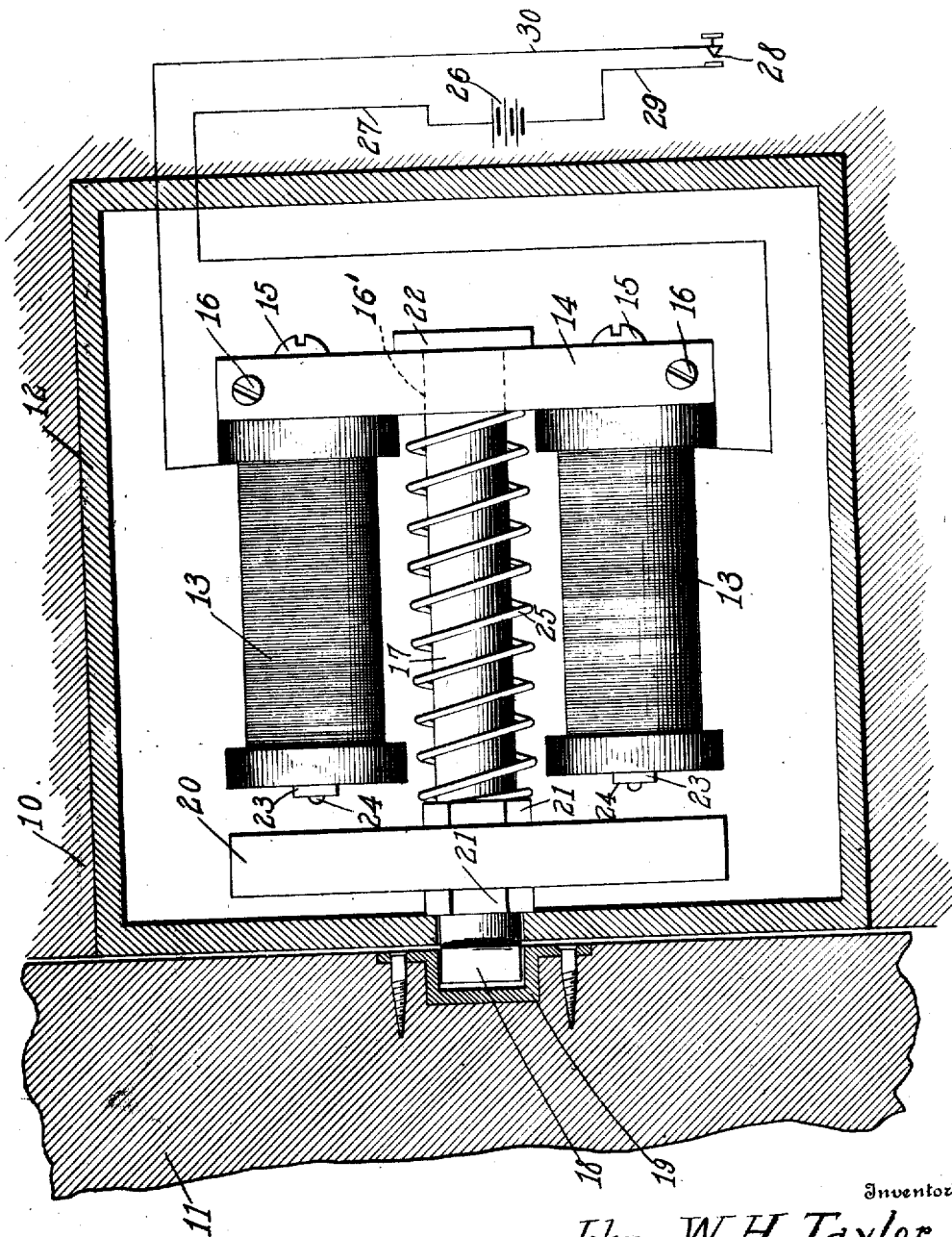


J. W. H. TAYLOR.
 LOCK.
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947,866.

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JOHN W. H. TAYLOR, OF POMONA, CALIFORNIA.

LOCK.

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To all whom it may concern:

Be it known that I, JOHN W. H. TAYLOR, a citizen of the United States, residing at Pomona, in the county of Los Angeles, State of California, have invented certain new and useful Improvements in Locks; and I do hereby declare the following to be 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.

This invention relates to locks and more especially to a lock designed to be operated without keys or knobs but solely by the use of electricity.

One object of the invention is to provide an improved general construction for locks of this character.

A second object of the invention is to provide a means whereby the magnet used for actuating the lock will at the same time act as a guide for the bolt.

With the above and other objects in view the invention consists in general of a casing wherein is held a pair of electro-magnets, a bolt arranged in a novel manner and an armature supported on said bolt.

The invention further consists in certain novel details of construction and combinations of parts hereinafter fully described, illustrated in the accompanying drawing, and specifically set forth in the claims.

In the accompanying drawing, like characters of reference indicate like parts in the view, and the figure is a section through a door and the lock casing showing the working mechanism of a lock constructed in accordance with this invention.

The numeral 10 indicates the leaf of a door whereon the lock is located and the numeral 11 the door jamb.

At 12 is shown a lock casing wherein is held a pair of electro-magnets 13 connected and attached to a bar 14 of soft iron so that a complete U magnet is formed. The bar of soft iron 14 is attached to the magnet cores by means of screws 15 and to the side of the casing by screws 16. The bar 14 thus serves to support the magnets and hold them firmly attached to the casing. The bar 14 is further provided with a centrally disposed aperture 16' and moving through this aperture is the stem 17 of a locking bolt provided at its forward end with the usual beveled surface 18 adapted to be received in a keeper 19 secured within the jamb 11.

Upon the stem 17 is carried an armature 20 being secured upon the stem by means of nuts 21 located on each side of the armature 20. The stem 17 is further provided with a collar 22 where it projects through the bar 14 and this collar serves to limit the forward movement of the stem. The magnet cores are indicated at 23 and each of these cores is provided with a non-magnetic stop 24 of the usual construction to prevent the armature 20 adhering to the cores 23 after the current has been turned off. Surrounding the stem 17 is a spiral spring 25 normally forcing the bolt outward.

At 26 is indicated a battery and this battery is connected to the magnet coils by means of a wire 27 leading from one end of the battery and to a push button 28 by means of a wire 29 leading from the other pole of the battery. A wire 30 connects the other contact of the push button with the magnet coils. The push button 28 is located in any convenient place so that it cannot readily be reached by a person attempting to open the door surreptitiously.

In the operation of the device when it is desired to open the door it is simply necessary to close the circuit by pushing on the push button. The magnets will then be energized and attract the armature 20 which will pull the bolt back and release the end 18 from the keeper 19 thus permitting the door to open. As soon as the push button is released the spring 25 forces the bolt outward and the door may be shut in the ordinary manner.

It is obvious that this invention may also apply to safes and vaults and that a plurality of devices of this kind may be employed either operated by different push buttons located at different places or so arranged in series that all of the circuits are closed simultaneously.

There has thus been provided a simple and efficient device of the kind described and for the purpose specified.

Having thus described the invention, what is claimed as new, is:—

1. In a lock, a casing, a pair of electro-magnets held therein, a paramagnetic bar connected to the cores of said magnets and provided with a centrally disposed guide aperture, a spring-pressed bolt held to move in said guide aperture and adapted to project from the casing, an armature rigidly so-

cured to said bolt, and means to complete an electric circuit through said magnets.

2. In a lock, a casing, a pair of electromagnets held therein, a paramagnetic bar 5 connected to the cores of said magnets and provided with a centrally disposed guide aperture, a spring pressed bolt held to move in said guide aperture and adapted to project from the casing, an armature rigidly 10 secured to said bolt, and means to complete an electric circuit through said magnets, said means comprising a generator, a push button, and wires connecting the magnets, generator and push button.

3. In a lock, a casing, a pair of electromagnets therein, a paramagnetic bar rigidly 15 attached to the cores of said magnets and

secured to the side of said casing, said paramagnetic bar being provided with a centrally disposed guide aperture, a spring 20 pressed bolt held to move in said guide aperture and adapted to project from the casing, an armature rigidly secured to said bolt, and means to complete an electric circuit through said magnets, said means comprising a gen- 25 erator, a push button, and wires connecting the magnets, generator and push button.

In testimony whereof, I affix my signature, in presence of two witnesses.

JOHN W. H. TAYLOR.

Witnesses:

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