

M. MOSLER.

ATTACHMENT FOR COMBINATION DIALS ON SAFES, VAULTS, &c.
APPLICATION FILED MAY 17, 1909.

961,884.

Patented June 21, 1910.

Fig. 1.

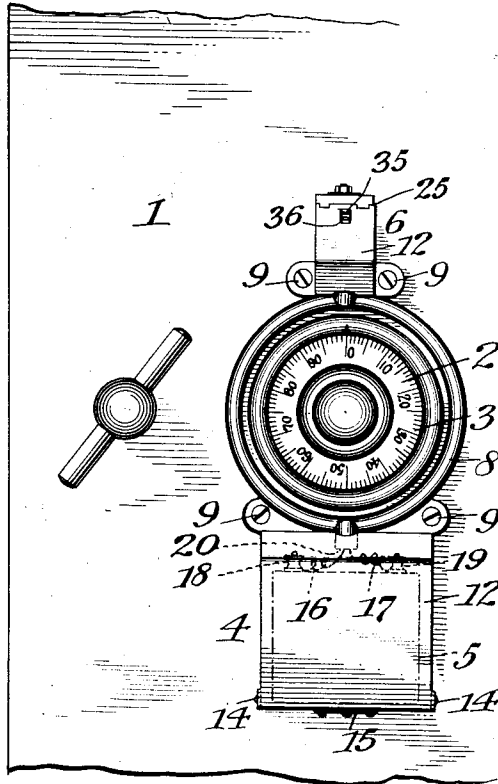


Fig. 2.

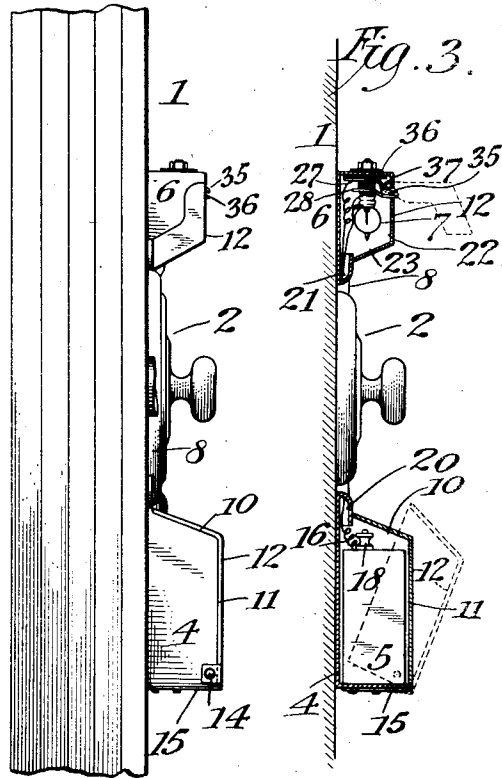


Fig. 3.

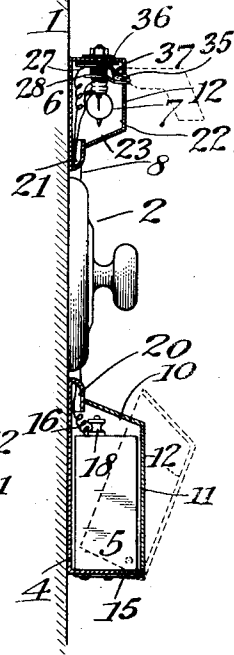


Fig. 4.

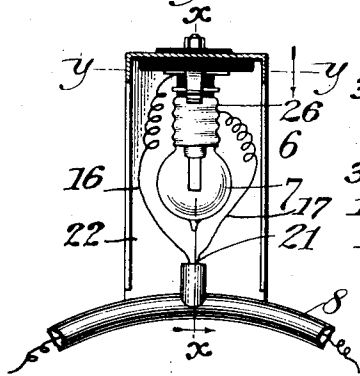


Fig. 5.

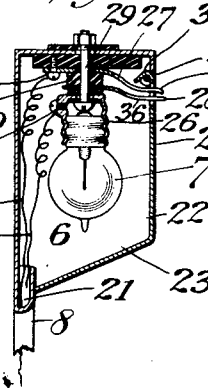
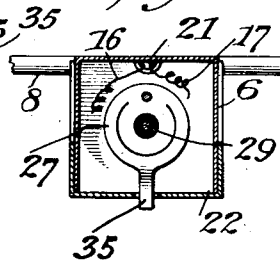


Fig. 6.



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ATTACHMENT FOR COMBINATION-DIALS ON SAFES, VAULTS, &c.

961,884.

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To all whom it may concern:

Be it known that I, MOSES MOSLER, a citizen of the United States, and resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented certain new and useful Improvements in Attachments for Combination-Dials on Safes, Vaults, &c., of which the following is a specification.

This invention relates to attachments for combination dials on safes, vaults, etc., and it has for its object to provide a simple and improved attachment whereby the dial can be conveniently and readily illuminated to enable its manipulation under any conditions or circumstances where light is required.

Safes and vaults are frequently located at places where there is insufficient light for enabling the ready and convenient view of the small graduations on combination dials, and it is also frequently desired to operate such dials to enable the opening of safes and vaults at night under circumstances where the ordinary artificial illumination of the room is not sufficient to light up the dial so that its graduations can be readily seen. My invention is designed to overcome these disadvantages and all other objections or disadvantages resulting from insufficient light or illumination for the convenient operation of combination dials, and to these ends my invention provides for the independent illumination of the dial itself without reference to the light conditions in the room in which the safe or vault is located.

In the drawings—Figure 1 is a face view, showing my attachment in position upon a safe door and in its operative location with relation to the graduated combination dial thereof. Fig. 2 is an edge view of a portion of the safe door, showing the attachment in side elevation. Fig. 3 is a vertical sectional view, taken through a portion of the door and the attachment, and illustrating in dotted lines the operation of parts of the attachment. Fig. 4 is a front view of the top portion of the attachment, with the door of the lamp inclosure removed. Figs. 5 and 6 are detail cross-sections, taken respectively on the lines $x-x$ and $y-y$, Fig. 4.

Corresponding parts in all the figures are denoted by the same reference characters.

Referring to the drawings, 1 designates

the door of a safe or vault, and 2 the combination-lock dial mounted thereon and having the usual graduations, 3.

My illuminating attachment is designed to be mounted upon and secured to the door 1 in direct operative relationship to the dial 2, and in the preferred form it comprises an inclosure, 4, for containing a battery, 5, and an inclosure, 6, for containing an electric light bulb, 7, and a conduit, 8, between said inclosures 4 and 6, for containing the wires passing from the battery to the bulb, the relative construction and arrangement being preferably such that the battery elements are located beneath the dial 2, the conduit 8 surrounds the dial, and the electric light elements are immediately above the dial. The attachment is preferably in the form of a general framework, constituting a composite device and including the battery inclosure 4 at the bottom and the electric light inclosure 6 at the top, with said inclosures connected and carried by an intermediate annular or ring-shaped conduit 8 for the wires, the framework being directly secured against the outer face of the door 1, by means of screws, as at 9, passing through the framework and into the door, or in any other suitable or adapted manner, in such position that the intermediate annular conduit directly surrounds the dial 2 and the battery and electric light inclosures are respectively immediately beneath and immediately above the dial.

In the preferred construction as herein shown, the battery inclosure 4 is of flat rectangular box shape, conforming to a flat rectangular battery 5 which is insertibly received between and retained by the sides and bottom of the inclosure. To enable convenient insertion or detachment and inspection of the battery, the inclosure 4 is open at its top, as at 10, and at its front, as at 11, and provided with an approximately right angular door or closure, 12, for said open part, hinged at its bottom, as at 14, and having a cam action at its lower edge against a plate-spring, 15, projecting from the bottom of the inclosure 4, whereby said door or closure 12 is normally retained in position. The annular conduit 8 is tubular, and the wires, 16 and 17, respectively extending from the positive and negative binding posts, 18 and 19, at the top of the battery 5, extend

upwardly through an opening, 20, at the bottom of the conduit 8 and through the channel or bore of said conduit to an opening, 21, at the top thereof.

5 The top inclosure 6, for the electric light bulb, is open at its front, as at 22, and at its bottom, as at 23, this open portion being closed by an approximately right angular door or closure, 24, hinged at its top, as at 10 25. The electric light bulb 7 is housed within the inclosure 6 and seated in its socket, 26, which comprises a supporting extension rod, 29, secured to the top of the inclosure 6 and insulated therefrom. Project- 15 ing from the rod 29 are two plate-springs, 27 and 28, suitably insulated from each other, as at 30, the spring 27 being insulated from the socket-member 29 while the spring 28 is in electrical contact with said socket- 20 member 29. The battery wires 16 and 17, which project from the top opening 21 of the conduit 8 and enter the inclosure 6, are respectively in electrical connection with the springs 27 and 28, the wire 16 being connected to the spring 27, as at 31, while the 25 wire 17 is connected to the socket 26 with which the spring 28 is in electrical connection, as at 32, and thus the circuit is normally open at the springs 27 and 28. The 30 free ends of said contact springs 27 and 28 are respectively provided with forwardly extending lips or projections, 35 and 36, which are normally out of contact but which will be brought into contact by the cam action of the top edge, 37, of the door or 35 closure 24, which depresses the top lip or extension 35 when said door is lifted and opened (as shown in dotted lines in Fig. 3), and the tension of the spring in this cam 40 action is sufficient to retain the door in open position. It will be understood that the contact of the spring lips 35 and 36, by the operation of lifting and opening the door or closure 24, will establish the circuit from 45 the battery to the electric light bulb and cause the illumination of the latter, and the construction and arrangement is such that the door 24 forms a reflector which directs and concentrates the light at the face of the 50 dial.

The operation and advantages of my invention will be readily understood. When it is desired to illuminate the combination dial, it is simply necessary to lift the door 55 of the inclosure for the electric light bulb, to establish the spring-contact circuit connection, when the dial will be directly illuminated by the electric light, and the closing of the door operates to automatically 60 break the circuit. The device is exceedingly simple and compact, and in its preferred form provides an inclosure or housing for all the operative parts, the wires and other elements being entirely inclosed and pro- 65 tected, and the simple operation of a spring-

contact affords an effective illumination of the dial whenever desired.

I do not desire to be understood as limiting myself to the detail construction and arrangement of parts as herein shown and 70 described, as it is manifest that variations and modifications therein may be resorted to in the adaptation of my invention to varying conditions of use, without departing from the spirit and scope of my invention and improvements. I therefore re- 75 serve the right to all such variations and modifications as properly fall within the scope of my invention and the terms of the following claims. 80

Having thus described my invention, I claim and desire to secure by Letters Patent:

1. An attachment for combination dials, comprising a framework having means at its lower portion for mounting and retain- 85 ing a battery, means at its upper portion for mounting an electric lamp above the dial, and an annular or ring-shaped conduit connecting said lower and upper portions and adapted to surround the dial and carry the 90 wires from the battery to the lamp.

2. An attachment for combination dials, comprising a framework having at its lower portion an inclosure for a battery, a closure 95 for said battery inclosure, an inclosure at its upper portion for an electric lamp, a closure for said lamp inclosure, and an annular or ring-shaped conduit extending between said lower battery inclosure and said upper lamp inclosure and adapted to 100 surround the dial and carry the wires from the battery to the lamp.

3. An attachment for combination dials, comprising a framework having an annular or ring-shaped conduit adapted to surround 105 the dial and carry circuit wires, means carried by said annular conduit for mounting and retaining a battery, means carried by said annular conduit for mounting and protecting an electric lamp, and means carried by said lamp protector for throwing 110 the lamp into and out of circuit.

4. An attachment for combination dials, comprising an annular or ring-shaped conduit adapted to surround the dial and carry 115 circuit wires, means carried by said annular conduit for mounting and retaining a battery, a housing or inclosure carried by said annular conduit for containing an electric lamp, one portion of said housing or in- 120 closure being open, a closure for said open portion of said lamp housing, and means for throwing the lamp into circuit when said closure is opened and out of circuit when said closure is closed. 125

5. The combination, with a safe or vault door and lock-dial mechanism thereon, of a framework carried by said door in fixed relation to said dial and having means for carrying a battery and means carrying an 130

electric lamp in projecting position with relation to said dial, an annular conduit for circuit wires comprised in said framework and extending from the battery-carrying means around the dial and to the lamp-carrying means, and means carried by said framework for throwing the lamp into and out of circuit.

6. As an improved article of manufacture, an attachment for combination dials, consisting of a framework adapted to surround the dial and having means for mounting and retaining a battery, means

for mounting and protecting an electric lamp, said framework embodying means for carrying the circuit wires between the battery and lamp, and means carried by said lamp-protective means for opening and closing a circuit for the lamp.

In testimony whereof I have signed my name in the presence of the subscribing witnesses.

MOSES MOSLER.

Witnesses:

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