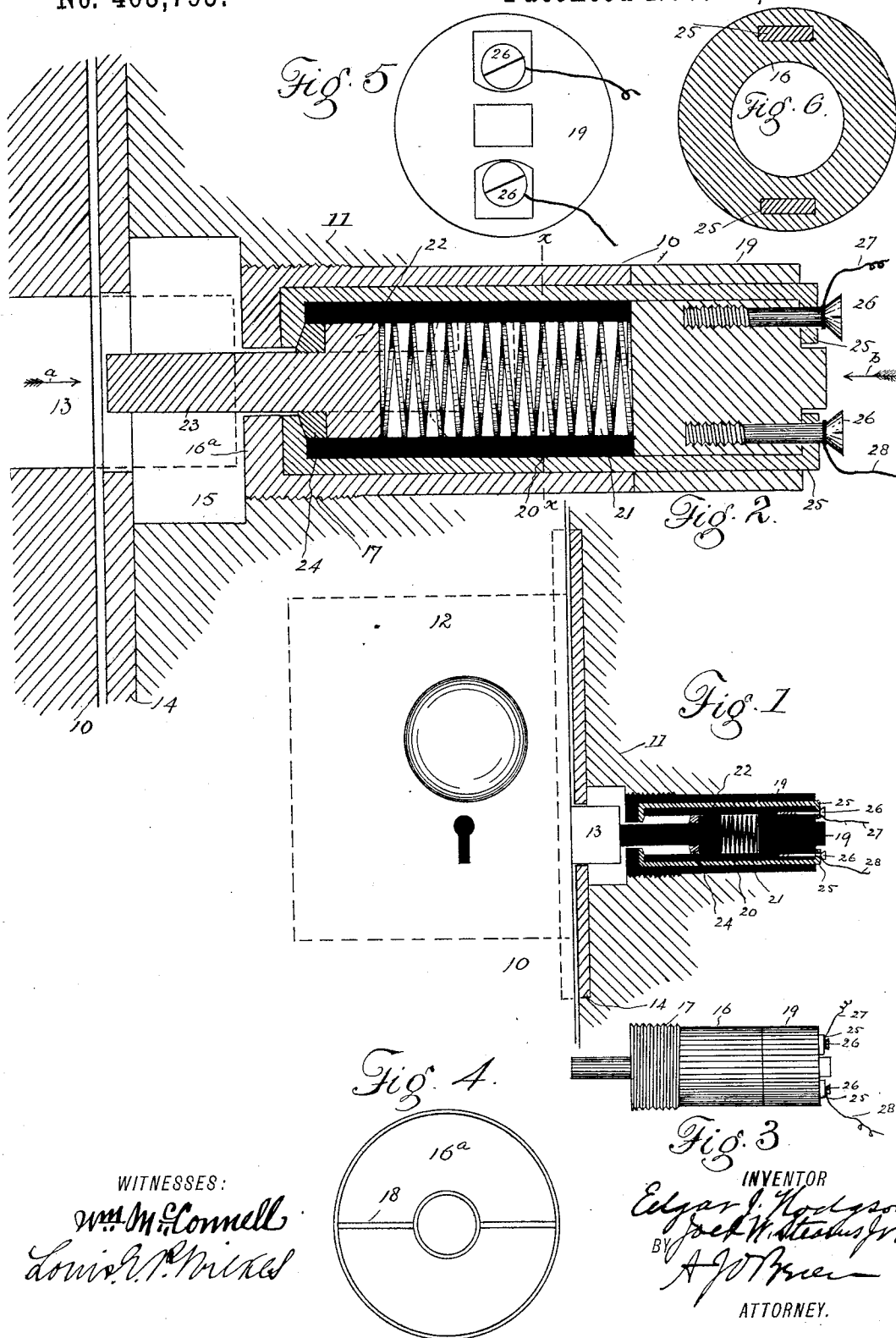


(No Model.)

E. J. HODGSON & J. W. STEARNS, Jr.
SYSTEM OF ELECTRIC LIGHTING.

No. 463,793.

Patented Nov. 24, 1891.



WITNESSES:

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EDGAR J. HODGSON AND JOEL W. STEARNS, JR., OF DENVER, COLORADO.

SYSTEM OF ELECTRIC LIGHTING.

SPECIFICATION forming part of Letters Patent No. 463,793, dated November 24, 1891.

Application filed February 28, 1891. Serial No. 383,156. (No model.)

To all whom it may concern:

Be it known that we, EDGAR J. HODGSON and JOEL W. STEARNS, Jr., citizens of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Systems of Electric Lighting; and we do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

Our invention relates to an improved method of controlling the electric current by the shooting or withdrawing of a locking-bolt, whereby the making and breaking of the circuit are effected.

The object of this invention is to prevent the burning of the electric lamps in a room in cases where, by inadvertence or mistake, the occupant has left his room without turning off the lamps.

This application of the invention is very extensive, since it includes its use in hotels, boarding-houses, &c., where the loss by reason of the guests carelessly leaving the lamps burning in their rooms during their absence is very great.

In the accompanying drawings is illustrated an appliance for carrying out or practicing the invention.

Figure 1 is a longitudinal section of the appliance located in the casing or jamb of the door adjacent to the lock, which is shown in dotted lines. Fig. 2 is an enlarged longitudinal section of the appliance, shown in connection with the locking-bolt. Fig. 3 is an elevation of the appliance alone and on the same scale as shown in Fig. 1. Fig. 4 is a front end elevation of the appliance or a view looking in the direction indicated by arrow *a* in Fig. 2. Fig. 5 is a rear end elevation or a view looking in the direction indicated by arrow *b* in Fig. 2. Fig. 6 is a transverse section taken on the line *x x*, Fig. 2.

In the views, wherein similar reference-characters indicate corresponding parts or elements of the mechanism, let the numeral 10 designate a door, 11 the frame, 12 the lock

generally, 13 the locking-bolt, and 14 the striking-plate secured to the casing.

Located within the frame and in an opening forming a continuation of the bolt-socket 15 is a cylindrical shell 16, provided with a solid base 19, both formed of suitable insulating material. The opening for the reception of these parts is formed by turning into the casing, and is therefore cylindrical to correspond with the shape of the parts. This shell is threaded, as shown at 17, whereby it may be screwed into the socket formed for its reception, thus affording an easy and convenient means of inserting and removing the shell, the extremity of which is provided with a groove 18, permitting the use of a screw-driver of suitable shape. The base 19 is separate from the shell and forms a seat for a coil-spring 20, located in the chamber 21 of the shell and engaged in front by a sort of piston or plunger 22, provided with a stem 23, normally projecting from the shell into the bolt-socket. The plunger, like the shell, is composed of suitable insulating material.

Screwed upon stem 23 and engaging head 22 is a ring 24, composed of copper or other material forming a good conductor of the electric current. Extending through the shell 16 and base 19 on diametrically-opposite sides of the chamber 21 are apertures in which are located copper or other suitable metal plates 25, which at the rear extremity of the base are flanged to contact therewith and secured in place by screws 26, to which are attached the circuit-wires 27 and 28. The forward extremities of plates 25 are flanged to contact with metal rings 24. Plates 25 connect the shell and base together, so that they constitute a symmetrical body of convenient size and easily handled and attached as if they were formed integral and constituted but a single part.

The mechanism located within the shell is protected and concealed in front by a circumferential flange 16^a, formed integral with the shell, surrounding stem 23, and in contact with plates 25. It will thus be seen that when ring 24 is in contact with plates 25 the electric circuit is completed through the medium of these parts, and that when the plunger is pressed backward to the position indicated in Fig. 1 and by dotted lines in Fig. 2 the

circuit is broken. Supposing wires 27 and 28 are connected with the lamps in a room, the shooting of the bolt 13 in locking the door forces the plunger to the position indicated in Fig. 1 and by the dotted lines in Fig. 2 breaks the circuit and extinguishes the lights. It will thus be seen that by the use of the appliance illustrated in the drawings our improved method of controlling the electric current may be carried out or practiced.

It is supposed that in shooting the locking-bolt it will be done from the outside of the door by turning the key in the usual way. As soon as the door is unlocked or the bolt withdrawn ring 24 is returned to contact with the plates 25 and the circuit again established, the lights in the room being turned on.

The fastening of the door from the inside may be by a sliding bolt or by another key-actuated bolt manipulated through another key-hole. These things are matters of detail which may be regulated according to the requirements of each particular case.

It will be readily seen that the appliance could be easily arranged so that the shooting of the bolt could make the contact and the withdrawing of the bolt break the contact

simply by reversing the mechanism heretofore described. Hence

What we claim is—

1. In an electric-lighting circuit, the combination of lamps located in a room controlled and operated by means of a cut-out located in proximity to the lock of a door leading into said room, said cut-out adapted to be operated by the mechanism of said lock, whereby the burning of the lights is controlled, substantially as described.

2. In a circuit-closer, the combination of a cylindrical casing of insulating material and circuit-terminals in said casing throughout its length, flanged on the ends to embrace the stem of an insulated spring-pressed plunger working in said casing, and carrying a conducting-ring for bridging the terminals when the plunger is pressed to the extremity of its stroke, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

EDGAR J. HODGSON.
JOEL W. STEARNS, JR.

Witnesses:

WM. McCONNELL,
F. H. JOHNSON.