Feb. 16, 1937. H. OBLAK 2,070,803

SAFE AND THE LIKE

Filed Jan. 4, 1935

Fig. 1.

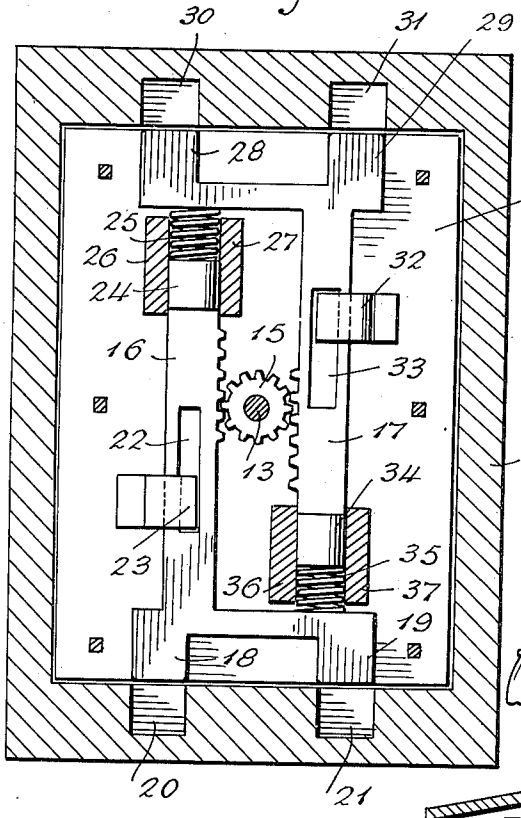


Fig. 2.

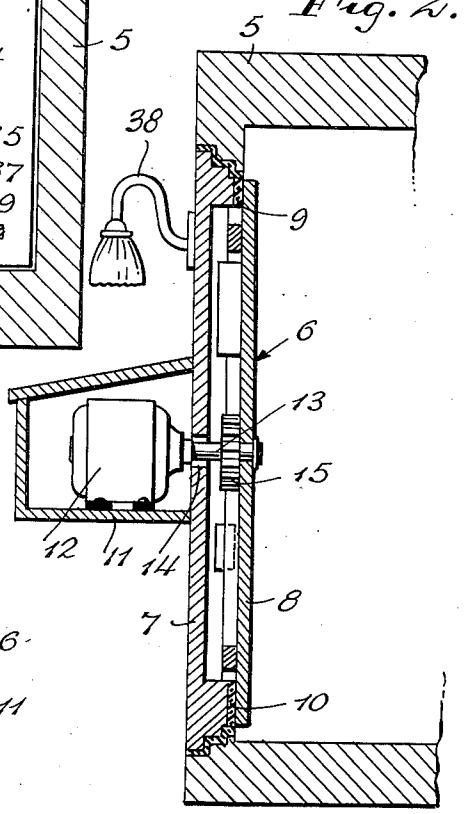
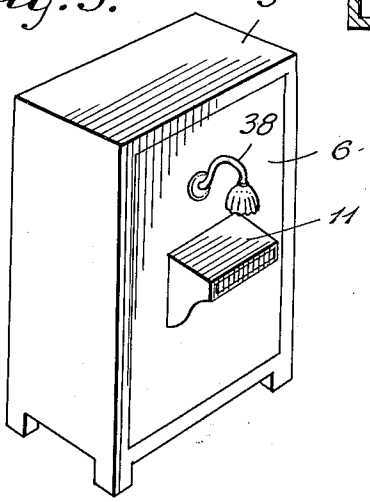


Fig. 3.



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Patented Feb. 16, 1937 2,070,803

UNITED STATES PATENT OFFICE

2,070,803

SAFE AND THE LIKE

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Application January 4, 1935, Serial No. 424

1 Claim. (Cl. 109—3)

This invention relates to safes and the like and refers more particularly to means operable by an electrical current for locking and unlocking the door of a safe and for protecting said door from burglars and other persons attempting to tamper with the safe.

Another object is the provision of a device for unlocking the door of a safe and the like, which is so concealed that any person not knowing the location thereof will be unable to open the safe.

The above and other objects of the present invention may be realized through the provision of a device for unlocking the door of a safe which is operated by a concealed electrical motor.

The invention will appear more clearly from the following detailed description when taken in connection with the accompanying drawing showing a preferred embodiment of the inventive idea.

In the drawing:

Figure 1 shows a locking device carried by the door of a safe in side elevation and partly in section.

Figure 2 is a cross section through the locking device and the door of the safe.

Figure 3 is a perspective view of the safe.

The safe 5 illustrated in Figs. 1, 2, and 3 of the drawing is provided with a door 6 which has no keyhole or any other parts which may indicate the location of the device for locking or unlocking the door.

As shown in Fig. 2, the door 6 comprises two plates 7 and 8 separated by intermediate insulation pieces 9 and 10. A casing 11 has the shape of a writing desk for the purpose of deceiving a burglar, while it actually serves as a support for an electric motor 12.

The shaft 13 of the motor 12 passes through an opening 14 formed in the plate 7 and is supported by a suitable bearing formed in the plate 8. A pinion 15 is keyed upon the shaft 13.

As shown in Fig. 1, the pinion 15 driven by the shaft 13 meshes with the teeth of two racks 16 and 17. The rack 16 is made of one piece with two locking bars 18 and 19 adapted to be inserted into the openings 20 and 21 formed in the safe 5, thereby locking the door of the safe. A guiding member 23 projects into an opening 22 formed in the rack 16. The upper end 24 of the member 16 is cylindrical in form and is in contact with a coiled spring 25. Guides 26 and 27 are used for maintaining the spring 25 in its proper position.

Similar locking bars 28 and 29 are situated in the upper part of the safe and are adapted to be inserted into the openings 30 and 31 of the safe. These bars form an integral part of the rack 17 which is guided by means of a guiding member 32 projecting into an opening 33 of the rack 17. The cylindrical end 34 of the rack 17 is subjected to the pressure of a spring 35 situated between two guiding members 36 and 37.

A lamp 38 is attached to the plate 7 of the door 6 and has the purpose of further disguising the door of the safe.

In order to open the door of the safe, it is merely necessary to close the circuit of the electric motor 12 which will rotate its shaft 13 under the influence of the electric current so that the pinion 15 will also be rotated. The pinion 15 will move the racks 16 and 17, until they are brought to the position shown in Fig. 1 of the drawing.

In this position the bars 18, 19, 28, and 29 are removed from the openings 20, 21, 30, and 32 of the safe so that it will be possible to open the door of the safe.

Any suitable motor 12 may be used, of a type known in the art, which will not burn out when the bars arrive at their fully retracted position.

The switch for the circuit of the electric motor should be concealed and should preferably be placed at a convenient distance from the safe. The lamp 38 may serve as a signal lamp and may be located in an entirely different part of the building. The safe 5 may be a portable one, or it may be built into the wall of a building.

What is claimed is:

The combination with an electric motor; of a locking device for safes and the like, comprising a pair of spaced toothed racks, each of said racks being reciprocally mounted on the door in relatively opposite directions, each of said racks comprising a bar having projections adapted to engage corresponding recesses in said safe to lock said door, springs on said safe door for normally holding said projections in engagement with said recesses, a pinion adapted to be driven by the shaft of said motor meshing with said racks, whereby the rotation of said pinion by said motor will lock and unlock said safe door.

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