

A. BINGHAM.

Burglar Alarm.

No. 13,478.

Patented Aug. 21, 1855.

Fig: 1.

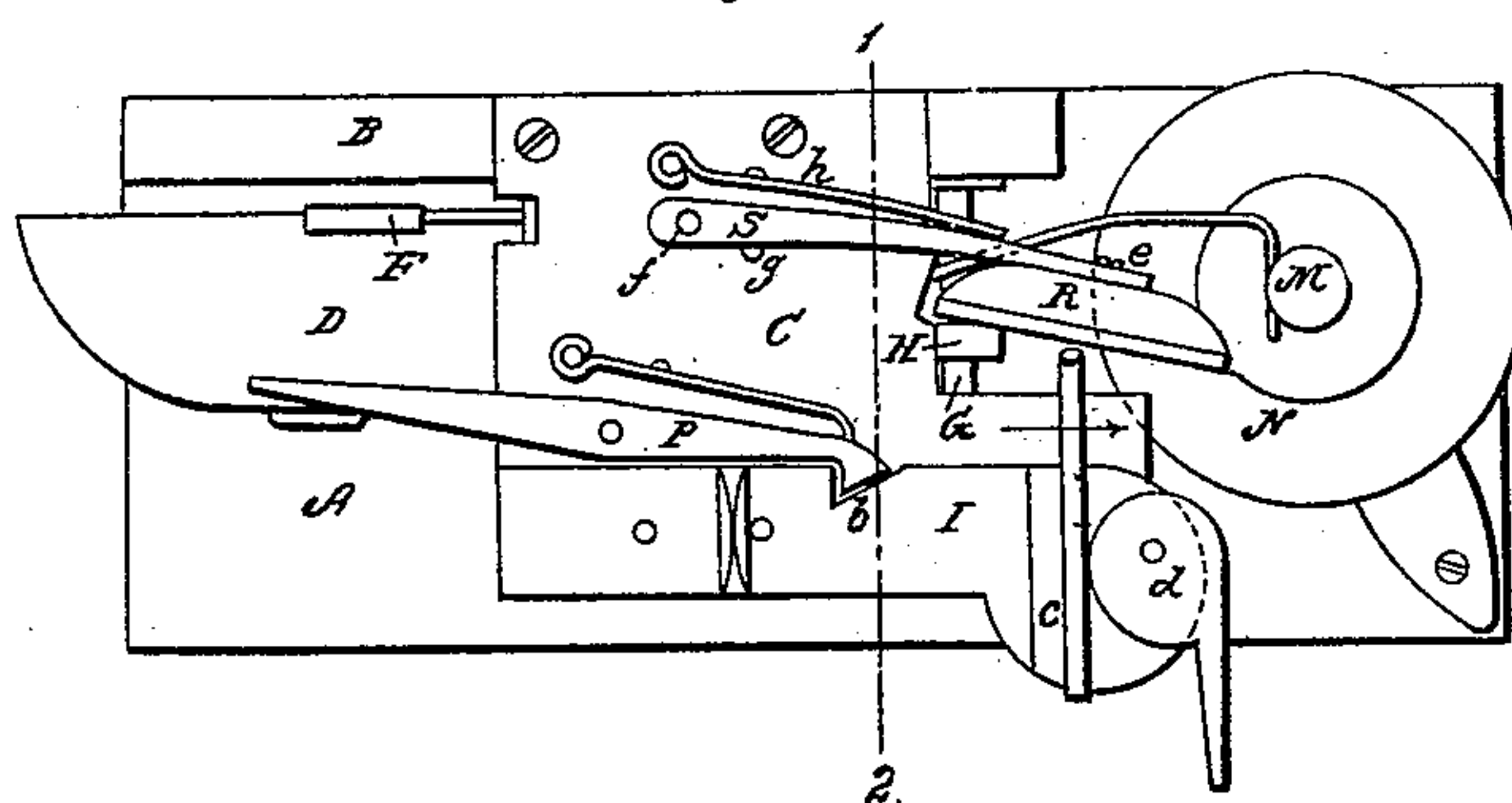


Fig: 2.

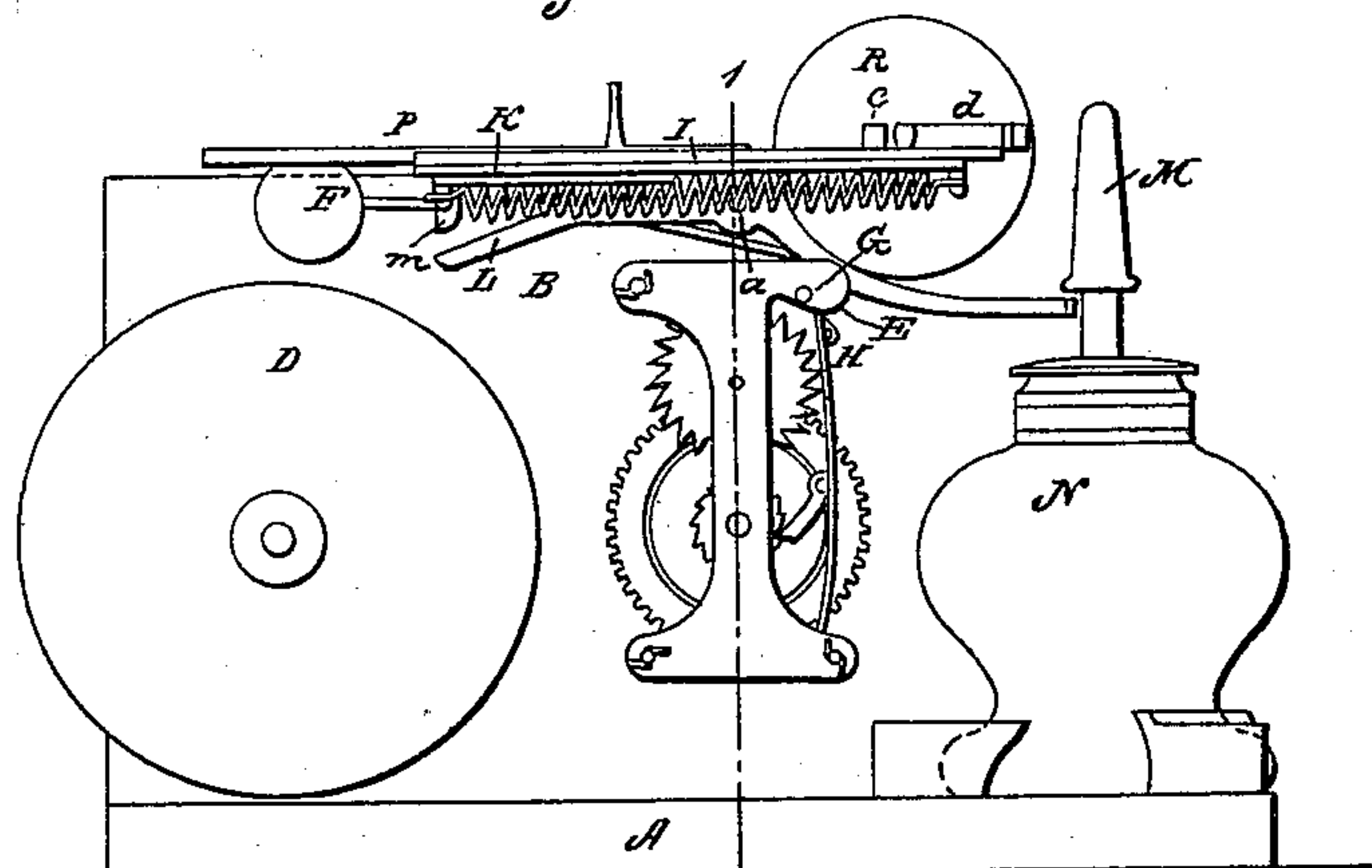


Fig: 3.

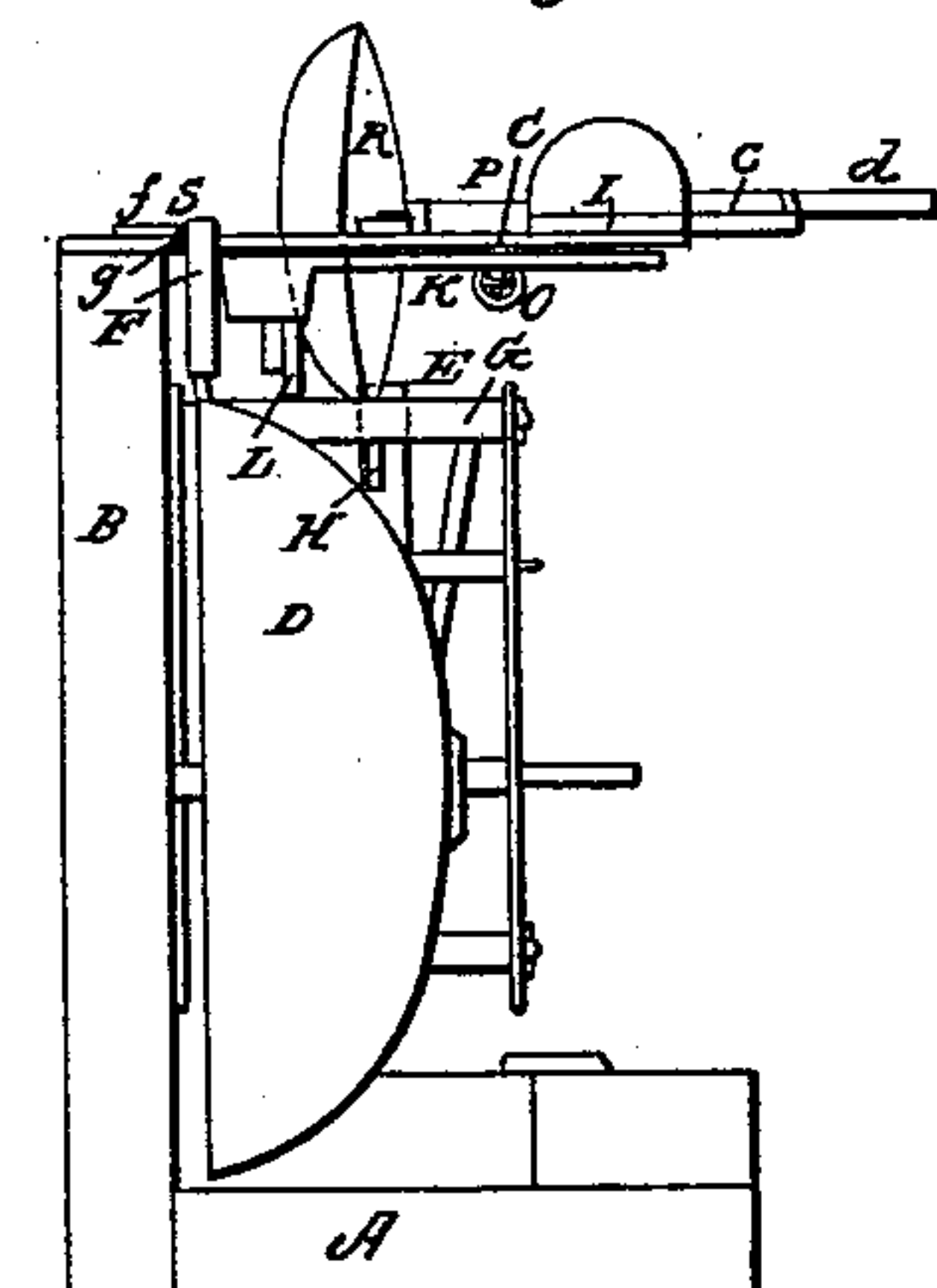
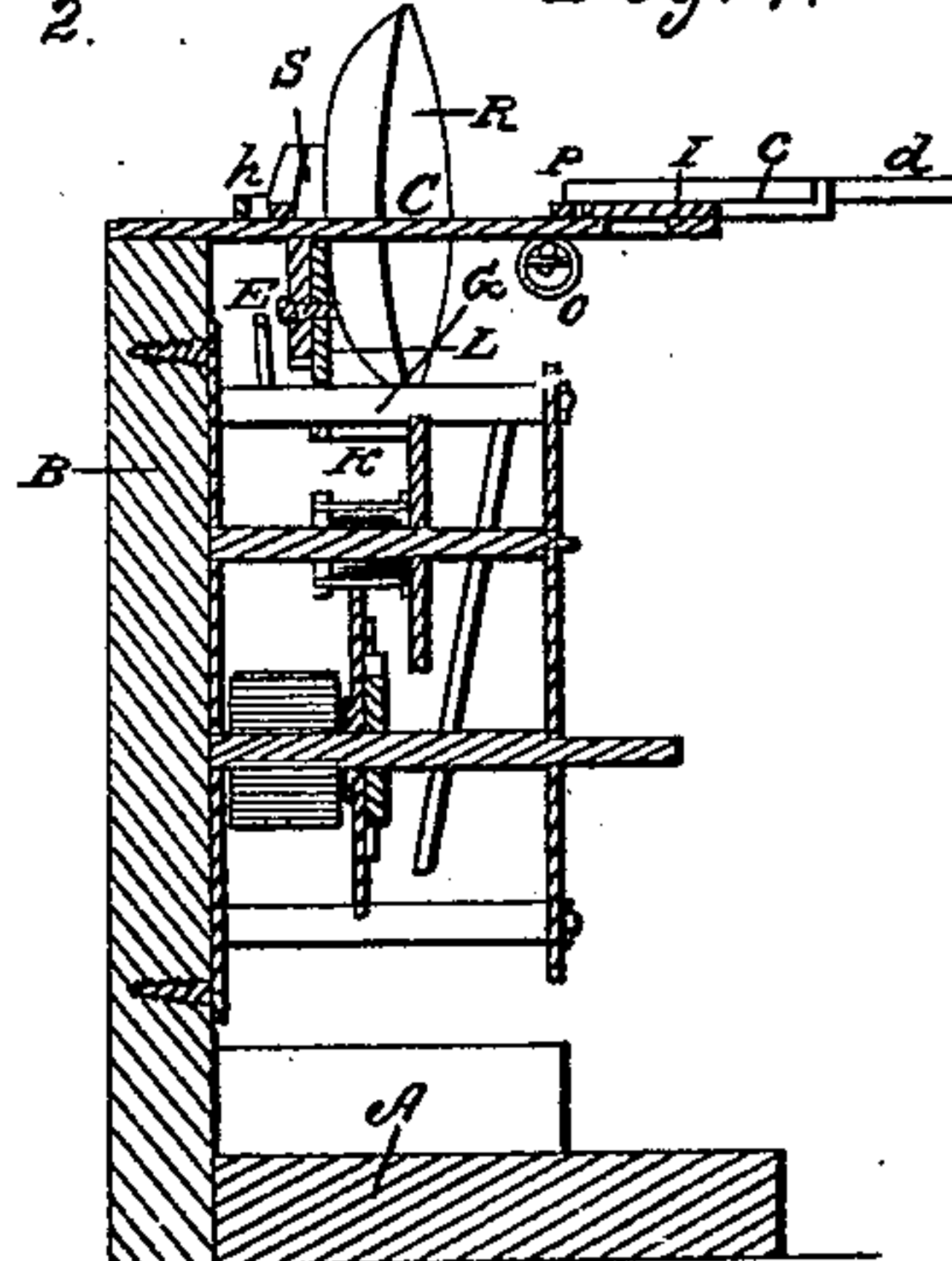


Fig: 4.



# UNITED STATES PATENT OFFICE.

ALBERT BINGHAM, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND A. J. BAILEY.

## BURGLAR-ALARM.

Specification of Letters Patent No. 13,478, dated August 21, 1855.

*To all whom it may concern:*

Be it known that I, ALBERT BINGHAM, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Burglar Annunciator or Apparatus to Sound an Alarm When a Burglarious Attempt is Made to Enter a Dwelling-House or a Room Thereof; and I do hereby declare that the same is fully described and represented in the following specification and the accompanying drawings, letters, figures, and references thereof.

Of the said drawings, Figure 1, exhibits a top view of the said apparatus; Fig. 2, is a side elevation of it; Fig. 3, a rear end view of it; and Fig. 4, a vertical and transverse section of it, such section being taken through its alarm apparatus or on the line 1, 2, of Figs. 1, and 2.

In these drawings, A, represents, the base board of the frame work of the machine, there being elevated upon such base board, a plate or board, B, which supports a horizontal plate, C, extending from and above it and parallel to the base board, A. Affixed to the board, B, is a bell, D, and a common alarm striking apparatus, such as is used in ordinary alarm clocks, such being shown at, E, and as having its striking hammer arranged above the bell and projecting from the shaft, G, of the escapement pallet, H, of the alarm apparatus.

A match-holder or carriage I, is arranged and made to slide upon the plate, C. It has an arm K, extending downward from it, and over the rod of the hammer F, and the rear arm of a cast off lever, L, which is disposed underneath the plate, C, turns vertically on the fulcrum, a, and extends underneath the lower edge of an extinguisher M, of a lamp, N, which is supported on the base board A.

By the contractile power of a spring o, affixed to the match-holder, I, and the plate, C, which match holder is smartly moved or thrown forward whenever it is released from the retaining power of a spring catch lever P, which is arranged upon the top of the plate, C, and operates in connection with the notch, b, made in the match-holder as seen in Fig. 1. For the purpose of enabling a friction match to be confined to the match-holder, I, the latter is provided with a stationary projection, c, and a clamping cam lever, d, the match being placed be-

tween the two and held by turning up the clamp lever. In connection with the said match holder, there is employed a friction disk R, which is connected to a lever, S, by means of a screw, e, or contrivance such as will allow of the disk being rotated as occasion may require. That face of the disk which is next to the match-holder should be made rough or covered with sand paper and be arranged at an angle to the said holder or its path of movement as seen in Fig. 1, the lever, S, turning upon a fulcrum, f, and being forced up against a stop, g, by means of a spring, h, arranged as seen in Fig. 1.

When a match is being applied to a match-holder, it is not necessary that the explosive composition of the match should be placed or forced into close contact with the friction surface of the disk R; for when the match holder is driven forward, the match will be driven into contact with the disk, the spring of the disk allowing such disk to recede under the pressure of the match, and causing the disk to maintain itself in close contact with the explosive composition of the match, during the movement of such. Close pressure of the match composition against the friction surface while the match is being adjusted to the holder, renders it liable to be exploded.

When the friction surface of the revolving disk becomes worn diametrically it may be turned a little so as to bring a fresh or unworn part into the path of the match.

The rod of the bell hammer and the arm of the match holder are so arranged as seen in the drawings that while the match holder is retracted, its arm bears upon the rod of the bell hammer and forces it down so as to prevent the play of the escapement of the alarm apparatus. When the match-holder is moved forward, the bell hammer is relieved so that its escapement pallet will play freely, or be made to operate by its escapement wheel. So also when the match holder is moved forward, a projection, m, of its arm is carried in contact with the cast off lever, and puts the same in movement so as to throw the extinguisher of the wick tube or wick of the lamp, and expose it to the flame of the match in order that the wick may be inflamed or lighted.

With the above apparatus, provided that the door or window of an apartment or building be so connected with the lever, P,



that when opened it shall so move the said lever as to release it from the match holder, an alarm may not only be sounded, but the lamp lighted. Besides this, the invention  
5 admits of a common lamp being used with it, and that such lamp when not so in use, may be removed from it, and used elsewhere.

I do not claim combining with the match  
10 holder a roughened surface for the match to rub against, but

I claim—

1. Arranging the friction surface when applied to a spring, vent as set forth, at an  
15 angle with the match holder or its path of movement, substantially as described, in order to facilitate the ignition of the match when the holder is in movement as specified.

2. I also claim making the friction sur-  
20 face to revolve as described, in order that a fresh portion of the surface may be exposed to the match whenever any part of the surface becomes worn or unfit for use.

3. I do not claim the combination of an

alarm apparatus, a movable match-holder, 25  
a friction surface and a lamp nor the combination therewith of a contrivance for casting the extinguisher off the wick tube of the lamp but what I do claim is the above described arrangement of the match holder, 30  
cast off lever and hammer rod of the escapement, whereby while the match holder is retracted, the escapement apparatus will be controlled as described but during the forward motion of the match holder, not only 35  
will the cast off lever be tilted so as to throw the extinguisher off the wick tube, but the escapement set free, so as to enable the alarm mechanism to operate and strike the hammer with repeated strokes upon the bell. 40

In testimony whereof I have hereunto set my signature this twenty-ninth day of June, A. D. 1855.

ALBERT BINGHAM.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.