

J. H. PRESTON.
ELECTRIC ALARM FOR LOCKS.
APPLICATION FILED MAR. 2, 1912.

1,059,759.

Patented Apr. 22, 1913

Fig. 1.

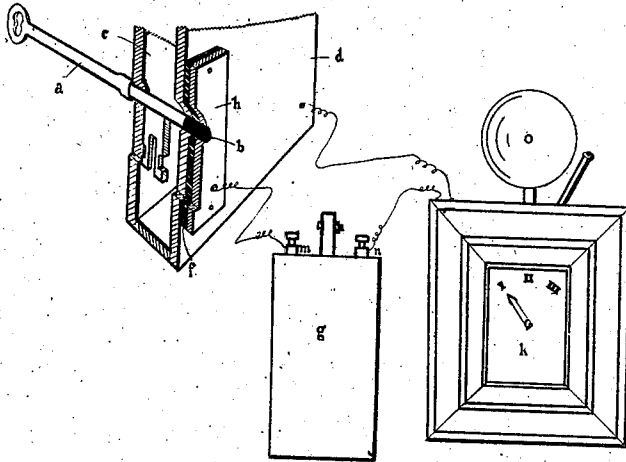


Fig. 2.

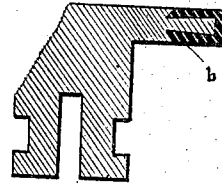


Fig. 3.

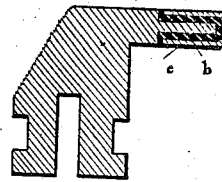


Fig. 4.

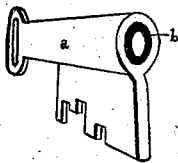


Fig. 5.

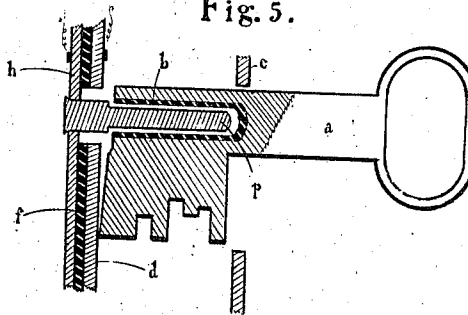


Fig. 6.

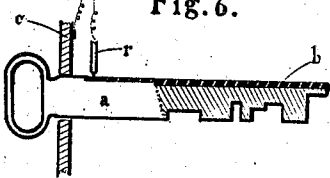


Fig. 8.

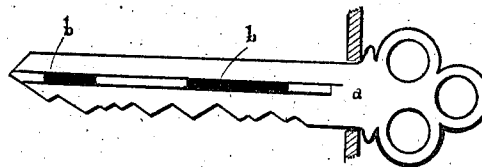
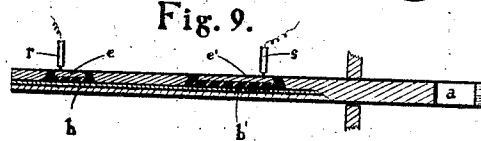


Fig. 7.



Fig. 9.



Witnesses

Rose Armstrong
Blanch Mary Genin

Inventor

Joseph Harris Preston

UNITED STATES PATENT OFFICE.

JOSEPH HARRIS PRESTON, OF OTTAWA, ONTARIO, CANADA.

ELECTRIC ALARM FOR LOCKS.

1,059,759.

Specification of Letters Patent.

Patented Apr. 22, 1913.

Application filed March 2, 1912. Serial No. 681,286.

To all whom it may concern:

Be it known that I, JOSEPH HARRIS PRESTON, of the city of Ottawa, county of Carleton, in the Province of Ontario, Dominion of Canada, of the Canadian civil service, having invented the Electric Alarm for Locks, do hereby declare that the following is a specification.

My invention relates to improvements in electric alarms for locks and the object of the invention is to devise an electric alarm system in which the circuit will be closed and a warning given upon the insertion of any instrument or key into the lock, other than the proper key.

A further object is to so insulate the proper key that it will not close the circuit when it is inserted into the lock. I attain this object by the application of electricity to locks and insulating material to locks and keys illustrated by the accompanying drawing in which:—

Figure 1 is a view of a key and a vertical section of the walls of a lock. Fig. 2 a vertical section of a portion of the key shown in Fig. 1. Fig. 3 a vertical section of a part of a key. Fig. 4 a view in perspective of the key shown in Fig. 5. Fig. 5 a view of a vertical section of part of a key and the vertical section of part of the walls of the lock. Fig. 6 a view of a vertical section of part of a key. Fig. 7 the end view of key shown in Fig. 6. Fig. 8 side view of a latch key. Fig. 9 a top view of key shown in Fig. 8.

Similar letters refer to similar parts throughout the several views.

In Fig. 1, the metal plate *h* is attached to the wall *d* of the lock and is insulated from wall *d* by the insulating material *f* and is connected with one of the poles *m* of a source of electricity *g* supplying the annunciator *k*. The other pole *n* of this source of electricity is connected to the lock at a point on wall *d*.

The metal plate *h* is arranged so that a key comes in contact with it and the wall *c* or wall *d* and thus closes the circuit of the source of electricity *g* which causes the sounding of the alarm from annunciator *k*.

To the key *a* in Fig. 1, the insulating material *b* is fixed as shown also by the cap *b* in Fig. 2 and by the insulating material *b* on which is the metal cap *e* as shown in Fig. 3. The key *a* does not close the circuit owing to the insulating material *b* and thus

does not cause the sounding of the alarm from the annunciator.

In Fig. 5, the metal plate *h* has riveted to it pin *p* and is insulated from the wall *d* by insulating material *f* and is connected with one of the poles *m* of a source of electricity *g* supplying annunciator *k*. The other pole *n* of this source of electricity is connected to wall *d* of the lock.

A key in Fig. 5, comes in contact with wall *c* or *d* and pin *p* and thus closes the circuit of the source of electricity *g* which causes the sounding of the alarm from annunciator *k*.

To the lining of the key in Fig. 5 is fixed insulating material *b* also shown in Fig. 4 and the key *a* does not close the circuit owing to the contact with pin *p* of the insulating material on the lining of the key *a* and therefore does not cause the sounding of the alarm from the annunciator.

In Fig. 6 the wall *c* is connected with one of the poles *m* of the source of electricity *g* supplying the annunciator *k*. The other pole *n* of this source of electricity is connected to wire *r* the end of which is arranged so that a key comes in contact with it and the wall *c* and thus closes the circuit of the source of electricity *g* which causes the sounding of the alarm from annunciator *k*.

To the upper edge of key *a* in Fig. 6 is fixed insulating material *b* shown also in Fig. 7 and the key *a* does not close the circuit owing to the insulating material *b* and thus the insertion of key *a* does not cause the sounding of the alarm from the annunciator *k*.

In Fig. 9 the wire *r* is connected with one of the poles *m* of the source of electricity *g* supplying annunciator *k*. The other pole *n* of this source of electricity is connected with wire *s*; the ends of wire *r* and wire *s* are arranged so that a key comes in contact with them and thus closes the circuit of the source of electricity *g* which causes the sounding of the alarm from annunciator *k*.

Out of the side of key *a* in Figs. 8 and 9 pieces *e* and *e'* of the keys are insulated from the key by the insulating material *b* and *b'* owing to this insulation key *a* does not close the circuit nor cause the sounding of the alarm from annunciator *k*.

What I do claim as my invention, and desire to secure by Letters Patent, is—

An electric alarm for locks comprising a

plate secured to the back plate of the lock
and insulated therefrom, said insulated plate
having an aperture therein registering with
the aperture for the pin of the key in the
5 back plate of the lock, a source of electricity
and an alarm signal connected in a normally
open circuit and the ends of the wires of
the circuit being connected to the insulated
plate and the back lock plate respectively,
10 and a key having a shank with a portion of

which insulated from the main portion of
the shank and whereby when inserted in the
lock the circuit is kept open and whereby
when an ordinary key is inserted in the lock
the circuit is closed.

JOSEPH HARRIS PRESTON.

Witnesses:

ROSE ARMSTRONG,
BLANCH MARY GENIN.