

C. A. METZGER.
BURGLAR ALARM.
APPLICATION FILED FEB. 15, 1908.

901,983.

Patented Oct. 27, 1908.

Fig. 1.

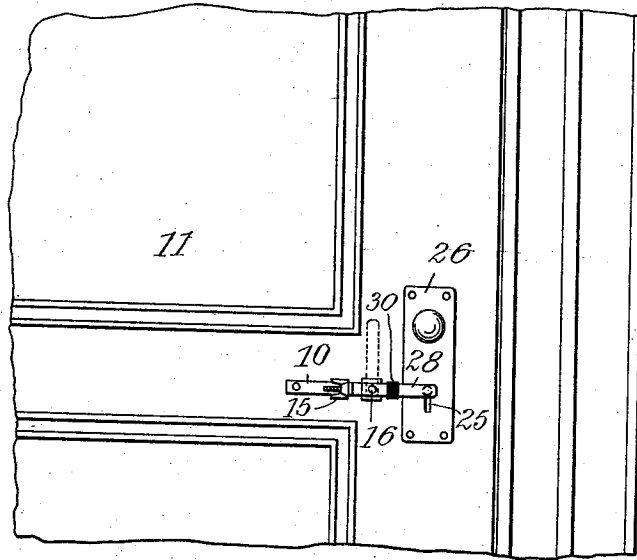


Fig. 2.

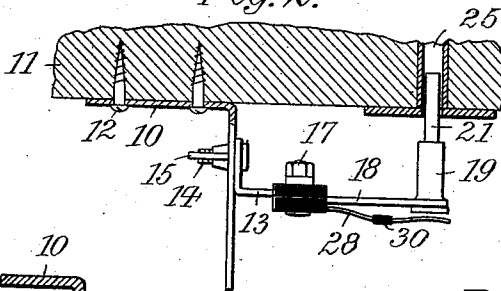


Fig. 3.

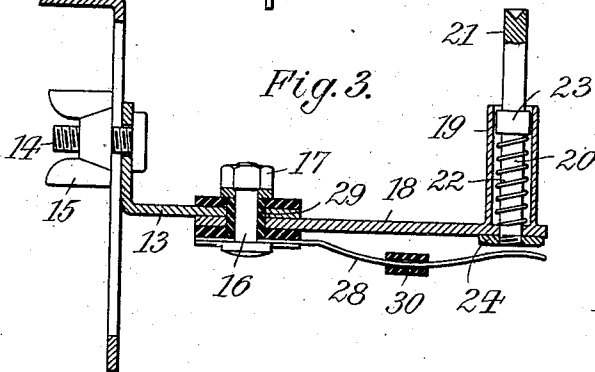


Fig. 5.

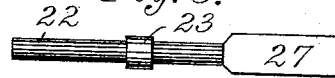
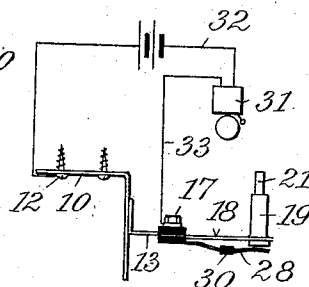


Fig. 6.



Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

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BURGLAR-ALARM.

No. 901,983.

Specification of Letters Patent.

Patented Oct. 27, 1908.

Application filed February 15, 1908. Serial No. 416,016.

To all whom it may concern:

Be it known that I, CARL AUGUST METZGER, a citizen of Germany, residing at New York city, Manhattan, county and State of New York, have invented new and useful Improvements in Burglar-Alarms, of which the following is a specification.

This invention relates to a burglar alarm which is actuated by the introduction of a key or tool into a lock, and is sounded as long as the lock is being tampered with.

The alarm is particularly adapted for doors, but may also be used on all other key-controlled closures, such as boxes, trunks and similar articles.

In the accompanying drawing: Figure 1 is an inner view of part of a door provided with my improved burglar alarm; Fig. 2 a plan, partly in section, of the alarm; Fig. 3 a longitudinal section thereof; Fig. 4 a wiring diagram, and Figs. 5 and 6 are details of a modification of the plunger.

One arm of an angle plate 10 is permanently attached to the inner face of a door 11, by screws 12. The other inwardly extending arm of this angle plate is provided with a longitudinal slot to which is adjustably attached a bent holder 13, by means of a bolt 14 and winged nut 15. To the free end of holder 13 is connected by pivot 16 carrying nut 17, an arm 18 which extends parallel to the face of door 11. From the free end of this arm projects outwardly a tubular guide 19 that is rigidly secured to the arm and receives the inner end of a plunger 20 having an outwardly protruding bit 21. This plunger is normally thrown outwards by a coiled spring 22 inclosed within guide 19 and engaging a collar 23 of the plunger. This collar slidably engages the inner face of guide 19, so that the latter serves to direct plunger 20, in an axial direction towards the spring 28. The inner threaded end of the plunger passes through an opening of arm 18 and carries a threaded head 24, by which the outward movement of the plunger is limited. By unscrewing this head, the plunger may be readily removed and interchanged with one having a differently shaped bit. This bit should be so formed as to readily enter the key-hole of the door lock 26. Thus, as shown in Fig.

3, the bit is made round for locks operated by keys having round stems, while in Figs. 5 and 6, the bit 27 is shown to be flat for locks operated by flat keys.

Upon pivot 16 is mounted a contact spring 28, which, together with such pivot, is insulated from holder 13 and arm 18 by bushings 29. The free end of spring 28 extends opposite to plunger 20 and is normally placed at a slight distance therefrom to constitute a circuit closer. An insulating slide 30 movable on spring 28, prevents metallic contact between plunger 20 and spring 28, when interposed between the same.

An electric bell 31, of suitable construction and located at any convenient point, is metallically connected to holder 10 by wire 32, and to spring 28 by pivot 16 and wire 33.

In use, the device is so set that the plunger bit projects a suitable distance into the key-hole 25. This distance may be readily adjusted by manipulating nut 15 and setting holder 13, together with the parts carried thereby, at the proper distance from the door. When the lock is attempted to be picked by a tool introduced from without into key-hole 25, the plunger will be pushed back, to contact with spring 28, and thus close the circuit and sound the alarm as long as the lock is being meddled with. As soon as the attempt to force the lock ceases, the plunger will be thrown outwards by its spring 22, to break the contact and stop the alarm. If it is desired to render the device inactive, insulating slide 30 is interposed between plunger 20 and spring 28, while, if the device is to be entirely disengaged from the lock, arm 18 is turned sidewise on pivot 16, to swing the plunger out of alinement with the key-hole.

It will be seen that by the construction described, the alarm is already sounded by the attempted picking of the lock and while the door is still closed, so that unauthorized entrance is effectively prevented.

I claim:

A device of the character described comprising a door having a key hole, a pivoted arm on the door and adapted to be swung across said key hole, a tubular guide rigidly projecting from the free end of said arm, a plunger encompassed by said tubular guide,

and having a collar that slidably engages the inner face thereof, and a coiled spring mounted on the plunger within the tubular guide and bearing with its ends against the arm and collar respectively, substantially as described.

Signed by me at New York city, (Man-

hattan,) N. Y., this 14th day of February, 1908.

CARL AUGUST METZGER.

Witnesses:

FRANK V. BRIESEN,
AUGUST MINER.