said flattened stem and to be removed therefrom by edgewise movement of said plate, substantially as described.

2. The combination with a flat screw-threaded stem *a* having at its inner end means for securing it between a closed door and its frame, of a screw-threaded clamping head or nut, a bell and a spring on said stem, and the clamping-plate *k* of angular form provided in its opposite edges with the notches or open slots *k'* adapted to straddle said stem *a* and to be reversed, substantially as described.

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

ANTHONY L. SHORE.

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