J. C. PEPPERS.

DEVICE FOR LOCKING AND UNLOCKING WINDOW BLINDS AND DOORS.

APPLICATION FILED APR. 10, 1912.

1,054,608. Patented Feb. 25, 1913.

2 SHEETS—SHEET 1.

Fig. 1.

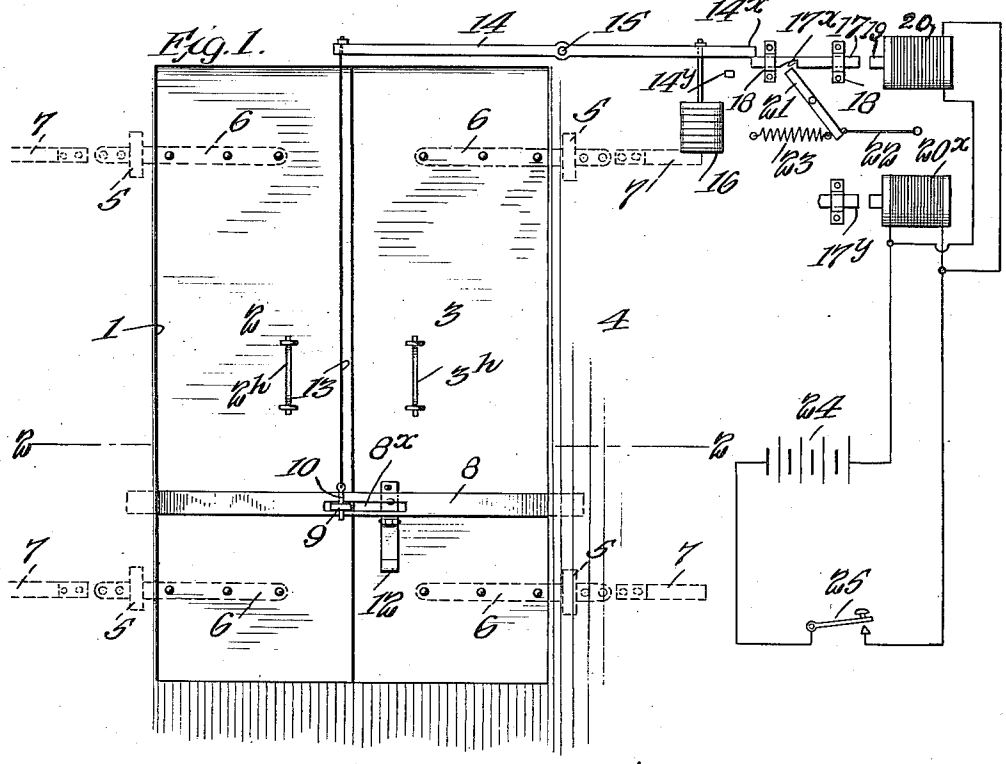


Fig. 2.

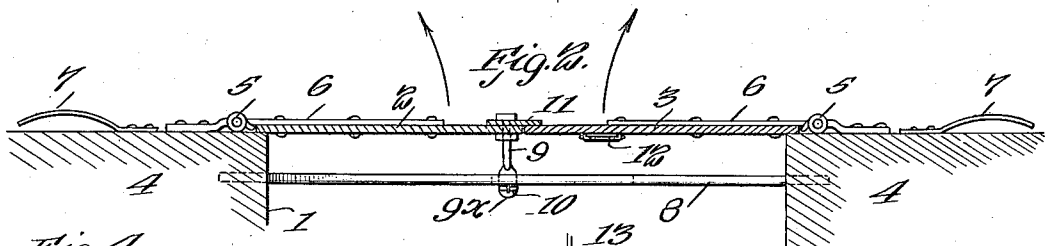


Fig. 4.

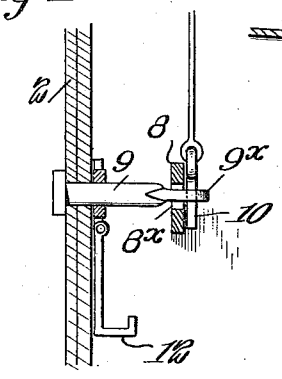
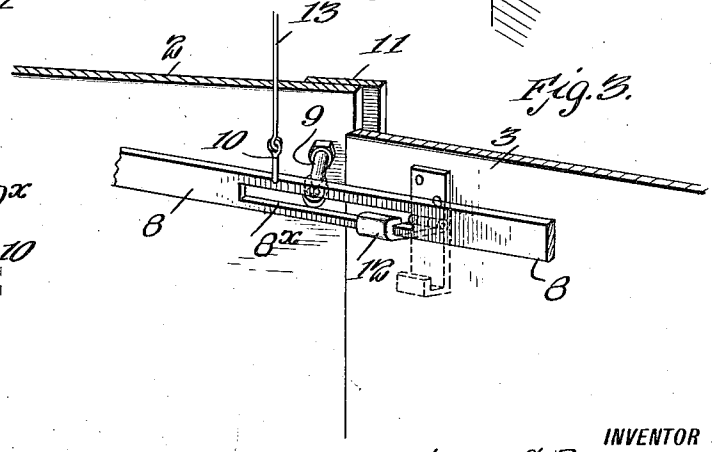


Fig. 5.



WITNESSES

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2 SHEETS—SHEET 2.

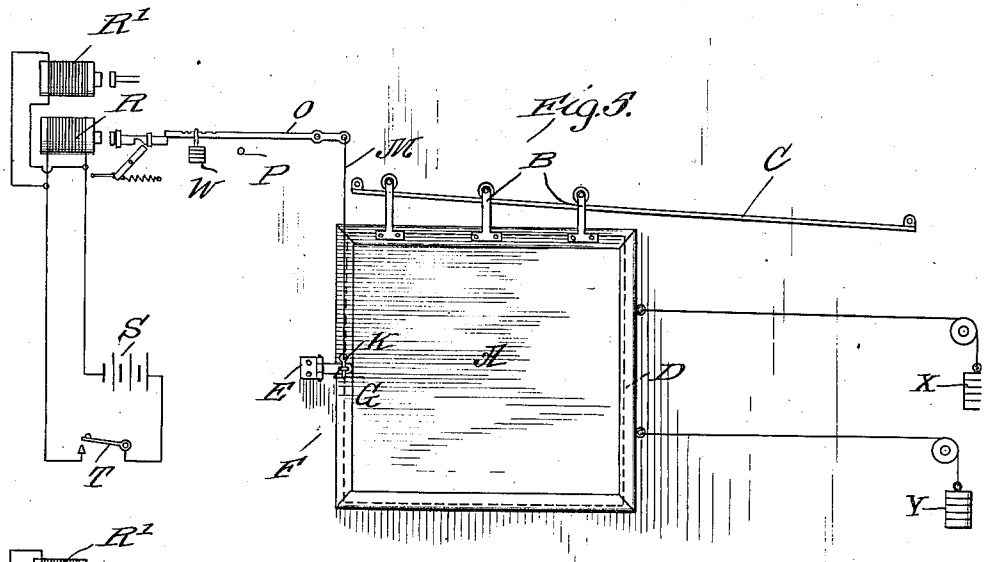

Fig. 5.

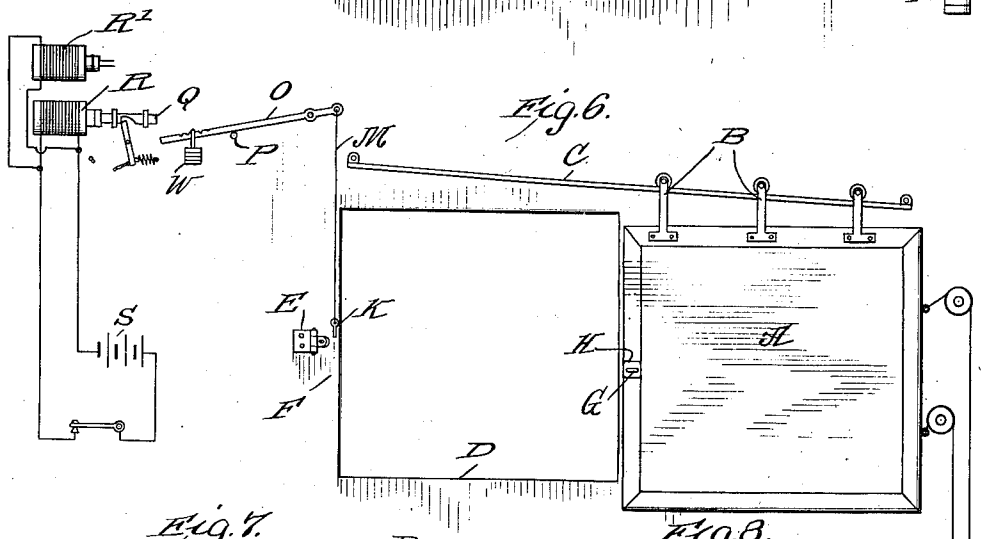

Fig. 6.

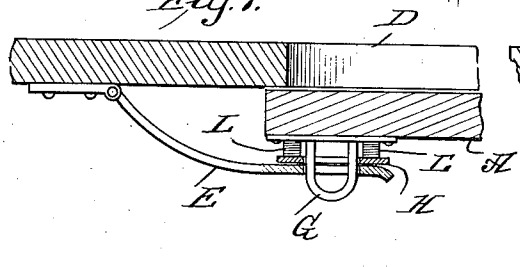

Fig. 7.

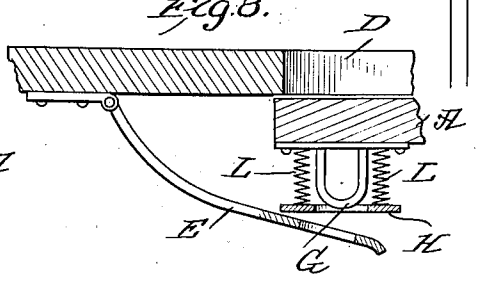

Fig. 8.

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UNITED STATES PATENT OFFICE.

JERRY COATTS PEPPERS, OF NEW ORLEANS, LOUISIANA.

DEVICE FOR LOCKING AND UNLOCKING WINDOW-BLINDS AND DOORS.

1,054,608. Specification of Letters Patent. Patented Feb. 25, 1913.

Application filed April 10, 1912. Serial No. 689,803.

To all whom it may concern:

Be it known that I, JERRY COATTS PEPPERS, a citizen of the United States, and a resident of New Orleans, in the parish of Orleans and State of Louisiana, have made certain new and useful Improvements in Devices for Locking and Unlocking Window-Blinds and Doors, of which the following is a specification.

My invention relates to improvements in devices for opening window blinds or doors, and it consists in the combinations, constructions and arrangements herein described and claimed.

An object of my invention is to provide means for opening a locked door or window blind from the side walk, especially in the case of fires, these doors or window blinds generally being bolted on the inside, thereby preventing the firemen from gaining access to the different floors of the building.

A further object of my invention is to provide means for operating these doors or blinds, of simple construction, and of comparatively low cost.

Other objects and advantages will appear in the following specification, and the novel features of the device will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings forming part of this application in which—

Figure 1 is a view of a window blind and the mechanism for releasing the same, Fig. 2 is an enlarged sectional view along the line 2—2 of Fig. 1, Fig. 3 is a perspective view showing a portion of the locking bar, Fig. 4 is a sectional view through the locking means, Fig. 5 is a view of a modified form of the device comprising a sliding door in its locked condition, Fig. 6 is a view showing the door in its open condition, Fig. 7 is a detail sectional view of the door latch, and Fig. 8 is a similar view to Fig. 7, showing the latch detached from the staple.

Referring now to Fig. 1, I have shown therein a window opening 1, which is adapted to be closed by the blinds 2 and 3, these blinds being made of sheet metal or other similar material. Each of the blinds is hinged on the outside of the building 4 near the edge of the window opening, coil springs 5 surrounding the pintles and bearing on the inner side of the hinges 6 so that when the blinds are free they will be swung outwardly by means of the spring 5 to open the window. The outside of the wall is provided with a spring member 7 to receive the blind and to prevent injury to the latter by the cushioning effect of the spring member.

Between the opposite sides of the window opening is secured a locking bar 8 which may be of the form shown in Figs. 1 or 2, or may be of any other suitable form. This bar is provided with an opening 8^x, as shown in Fig. 1. The blind 2 is provided with a pin or arm 9 whose end 9^x is arranged to extend through the opening 8^x in the bar 8. The end 9^x of the pin is provided with an opening arranged to receive a locking pin 10, as shown in Fig. 4. The member 2 is provided with an exterior strip 11 constituting a flange and arranged to engage the adjacent edge of the blind member 3 when the blinds are closed.

The blind 3 has on its inner side a hinged latch member 12 whose purpose will be explained later.

Both of the blinds 2 and 3 are provided with hinged handles such as those shown at 2^h and 3^h respectively for the purpose of assisting in closing the blinds.

Secured to the locking pin 10 is a rod or cord 13 whose upper end is connected to a lever 14 pivoted at 15 and provided with a weight 16. The end 14^x of the lever may be supported by a slidable bar 17, which is held by brackets 18. One end of the bar is adjacent to the pole piece 19 of a magnet 20. The bar 17 is provided with a notch 17^x into which the upper end of a lever 21 may be projected. The lower end of the lever 21 is held clear of the notch by means of a short cord 22, a spring 23 being attached to the opposite side of the lever.

The magnet 20 may be actuated by a battery 24, a circuit closing device 25 being provided in the circuit.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood.

The normal position of the device is that

shown in Fig. 1. If now a fire should occur in the building it would be only necessary to close the circuit at 25 in order to open the blind. The closing of the circuit at 25 actuates the magnet 20, which thereupon pulls the sliding bar 17 from beneath the end of the lever 14. The weight 16 pulls the lever downwardly at one end and until it hits the stop pin 14^y upwardly at the other, thereby lifting the locking pin 10 from the pin 9 when both blinds will swing outwardly due to the fact that the springs 5 are under tension. The curved spring 7 will prevent injury to the blind by cushioning the jar. Obviously other magnets such as that shown at 20^x might be arranged at other window openings to operate on bars such as 17^y for releasing other window blinds provided with a similar locking apparatus.

In order to close the blinds the member 3 is first brought into the position shown in Fig. 3 and the hook 12 is brought up to engage the bar 8. The blind member 3 will be thus held in position, while the blind member 2 is being closed. As soon however as the flange 11 engages the blind 3 it will push the hook inwardly whereupon it will drop down into the position shown in dotted lines in Fig. 3. The pin 10 may be inserted in the arm or pin 9 and the apparatus is locked as before.

This apparatus may act automatically due to the provision of the lever 21. This lever, it will be observed, is held away from the bar 17 by means of the cord 22. When a fire occurs the cord 22 is burned, whereupon the spring 23 suddenly throws the lever into the notch 17^x, pushing the sliding bar forward and releasing the lever 14, thus permitting the blinds to fly open.

In Figs. 5 to 8 inclusive, I have shown a modified form of the device in which a door A is suspended by hangers B from an inclined track C. The door is large enough to completely cover the opening D shown in dotted lines in Fig. 5 and in full lines in Fig. 6. The means for locking the door consists of a hinged hasp E secured to the wall F of the building and arranged to pass over a staple G at one edge of the door A. The staple G is arranged to pass through a plate H and between the door and the plate are springs L. The means for holding the hasp to the staple consists of a pin K which is connected by means of a flexible member M to a lever O which bears the weight W. A stop pin P is provided for limiting the movement of the lever. The rest of the apparatus is precisely the same as that already described, and consists of a magnet R, battery S, and a switch T located convenient to the sidewalk. In this form of the device as soon as the circuit is closed at T the magnet R is operated, releasing the lever O and thereby withdrawing the pin K from the staple G. As soon as the pin is withdrawn the plate H which is under the tension of the springs L will force the hasp E away from the staple, thereby freeing the door. The latter under the influence of the weights X and Y, and on account of the inclination of the track C, will be immediately withdrawn, so as to uncover the opening D and permit access to the building. In this form, as in the preferred form, other magnets such as R′ may be on the same operating circuit so as to operate other doors in the building.

It will be obvious from the above description that this device might be used for hinged blinds or doors or sliding doors and that in each case the doors or blinds may be opened by the manual closing of the circuit or automatically if the cords which hold the spring actuated levers should be burned.

I am aware that other forms of the device might be used than that shown in the drawings without departing from the spirit and scope of the invention.

I claim:

1. In a locking device for door and window closures, a locking member secured to the wall of the door or window opening, said locking member being provided with a slot, a staple carried by said closure and arranged to project through said slot, a locking pin arranged to project through said staple, means for causing the withdrawal of the pin, said means comprising a lever, a connection from one end of the lever to the pin, a weight at the opposite end of the lever, a stop member arranged to engage the lever, and means for withdrawing the stop member.

2. In a locking device for door and window closures, a locking member secured to the wall of the door or window opening, said locking member being provided with a slot, a staple carried by said closure and arranged to project through said slot, a locking pin arranged to project through said staple, means for causing the withdrawal of the pin, said means comprising a lever, a connection from one end of the lever to the pin, a weight at the opposite end of the lever, a stop member arranged to engage the lever, and electro-magnetic means for withdrawing the stop member.

3. In a locking device for door and window closures, a locking member secured to the wall of the door or window opening, said locking member being provided with a slot, a staple carried by said closure and arranged to project through said slot, a locking pin arranged to project through said staple, means for causing the withdrawal of the pin, said means comprising

a lever, a connection from one end of the lever to the pin, a weight at the opposite end of the lever, a stop member arranged to engage the lever, electro-magnetic means for withdrawing the stop member, said means comprising a slidable metallic bar, a magnet having a pole disposed adjacent to one end of the bar for attracting the latter, and means for energizing the magnet.

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Witnesses:
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