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G. A. HUMASON.

BURGLAR ALARM.

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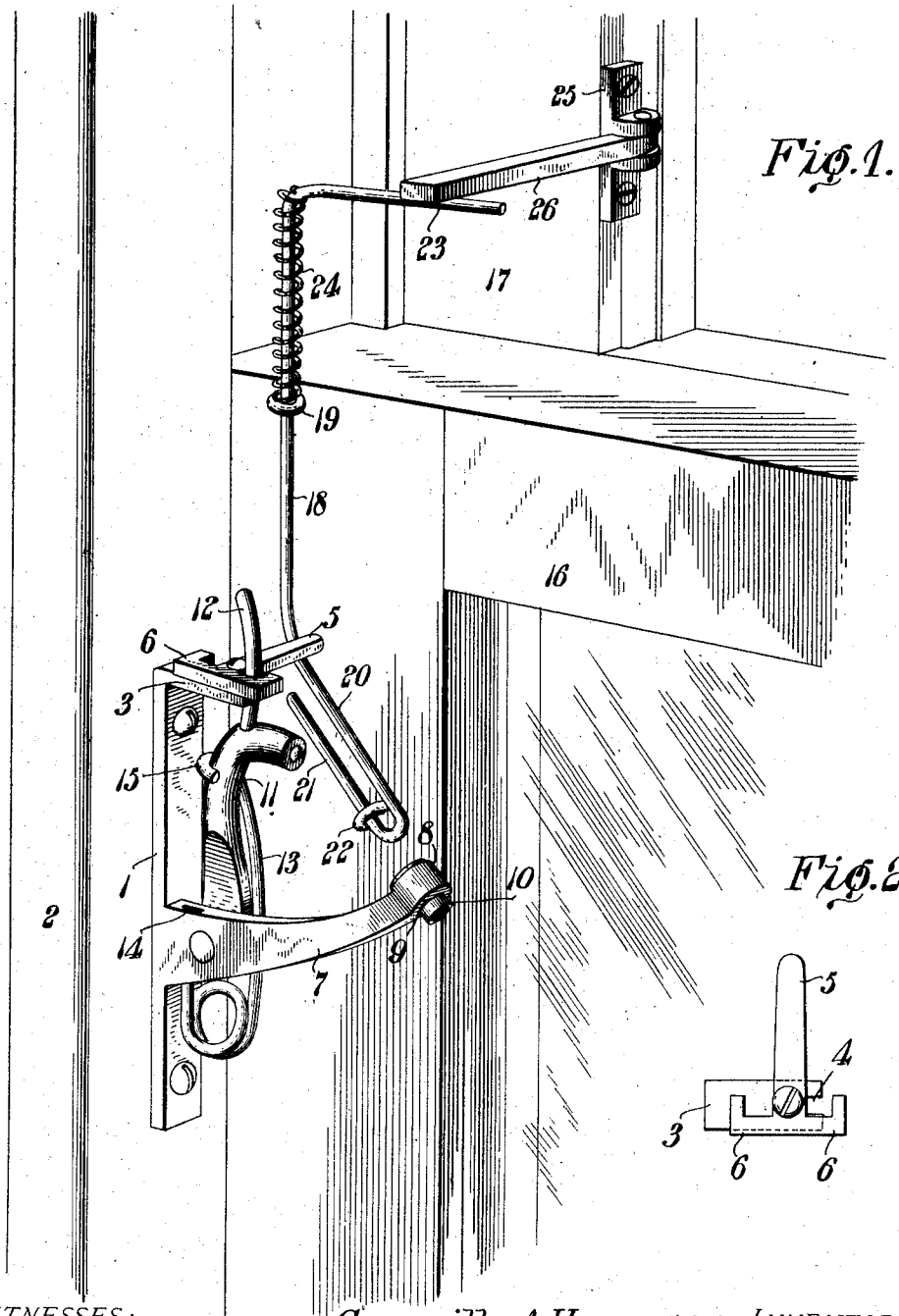



Fig. 1.

Fig. 2.




WITNESSES:

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# UNITED STATES PATENT OFFICE.

GRANVILLE A. HUMASON, OF NATCHEZ, MISSISSIPPI, ASSIGNOR OF ONE-FOURTH TO ELLEN O. RIORDAN, OF WASHINGTON, DISTRICT OF COLUMBIA.

## BURGLAR-ALARM.

No. 874,202. Specification of Letters Patent. Patented Dec. 17, 1907.

Application filed February 27, 1907. Serial No. 359,603.

*To all whom it may concern:*

Be it known that I, GRANVILLE A. HUMASON, a citizen of the United States, residing at Natchez, in the county of Adams and State of Mississippi, have invented a new and useful Burglar-Alarm, of which the following is a specification.

This invention relates to burglar alarms of that character utilizing percussion caps designed to be exploded when the alarm is actuated.

The object of the invention is to provide a simple form of apparatus having means whereby misfiring of the device is prevented.

A still further object is to provide means whereby the alarm can be actuated either by the raising of a lower sash or the lowering of an upper sash of a window.

A still further object is to provide means whereby the alarm can be readily placed out of operative position when it is desired to raise or lower the sashes without actuating the alarm.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claims.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a perspective view of the alarm and its actuating means; and Fig. 2 is a plan view of the trigger and its supporting bracket.

Referring to the figures by characters of reference, 1 is a base strip designed to be fastened to a window jamb 2 by means of screws or in any other preferred manner and extending from one end of the strip is a bracket 3 having a notch 4 in its free end. An arm 5 is fulcrumed upon the bracket and is provided at one end with oppositely extending angular branches 6 either of which is designed, when arm 5 is disposed at right angles to bracket 3, to practically close the open end of notch 4 so as to lock any object which may be placed therein.

Extending from the base strip 1 at a point removed from bracket 3 is an arm 7 the free end of which is enlarged as shown at 8 and has a bore 9 designed to receive a cartridge 10. A hammer 11 is pivotally connected to the arm 7 near the base strip 1 and is so disposed that the head thereof will positively strike the cap of the cartridge when the hammer is swung downward. A stem 12 projects from the head of the hammer and is disposed to enter the notch 4 and be retained by either of the angular branches 6.

In order that the hammer may be automatically swung downward against the cap of the cartridge as soon as the stem 12 is released a spring wire 13 is secured at one end within the arm 7 as shown at 14 and is bent into a coil below said arm. The wire extends upward from this coil and has its end hooked as at 15 so as to embrace the hammer near the head thereof and exert a constant downward pressure thereagainst.

In order that the alarm may be actuated either by the raising of the lower sash 16 or the lowering of the upper sash 17, mechanism of novel construction has been provided. This mechanism consists of a rod 18 slidably mounted within a guide 19, preferably an eye screw, and this rod has a downwardly inclined portion 20 the end of which is bent backward thereunder and parallel therewith, as shown at 21, and mounted within a guide eye 22. An arm 23 extends laterally from the upper portion of the rod 18 and a spring 24 surrounds a portion of the rod and bears at opposite ends against this arm and the eye 19 respectively. It is of course understood that the eyes 19 and 22 are fastened to the lower sash 16 and when the alarm is set the arm 5 of the trigger extends over the inclined portion 20 of rod 18. A bracket 25 is fastened to the upper sash 17 and has an arm 26 pivotally connected to it so as to move horizontally. The bracket is so arranged that when the sashes are in their normal or closed positions arm 26 can be swung into position directly above the arm 23.

When it is desired to set the alarm the sashes are closed and the hammer 11 is swung toward the strip 1 until the stem 12 thereof is seated in notch 4. Arm 5 is then swung toward the window sash and into position above the inclined portion 20 of the actuating rod. This will cause one of the branches 6 to assume a position in front of the stem 12 and thereby lock it against movement. Arm 26 is swung into position above the arm 23 and a cartridge 10 is inserted into the bore 9. Should the sash 16 be raised the inclined portion 20 will act as a cam and will swing the arm 5 forward so as to remove the branch 6 from the path of stem 12. The tensioned spring 13 will therefore throw the

hammer downward against the cap of the cartridge and cause it to explode. As the hammer is pivoted to the arm 7 it must necessarily strike the cap and there is therefore no danger of a misfire. If the parts are set in the manner hereinbefore described and the upper sash 17 is pulled downward arm 26 will force rod 18 downward against the tension of spring 24 and the end portion 21 of the rod 18 will be guided laterally by eye 22 so that rod 18 will force the arm 5 forward and release the stem 12. Should it be desired to raise or lower the sashes without actuating the alarm the arm 26 is swung upon its pivot toward the glass in the sash 17 and the hammer 11 is carefully released and lowered onto the cartridge. Arm 5 can then be swung out of the path of the extension 20 and the two sashes can be raised or lowered without hindrance.

It will be seen that the entire device is very simple, durable and efficient, and can be constructed at slight cost. It can be easily connected to window sashes and when so connected and set constitutes an effective means for frightening burglars as well as alarming the occupants of the building.

What is claimed is:

1. A device of the character described comprising a base strip, an arm extending therefrom and having a cap receiving bore, a hammer pivotally connected to the arm and disposed to positively strike the cap, a spring secured upon the arm and exerting a constant pressure against the hammer, a stem extending from the hammer, a bracket upon the base strip having a stem receiving notch, and a trigger pivoted upon the bracket and comprising an arm and oppositely extending angular branches either of which is disposed to retain the stem within the notch.

2. A device of the character described comprising a cap holding device, a spring actuated hammer, a trigger for holding the hammer in retracted position, and means for actuating the trigger, said means comprising a spring supported rod having an inclined portion disposed to lap the trigger and designed to actuate the trigger when said inclined portion is moved thereagainst.

3. The combination with a cap holding device, a spring actuated hammer, and a trigger for holding the hammer in retracted position; of actuating means comprising a spring supported rod having an inclined portion, guiding means for connecting said rod and inclined portion to a sash, said inclined portion being disposed, when moved in one direction to shift the trigger and release the hammer.

4. The combination with a cap holding device, a hammer, and a trigger for holding the hammer in retracted position; of actuating means comprising a spring supported rod having an inclined portion, guiding means for connecting said rod and inclined portion to a sash, an arm extending from the rod, and an actuating arm disposed to be connected to a sash and overlap the arm of the rod, said inclined portion of the rod being disposed when moved in one direction to directly contact with and to shift the trigger, and means engaging said inclined portion whereby, when the rod is moved in the opposite direction, said rod will be directed against the trigger.

5. The combination with a cap holding device, a hammer, and a trigger for holding the hammer in retracted position; of upper and lower sashes, a spring supported rod slidably mounted upon one of the sashes and having an inclined portion disposed to actuate the trigger when said sash is raised, guides for the rod and its inclined portion, and means upon the other sash disposed, when said sash is lowered, to actuate the rod and direct it against the trigger.

6. The combination with an upper and a lower sash, a cap holding device adjacent thereto, a hammer, and a trigger; of a spring supported rod having an inclined portion disposed to actuate the trigger, guides for the rod and its inclined portion and connected to the lower sash, an arm upon the rod, and an actuating arm pivotally connected to the upper sash and movable into position above the arm of the rod.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GRANVILLE A. HUMASON.

Witnesses:

E. HUME TALBERT,

HERBERT D. LAWSON.