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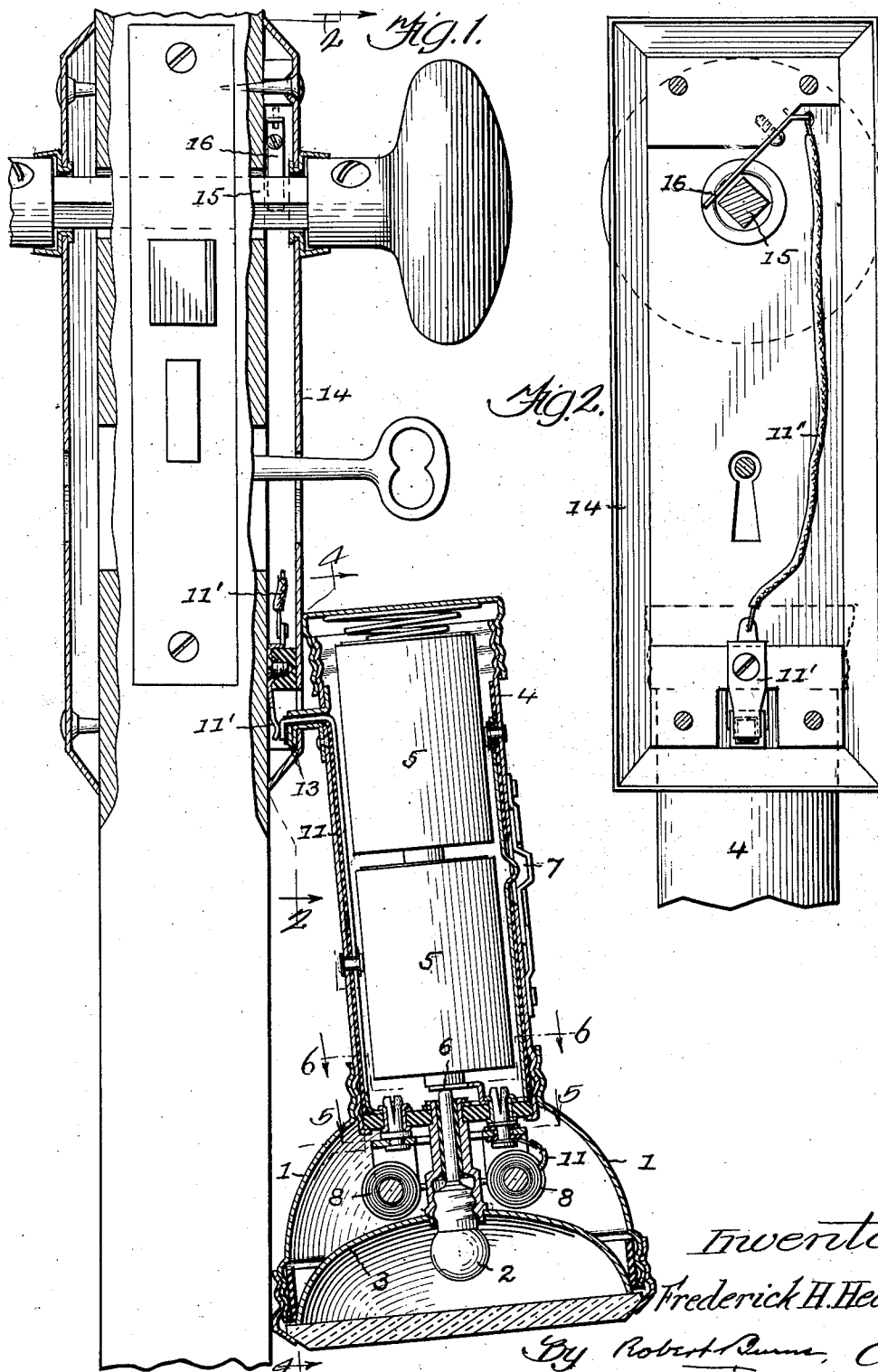
F. H. HEDBERG

1,738,243

COMBINED FLASH LIGHT AND ALARM

Filed Nov. 21, 1928

2 Sheets-Sheet 1



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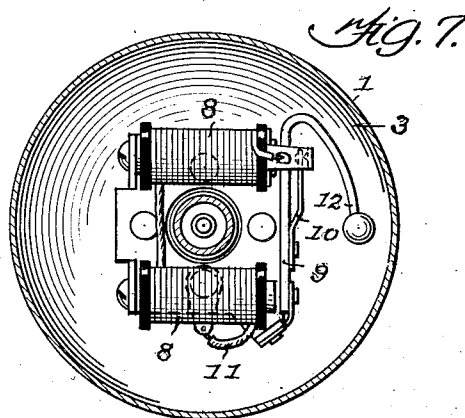
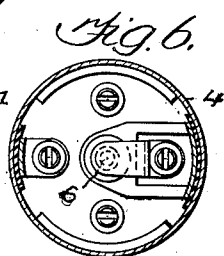
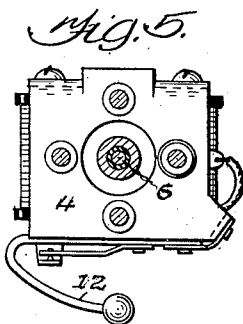
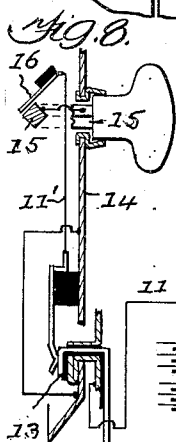
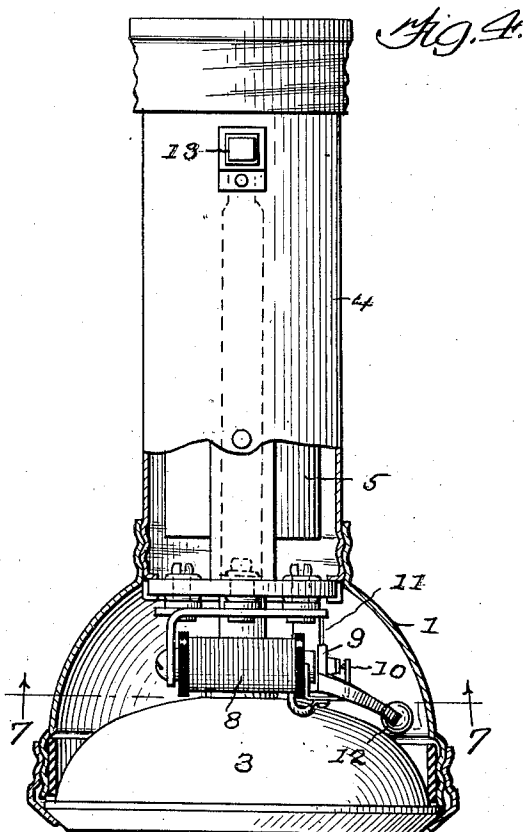
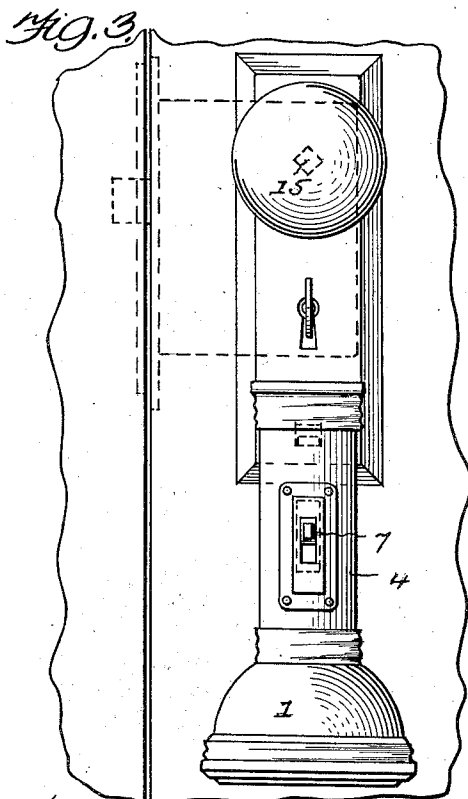
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COMBINED FLASH LIGHT AND ALARM

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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COMBINED FLASH LIGHT AND ALARM

Application filed November 21, 1928. Serial No. 320,872.

This invention relates to a combined system in which the combined and interconnected mechanisms are adapted for alternate or serial use as a portable flash light, and as an audible alarm for indicating an attempt to effect an opening of the door of a dwelling or the like, and this improvement has for its objects:

To provide a system embracing a structural formation and combination of parts and features in a combined flash light and door alarm appliance, wherein a single source of electromotive force in the appliance is adapted for serial or alternate employment as the operating means of a portable flash light, and a like operating means for producing an audible alarm for the doors of dwellings or the like.

To provide in an arrangement of parts in an appliance of the type above set forth, wherein a single part or element is adapted to alternately function as a light reflector in one case and as sound producing element in another case, all as will hereinafter more fully appear.

In the accompanying drawings:

Fig. 1 is a sectional elevation illustrating the invention applied to the lock or latch of a door and adapted to function as an alarm when the door knob is turned to attain an opening of the door.

Fig. 2, is a sectional elevation on line 2—2, Fig. 1, in a plane at right angles to that of said Fig. 1.

Fig. 3, is a front elevation illustrating the appliance in place on a door latch casing.

Fig. 4, is a sectional elevation on line 4—4, Fig. 1.

Fig. 5, is a detail horizontal section on line 5—5, Fig. 1.

Fig. 6, is a similar view on line 6—6, Fig. 1.

Fig. 7, is a similar view on line 7—7, Fig. 4.

Fig. 8, is a diagram view illustrating the electric circuits, etc. of the invention.

Like reference numerals indicate like parts in the several views.

In the preferred form of this combined portable door alarm and flash light system shown in the drawings, the flash light unit or member is preferably of an ordinary type now in general use, and in which an expanded head

portion 1 forms an enclosure for an electric portion 1 forming an end extension of a cylindrical casing 4, in which is arranged the dry battery 5 which supplies electromotive force for the system, with a primary electric line or circuit 6 from said battery including the aforesaid electric lamp 2, and a circuit closer 7 slidably mounted on a side of the casing 4, for manual control of the lighting portion of the system as illustrated in Figs. 1 and 3.

The construction so far described is usual to portable flash lights now in general use by the public, and in connection therewith the present invention involves features and provisions as follows:—

In the cavity of the aforesaid head 1 of the flash light casing, above described, an electromagnet 8, preferably of the twin bobbin type, with its associated vibratory armature 9, and automatic circuit make and break mechanism 10 of any usual and suitable type, are fixedly mounted, with such parts and mechanism included in the usual manner in secondary line or circuit 11, that includes the aforesaid battery 5, and with the armature 9 carrying a striker arm 12, as illustrated in Figs. 1, 4, 5, 7 and 8.

The means for producing an audible sound or alarm in connection with the striker arm 12 aforesaid, and as shown in Figs. 2, 4, 7 and 8, preferably comprises a vibrant shell of metal or the like of the mushroom type, arranged in the striking zone of the striker arm 12 aforesaid, with such shell serving the additional purpose in the present system as the reflector 3 for the light given off from the electric lamp 2 of the flash light portion of the system. To such last mentioned end the approximately sphero-concave face of the shell or reflector member 3 will be formed into a proper light reflecting surface by the usual electro-deposition or other usual method of attaining such result.

Secured to the cylindrical casing or extension 4 of the appliance is a hook shaped member 13 adapted to hook into an orifice in the casing 14 of a door latch of the revoluble knob type, as illustrated in Figs. 1, 2, 3, 4 and 8, to support the heretofore described flash

light and alarm mechanisms in a suspended condition on the door of a dwelling or the like. In this improvement the hook shaped member 13 carries in separated and insulated relation portions of the supply and return conductors of the secondary line or circuit 11 aforesaid, and as shown in Figs. 1, 4 and 8 with such portions of the supply and return conductors adapted to have electric contact with complementary portions of a return circuit branch 11 of the line or circuit 11 arranged in the casing 14 of the door latch mechanism, with such branch circuit 11' including the square spindle 15 of the operating knob of the latch mechanism, and a spring contact finger 16 arranged in separated yet operative relation to the spindle 15, so that with a turning movement of said spindle 15 in either direction will bring a corner edge of the spindle into contact with the contact finger 16, to close the circuit and cause an alarm.

In the described arrangement the closing of the circuit 11 by an electrical contact between the spindle 15 and contact finger 16, is adapted to produce an audible sound or signal through the instrumentality of the electro-magnet 8, armature 9, automatic circuit break and make mechanism 10, striker member 12, and vibrant member 3, operating in manner similar to the ordinary alarm bell mechanism now in general use.

I claim as my invention:

1. In a combined alarm and portable flash light system as herein described, the combination of a portable flash light comprising an electric battery, a primary or light circuit embracing a manually actuated circuit closer and an electrical illuminating means, an audible sound producing means comprising a secondary line or circuit embracing an electro-magnet, an armature, an automatic circuit make and break mechanism, a striker arm carried by said armature, a sound producing means arranged in operative relation to said striker arm, a casing enclosing the above enumerated parts, a hook up member on said casing acting as a suspensory means for the appliance and carrying portions of the aforesaid secondary line or circuit with said portions adapted for electrical contact with complementary portions of said secondary line or circuit extending into operative relation to a revoluble means of the door of a dwelling or the like and by means of which a normally open circuit between said complementary portions of the secondary line or circuit is closed.

2. In a combined alarm and portable flash light system as herein described, the combination of a portable flash light comprising an electric battery, a primary or light circuit embracing a manually actuated circuit closer and an electric lamp, an audible sound producing means comprising a secondary line or circuit, embracing an electro-magnet, an

armature, an automatic circuit make and break mechanism, a striker arm carried by said armature, a sound producing shell arranged in operative relation to said striker arm, a casing enclosing the above enumerated parts, a hook up member on said casing acting as a suspensory means for the appliance and carrying portions of the aforesaid secondary line or circuit with said portions adapted for electrical contact with complementary portions of said secondary line or circuit extending into operative relation to a revoluble means of the door of a dwelling or the like and by means of which a normally open circuit between said complementary portions of the secondary line or circuit is closed.

3. In a combined alarm and portable flash light system as herein described, the combination of a portable flash light comprising an electric battery, a primary or light circuit embracing a manually actuated circuit closer and an electric lamp, an audible sound producing means comprising a secondary line or circuit, embracing an electro-magnet, an armature, an automatic circuit make and break mechanism, a striker arm carried by said armature, a sound producing shell arranged in operative relation to said striker arm, a casing enclosing the above enumerated parts, a hook up member on said casing acting as a suspensory means for the appliance and carrying portions of the aforesaid secondary line or circuit with said portions adapted for electrical contact with complementary portions of said secondary line or circuit extending into operative relation to a revoluble means of the door of a dwelling or the like and by means of which a normally open circuit between said complementary portions of the secondary line or circuit is closed, the aforesaid sound producing shell being surfaced to form a reflector for the light from the electric lamp aforesaid.

In testimony whereof I hereunto affix my signature.

FREDERICK H. HEDBERG.