

1,399,158.

Patented Dec. 6, 1921.

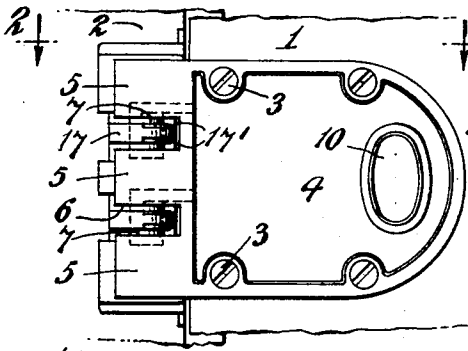


Fig. 1

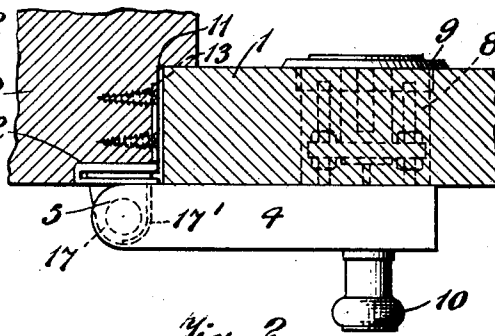


Fig. 2

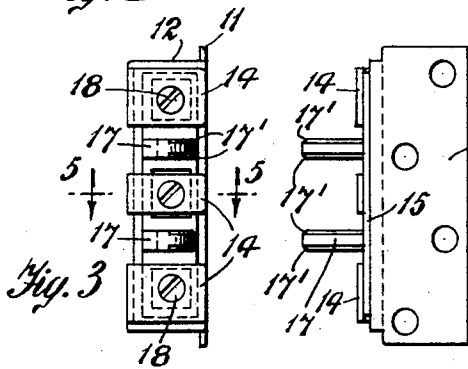


Fig. 3

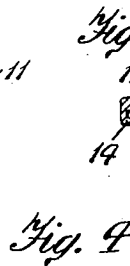


Fig. 4

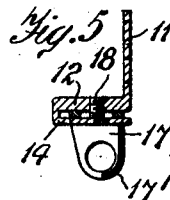


Fig. 5

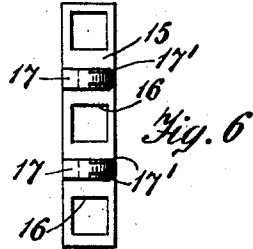


Fig. 6

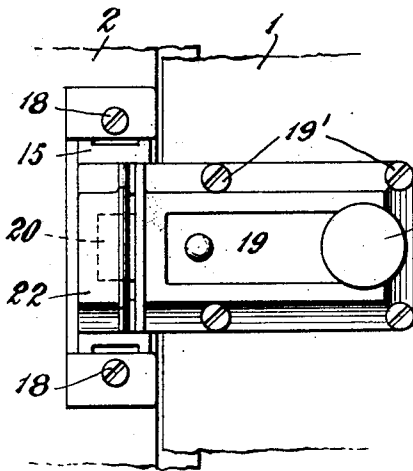


Fig. 7

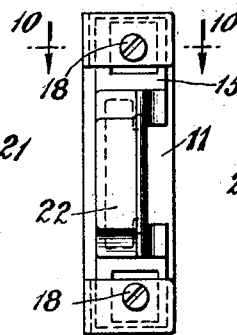


Fig. 8

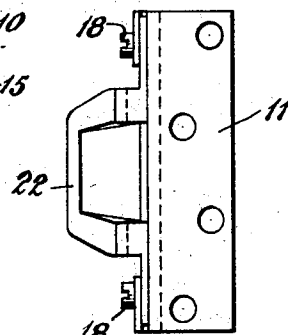


Fig. 9

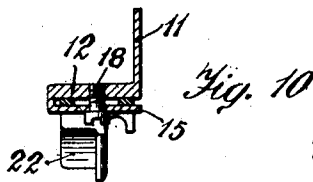


Fig. 10

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UNITED STATES PATENT OFFICE.

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LOCK.

1,399,158.

Specification of Letters Patent.

Patented Dec. 6, 1921.

Application filed September 3, 1920. Serial No. 407,846.

To all whom it may concern:

Be it known that I, SAMUEL SEGAL, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Locks, of which the following is a specification.

My invention relates to locks adapted to be fastened to a door or other movable member, the invention relating more particularly to the construction of lock keeper of a character adapted to be fastened to the door frame or other support and to receive the locking bolt of the lock.

The principal object of the invention is the production of a lock having a novel form of keeper of the character described which shall be of simple construction and which shall be adjustable both horizontally and vertically to bring it in proper position for reception of the locking bolt in the event that the door or door frame becomes displaced from normal position due to sagging or warping or through other causes.

A further object of the invention is the production of a lock having a keeper which shall automatically make the required horizontal or vertical adjustment upon contact with the lock casing or a part thereof.

Still other further objects and advantages of the invention will appear from the following description, the invention consisting in the novel parts and combinations of parts hereinafter more particularly described and then specified in the claims.

In the accompanying drawings showing a practical embodiment of the invention:

Figure 1 is a plan view of the lock and keeper as applied to a door and door frame respectively.

Fig. 2 is a front elevation of the same.

Fig. 3 is a front elevation of the keeper.

Fig. 4 is a side elevation of the same.

Fig. 5 is a horizontal section through the keeper on the line 5—5 of Fig. 3.

Fig. 6 is a front elevation of the slidable plate of the keeper.

Fig. 7 is a front elevation of a modified form of lock and keeper.

Fig. 8 is a front elevation of the modified form of keeper.

Fig. 9 is a side elevation of the same.

Fig. 10 is a horizontal section on the line 10—10 of Fig. 8.

Referring in detail to the several figures of the drawing:

1 indicates a door and 2 a door frame. Fastened to the door, as by the screws 3 as shown, is a lock casing 4 the end of which is provided with housings 5 preferably integral therewith having transverse slots 6 therebetween. The casing is so mounted on or fastened to the door that the end thereof or the housings 5 extend over the space between the door and door frame and in front of said frame.

A slidable locking bolt (not shown) is mounted in said casing 4 and is provided with vertical locking hooks or fingers 7 preferably integral therewith which, when in unlocked and raised position, are concealed by the housings 5 and when in locked position extend through the slots 6 as shown in Fig. 1. 8 indicates a conventional tumbler-barrel mounted in the door and having a face plate 9 on the outer face of said door and 10 is an operating knob mounted on the casing 4. The locking bolt is connected to the tumbler-barrel 8 or a part thereof as well as to the operating knob 10 (not shown) so that it may be actuated, as may the hooks or fingers 7, by turning said knob 10 or by inserting and turning a key in the face plate 9. The parts just described are old and well known in the art and accordingly require no detailed or further description.

11 indicates the side wall and 12 the front wall together forming an angle-piece constituting the body of the keeper. Said body is preferably countersunk in the door frame and is connected to the edge thereof by screws 13 passing through the side wall 11. 14 indicates strips preferably integral with said side wall 11 and parallel thereto and having free forward ends so that they form open channels with said side wall as illustrated by Fig. 5.

A movable keeper plate is indicated at 15. Said plate is provided with rectangular-shaped openings 16 and with perforated keeper ears 17 preferably integral with said plate and projecting outwardly therefrom in planes perpendicular thereto. The edges of said perforated ears are beveled as indicated at 17'. The plate 15 is frictionally supported or held in the channels formed by the front wall 12 of the keeper

body and the strips 14 and is prevented from withdrawal therefrom by means of tightening screws 18 which pass through said strips, through the openings 16 and into the front wall 12 and which, by tightening or loosening the same, vary the degree of the clamping engagement of the strips against said plate in an obvious manner.

10 When the door is in closed position the perforated ears 17 of the keeper plate enter the slots 6 intermediate the housings 5 of the lock casing thus bringing them into vertical alinement with the locking hooks or fingers 7 which are adapted to enter and extend through said ears as shown in Fig. 1. If the door or door frame should have become displaced from normal position, however, so that the ears 17 do not enter the slots 6 of the lock casing and the lock in consequence will not function, the position of the keeper plate 15 may be easily adjusted in an obvious manner to obviate the difficulty by merely untightening the screws 18 and then moving the keeper plate to the proper position desired with the ears in horizontal alinement with the slots 6 whereupon the screws 18 may again be tightened to hold the plate in its adjusted position.

30 In most cases I prefer to tighten the screws 18 an amount sufficient merely to prevent the keeper plate from easily sliding or moving out of any given adjusted position. If the door or door frame then becomes slightly displaced from normal position the keeper plate will automatically be readjusted to the proper position when the door is closed as the edges or corners of the housings 5 of the lock casing will strike against the beveled edges 17' of the perforated ears whereupon the keeper plate will be moved in the proper direction to force the ears in the transverse slots 6. The frictional engagement of the keeper plate with the front wall 12 and the strips 14 will be sufficient to hold it in its adjusted position.

In the modification illustrated in Figs. 7 to 10 inclusive, 19 indicates the lock casing fastened to the door by screws 19' and having a horizontal locking bolt 20 mounted therein which may be actuated by an operating knob 21 or by a key from without the door (not shown) as in the preferred form of the invention. The keeper plate 15 in this case has substituted for the keeper ears in the preferred form a keeper housing 22 preferably integral with the plate and adapted to receive the locking bolt 20. Obviously, the keeper plate may be moved or adjusted whenever necessary so that said housing 22 will always be in horizontal alinement with the locking bolt 20.

What I claim as my invention is:

65 1. In a lock, a locking bolt, a keeper, a

support for said keeper, means for rigidly fastening said keeper to said support, a strip connected to said keeper, a movable keeper plate adapted to interlock with said locking bolt and means independent of said rigid fastening means and passing through said keeper plate and connecting said keeper and strip and adapted to frictionally hold said keeper plate intermediate said keeper and strip and to permit an adjustment of the position of said keeper plate without movement of said keeper or a loosening thereof.

2. In a lock, a locking bolt, a keeper, a support for said keeper, means for rigidly fastening said keeper to said support, a strip connected to said keeper, a movable keeper plate frictionally held intermediate said keeper and strip and adapted to interlock with said locking bolt and provided with an opening therein and a screw independent of said rigid fastening means connecting said keeper and strip and free from said support, said screw passing through the opening in said keeper plate whereby said strip may be pressed against said keeper plate.

3. In a lock, a locking bolt, a keeper, a movable keeper plate frictionally held to said keeper and a perforated ear on said movable plate adapted to interlock with said locking bolt and provided with a beveled edge.

4. In a lock, a lock casing, a locking bolt mounted in said casing, a keeper and a movable keeper plate frictionally held to said keeper and adapted to interlock with said locking bolt and provided with beveled edges adapted to engage said lock casing to properly position said keeper plate.

5. In a lock, a locking bolt having vertically operating locking hooks, a keeper, a movable keeper plate frictionally held to said keeper and keeper ears on said movable keeper and adapted to interlock with said locking hooks.

6. In a lock, a locking bolt having vertically operating locking hooks, a keeper, a strip connected to said keeper, a movable keeper plate frictionally held intermediate said keeper and strip and provided with an opening therein, means connecting said keeper and strip and passing through the opening in said keeper plate and perforated ears connected to said keeper plate adapted to interlock with the locking hooks of said locking bolt.

Signed at New York in the county of New York and State of New York this 2nd day of September, A. D. 1920.

SAMUEL SEGAL.

Witnesses:

F. B. TOWNSEND,
GEORGE E. BROWN.