

E. C. BARTON.
Burglar-Alarms.

No.150,388.

Patented May 5, 1874.

Fig. 1

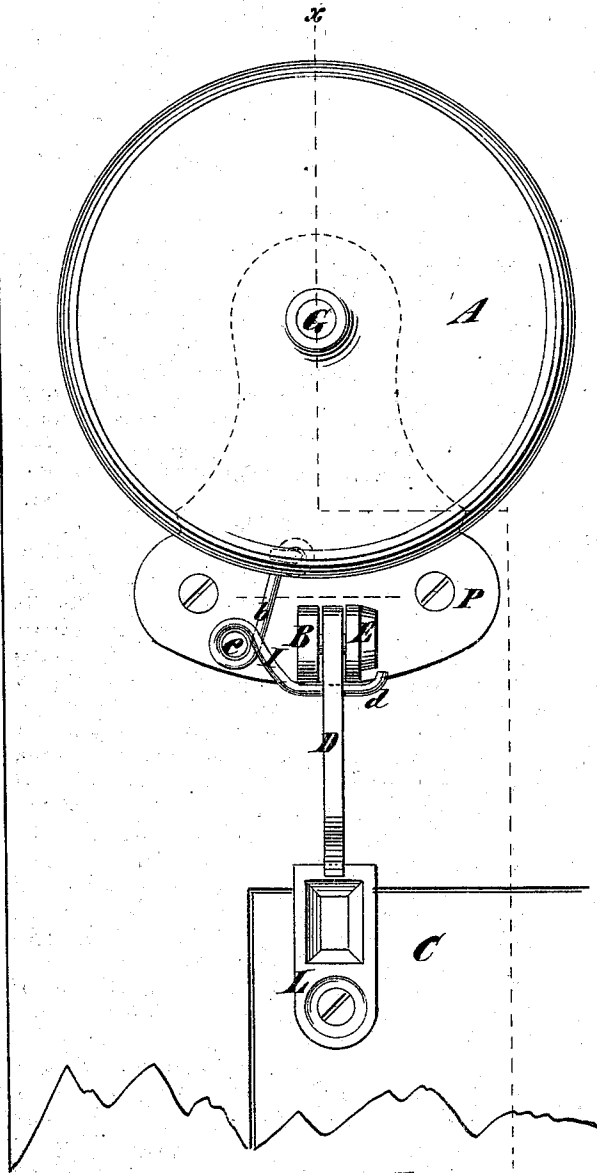


Fig. 2

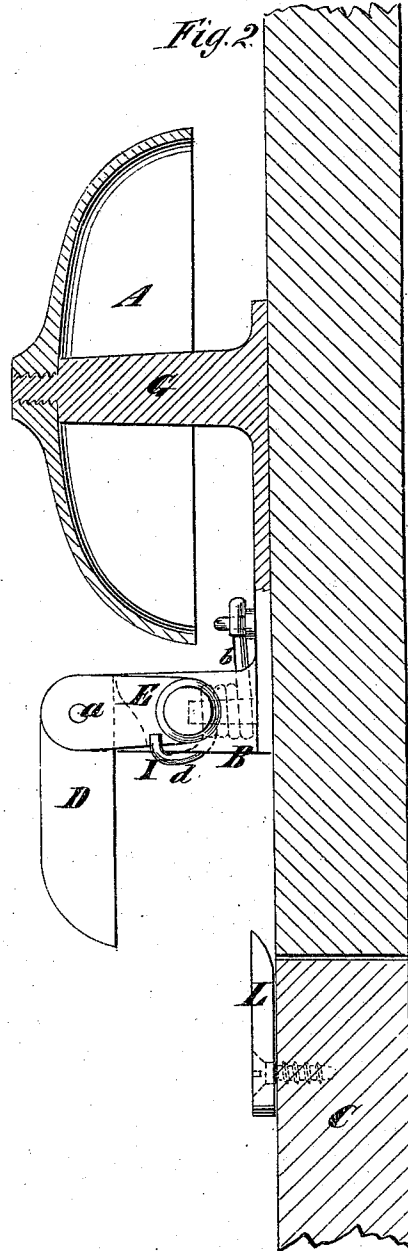
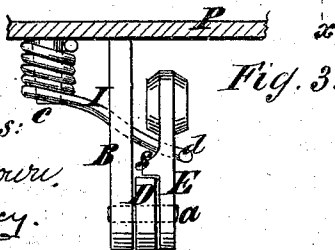


Fig. 3.



Witnesses:
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Inventor:

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UNITED STATES PATENT OFFICE.

ELIJAH C. BARTON, OF EAST HAMPTON, CONNECTICUT.

IMPROVEMENT IN BURGLAR-ALARMS.

Specification forming part of Letters Patent No. **150,388**, dated May 5, 1874; application filed February 17, 1874.

CASE 1.

To all whom it may concern:

Be it known that I, ELIJAH C. BARTON, of East Hampton, in the county of Middlesex and State of Connecticut, have invented a new and Improved Alarm-Bell for Doors, Shutters, Windows, Drawers, &c.; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, which forms a part of this specification.

The object of this invention is to obtain a simple, cheap, and reliable automatic alarm-bell for use in stores, offices, and dwelling-houses, for application to doors, windows, shutters, and money-drawers, in such manner that when the door, or window, or shutter, or money-drawer, as the case may be, is opened, the moving of the same will trip a hammer, and cause the bell to sound and give the desired alarm.

To such end my present invention consists in the combination, with an open-mouthed bell—preferably a gong-shaped bell—of a retracting spring and two jointed levers, one of said levers constituting the bell-hammer, and the other its helve; the said parts being so constructed and arranged with respect to each other that when the device is properly applied to a door, for instance, the moving of such door, as in being opened, will cause the helve to engage the hammer, and draw it away from the bell and against the resistance of the spring, which, when the helve is released, will impel the hammer against the bell and give the alarm; and at the same time said parts being so arranged that in moving the said door in an opposite direction, as in closing the same, the hammer will not be disturbed.

In the accompanying drawing, Figure 1 is a front view of my improved alarm-bell, showing the same applied to a door-casing in such position that the opening of the door will cause it to give the desired alarm. Fig. 2 is a partly sectional and partly side view of the same, the line *xx* indicating the plane of section. Fig. 3 is a plan or top view of the striking mechanism.

A designates an open-mouthed bell of the kind usually termed a gong-bell, and this bell

is secured on the end of a post, G, extending from a back-plate, P, in the usual manner. B is an arm, projecting from a portion of the back-plate P, which is outside the bell A, and to this arm a pair of levers, D E, are pivoted, as shown at *a*, Fig. 3. The lever E serves as a hammer for striking the bell, and the lever D as a hammer-helve for moving the hammer away from the bell and against the resistance of a retracting or impelling spring, I. The said spring I, in the present instance, consists of an arm, *d*, which rests under the hammer-lever E and the arm B, the latter serving as its stop, a coil upon a stud, C, and an extension-piece, *b*, fastened to the back-plate P. The hammer-helve or lever D is of sufficient length to extend over the doorway, so as to be struck by the door when opening the same, or, preferably, by a tripping-plate or lug L secured to the door. And the said lever D, when thrown outward, is caused to engage or interlock with the hammer-lever E in such manner as to throw the striking-end of said hammer-lever away from the bell against the resistance of the spring, so that when the door shall have passed beyond the said hammer-helve the spring will cause the hammer to strike the bell and give the alarm. In the present instance this engagement or interlocking is effected by providing the lever E with a shoulder, *s*, against which the upper end of the lever D bears when its lower end is thrown outward, as will be readily seen by reference to Fig. 3. And it will also be observed that the hammer-helve D, when thrown inward or toward the door-casing, to let the door pass when being closed, will not disturb or move the striking-lever, and hence an alarm is given on opening the door, but not on closing the same.

I prefer to use the tripping-plate or lug L on the door, and to have one end extend above the doorway, and to secure it to the door, that it may be turned sidewise to permit the door to be opened without sounding the alarm in cases where this may be desirable.

It will thus be seen that when the door is opened the lower end of the hammer-helve D will be drawn outward, and that its upper end

will engage with the hammer-lever E in such manner as to deflect its striking end away from the bell against the resistance of the spring, and that so soon as the door shall have passed beyond the said hammer-helve, the said spring will throw the hammer with a sudden impetus against the bell, the spring, however, being arrested by the arm B just before the hammer strikes the bell, and the hammer, so soon as it has sounded the alarm, drops back upon the spring in position to be again operated. In closing the door the lower end of the hammer-helve D, as before stated, moves inward, and allows the door to pass without disturbing the striking mechanism; and to facilitate the backward movement of the hammer-helve D, I preferably provide it with a rounded or beveled end.

It will thus be seen that my invention provides a very simple, cheap, and reliable alarm-

bell, designed for application to doors, money-drawers, windows, shutters, and other sliding and swinging devices, where it is desired that an alarm shall be given upon the opening of the same.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the bell A, arm B, hammer-lever E, hammer-helve D, and shoulder s, substantially as herein specified, whereby the hammer-helve, when its lever end is drawn outward, will actuate the hammer, but when thrown inward will not disturb the same.

2. The combination of the spring I with the arm B and hammer-lever E, arranged and operating substantially as herein specified.

ELIJAH C. BARTON.

Witnesses:

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