No. 767,298. PATENTED AUG. 9, 1904.

R. J. LOUIS.

LOCKING MECHANISM FOR COIN RECEPTACLES.

APPLICATION FILED APR. 6, 1903.

NO MODEL.

Fig. 1.

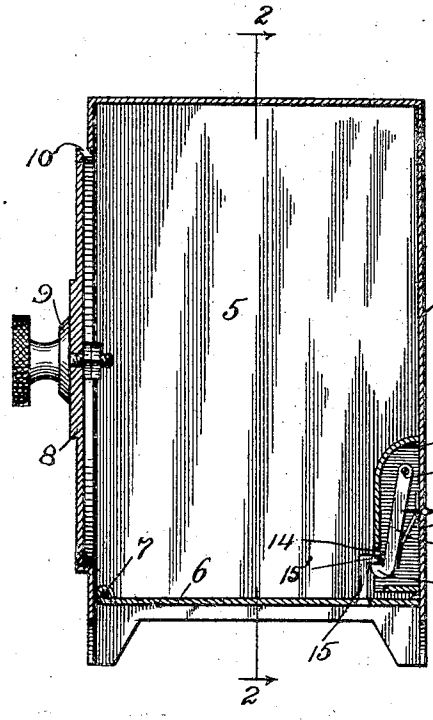


Fig. 3.

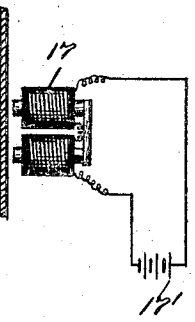
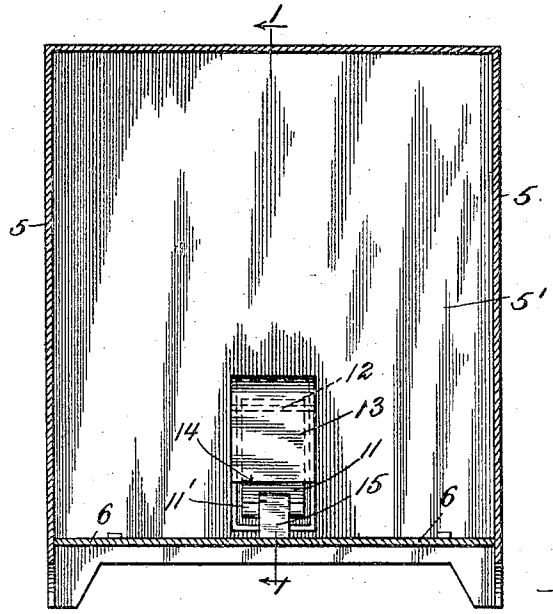


Fig. 2.



Witnesses:
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No. 767,298. Patented August 9, 1904.

UNITED STATES PATENT OFFICE.

ROBERT J. LOUIS, OF NEW YORK, N. Y., ASSIGNOR TO LOUIS MANUFACTURING COMPANY, A CORPORATION OF NEW YORK.

LOCKING MECHANISM FOR COIN-RECEPTACLES.

SPECIFICATION forming part of Letters Patent No. 767,298, dated August 9, 1904.

Application filed April 6, 1903. Serial No. 151,268. (No model.)

To all whom it may concern:

Be it known that I, ROBERT J. LOUIS, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Locking Mechanism for Coin-Receptacles; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to locking mechanism for coin-receptacles.

One of the objects of my invention is to provide a latch for retaining a receptacle-closure in closed position which is entirely concealed from the exterior of the receptacle, while operable from the exterior thereof.

A further object of my invention is to provide a magnetic latch for receptacle-closures the moving member of which is located within the receptacle but is operable by magnetic influence exerted thereon from the exterior of the receptacle.

A further object of my invention is to provide a device of the character described which is simple in construction and efficient in its operation.

With a view to attaining these and other objects, which will become apparent from the following description, my invention consists in the features of construction and the combinations of properly-constituted parts, substantially as specified in the claims.

One of the useful applications for which my invention is particularly adapted is to provide a locking means for coin-receptacles or small banks.

It is now a common practice for savings institutions to issue to their depositors small banks for the reception of coins intended to be ultimately deposited in the savings institution. These banks are not intended to be opened by the depositors themselves, but by the savings institution when the small bank or receptacle is brought to such institution to have its contents there deposited to an account.

The latching devices for the receptacle-closure in an embodiment of my invention being entirely concealed and inaccessible from the exterior of the casing, no suggestion is offered by the exterior of the receptacle to one unacquainted with its interior construction of a means whereby the receptacle may be opened, and it is therefore peculiarly adapted for use in connection with coin-receptacles for purposes such as I have described, as it minimizes the likelihood of the receptacle being opened by unauthorized persons. I have therefore in the present application illustrated my invention as applied to a small coin bank or receptacle; but I do not desire to be understood as limiting my invention to such application, as it is apparent that it is applicable to widely diverse uses.

In the drawings, Figure 1 is a central transverse vertical section of a small coin-bank embodying the latch and constructed in accordance with my invention. Fig. 2 is a central vertical longitudinal section thereof, taken on line 2 2 of Fig. 1. Fig. 3 is a fragmentary view of part of the casing and the latch illustrated in Fig. 1, showing the positions assumed by the parts when under the influence of an exterior magnet capable of releasing the latch.

Throughout the drawings like numerals of reference refer to like parts.

5 indicates generally a casing constituting a receptacle provided with a door or closure 6, movable to open the receptacle, as by turning upon a pivot 7. Any style of door may be employed in any desired position and the latch device readily adapted thereto; but I have illustrated a simple arrangement for clearness of disclosure.

To mislead the casual observer or the uniformed user of the bank as to the manner of gaining access to the interior thereof, a raised dial and sham combination-handle 9 may be provided on the front of the receptacle.

10 indicates a coin-receiving aperture.

The latch mechanism is preferably disposed adjacent to one of the walls of the receptacle, illustrated as its rear wall 5′, and said wall or a part thereof adjacent the latch devices is constructed of material permeable to a greater or less extent to magnetic lines of

force. The said permeable portion of the casing may be constructed of a diamagnetic material, such as brass, or it may be made of magnetic material, as iron or the like, of such thinness that it will become magnetically saturated when included in a magnetic field of considerable intensity.

11 indicates a movable latch member of a material susceptible to magnetic influence, such as iron, and of such proportions as to form a good magnet-armature, pivoted, as at 12, to suitable projections from the wall 5′ of the casing. In the present illustration support for the pivot 12 is afforded by the side walls of a shield 13, apertured, as at 14, to permit the nose 11′ of the pivoted latch member to project therethrough, but otherwise completely surrounding the pivoted latch member.

15 indicates the coacting latch member having a nose 15′, fixedly secured to the closure 6 of the receptacle in operative relation to the movable member 11. A spring is suitably arranged to normally hold the movable member of the latch in forward or latching position, such spring being herein indicated as a leaf-spring 16, interposed between the wall 5′ of the casing and the body of the latch member 11. It will of course be understood that the coacting latch members are so shaped as to automatically engage when brought together.

Referring now to Fig. 3, 17 indicates an operating-magnet, herein illustrated as an electromagnet energized by a battery 17′.

The operation of my invention in use will be as follows: When a magnet capable of exerting a sufficient attractive force is brought into proximity to the wall 5′ adjacent the movable latch member 11, the said latch member, acting as an armature, is attracted and flies back against the tension of its spring to its rearmost position, as illustrated in Fig. 3. In such a position its nose 11′ no longer engages with the nose of the coacting latch member, so that the door 6 is released and allowed to fall. As soon as the magnet is withdrawn from its position, so that the armature-latch member is no longer under its influence, the spring returns the movable latch member to its normal or operative position, so that when the door 6 is moved to closed position the coacting latch member will again engage.

It will be apparent that the strength of the magnet 17 requisite to retract the armature-latch member will be dependent upon the quality and thickness of the material employed and the distance of the said latch member from the casing. It will be understood, however, that such a magnet is intended to be employed as will accomplish the desired result.

It may be found advantageous to make a portion of the wall 5′ adjacent the movable latch member of relatively thin magnetic material, which will serve to short-circuit a magnet of little strength, such as the ordinary small permanent magnets in common use, and to employ as the latch-actuating agent a magnet having a field of such intensity that it is capable of saturating the portion of the casing between its poles and yet exert sufficient attractive influence upon the armature-latch member to withdraw the same from engagement with the coacting member. Such an arrangement, requiring a more powerful magnet to actuate the latch devices than will be found in an ordinary household, is an effective safeguard against accidental discovery of the secret of opening the receptacle.

The shield 13, covering the movable latch member, obviates the possibility of the contents of the receptacle being jammed against the movable member to inadvertently actuate it or prevent its proper operation.

While I have herein described for purposes of a full disclosure of my invention one operative embodiment thereof, I do not desire to be understood as limiting myself to the exact construction shown, as it will be apparent that many changes in the mechanical embodiment thereof might be made without departing from the spirit and scope of my invention.

Having described my invention, what I claim, therefore, and desire to secure by Letters Patent of the United States, is—

1. In a bank-receptacle, a casing having a front provided with a sham representation of a common means of opening receptacles, a door for closing the casing so disposed as to be wholly concealed when closed, while the casing is in normal position, and a lock for the door wholly concealed within the receptacle and operable by magnetic influence from without the casing.

2. In a bank-receptacle, a casing having a hinged door and a wall permeable to magnetic lines of force arranged adjacent the path of the free edge of the door, a latching-stud carried by the door, a coacting latch member susceptible to magnetic attraction mounted on the permeable wall, and a shield arranged to substantially cover said latch member.

3. In a bank-receptacle, a casing 5 having a wall 5′ of material permeable to magnetic lines of force, and a pivoted door 6, a stud 15 carried by the door, a latch member 11, of magnetic material carried by the permeable wall, a spring 16 arranged to normally hold said latch member 11 in position to engage the stud 15, and a shield 13, for the latch member 11, provided with an aperture 14.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

ROBERT J. LOUIS.

In presence of—
W. Cornell Benjamin,
G. D. Weeks.