

L. J. WORDEN & E. H. SPACE.
BURGLAR ALARM.

No. 8,699.

Patented Jan. 27, 1852.

Fig. 1.

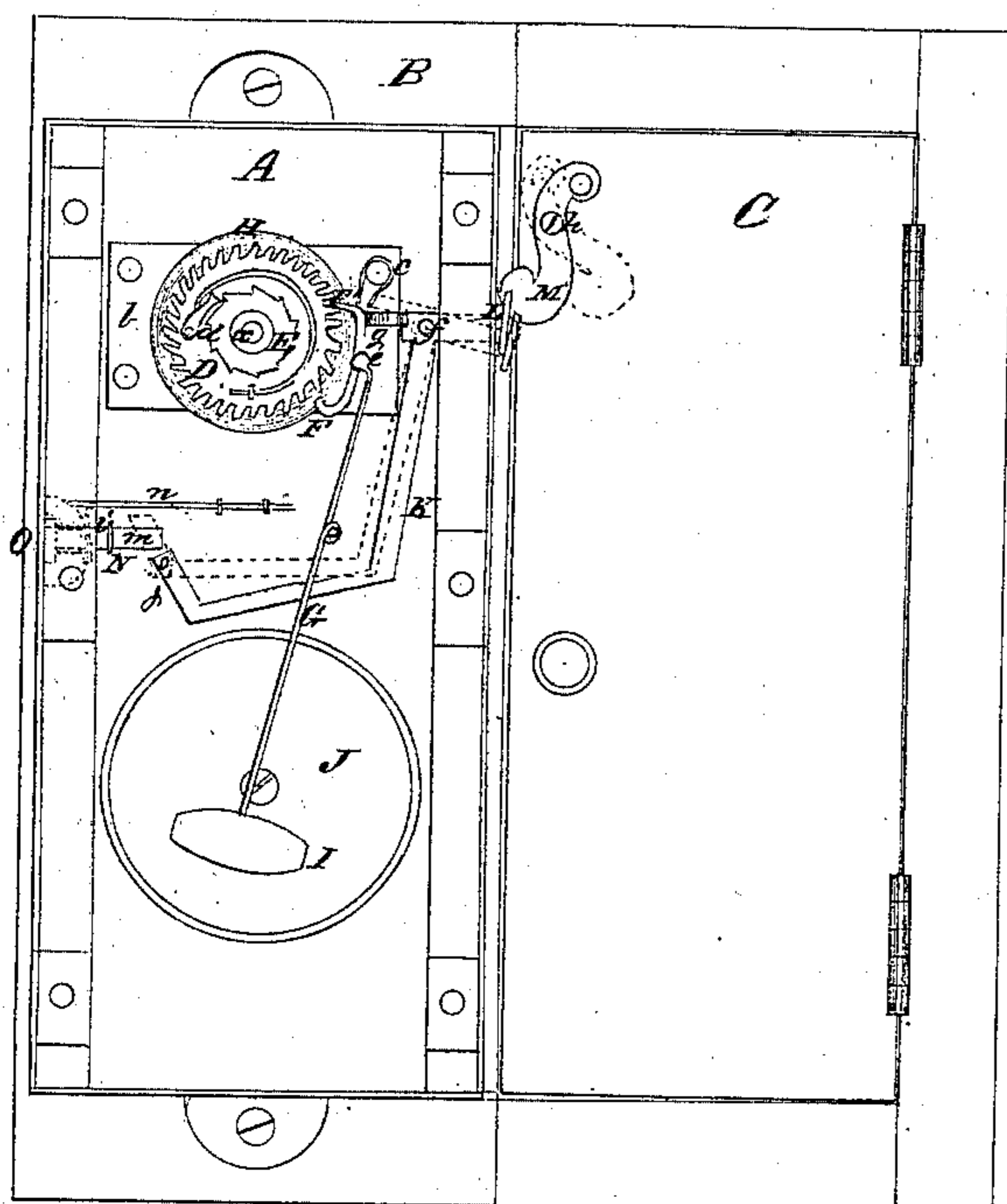


Fig. 2.

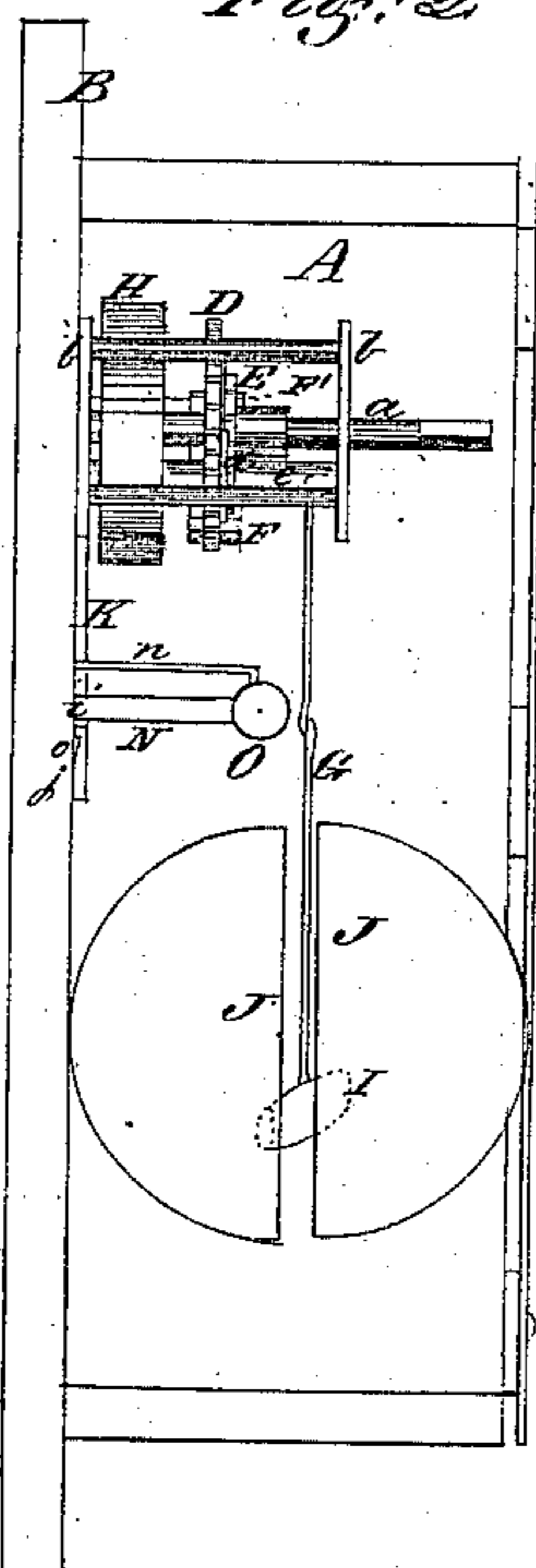


Fig. 3.

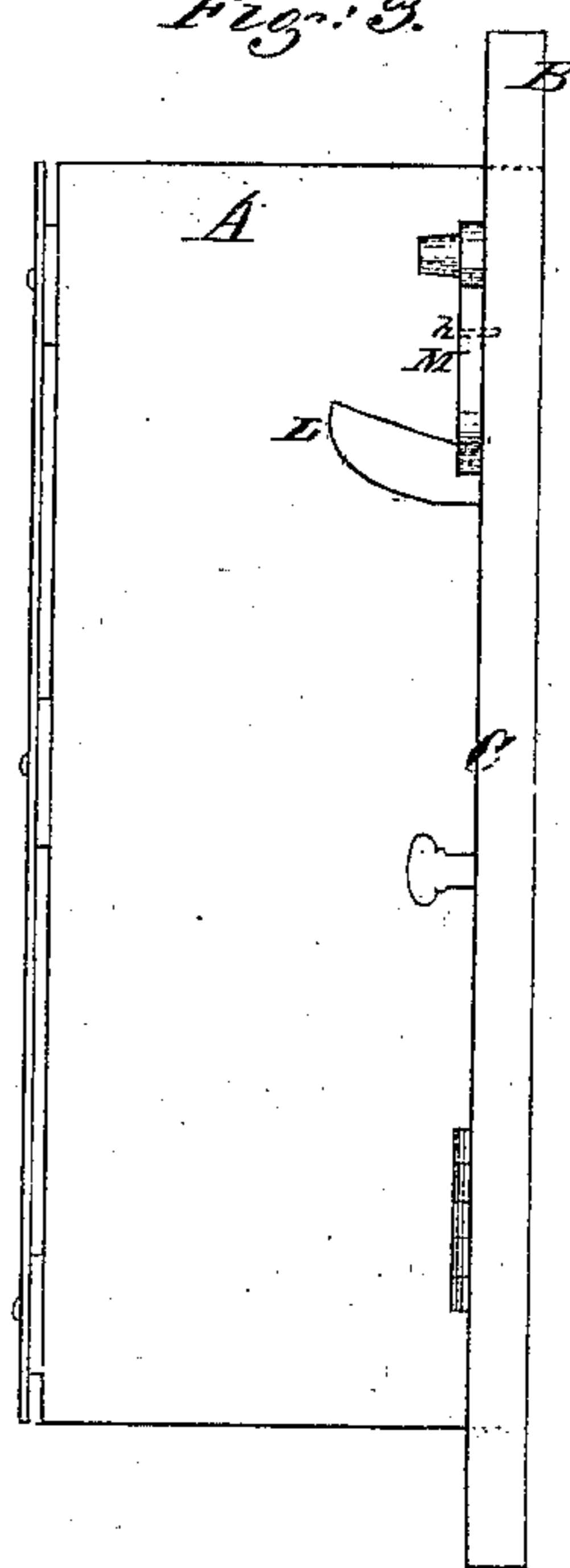


Fig. 4.

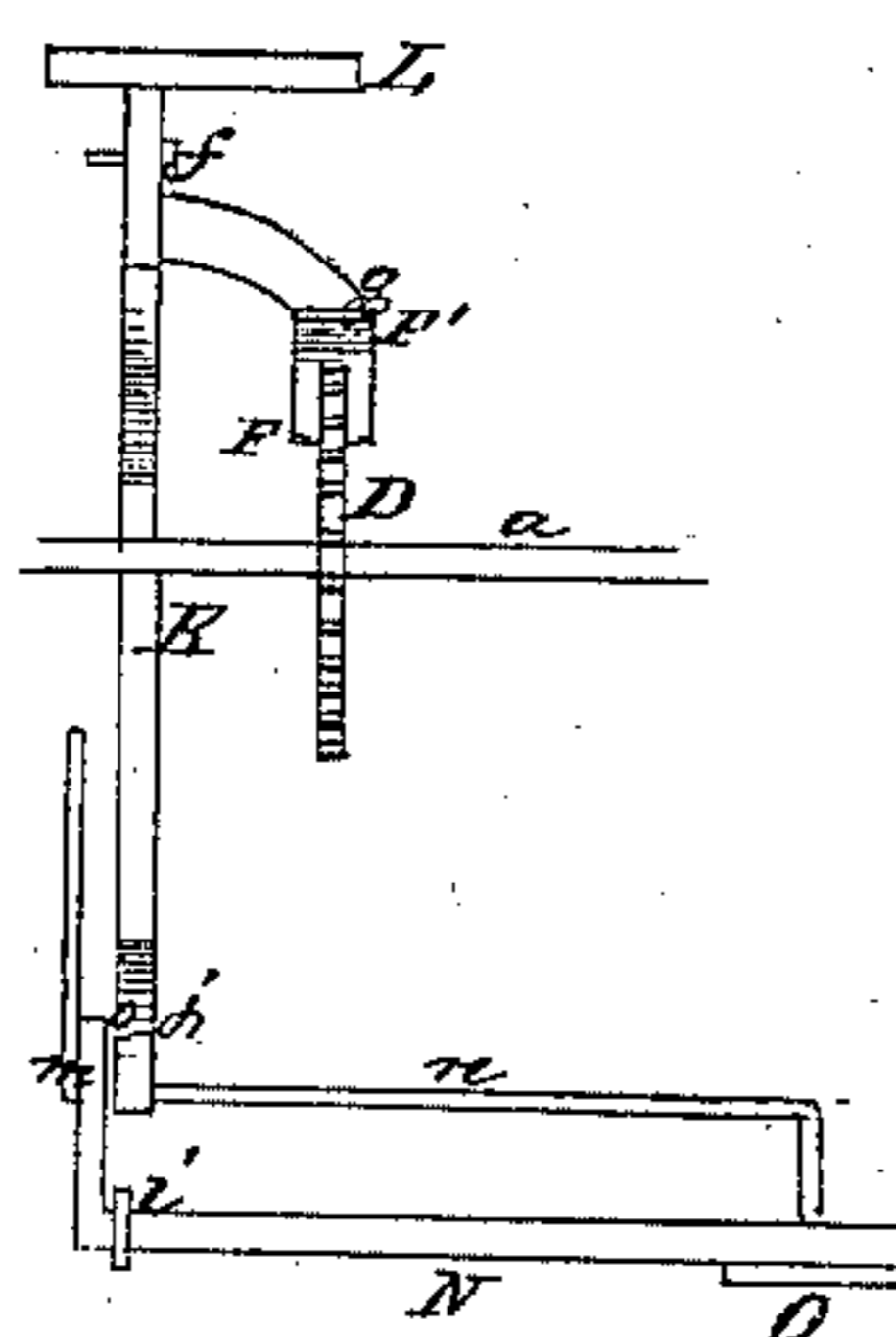
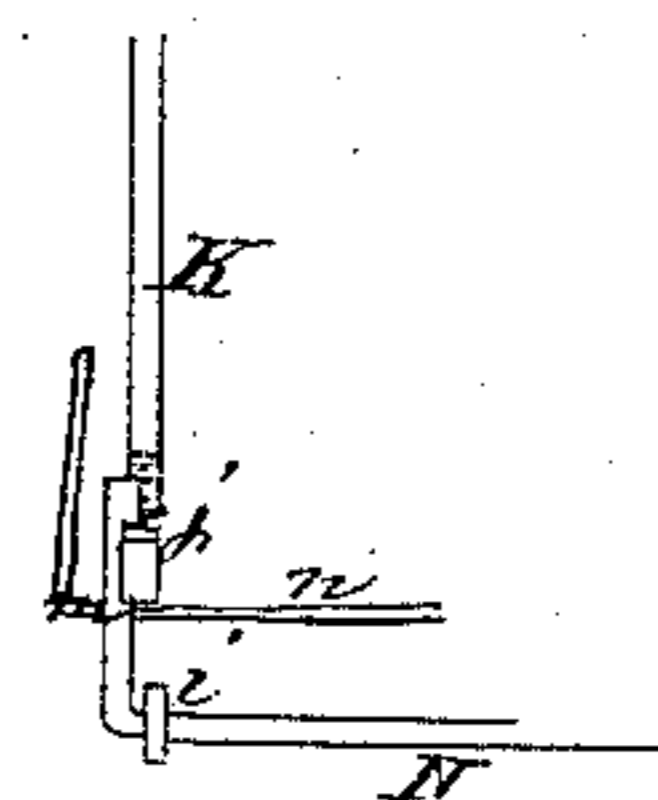


Fig. 5.



UNITED STATES PATENT OFFICE.

L. J. WORDEN AND E. H. SPACE, OF CLINTON, NEW YORK.

BURGLAR-ALARM.

Specification of Letters Patent No. 8,699, dated January 27, 1852.

To all whom it may concern:

Be it known that we, L. J. WORDEN and E. H. SPACE, of Clinton, in the county of Oneida and State of New York, have invented a new and improved instrument for sounding an alarm when a door or window is opened, said instrument being attached to the casing of the same, and which instrument we term a "burglar-alarm;" and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a front elevation of the instrument attached to the casing of a door, the front side of the box which contains the movement being removed. Fig. 2 is a side elevation of ditto, the side of the box being removed so that the movement may be seen. Fig. 3 is a side elevation, the side opposite to that shown in Fig. 2, the side of the box is not removed, the object of the drawing being to show the manner in which the button on the door acts upon the cam attached to the lever. Fig. 4 is a plan or bird's eye view of the cam, lever, catch, scape wheel, and pallets, the object of the drawing being to show the manner in which the lever is secured by the catch. In this drawing the lever is free from the catch. Fig. 5 is a plan or bird's eye view of a portion of the lever and catch, the lever being secured by the catch.

Similar letters of reference indicate corresponding parts in each of the several figures.

The nature of our invention consists in securing the lever that acts upon the pallets in such a manner that when the lever is thrown up by the opening of the door or window, to the casing of which the instrument is attached, and the pallets left free to be acted upon by the scape wheel, the lever will be secured by a catch when thrown up. The object of this is to prevent burglars after entering a door or window to stop the alarm which they cause to be sounded upon opening the door or window. This they can not do as the catch prevents the lever from being thrown down or depressed, and the alarm will consequently sound until the spring which operates the scape wheel is unwound or relaxed.

To enable others skilled in the art to make and use our invention, we will proceed more

particularly to describe its construction and operation.

A, Figs. 1, 2 and 3, is a rectangular box which is permanently secured to the casing B of the door C. See Fig. 1. In the interior of this box is affixed a portion of an ordinary clock movement consisting of a scape wheel D, ratchet E, pallets F, F', with crutch G attached, and a spring H. See Figs. 1 and 2. The scape wheel D is placed loosely on the shaft (a) which has its bearings in the two plates (b b), see Fig. 2, the front plate being omitted in Fig. 1. The ratchet E, is secured or keyed on the shaft (a). The spring H is coiled around the shaft (a) its inner end being attached to the shaft and its outer end secured to the brace (c). See Fig. 1. The outer end of the shaft (a) is squared so that a winding key may operate upon it. Now it will be seen that the shaft (a) may be turned from left to right and the spring wound up, and when the spring acts upon the shaft (a) the shaft will turn from right to left and one of the teeth of the ratchet E, will act upon the click (d) and turn the scape wheel D, the teeth of which act alternately upon the pallets F, F', which are hung on an axis (e). The pallets acted alternately upon by the scape wheel give a vibratory or oscillating motion to the crutch G, which is attached to the axis (e). At the end of the crutch is a hammer I, which strikes a bell J, formed of two half spheres, a sufficient space being between the half spheres to allow the crutch to vibrate between them. See Fig. 2. In Fig. 1, only one of the half spheres is seen, the other being attached to the side of the box A, which is removed.

K, is a lever more particularly shown in Fig. 1. This lever has its fulcrum at (f) and the form of the lever should be about as shown. One end of the lever projects through a slot in one side of the box A and has a cam L, upon it, which is more clearly seen in Fig. 3.

(g) is a projection on the lever which acts upon the upper pallet F'.

M, is a button attached to the door C, by a screw (h) precisely as shown in Figs. 1 and 3. This button may be turned so as to act upon the cam L, or not, as desired. Now when the cam L, is thrown up, the projection (g) is thrown down and presses the upper pallet F, firmly between the teeth of the scape wheel and prevents its moving.

The lever is shown in this position in Fig. 1. But when the cam L, is thrown down the pallet F' is relieved of the projection and the scape wheel is allowed to act upon them. The dotted lines in Fig. 1, show the position of the lever and projection when the cam is thrown down. The upper surface of the cam is inclined somewhat, see Fig. 3, so that when the door is opened the button M, will depress it, as the lower end of the button bears against the upper surface of the cam—that is, when the button is turned in the proper position, as shown in Fig. 1. The object of having the button so that it may be turned either off or on the cam is, that unnecessary noise may be avoided during the day time when the door is opened by the occupants of the house. Were the button stationary and always over the cam the alarm would be sounded every time the door was opened provided the spring was wound up, but by merely turning the button in the position as shown by the dotted lines in Fig. 1, the button will not act upon the cam, and the spring may be wound up and the instrument ready for use, the button being turned over the cam at night.

N, is a bent lever attached to the interior of the box, Figs. 1 and 2. The fulcrum of the lever is at (i). The extreme end (j) of the lever K, which projects upward, passes over the end (m) of the lever N, that is, when the cam L, is depressed. Now the end (j) of the lever K, has a recess (o) cut in it which catches over the upper surface of the end (m) of the lever N. This bent lever N, is governed or acted upon by a spring (n) so that when the cam L, is depressed by the button M, and the end (j) of the lever K thrown up the end (j) bearing against the end (m) of the lever N, the end (m) will be pressed inward (there being a groove at the back of the box A) till the recess (o) reaches the upper surface of the end (m) of the lever N, and the spring (n) forces the end (m) into the recess (o) and secures the lever K, in the position indicated by the dotted lines in Fig. 1. In Fig. 4, the lever K, is represented not secured or caught. In Fig. 5, the lever K, is fastened, the end (m) of the lever N being in recess (o) cut in the end (j) of the lever K. When it is desired to release the lever K, a knob O

on the end of the lever N, is pressed inward and the end (m) of the lever is thrown out of the recess (o). This will be readily seen by referring to Fig. 4, the fulcrum of the lever N being at (i). This knob O projects through the side of the box A, as seen in Fig. 1, and is not very large, so that a burglar could not find it in the dark before sufficient alarm had been given the occupants of the house. But in case the instruments become common and well known this button may be covered by a door and locked, which would make "assurance doubly sure."

The advantages of our instrument over others that have been employed are that burglars cannot stop the alarm from sounding after entering the door, as the lever which was moved by the button so as to allow the alarm to sound is secured by the arrangement as described and cannot be moved back to its original position, so as to prevent the alarm from sounding, without pressing upon the knob O, which will not instantly be found, or the knob may be covered by a slide or door and locked. By employing the button M, we have this advantage, the door upon being opened will sound the alarm or not, as desired. Much embarrassment is avoided by disconnecting the alarm when it is not necessary to use it, as in the day time or evening before the occupants of a house have retired.

We do not claim the clock movement, as that is a well known and old invention. Neither do we claim the lever K for the purpose of operating upon the pallet F'; but

What we do claim as new and desire to secure by Letters Patent, is—

The securing of the lever K, after it has been moved by the button M, so as to allow the pallets F, F', to be acted upon by the scape wheel D, said lever K, being secured by the end (m) of the lever N, fitting in a groove or recess (o) in the end (j) of the lever K, the end (m) being forced into the groove or recess (o) by the spring (n) substantially as shown and described.

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E. H. SPACE.

Witnesses:

W. H. HUBBARD,
WM. HUTCHINS, Jr.