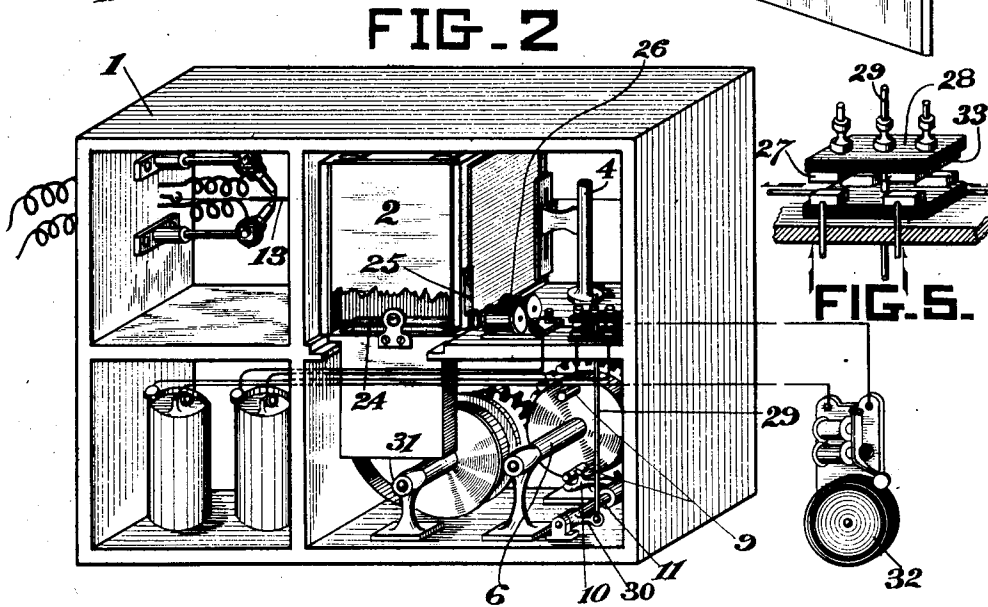
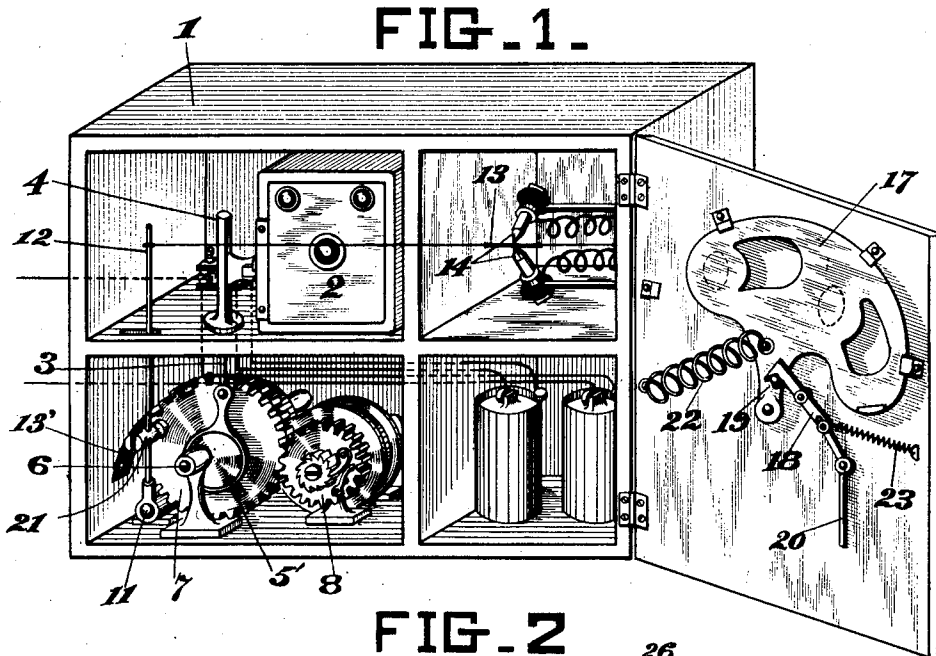


J. C. ASHE.
 COMBINED BURGLAR ALARM AND AUTOMATIC CAMERA.
 APPLICATION FILED OCT. 19, 1908.

943,232.

Patented Dec. 14, 1909.

3 SHEETS—SHEET 1.



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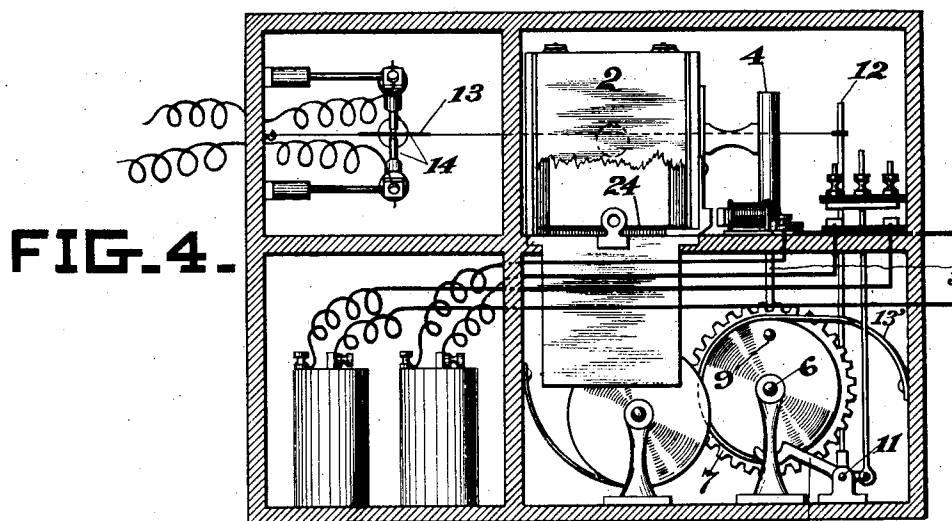
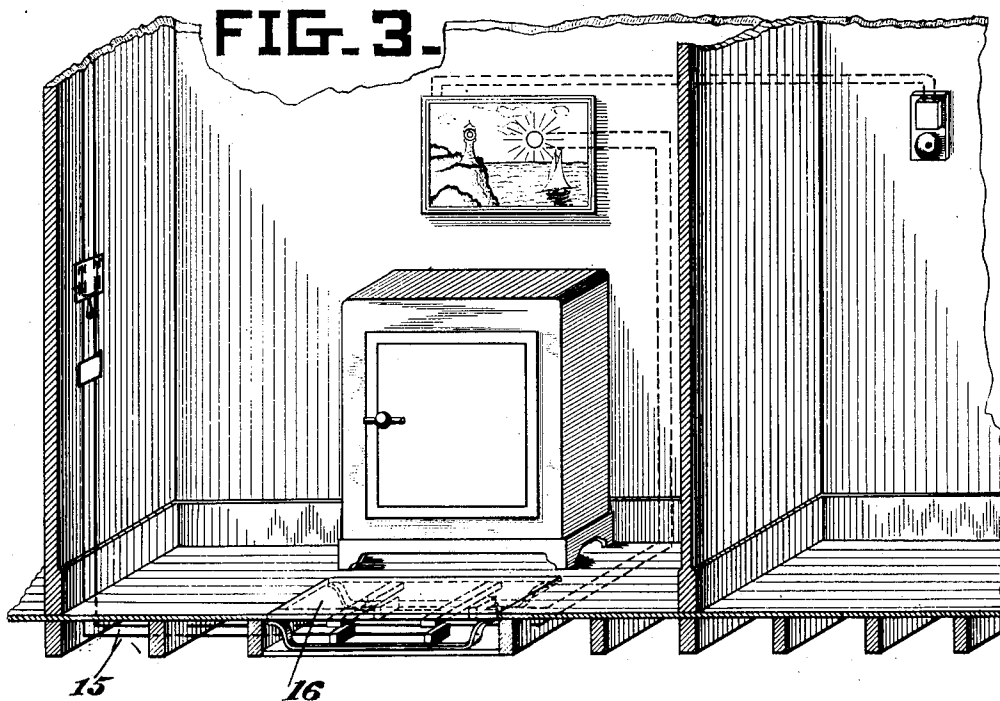
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3 SHEETS—SHEET 2.



Witnesses:

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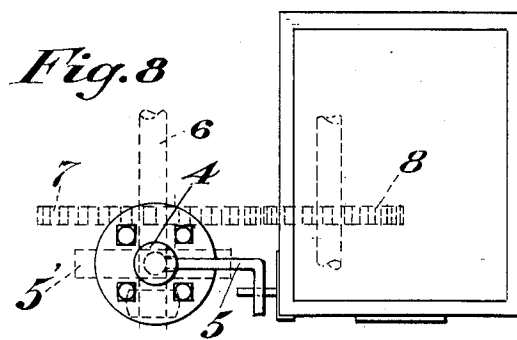
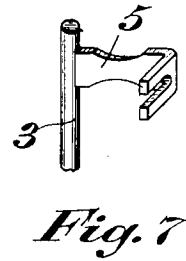
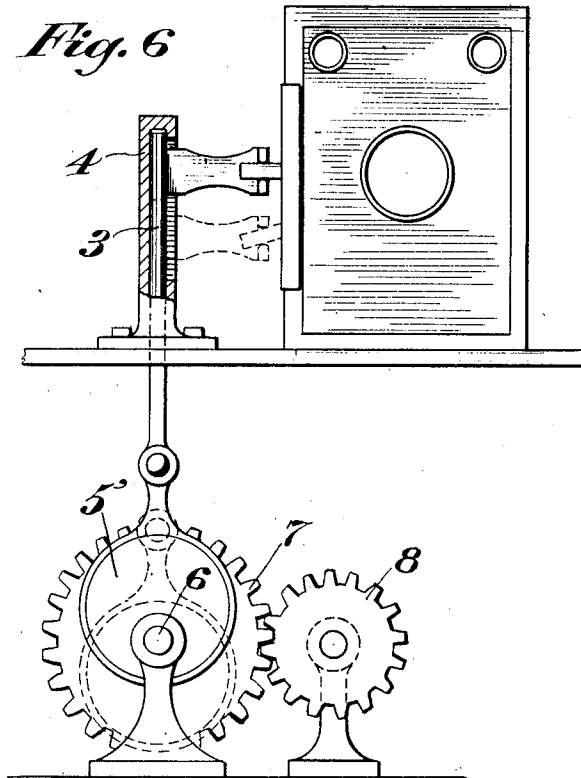
JOSEPH CHARLES ASHE 10 Inventor,

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 3 SHEETS—SHEET 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOSEPH C. ASHE, OF MONTREAL, QUEBEC, CANADA.

COMBINED BURGLAR-ALARM AND AUTOMATIC CAMERA.

943,232.

Specification of Letters Patent. Patented Dec. 14, 1909.

Application filed October 19, 1908. Serial No. 450,353.

To all whom it may concern:

Be it known that I, JOSEPH CHARLES ASHE, a subject of the King of Great Britain, residing at the city and district of Montreal, in the Province of Quebec, Canada, have invented certain new and useful Improvements in a Combined Burglar-Alarm and Automatic Camera; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention to be hereinafter described relates to burglar alarms, and particularly to a combination of automatic camera and alarm.

Broadly speaking, it comprises a normally open main circuit, adapted to be closed by pressure on a movably mounted floor section, arcs adapted to be lighted by the main circuit when closed, a fuse adapted to be ignited by the arcs, a spring-controlled drop controlled by the fuse, a normally open magnet circuit, contacts carried by the drop and adapted to close the magnet circuit, and a catch actuated by the magnet and adapted to release the photographic plate of the camera to allow it to drop from normal position.

In order to more clearly disclose the construction, operation and use of the invention, reference should be had to the accompanying drawings forming part of the present application.

Throughout the several views of the drawings, like reference characters designate the same parts.

In the drawings: Figure 1 is a perspective of all of the working parts of the invention; Fig. 2 is a perspective of the parts contained in the casing; Fig. 3 is a perspective showing the application of the invention; Fig. 4 is an enlarged longitudinal section showing the plate pocket in elevation; Fig. 5 is an enlarged perspective showing the contacts for closing the magnet circuit and the bell circuit simultaneously. Fig. 6 is an enlarged front view, partly in section, showing the camera shutter operating mechanism; Fig. 7 is a detail perspective of the fork for operating the shutter lever; and, Fig. 8 is a plan view of Fig. 6.

The main object of the invention is to provide, in combination with an ordinary burglar alarm, a device for photographing the burglar and immediately removing the exposed plate.

In order to present the device in the most convenient and compact form, the working parts are inclosed within a casing 1, which is, preferably, divided into several compartments. In one of the upper compartments may be placed a camera 2, adapted to use photographic plates. Adjacent one side of this camera is mounted a reciprocable rod 3, which travels in a slotted sleeve or tube 4, and has secured to it a fork 5, which engages and operates the shutter lever of the camera. This rod 3 is flexibly connected to a strap surrounding an eccentric 5', fixed to the operating shaft 6. Thus, when the operating shaft rotates, as will be later disclosed, the camera shutter will be operated to take a photograph automatically. The operating shaft is provided with a gear 7, which meshes with and is driven by a smaller spring-driven gear or pinion 8.

It is desired, of course, to have the camera shutter make but a single movement for each photograph. To this end, a device has been provided for locking the gear 7 at each half revolution. This device comprises two diametrically opposite pins 9, adapted to be engaged by a dog 10 secured to a rock shaft 11. In order to hold the pin 9 and dog 10 normally disengaged, the shaft 11 has secured thereto, at its outer end, a lever arm 12, which is held toward the right, as in Fig. 1, by a cord, wire or like means.

When the machine is wound up and set for operation, the rod 3 will be raised, carrying the fork 5 and shutter lever with it.

In order to lock the gear 7 against any movement whatever while the machine is set, a brake band 13' is passed about a block fixed to the gear, and has its opposite ends secured respectively to an inner wall of the casing and to the dog 10, so that when the lever arm 12 has been swung toward the right and secured by the cord, the gear 7 will be securely braked. The cord which holds the lever 12 is provided with a fusible portion 13, which passes between the carbon points 14, forming a gap in the main circuit 15, the main circuit being automatically completed through contacts secured to the under face of the movable floor section 16. The cord connected to the lever 12, of course, is drawn taut, and so holds the lever 12 under tension and binds the brake band 13' snugly about the block fixed to the gear 7, thereby positively braking the gear. Of course, when the fusible portion 13 is fused,

the lever 12 will be released and the gear 7 unbraked, allowing the shaft 6 and eccentric 5' to be rotated one-half revolution to operate the shutter of the camera. As soon as the cord section 13 is fused, the tension on the lever 12 is removed, of course, and the friction of the brake band 13' is sufficiently reduced to allow rotation of the gear 7. As soon as the tension on the lever 12 is removed, the brake band 13' will assume its normal position, that of a loop of greater diameter than the block about which it binds, thus moving the lever 12 slightly in a direction toward the adjacent wall of the casing of the machine. The movement of lever 12 thus started is completed by the weight of elements 27, 28, 29 and 33 bearing on the arm 30, extending from the rock shaft 11.

In the front of the casing 1, which may be hinged as a door, are two openings, one adapted to lie in front of the lens of the camera, and one adapted to lie in front of the carbon points. These openings are both normally closed by a pivoted slide 17. This slide is normally held in position to cover the openings by means of a pivoted catch 18, provided with a hooked end adapted to engage over and hold the pin 19. The lower end of the catch is flexibly and loosely connected to a bent lever 20, pivoted just below the catch 18 and having a projecting end adapted to be engaged by a stud or nut 21 on the lever 12. The slide 17 is provided with two elongated slots adapted to register with the openings in the front of the casing. In order to insure movement of the slide at the proper time, a coil spring 22 is connected at its opposite ends respectively to the slide and to the front of the casing. Likewise, the catch 18 may be held normally in operative position by a similar spring 23 connected in the same way. Thus, it will be seen that as soon as the lever 12 has been released by fusion of the fuse section and its connecting cord, the camera shutter will be operated and the openings in the front of the casing will be uncovered. The momentary flare of the arc and fuse, of course, will give sufficient light through one of the openings to insure the taking of the photograph. The fusion of the connecting cord, the movement of the slide, and the working of the camera shutter are so timed as to take place in succession, though almost simultaneously, giving sufficient time for a single exposure and photograph.

Of course, should the burglar suspect that he is being photographed, he will attempt to destroy the picture taken, as well as the machine. In order to avoid this, the camera employed makes use of photographic plates instead of films, and each plate is mounted in the rear of the camera and supported on a pivoted drop 24, which is held in operative position by a spring clip 25. This clip 25

is so mounted that, normally, one end of it projects beneath the edge of the plate. In order to withdraw the clip and release the plate, an electro magnet 26 is used. This magnet is so placed that the ends of its coils lie close to the face of the clip, which acts as an armature. Thus, when the coils are energized, they will attract the clip and the plate will be dropped. The energizing of the coils is effected by a small battery having a normally open circuit. This open circuit is closed by a contact 27 fixed to a plate 28 mounted on a rod 29 secured to an arm 30 on the shaft 11. The arm 30 and rod 29 are so positioned and proportioned as to insure closure of the battery circuit immediately after, and in fact practically simultaneously with the operation of the camera shutter. Directly below the drop, a detachable pocket 31 may be provided to receive the plate, if desired. An alarm bell 32 may also be provided. This bell may be operated by a normally open circuit similar to the one just described, the completion of this circuit also being made in substantially the same way and by a contact 33.

As shown in Fig. 3, the whole system and apparatus may be made practically invisible by simply setting the casing containing the working parts back into the wall and disguising the front of the casing as a picture, painting, or the like.

It is thought that the operation and use of the invention will be clear from the preceding detailed description.

It is clear that many changes may be made in the construction, arrangement and disposition of the several parts of the invention, without in any way departing from the field and scope of the same, and it is meant to include all such within this application, where-in only a preferred form has been disclosed.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. A machine of the character described comprising a normally open electric circuit, a camera adapted to use photographic plates, means for operating the shutter mechanism of said camera, an arc in the aforesaid electric circuit, fusible means adapted to hold said shutter operating mechanism in inoperative position and extending in the path of said arc, and means for closing said circuit to complete the arc therein.

2. A machine of the character described comprising a normally open electric circuit, a camera adapted to use photographic plates, means for operating the shutter mechanism of said camera, an arc in the aforesaid electric circuit, fusible means adapted to hold said shutter operating mechanism in inoperative position and extending in the path of said arc, means for closing said circuit to complete the arc therein, and means for free-

ing the photographic plate to allow removal of the same as soon as the photograph has been taken.

3. In a machine of the character described,
5 a normally open electric circuit, means for closing said circuit, a camera, an arc included in the aforesaid electric circuit and adapted to give a flash light for photography by the camera, means for holding the camera
10 shutter normally closed, means for operating said camera shutter, a slide provided with openings and disposed in front of said camera and said arc, and means for operating said slide as the camera shutter is
15 operated.

4. A machine of the character described, comprising a normally open electric circuit, a camera, means for closing said circuit, means actuated by the circuit for operating
20 the shutter of said camera, and means for releasing the photographic plate as soon as the photograph has been taken.

5. A machine of the character described, comprising a normally open electric circuit
25 including an arc, a camera, means for hold-

ing the shutter of said camera normally closed, means for operating said electric circuit, means for allowing the removal of the photographic plate automatically and immediately on completion of the photograph, 30 a second normally open electric circuit, and means for closing said second circuit to operate the photographic plate release mechanism.

6. A machine of the character described, 35 comprising a normally open electric circuit including an arc, a camera, a rotary shaft, an eccentric mounted on said shaft, means connected to said eccentric for operating the shutter of said camera, means for rotating 40 said shaft, means for normally holding said shaft against rotation, and means for automatically releasing said holding means.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

JOSEPH C. ASHE.

Witnesses:

T. MYNARD,
C. FACOMPRES.