(No Model.)

L. K. JOHNSON.

BURGLAR ALARM.

No. 458,397. Patented Aug. 25, 1891.

Fig. 1.

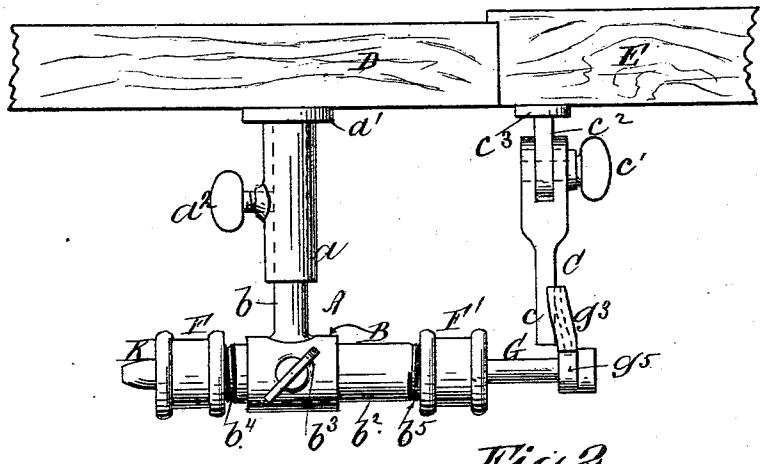


Fig. 2.

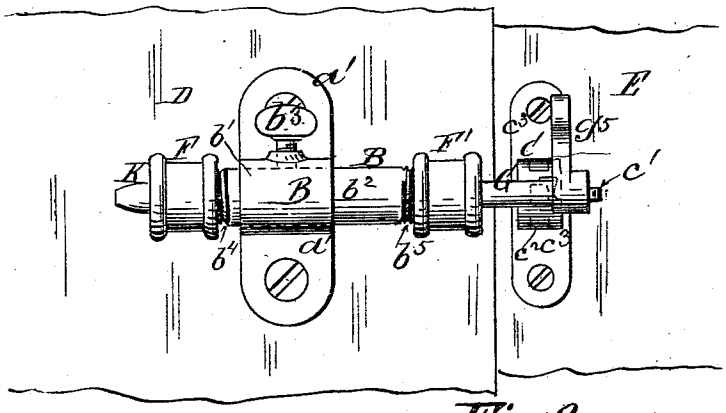


Fig. 3.

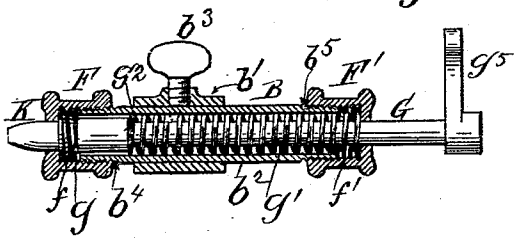
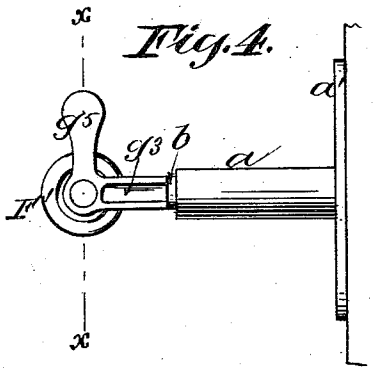


Fig. 4.



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UNITED STATES PATENT OFFICE.

LOUIS K. JOHNSON, OF BROOKLYN, NEW YORK.

BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 458,397, dated August 25, 1891.

Application filed January 22, 1891. Serial No. 378,650. (No model.)

To all whom it may concern:

Be it known that I, LOUIS K. JOHNSON, a citizen of the United States, residing in the city of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Burglar-Alarms, of which the following is a description sufficient to enable others skilled in the art to which the invention appertains to make and use the same.

My invention relates to the class of devices designed to be arranged in connection with doors and windows in such manner as to give an alarm when they are tampered with by the discharge of a blank cartridge, as in my Letters Patent No. 392,805, dated November 13, 1888, upon which my present invention is an improvement.

The invention consists in the special construction and arrangement of parts, hereinafter set forth, whereby a more universal adjustment and adaptation of the device is attained and whereby it is simplified and cheapened in manufacture and at the same time rendered more compact and effective in use.

In the accompanying drawings, Figure 1 is a plan of my improved device set for use; Fig. 2, a front elevation of the same; Fig. 3, a central longitudinal section of the barrel of the device upon plane of line $x\,x$, Fig. 4, the adjoining parts being shown in elevation. Fig. 4 is an end elevation taken at right angles to Fig. 2.

The device may be said to consist of three parts, the holder A, the barrel B, and trigger C, the barrel B being supported by the holder A, while the trigger C is an independent part attached separately to either the door or window-sash, or the door or window frame, as the case may be, for it is to be understood that my device is not only equally applicable to doors or windows, but also that the parts are interchangeable, in that the holder and barrel may be attached to the door or window-sash, while the trigger is attached to the door or window frame, or vice versa, as may be preferred or may be found necessary to conform to the special requirements of use. Consequently in the drawings the sections D E, to which the holder A and trigger C are respectively attached, may be considered to represent adjoining portions of either a door and its frame or a window-sash and its frame, the relative arrangement and operation of parts being substantially the same in either case.

The holder A consists of a socket a, the flanges a' of which afford a means of securing it in position by screws or otherwise. Into this socket a fits the shank or trunnion b of the barrel B, being held therein by a thumb-screw a^2, which permits of its adjustment to regulate the degree of projection of the barrel B beyond its support. The outer end of the trunnion b carries a socket b', in which the body b^2 of the barrel rests and within which it is held adjustably by a thumb-screw b^3, by which the barrel may be regulated in position with relation to the trigger C. The exteriors of the ends of the barrel B are formed with external screw-threads b^4 b^5 for engagement with internal screw-threads $f\,f'$, formed in the caps F F', by which the ends of the barrel are closed. Both of the caps F F' are perforated, one F for the reception of the blank cartridge K, which is inserted through the interior until its rim rests against the inner surface of the end of the cap, the latter being removed from the barrel for the purpose, and the other F' for the passage of the shank of the hammer or bolt G by which the cartridge is fired. The bolt G at its inner end is formed with a nipple or firing-needle g, arranged to impinge upon the rim of the cartridge under the impulse of the spring g' when the bolt G is released from the trigger C. It will be seen that the coiled spring g' rests between the shoulder g^2 on the bolt G and the end of the cap F, so that the bolt G has to be retracted or forced back into engagement with the trigger C against the resistance of and while effecting the contraction of the spring g', thus storing up the energy requisite for firing the cartridge. The outer end of the bolt G is formed with a lateral projection g^3 for engagement with the end c of the trigger C, and it is also provided with a handle g^5 to facilitate its retraction and setting upon the trigger C. The trigger is preferably jointed, consisting of the end c, pivotally secured by a thumb-screw c' to the base c^2, which is provided with lugs c^3, by which it is secured in position. The joint allows the trigger end c to be set with accuracy to engage the end of the bolt G. It will thus

be seen that a universal adjustment of the parts with relation to each other is attained with great simplicity and compactness of structure and arrangement. When the device is set, as indicated, any slight movement of either the sections D or E with relation to the other is sufficient to release the bolt G from the trigger C and fire the cartridge K.

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

In a detonating burglar-alarm substantially such as described, the combination of the socket piece a, with set-screw a^2, the horizontally and laterally adjustable holder A, having set-screw b^3, the barrel B, firing-pin G, with the trigger-arm g^3 and handle g^5, the spring g, and the adjustable trigger C, with standard c^2 and set-screw c', the whole arranged and operating substantially in the manner and for the purpose set forth.

LOUIS K. JOHNSON.

Witnesses:
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G. T. MIATT.