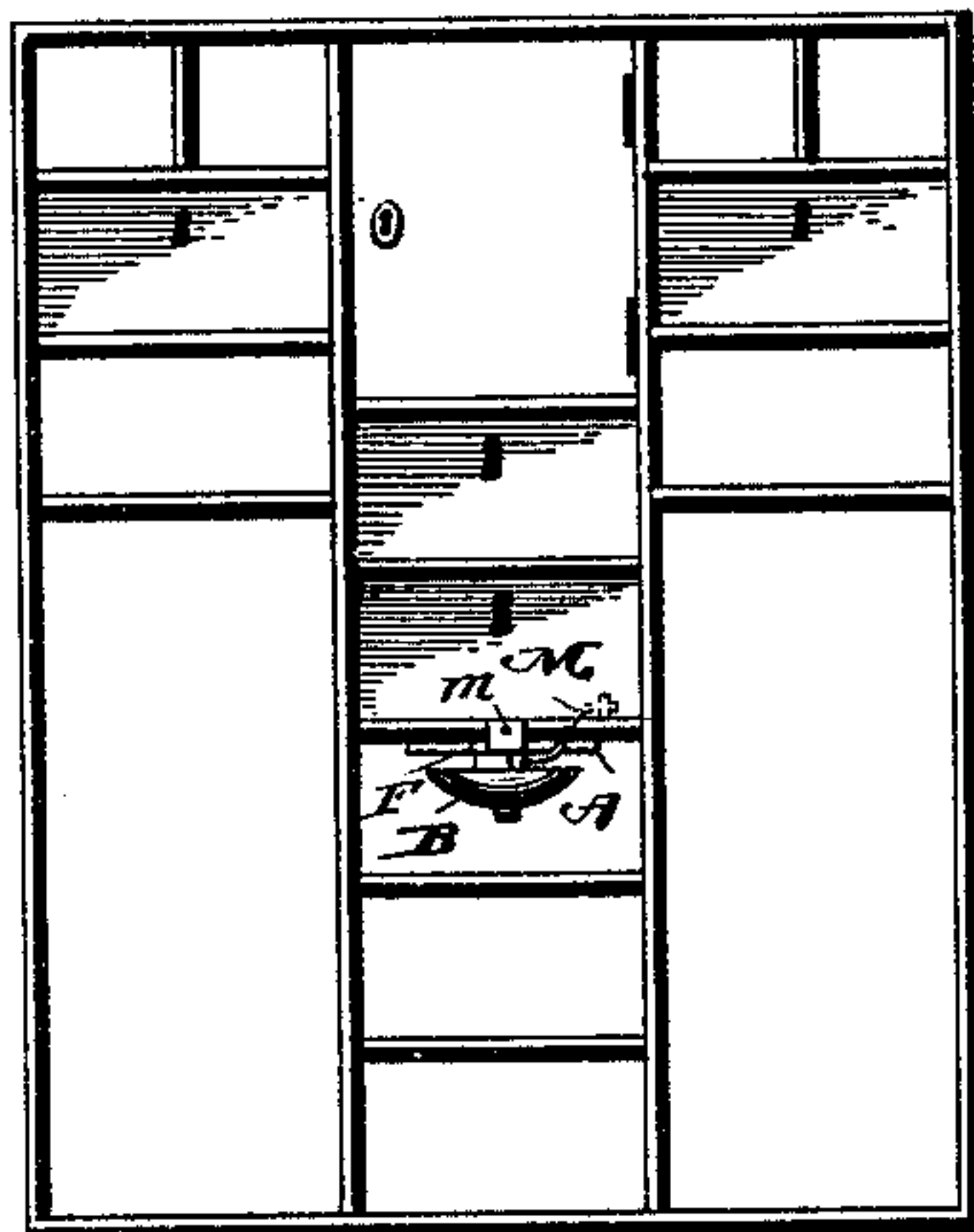


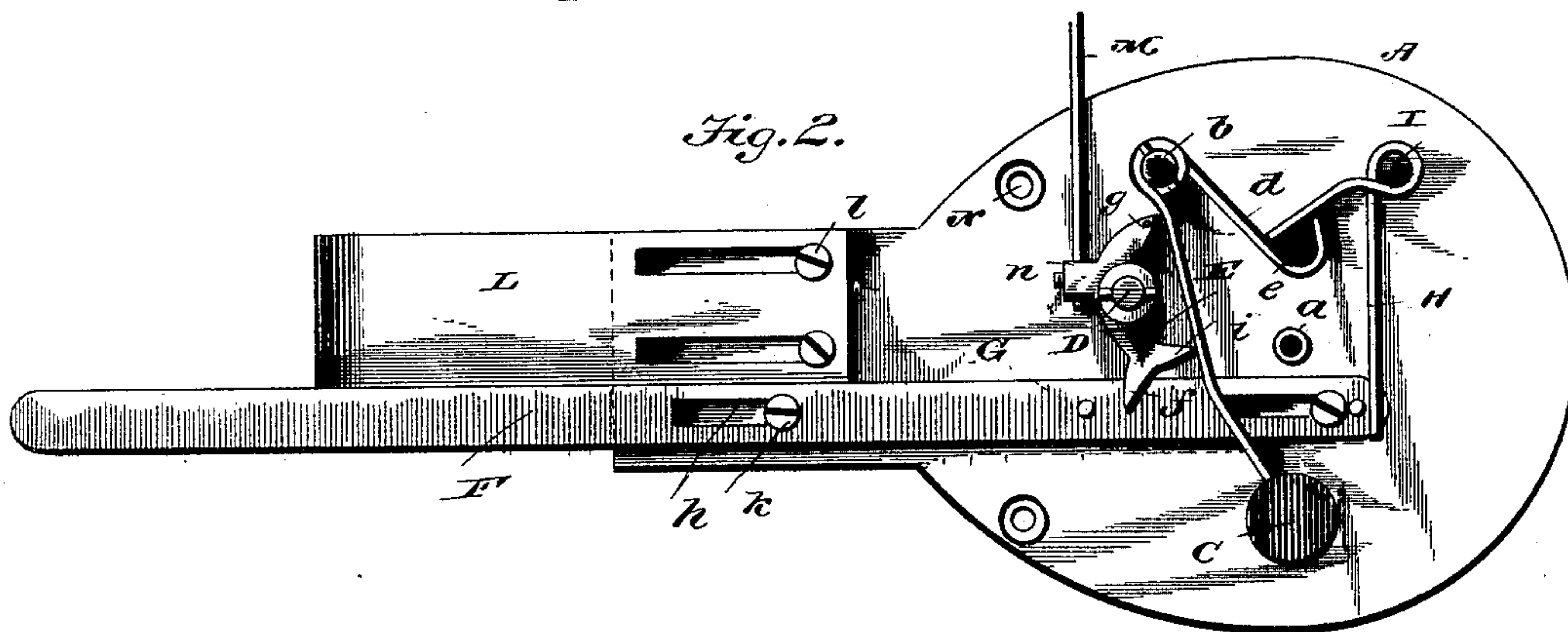
A. D. MILLER.  
SAFE ALARM.

Patented Nov. 19, 1889.

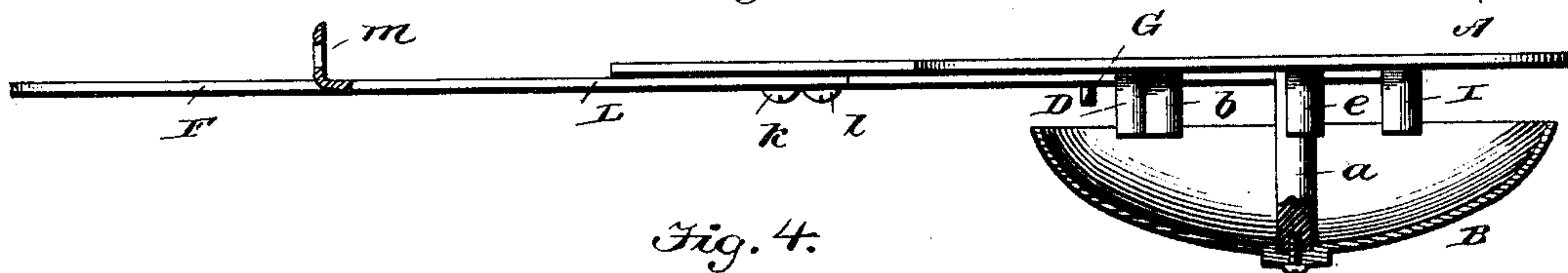
*Fig. 1.*



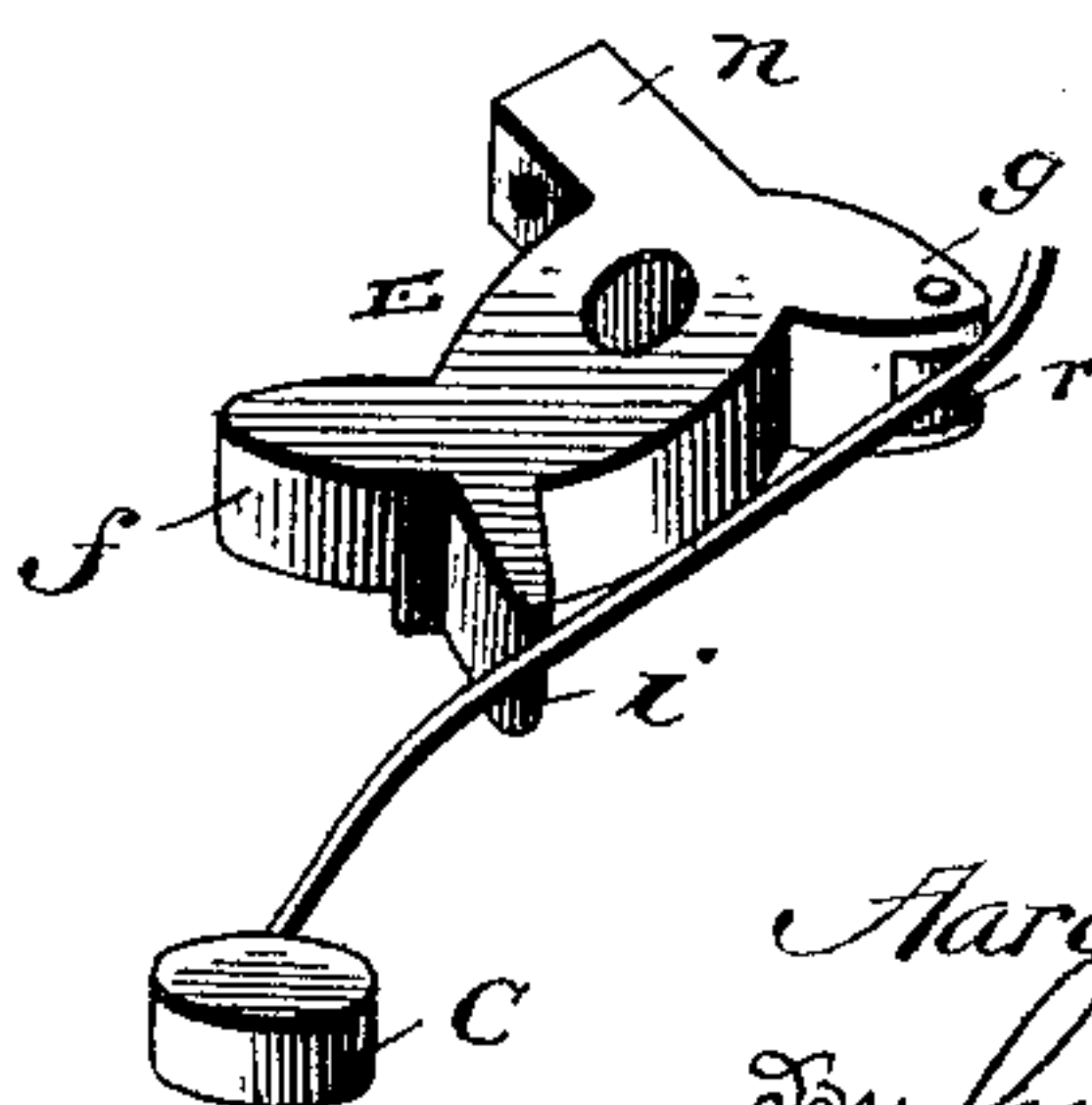
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Inventor

"F. Schell"  
D. E. Dinsmore.

*Harold D. Miller:*

For his Attorney.

His Attorneys  
James J. Sheehy

# UNITED STATES PATENT OFFICE.

AARON D. MILLER, OF EVANSVILLE, INDIANA.

## SAFE-ALARM.

SPECIFICATION forming part of Letters Patent No. 415,413, dated November 19, 1889.

Application filed August 9, 1889. Serial No. 320,242. (No model.)

*To all whom it may concern:*

Be it known that I, AARON D. MILLER, a citizen of the United States, residing at Evansville, in the county of Vanderburg and State of Indiana, have invented certain new and useful Improvements in Safe-Alarms; and I do 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 ap-  
10 pertains to make and use the same.

This invention has relation to improvements in alarms for safe-doors and drawers or the like, and the novelty will be fully understood from the following description and  
15 claims, when taken in connection with the accompanying drawings, in which—

Figure 1 is a front view of a safe with the doors removed and my improvements applied. Fig. 2 is an inverted plan view of my  
20 improved device with the bell or gong removed, and Fig. 3 is a side elevation with the gong in position and in section. Fig. 4 is a view in perspective of the lever E, showing roller *r*.

Referring by letter to the said drawings, A indicates a plate, preferably of metal, and may be of any suitable shape. This plate is provided on its under side with a central depending post *a*, to the outer end of which is  
30 secured the gong B. Arranged at one side of this post *a* and depending from the plate A is a post *b*, to which the handle or arm of the hammer C is secured. This hammer-arm is preferably composed of spring-wire, and is  
35 coiled around the post *b* in the form of a spring having its opposite or free end *d* engaging a post *e*, which serves as a stop.

D indicates a vertically-depending post arranged on the under side of the plate A and  
40 upon which is journaled a lever E. This lever has an arm *f*, adapted to be engaged by a trigger which will be presently explained, and the said lever is also provided with an arm *g*, engaged by the arm of the spring-actuated  
45 hammer. Said lever is furthermore provided with a stop *i*, adapted to be engaged by the arm of said hammer at each stroke of the gong.

It will be observed that the arm *f* of the  
50 lever E tapers on opposite sides, so that it may be disengaged at the proper time from

the trigger or lug on the slide-bar, herein-after referred to.

F indicates a slide-bar, which is provided at suitable points with elongated slots *h*,  
55 whereby the said bar is movably held to the under side of the plate A by means of screws *k*, or other suitable holding devices. This slide-bar, which has its forward end projecting sufficiently from the forward end of the  
60 main plate, is backed by a spring.

In the present illustration I have illustrated a spring for throwing the slide-bar forwardly, which is composed of a wire H. This wire is coiled around the post I with one end stopped  
65 by the post or lug *e* and its opposite end bearing against the rear end of the slide-bar F. It is obvious that other forms of spring may be employed, although the one I have shown is preferred, it being simply necessary  
70 to have a spring which will normally hold the slide-bar F in an advanced position. This slide-bar is provided with a trigger or lug G, arranged at a point to engage the beveled arm *f* of the lever E when the former  
75 has been reciprocated or moved in either direction.

L indicates a bracket, which is provided with one or more elongated slots at its rear end, and is adjustably held to the forward end  
80 of the main plate by means of screws *l* or other fastening devices. This bracket, by means of the elongated slots and fasteningscrews, is rendered longitudinally adjustable, and is provided near its forward end with a  
85 vertical flange *m*, having an aperture for the reception of a screw or the like, whereby it may be fastened in position upon a drawer or other article.

M indicates a lateral arm, which may be com-  
90 posed of metal or other suitable material. This arm has its inner end arranged in an aperture in the lever E, as shown, and is adjustably held therein by means of a set-screw *n*. This lateral arm is designed to operate the  
95 alarm by the opening or closing of a drawer.

In operation the plate A is secured to the under side of the shelf or other part of a safe by passing screws or other devices through the apertures N and also the aperture in the  
100 forward end of the bracket L, the latter being adjusted to suit the article to which the



device is to be attached. The drawer in connection with which this device is to be operated should have means of engaging the arm M, so as to manipulate the alarm. The drawer  
 5 may have a lug, or it may be slotted to receive the arm M; or any other construction may be employed, according to the fancy of the user. When the plate and its bracket have thus  
 10 been secured within a safe, the arm or bar F will lie in a position to be engaged by the inner side of a door of the safe. Thus when the door has been closed the slide-bar F will be pushed inwardly, compressing the spring H. Now when the door has been opened, the slide-  
 15 bar shooting forwardly by the action of the spring, its trigger G will be brought to engage and move the lever E upon its pivot, and as the trigger disengages from the beveled arm *f* of the lever the arms *g* and *i*, through  
 20 the medium of the spring-arm of the hammer, will cause an alarm to be given. It will also be observed that by moving the arm M either forwardly or backwardly the lever will be similarly acted upon and consequently the  
 25 hammer of the gong, thereby giving an alarm at the opening and closing of the money-drawer as well as at the opening and closing of the safe-door, and it will be readily seen that while the drawer-alarm or mechanism for  
 30 operating the same will serve independent of the mechanism for operating the alarm when the door has been opened, yet both of these devices are so connected that they may be worked in conjunction with each other and at  
 35 the same time.

While I have shown and described my invention as applied to a safe and one of its drawers, yet I do not wish to be confined to such application of its use, as it is obvious  
 40 that it may be employed upon doors of various kinds and drawers of various articles of furniture. Furthermore, I provide the lever E with a friction-roller *r* in a recess or seat in the point of the arm *g*, which roller engages  
 45 the arm of the spring-actuated hammer and permits the latter to work more readily and easily.

Having described my invention, what I claim is—

50 1. In an alarm for safe-doors and drawers, the combination, with the main plate having a vertically-depending post, of a gong secured to the lower end of the post, a post arranged at an angle thereto, the arm of the  
 55 gong-hammer coiled around said post and having its opposite end bearing against another post, an elongated slotted slide-bar

carrying a trigger or lug, a spring backing the slide-bar and coiled around the post, a lever having one arm adapted to engage the  
 60 trigger, and two stops or arms adapted to engage the arm of a hammer, an aperture to receive an arm, a set-screw passing into said aperture, an arm arranged in the aperture and adapted to be engaged by a drawer, and  
 65 a longitudinally-adjustable bracket secured to the main plate, substantially as specified.

2. In a safe-alarm, the combination, with the main plate, of the lever journaled on the under side thereof and having a beveled arm  
 70 *f* adapted to engage a trigger, and the two arms *g* and *i*, adapted to engage the arm of the hammer, a gong having a spring-actuated hammer limited by the movements of the trigger-lever, and a slide-bar carrying a trig-  
 75 ger, substantially as specified.

3. The combination, with the main plate, of a slide-bar carrying a trigger and held forward by the action of a spring, a pivoted lever having a beveled arm *f* adapted to en-  
 80 gage a trigger on the slide-bar, and having arms *g* and *i* for limiting the movement of a spring-actuated hammer and a gong, substantially as specified.

4. The combination, with the main plate, of  
 85 a slide-bar adapted to be engaged by a safe-door and moved thereby, a spring engaging one end of a slide-bar so as to keep its opposite end advanced, a trigger on the slide-bar, a gong, a spring-pressed hammer, and a piv-  
 90 oted lever having a beveled arm adapted to be engaged by the trigger of the slide-bar, and two arms adapted to alternately move and limit the movements of the spring-actuated hammer, substantially as specified.  
 95

5. The combination, with the main plate, of a gong secured thereto, a pivoted lever having two arms adapted to alternately move and limit the movements of the hammer of the  
 100 gong, and a laterally-adjustable arm secured to the lever, substantially as specified,

6. The combination, with the alarm mechanism, of the lever E, provided with a friction-roller *r* in a recess in its arm, and the hammer-arm engaging said friction-roller, sub-  
 105 stantially as specified.

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

AARON D. MILLER.

Witnesses:

GEORGE J. HERTH,  
 A. H. SCHROEDER,  
 A. D. MILLER, Jr.