J. K. JOHNSTON.
Burglar-Alarm.

Patented Sept. 17, 1878.

No. 208,177.

Fig. 1.

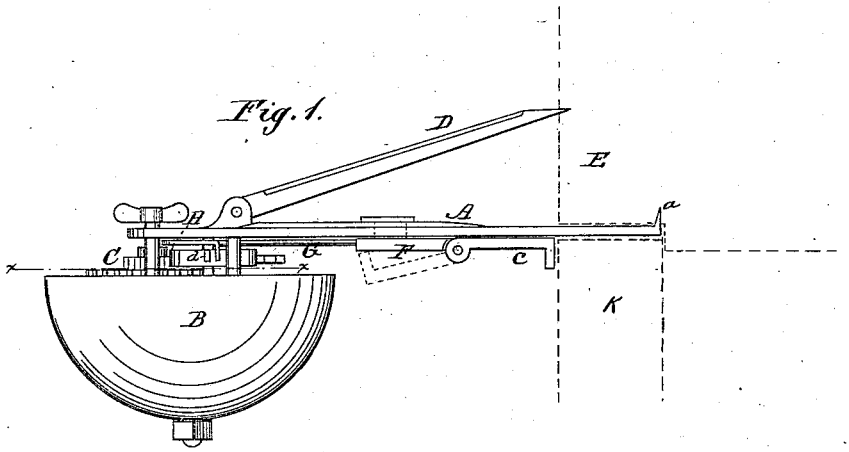


Fig. 2.

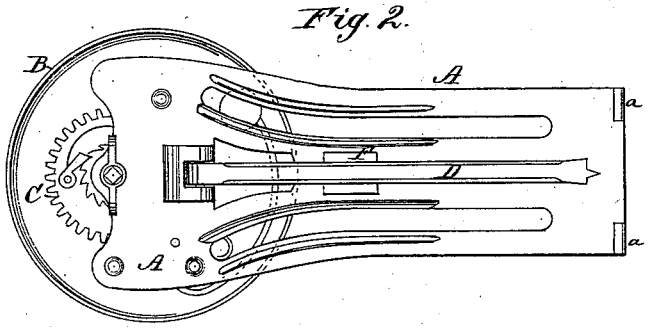
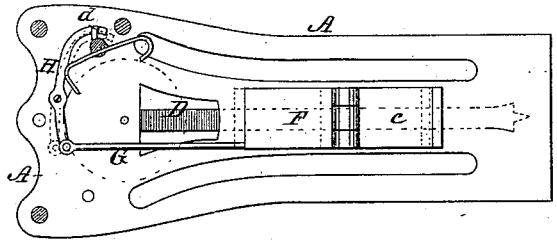


Fig. 3.



WITNESSES:

W. W. Hollingsworth

Solon C. Kemon

INVENTOR:

J. K. Johnston

BY

Munn & Co

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JAMES K. JOHNSTON, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN BURGLAR-ALARMS.

Specification forming part of Letters Patent No. **208,177**, dated September 17, 1878; application filed July 29, 1878.

To all whom it may concern:

Be it known that I, JAMES K. JOHNSTON, of the city and county of St. Louis, and State of Missouri, have invented a new and Improved Burglar-Alarm and Door-Fastener; and I do hereby declare that the following is a full, clear, and exact description of the same.

The invention is an improvement upon the device for which I have received Letters Patent No. 192,698, dated July 3, 1877.

The object is to provide a stronger, more compact, and also more efficient device; and to this end I have dispensed with a joint in the toothed plate to which the alarm was attached in said patented device, and have instead provided the sliding trigger with a hinged arm or extension, whose adjustment allows the door to be opened when it is desired to remove the device. I have also constructed and located other parts in a new and improved manner.

In the accompanying drawings, forming part of this specification, Figure 1 is an edge or plan view of the device, representing it applied to a door. Fig. 2 is a side view. Fig. 3 is a lengthwise vertical section on line *x x*, Fig. 1.

A indicates the plate having the alarm mechanism proper, consisting of the bell B and clock-gear C, attached to its broadened outer end. Its inner end is provided with teeth *a* on the side opposite the alarm mechanism.

The clock-gear C is mainly inclosed and protected by the plate A and bell B, so that it is not so liable to injury by contact with other objects, as in my previous invention; and an advantage is also gained in respect to compactness or size of the device as a whole.

The body or middle portion of the plate A is provided with lengthwise ribs to give it the required lateral strength. An arm, D, is hinged to the outer end of the plate on the opposite side from the alarm mechanism, the function of which is to act as a lateral brace for the plate when the device is applied to a door-jamb, E, as shown in Fig. 1.

When the device is not in use, said brace D folds flat against the plate A, as shown in Figs. 2 and 3, so as to occupy the least possible space.

The means for tripping the alarm mechanism consist of the sliding trigger F, having a hinged arm, *c*, a rigid rod or wire, G, and a lever, H.

The trigger F slides in a slot in the middle portion of the plate A, and the rod G connects it with the lower end of the lever H. The latter is fulcrumed at its middle, and its upper end projects laterally, so as to engage a lug, *d*, on the pallet-arbor, and thus prevent the operation of the escapement when the trigger is in a certain position.

The practical application and operation of the device are as follows: The brace D and hinged trigger-arm *c* are turned back or away from the plate A, and the toothed end of the latter placed against the door-jamb I, so that upon closing the door K the teeth will be forced into the jamb. The brace D is then turned inward and its free end set into the jamb, in which position it supports the plate against any lateral pressure that may be occasioned by an attempt to open the door. The trigger-arm *c* is likewise adjusted parallel with the plate A, so that its outer end will be in contact with or near the door, all as shown in Fig. 1. The spring of the alarm being then wound up, the device is in readiness for operation.

It is obvious that, in case of an attempt to open the door, it will, by contact with the arm *c*, force back the trigger F, and thus throw the upper end of the lever H free from the lug *d* on the pallet-arbor, and permit the free operation of the escapement, and, hence, of the whole alarm mechanism. The trigger will, however, prevent the door being opened completely, so that the device still acts as a fastener.

When it is desired to open the door to remove the devices, the hinged trigger-arm *c* and brace D are turned back or away from the door and jamb respectively.

I am aware a door-stop or alarm has been provided with a hinged folding arm, and that a sliding trigger has been arranged to release the detent of a pallet; but these I do not claim.

What I claim is—

1. The hinged arm *c*, in combination with

the sliding trigger, the slotted toothed plate A, the rod G, and trip device, and the alarm mechanism, as shown and described.

2. The combination, with the alarm mechanism and the plate A, having teeth *a*, of the pivoted trip-lever or dog H, having its free end bent as described, the pallet-arbor provided with the lug *d*, the sliding trigger, and the rod G, attached to the trigger and trip-lever, all as shown and described.

JAS. K. JOHNSTON.

Witnesses:
W. J. HRUSKA,
MARTIN STAMPS.