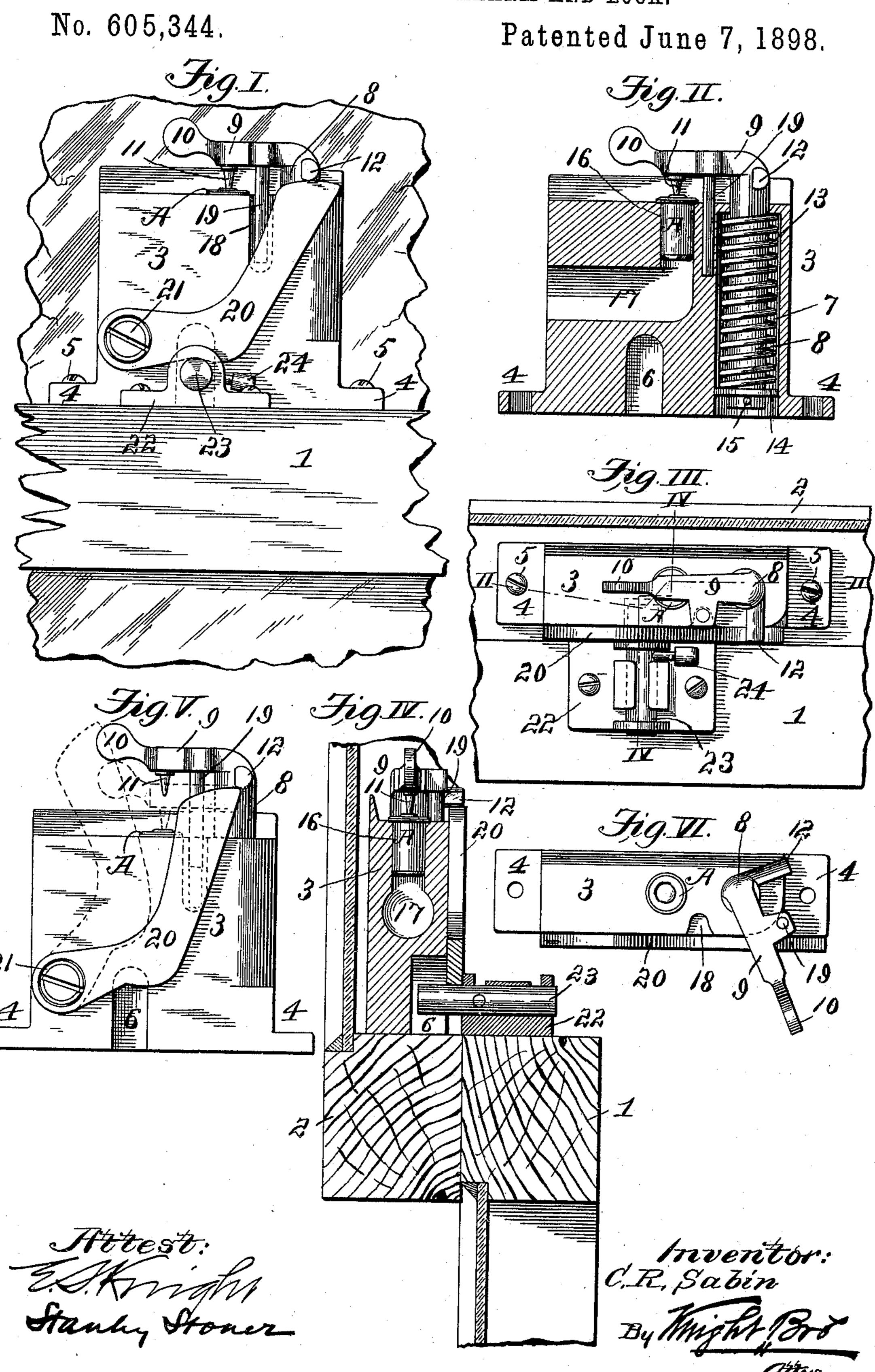
C. R. SABIN.
COMBINED BURGLAR ALARM AND LOCK.



United States Patent Office.

CHAUNCEY R. SABIN, OF ST. LOUIS, MISSOURI, ASSIGNOR OF TWO-THIRDS TO WILLIAM B. KNIGHT AND EDWARD S. KNIGHT, OF SAME PLACE.

COMBINED BURGLAR-ALARM AND LOCK.

SPECIFICATION forming part of Letters Patent No. 605,344, dated June 7, 1898.

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To all whom it may concern:

Be it known that I, CHAUNCEY R. SABIN, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, 5 have invented a certain new and useful Improvement in a Combined Burglar-Alarm and Lock, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of

10 this specification.

My invention relates to that class of devices in which a burglar-alarm is combined in connection with a window or door lock in such a manner that any unauthorized attempt to 15 break into a building by a burglar causes the alarm to be operated and warn the occupants of the building of the attempt to gain access to the building through a window or door. The device combines an alarm-box contain-20 ing an explosive-cartridge-receiving receptacle, a locking-bolt and a trigger, and operating mechanism whereby the opening of the window or door causes the trigger and operating mechanism to be actuated and the car-25 tridge in the alarm to be exploded. The locking-bolt enters a recess in the alarm-box and is so arranged that after the alarm has been actuated and the warning furnished the window or door remains in a locked condition.

My invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a front elevation of the alarm and lock. Fig. II is a vertical sectional view 35 taken on line II II, Fig. III. Fig. III is a top view. Fig. IV is a vertical cross-sectional view taken on line IV IV, Fig. III. Fig. V is a front elevation of the alarm portion of the device, illustrating the position of the 40 parts as assumed in the act of tripping the alarm. Fig. VI is a top view of the alarm portion of the device, showing the cartridgeexploding member swung out of contact with the cartridge into the position assumed when 45 the cartridge is inserted or an exploded shell is to be removed.

As illustrated, 1 designates the meetingrail of the lower sash of a window, and 2 the meeting-rail of the upper sash.

3 designates the alarm-box, which is pro-

vided with extending arms 4, containing openings by which the box is secured to the meeting-rail of the upper sash by screws 5 or other suitable means of fastening. In one side of the box 3 is a recess 6, that receives the lock- 55

ing-bolt when the sashes are fastened.

7 designates a bore extending from the bottom of the alarm-box to a point near its upper end. In this bore is a slidable bolt 8, whose upper end extends through the upper 60 end of the box 3 and is provided with an arm 9, the end of which is formed into a fingerpiece 10. On the under side of the arm 9 is a firing-pin 11, and on the side of the bolt 8 is a stud 12. The bolt 8 within the bore 7 is 65 surrounded by a spring 13, that bears against the upper end of the bore, and the lower end of which spring bears against a washer 14, held from displacement by a pin 15, passing through the bolt. In the upper end of the 70 box 3 is a receptacle 16, that is designed to receive an explosive cartridge A, as shown. Leading from the receptacle 16 is an outletchannel 17 for the discharge of the resultant products of explosion on the firing of the car- 75 tridge. In the side of the box 3 is a groove 18, and on the arm 9 of the bolt 8 is a guidepin that is arranged to play in the groove 18 for the purpose of limiting the inward swing of the arm 9 and guide the firing-pin 11 in 80 proper direction onto the head of the cartridge.

20 is a trigger pivoted to the box 3 at 21. The free end of this trigger is adapted to contact with the stud 12, said free end prefer- 85 ably having a curved edge that contacts with the stud 12 in order that the trigger will travel more easily in contact with said stud.

22 designates a bolt-bracket that receives a bolt 23, provided with a handle 24. The 90 bracket 22 is secured to the window-sash opposing that upon which the alarm-box is carried, and the inner end of the bolt 23 is adapted to enter the recess 6 of said alarm-box, and when in position ready for operation of the 95 alarm and for locking the window-sash the bolt is arranged beneath the trigger 20, as is clearly shown in Figs. I and IV.

The recess extends to a sufficient height above the locking-bolt-contacting edge of the roo

trigger 20 when the bolt is inserted in the recess that sufficient movement of the bolt is permitted within said recess to trip said trigger and operate the alarm before the bolt 5 comes in contact with the upper end of the recess. On coming in contact with the upper end of the recess, after operating the alarm, the bolt effectually prevents further movement of the parts of the device. Hence 10 subsequent to the actuation of the alarm the window remains in a locked condition and

access is prevented therethrough. The following will illustrate the operation of my improved burglar-alarm and lock: 15 When it is desired to set the alarm, the arm 9 of the bolt 8 is grasped by the finger-piece 10 and swung into the position shown in Fig. VI, it being understood that the trigger 20 has been previously swung out of line of 20 travel of the arm 9 and the parts carried by it by throwing it over past said arm to a greater extent than that illustrated in dotted lines in Fig. V. The cartridge is then inserted in the receptacle 16. The trigger 20 25 is then thrown back into the position shown in Fig. I, and the arm 9 being swung back over said cartridge the firing-pin will rest upon the cap of the cartridge, the guide-pin 9 will rest in the groove 18, and the stud 12 30 will be in a position immediately above the free end of the trigger 20. With the parts in the positions described the spring 13 holds the bolt 8 in an inward position and the firing-pin 11 is held in contact with the cartridge 35 A. The parts being arranged as described, the locking-bolt 23 may be thrown into the recess 6 or retracted therefrom at will by manipulating the bolt through means of its handle 24. When the locking-bolt 23 is 40 thrown into the recess 6 beneath the trigger 20, the window is locked, and unless the bolt is retracted neither window-sash can be opened farther than the limit of the recess 6, and before such limit is reached in the move-45 ment of either sash the alarm will be operated. In the actuation of the alarm the movement of the locking-bolt 23 toward the upper end of the recess 6 causes the swinging of the trigger 20, whose free end, bearing against 50 the stud 12, presses said stud upwardly and carries the bolt 8 in a corresponding direction, acting against the spring 13 and contracting it. When the point of the trigger 20 reaches the stud 12, the firing-pin 11 has 55 been removed from the cartridge A to a considerable distance, and as the movement of the trigger 20 continues said trigger is thrown past the stud 12, as illustrated by dotted lines,

Fig. V, and the expansion of the spring 13 60 causes the return movement of the bolt 8, in which action the firing-pin 11 is brought suddenly into impact with the cartridge and the cartridge is exploded, thereby furnishing an alarm to the occupants of the building of an

65 attempt to open the window.

When a fresh cartridge is to be inserted, the parts are manipulated as before described in

regard to the insertion of a cartridge, and the shell of the exploded cartridge is removed and a fresh one inserted in its place.

In speaking of cartridges herein it will be understood that it is the intention to employ what are known as "blank" cartridges, which contain an explosive, but do not contain a projectile.

While I have shown and described in detail the device herein set forth as applied to a window, it is obvious that it is equally applicable to use in connection with a door, as the alarm-box in such instance would be at-80 tached to the door-frames, and the locking-

bolt would be attached to the door.

I claim as my invention— 1. A burglar-alarm and lock comprising an alarm-box provided with a cartridge-recepta- 85 cle, a locking-bolt adapted to be thrown into said alarm-box, a spring-controlled bolt having an arm and located in said box and normally retracted by said spring, a firing-pin carried by said arm, and a trigger carried by 90 said box, adapted to bear on said locking-bolt and on said spring-controlled bolt and trip

the latter, substantially as described.

2. A burglar-alarm and lock comprising an alarm-box provided with a cartridge-recepta- 95 cle, a locking-bolt adapted to be thrown into said alarm-box, a spring-controlled bolt having an arm and located in said box and normally retracted by said spring, a firing-pin carried by said arm, a stud carried by said 100 bolt, and a trigger carried by said box adapted to bear on said locking-bolt and on said stud and to trip said spring-controlled bolt, substantially as described.

3. A burglar-alarm and lock comprising an 105 alarm-box provided with a cartridge-receptacle and containing a recess in one of its sides, a locking-bolt adapted to enter said recess, a spring-controlled bolt having an arm and located in said box and normally retracted by 110 said spring, a firing-pin carried by said arm, a guide-pin carried by said arm, and a trigger carried by said box and adapted to bear on said locking-bolt and on said spring-controlled bolt and trip the latter, substantially 115 as described.

4. A burglar-alarm and lock comprising an alarm-box containing a cartridge-receptacle, a spring-controlled bolt having an arm and located in said box and normally retracted 120 by said spring, a trigger carried by said box adapted to engage and trip said spring-controlled bolt, said box being provided with a recess in one of its sides, a locking-bolt adapted to enter said recess and contact with said 125 trigger, said recess being of sufficient extent to permit sufficient travel of said locking-bolt to bear on said trigger and to trip said springcontrolled bolt, substantially as described.

CHAUNCEY R. SABIN.

In presence of— N. V. ALEXANDER, STANLEY STONER.