J. NUTRY.

LOCK FOR BANKS AND THE LIKE.

APPLICATION FILED APR. 5, 1919.

1,369,123. **Patented Feb. 22, 1921.**

Fig. 1.

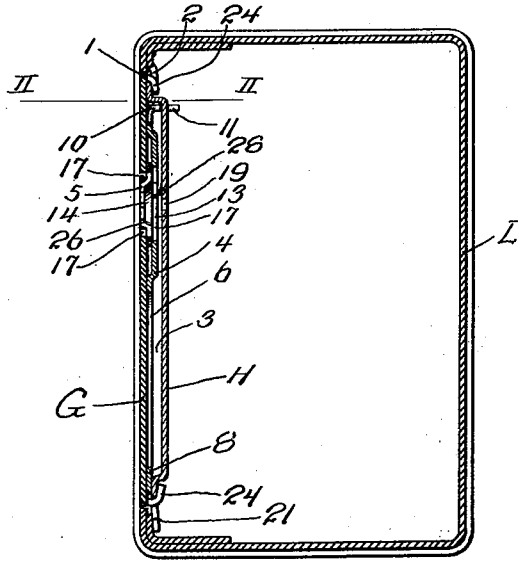


Fig. 5.

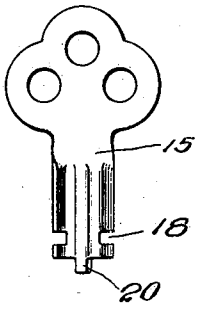


Fig. 2.

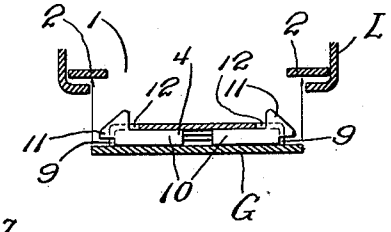


Fig. 3.

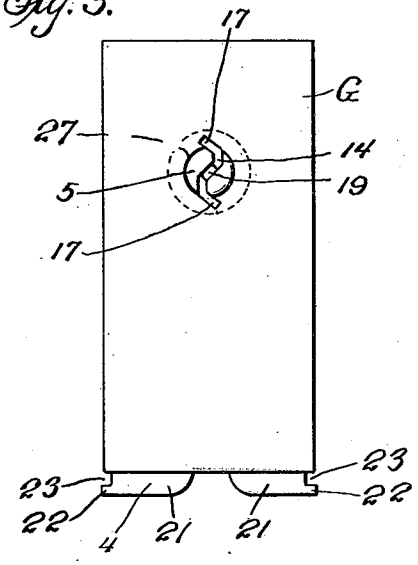
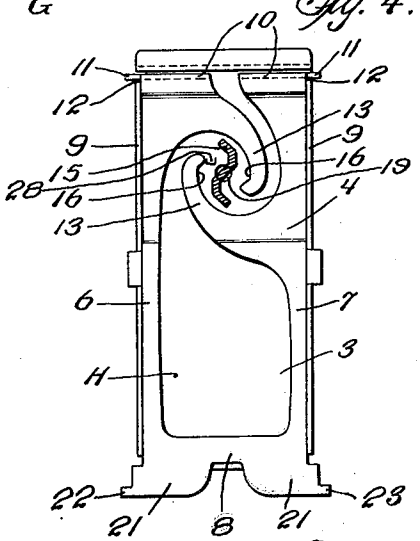


Fig. 4.



Inventor

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UNITED STATES PATENT OFFICE.

JOHN NUTRY, OF RIDGEWOOD, NEW JERSEY.

LOCK FOR BANKS AND THE LIKE.

1,369,123. Specification of Letters Patent. Patented Feb. 22, 1921.

Application filed April 5, 1919. Serial No. 287,890.

To whom it may concern:

Be it known that I, JOHN NUTRY, residing at Ridgewood, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Locks for Banks and the like, of which the following is a specification.

This invention relates to a lock for banks or the like.

The object of the invention is to provide a lock which is simple, practical and efficient for this purpose, and one which may be manufactured and assembled at small cost.

A further object is to provide a lock which may be made up wholly of sheet metal parts properly shaped and assembled.

A further object is to provide a lock such that one of the essential elements thereof may comprise the door of the bank.

A further object is to provide a lock such that one of the essential elements thereof may comprise hinge portions by which to connect the door of the bank in position.

Other objects and aims of the invention, more or less specific than those referred to above, will be in part obvious and in part pointed out in the course of the following description of the elements, combinations, arrangements of parts and applications of principles, constituting the invention; and the scope of protection contemplated will be indicated in the appended claims.

In the accompanying drawings which are to be taken as a part of this specification, and in which I have shown merely a preferred form of embodiment of the invention:

Figure 1 is a longitudinal sectional view through a lock constructed in accordance with this invention, the same being shown in association with a bank structure.

Fig. 2 is a transverse sectional view taken substantially upon the plane of line II—II of Fig. 1.

Fig. 3 is a front elevational view of the bank door showing features of the lock associated therewith

Fig. 4 is a view similar to that shown in Fig. 3 but the face plate of the lock, constituting the door of the bank, being removed so as to disclose the mechanism within the lock.

Fig. 5 is a view illustrating the form of key employed.

Referring to the drawings for describing in detail the structure which is illustrated therein, the reference character L indicates a bank structure. This structure is formed with an opening 1 therein closed by a door G. The door G is made up of a single flat rectangular piece of sheet metal of a size to properly fit within the opening 1 in a position resting against stop members 2 rigid within the bank, as graphically illustrated in Fig. 2. The door G constitutes the front plate of the lock. A back plate H is connected with the door, or plate G being shaped so as to provide a narrow closed compartment 3 at the rear of the plate G.

Within the compartment 3 is arranged a lock member 4 and a turn plate 5. These two elements are separately formed and are the only elements within the compartment.

The lock member 4 is made from sheet metal having a portion cut therefrom to provide a pair of arms 6 and 7 spaced apart at the opposite sides of the member, said arms being connected together at their lower ends by a portion of the sheet metal, as at 8, said portion 8 being the only connection between the arms so as thus to render the upper ends of the arms resiliently movable toward and away from each other due to the inherent resilience of the metal. The arms 6 and 7 normally lie with their outer edge portions resting against the inner surfaces of the side walls, or flanges 9 of the back plate H. The upper end portions of the arms are bent to provide flanges 10 and these flanges are extended and formed into cam shaped latch heads 11 disposed to project through openings 12 formed in the flanges 9 at opposite sides of the back plate.

The back plate H is of just sufficient width to pass between the stop members 2 of the bank, and the latch heads 11 are adapted to cam past said stop members and to snap behind the stop members, the arms 6 and 7 of the lock member 4 yielding to permit this action.

Each of the arms 6 and 7 of the lock member is provided with an extension 13 projecting therefrom into position at opposite sides of a keyhole 14 so that a key, as 15, inserted in said keyhole will be operable upon the opposing surfaces 16 of said extensions to move the latch heads toward each other. A key thus operable will enable disengagement of the latch heads from behind the stop members 2 whenever desired. Preferably the keyhole 14 is formed partly through the turn plate 5 and partly through the material of the door G, as at 17, thus

requiring a prescribed formation of the key, as suggested by the cutaway portions 18 in Fig. 5.

A small keyhole, as 19, is provided in the back plate H concentric with the turn plate 5 adapted to receive the center extension 20 of the key for retaining the key centered during rotation thereof for uniformly operating the two extensions 13 of the locking plate.

It is a feature of this invention that the lock plate 4 comprises extension parts 21 which project outwardly from the compartment 3 below the lower end of the door plate G so as to serve as appropriate means by which to connect the door with the bank structure. The extensions 21 are provided with fingers 22 adapted for engaging behind portions of the stop members 2 for constituting a simple hinge connection of the door with the bank structure. These fingers 22 also coöperate with adjacent corner portions of the plate G to provide recesses 23 by which conveniently to enable assembly of the fingers 22 behind the stop members 2. Through the medium of the recesses 23 the door may be readily manipulated so as to engage, or disengage the fingers 22 with the stop members, thus rendering the door detachable upon occasion.

Any suitable means may be employed for connecting the back plate H with the door plate G, but preferably the door plate is formed with tangs, as 24, integral therewith and bent over upon adjacent portions of the back plate to provide the required connection.

The turn plate 5 is preferably held in position by being formed with a central upstanding portion 26 engaging within a circular opening 27 provided in the door plate G. The inner marginal portion of the turn plate is received between the rear surface of the door plate and the opposing surface of the extensions 13 of the lock arms 6 and 7, thus holding the portion 26 firmly in position within the opening 27, but leaving the turn plate free to rotate under impulse of the key 15.

In assembling this lock, it is simply necessary to place the lock member 4 in position within the back plate H, as seen in Fig. 4, then lay the turn plate 5 in its approximate position over the keyhole 19, and apply the door plate G. By turning over the tangs 24 the whole structure will be properly connected together and ready for assembly with the bank. There are no springs or large number of separately formed parts likely to become deranged. Each of the parts is simple and substantial, and when assembled the device is thoroughly practical and efficient in all respects.

Any suitable means may be employed for limiting the rotation of the key, but preferably for this purpose the back plate H has a small portion thereof stuck up, as at 28, to provide an obstruction so placed as to be engaged by the key after the key has been rotated sufficiently far to produce maximum movement of the latch heads 11.

As many changes could be made in this construction without departing from the scope of the invention as defined in the following claims, it is intended that all matter contained in the above description, or shown in the accompanying drawings, shall be interpreted as illustrative only and not in a limiting sense.

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

1. In a door for a bank or the like, a lock for said door, said lock including a latch head, and means integral with said latch head by which the door may be pivotally connected with the bank.

2. In a door for a bank or the like, a lock for said door, said lock including a latch head, means for yieldingly retaining the latch head in latching position, and said means including as an integral part thereof means whereby the door may be pivotally connected with the bank.

3. A lock comprising parts providing a casing having an opening formed therethrough, a latch head projecting from the casing movable through said opening, a single integral element arranged within the casing comprising means for yieldingly retaining the latch head in latching position and comprising also means to be operated upon by a key for moving the latch head to unlatching position.

4. A lock comprising parts providing a casing having openings at its opposite sides, a single integral element arranged within the casing providing a pair of latch heads arranged within said openings respectively, said element comprising means yieldingly retaining the latch heads pressed in a direction away from each other outwardly through said openings and comprising also means to be operated upon by a key for moving the latch heads backwardly to unlatching position.

5. A lock comprising parts forming a casing, a pair of latch heads, a single integral element arranged within the casing comprising a pair of arms each connected with one of said latch heads and each being resilient to yieldingly retain the latch heads pressed away from each other into latching position, and said arms having portions disposed for operation by a key simultaneously to flex both of said arms for moving the latch heads toward each other out of latching position.

6. A lock comprising parts forming a casing, a pair of latch heads, a single integral element arranged within the casing

comprising a pair of arms each connected with one of said latch heads and each being resilient to yieldingly retain the latch heads pressed away from each other into latching position, a casing having a keyhole therein arranged intermediate said arms, and each of said arms having extension parts projecting therefrom to positions at the opposite sides of the keyhole respectively, said extensions comprising parts to be engaged by a key within said keyhole simultaneously to flex both of said arms for moving the latch heads toward each other out of latching position.

7. A bank having an opening thereinto, a door for said opening, a stop strip arranged within the bank adjacent the opening disposed to be engaged by the door to arrest the closing movement of the door, the stop strip having notches formed therein, a part carried by the door arranged for engaging within said notches, and other parts carried by the door arranged for engaging the stop strip to retain the first mentioned parts of the door in engagement with said notches and to thus provide a pivotal mounting for the door.

8. A bank having an opening therein, a door for said opening, a stop strip arranged within the bank adjacent the opening disposed to be engaged by the door to arrest the closing movement of the door, a member carried by the door having an integral part thereof engaging said stop strip to provide a pivotal mounting for the door, and having another integral part arranged for engaging another portion of the stop strip serving as a latch for the door.

9. A bank having an opening therein, a door for said opening, a stop strip arranged within the bank adjacent the opening disposed to be engaged by the door to arrest the closing movement of the door, a latch member carried by the door providing latch heads operable for engaging said stop strip to retain the door closed, and said latch member having an integral portion also engaging the stop strip to provide a pivotal mounting for the door.

10. In a door for a bank or the like adapted to be pivotally mounted by one edge so that its free edge will swing into and out of closed position, a lock for said door comprising parts arranged at the free edge of the door by which to lock the door, and said lock comprising other parts extending to the pivotal edge of the door by which the door may be pivotally connected with the bank.

In testimony whereof I affix my signature in the presence of two witnesses.

JOHN NUTRY.

Witnesses:
L. GESSFORD HANDY,
MAY SCHULZ.