

H. F. KEIL.
LOCK.

APPLICATION FILED APR. 10, 1906. RENEWED JUNE 24, 1909.

950,698.

Patented Mar. 1, 1910.

2 SHEETS—SHEET 1.

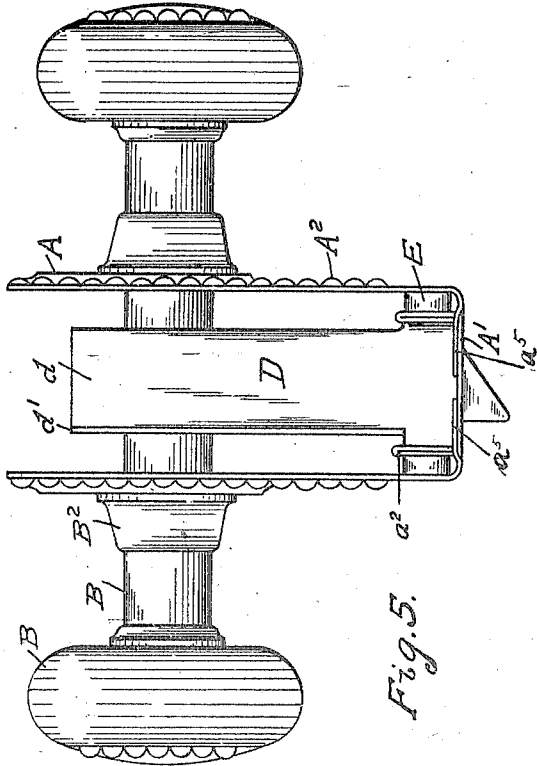


Fig. 5.

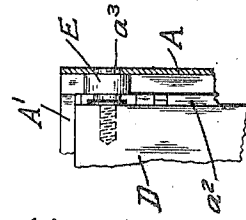


Fig. 6.

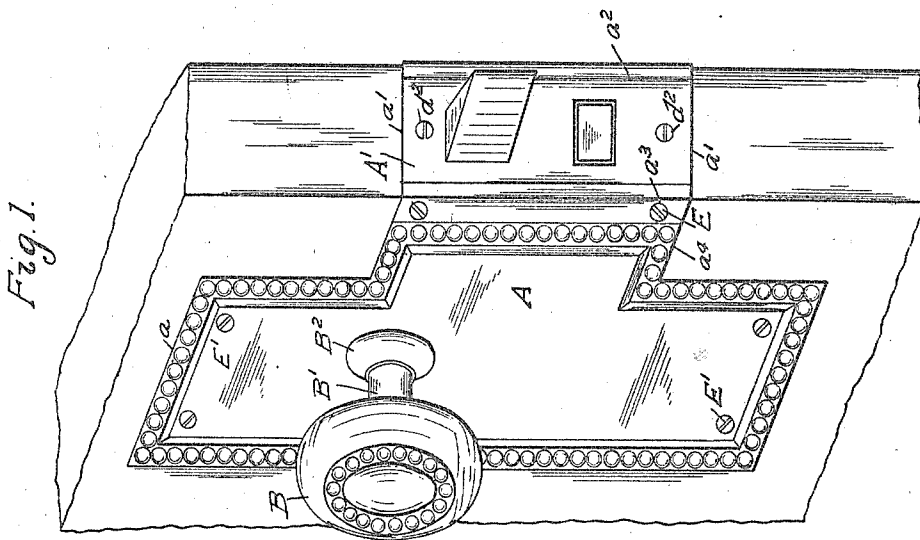


Fig. 1.

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2 SHEETS—SHEET 2.

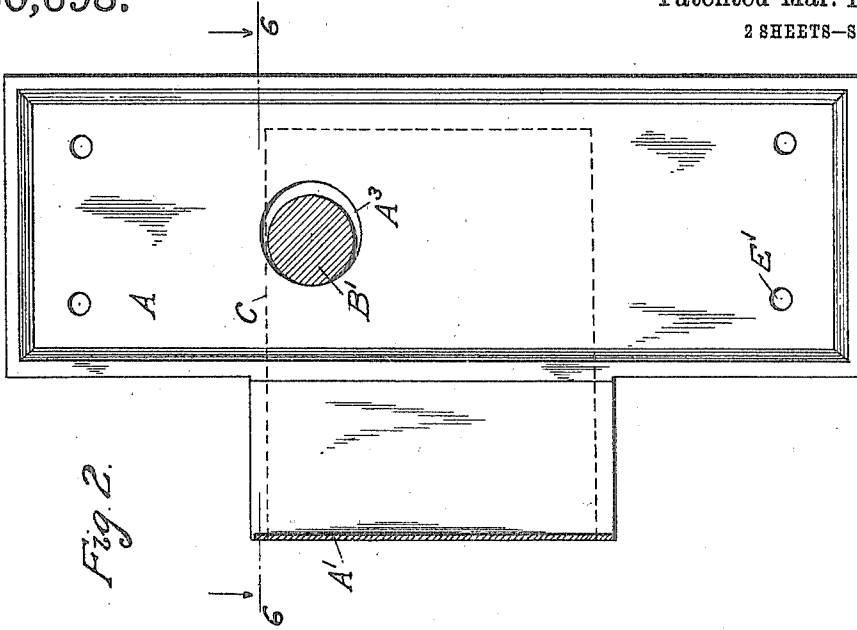


Fig. 2.

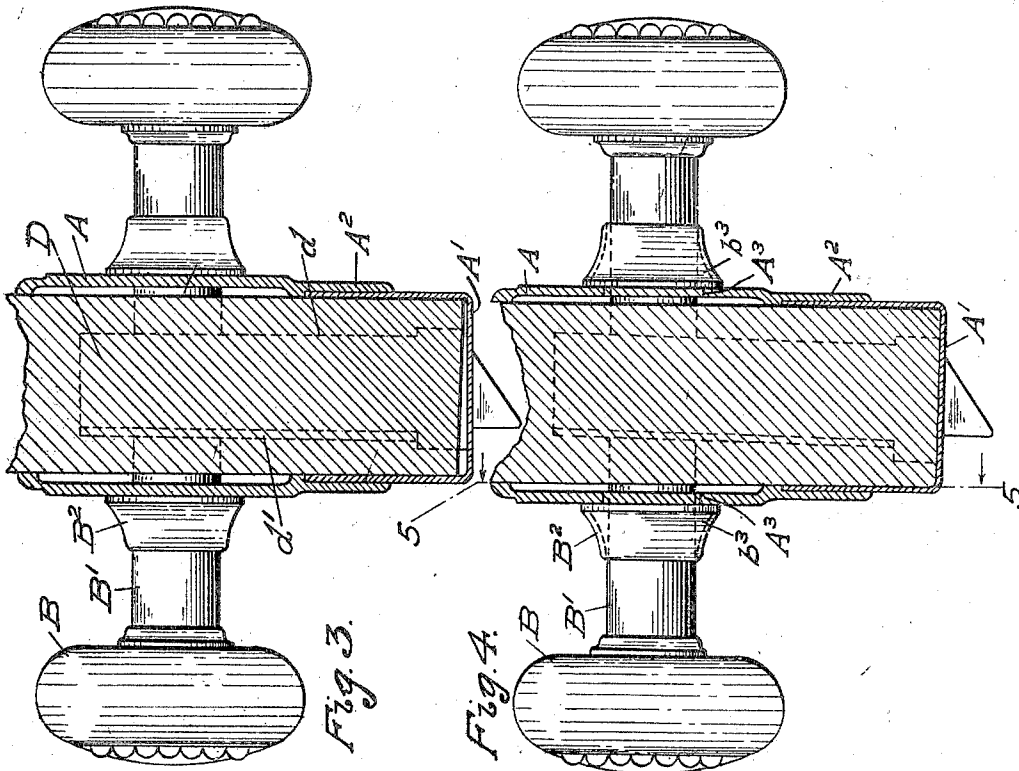


Fig. 3.

Fig. 4.

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UNITED STATES PATENT OFFICE.

HENRY FRANCIS KEIL, OF BRONXVILLE, NEW YORK.

LOCK.

950,698.

Specification of Letters Patent.

Patented Mar. 1, 1910.

Application filed April 10, 1906, Serial No. 310,931. Renewed June 24, 1909. Serial No. 504,018.

To all whom it may concern:

Be it known that I, HENRY FRANCIS KEIL, a citizen of the United States of America, and a resident of Bronxville, in the county of Westchester and State of New York, have invented a certain new and useful Lock, of which the following is a specification, the same being a full, clear, and exact description of the invention, such as will enable those skilled in the art to which it appertains to make and use the same.

My invention relates to appliances for securing in position doors and like movable articles, and in particular to locks and latches adapted to be inserted in a notch or recess in the stile of a door and having a combined escutcheon and face plate, and which embody certain novel features of construction and combination and arrangement of parts whereby the lock is adapted to be applied to beveled edged doors, the said lock being ordinarily constructed with an expansible face plate and also whereby the said lock is adapted to be operated by a manually actuated device, the whole being of simple construction and efficient in operation, all of which will be hereinafter described and fully illustrated in the drawings.

To attain the desired end, this, my invention, consists in the construction, arrangement and operation of parts herein set forth.

In order to enable the invention to be fully understood I will proceed to explain the same by reference to the drawings, illustrative of one embodiment of the invention, which accompany and form a part of this specification, and in which—

Figure 1 represents a perspective view of a lock constructed according to this invention having an adjustable face plate; Fig. 2 is a vertical section taken on the line 5, 5, Fig. 4, showing the laterally enlarged orifices in the escutcheons, Figs. 3 and 4 are sections through the line 6, 6, Fig. 2, showing, first, the lock adapted to be partly applied to, and afterward fastened on both sides of a beveled edged door, by reason of the laterally enlarged orifices in the escutcheons; Fig. 5 is a plan view of the lock shown in Fig. 1, and Fig. 6 is a detail of the face plate adjusting mechanism.

Like letters of reference indicate like parts in all the views.

Referring particularly by letter to the

drawings, A, A¹ denote my combined escutcheon plates and face plate which rests against the sides of a door and extends around its front edge, and preferably overlaps the notch C, and which is preferably made of sheet metal. The combined escutcheon plates A and face plate A¹ is of a unitary construction, and so far as its function in supporting within the same the lock case D (which contains a suitable lock or latch mechanism) and in serving as a covering for the notch or recess is concerned, may be considered as an entirety no matter whether it is integral and is made of a single piece of metal, or whether it is composed of a plurality of plates rigidly fastened together, as shown in the present embodiment, in which the escutcheon plates A, which are ordinarily rigid in form and preferably made of cast metal, are secured to the extensions A² of the preferably flexible and ordinarily sheet metal face plate A¹.

B designates the knobs and B¹ the shanks of the same which preferably inclose the knob spindle and ordinarily pass through the preferably loose knob roses B² ordinarily supported on the knob shanks, and rest against the sides of the lock-case D which is a complete article of itself consisting of the body *d* and cap *d*¹ and is supported within the combined escutcheons and face plate by means of screws *d*² inserted into the front of the lock-case through the face plate A¹.

The lock-case D is inserted into a recess, notch or mortise C formed in the edge of the door, preferably by simply sawing a piece out to the depth of the lock, and the top and bottom edges *a*, *a'*, *a*² (or, as it were, flanges *a*, *a'* of the escutcheon plates, and extensions of the lock-face and edges *a'* of the face plate) being of greater dimensions or size than the opening or recess in the door, overlap the same, and thereby entirely cover or frame in the mortise and conceal any possible poor cutting out of the door, in the event of the same being carelessly or hastily done. The top and bottom edges *a*, *a'*, *a*² also serve to afford resistance flanges or borders or stops, in order to prevent any danger of the lock from being pulled out of its position to any degree, or any lateral displacement thereof, or the bending or the straining of any of the parts inasmuch as the said edges *a*, *a'*, *a*² rest respectively against the

sides and front edge of the door; the face plate A^1 also serving to support the lock-case D.

The combined escutcheons and face plate not only forms a protection to the wood of the door, but the said structure is very readily applied and quickly attached to the door by simply slipping the combined escutcheons and face plate over the edge of the door and thereby inserting the lock in the notch or recess cut out of the stile and then screwing the escutcheons to the sides of the door in the proper applied position by means of the screws E^1 .

This invention is applicable to all kinds of doors to which mortise or rim locks can be attached, and is manifestly applicable to both locks and latches, or a combination of the two.

I provide simple means for adapting my combined escutcheons and face plate to be used for doors of different thicknesses, which preferably consists in making the same so as to be expansible and adjustable as regards the width of the face plate, as, in the present embodiment, by forming the same with a plaited or folded face plate, the folds or plaits a^2 of the same ordinarily lying between the lock-case and the heads of the screws E. The shanks of the screws E work in threaded holes in the sides of the lock-case and may be operated by a tool inserted in the orifices a^3 formed in the extensions of the escutcheons, by which means the adjustability or degree of expansion of the face plate may be regulated. In case the combined escutcheons and face plate is applied to a thin door, as in Fig. 1, the seam between the folds a^2 will be closed, but in the event of the structure being used in connection with and attached to a thick door, as often occurs, the folds a^2 will be opened somewhat (the screws E having been unscrewed) and after the combined escutcheons and face plate is adjusted in position, the screws E may be tightened so as to serve to hold, in connection with the escutcheon screws E^1 , the entire structure rigidly upon the door.

In some cases I prefer to construct the combined escutcheons and face plate of such a width, when formed up, as will conform to a standard thickness of a door, and to that end the escutcheons are permanently held a certain distance apart by the face plate which is fixed in width and not laterally expansible, as shown in Figs. 3 and 4.

I ordinarily construct the knob roses B^2 so as to be hollow or shell-like in form, the bores b^3 of the same being larger in size than the diameter of the knob shanks, and the said knob roses being preferably fixed on the knob shanks and slidable upon the escutcheon plates. The orifices A^3 formed in the escutcheon plates are also larger laterally than the knob shanks to allow lateral move-

ment of the latter within the escutcheon plates, which knob shanks are constructed and arranged to bear directly against or lie adjacent to the lock hub.

In case the combined escutcheon plates and face plate is to be applied to a beveled edged door, I first attach one of the escutcheon plates to one side of the door, whereupon the face plate will not register with but will stand a little distance from the said beveled edge, as shown in Fig. 3. I then force the other escutcheon plate inwardly until the flexible face plate registers with the said beveled edge, whereupon the last named escutcheon plate may be screwed down to the door, as shown in Fig. 4. By reason of the laterally enlarged bores b^3 the roses B^2 may be moved laterally along the escutcheons and by reason of the enlarged orifices A^3 the lock case B and the knob shanks B^1 which still remain in alignment are allowed to be deflected slightly without in any manner impairing the operation of the same, as is illustrated in Fig. 4, the said orifices being covered and concealed by the roses B^2 .

The escutcheons being made of rigid and also thick material relative to the face plate, it is manifest that if no laterally elongated orifice A^3 were formed in the same, the knob shanks would bind in the escutcheons and could not be operated freely. This application differs in this respect from my co-pending application filed contemporaneously herewith Serial No. 301,930, where no lateral enlargement of the orifice in the escutcheons are necessary on account of the thin material of which the combined escutcheons and face plate is made. In case one side of the edge of the door is beveled more than the other, or is rounded off, the said orifices will permit the escutcheon on that side to be moved farther backward than the adjacent lock shank, in which case the knob shanks may not lie parallel to the beveled edge of the door.

Two strips a^5 are cut out from the top and bottom edges of each of the folds or plaits a^2 , which strips are bent toward each other so as to lie behind the face plate and to present a practically unbroken edge of the face plate adjacent to, and above and below, the said folds.

In this application I claim only a combined escutcheons and face plate consisting of a flexible face plate and rigid escutcheon plates securely attached to the same, together with the elongated openings in the escutcheons for the knob shanks, as the combined escutcheons and face plate, *per se*, together with the other features of the invention disclosed, but not claimed herein, are claimed broadly in my applications for patent filed April 10, 1906, Serial Nos. 310,929 and 310,930.

I wish it to be understood that I do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

What I claim as my invention is—

1. In a lock, a combined escutcheons and face plate to rest against the sides of a door and extending around its front edge, a lock casing, knob shanks constructed and arranged to be supported at right angles to the lock casing and to bear against the same, knob roses each formed with a bore and being slidable on the escutcheons, and a latch mechanism inclosed by the lock casing, said casing adapted to be inserted in a notch in the door and supported by the said combined escutcheons and face plate, the escutcheons having orifices wider laterally than the knob rose bores and the bores of the roses being larger than the knob shanks to allow lateral movement of the same within the roses, whereby one of the escutcheons may be applied to one side of a beveled edge door, and the face plate bent to conform to the beveled edge of the door before the other escutcheon is fastened in

place without interfering with the working position of the knob shanks.

2. In a lock, a pair of escutcheons, knob roses each formed with a bore and being slidable on the escutcheons, the said escutcheons having an expansible face plate normally located at right angles thereto, a lock casing supported thereby, knob shanks constructed and arranged to be supported at right angles to the lock casing and to bear against the same, the escutcheons having orifices wider laterally than the knob rose bores, and the knob roses having bores larger than the knob shanks to permit lateral movement of the same within the roses, whereby the said escutcheons may be adjusted to a beveled edge door without interfering with the working position of the knob shanks.

In testimony of the foregoing specification I do hereby sign the same in the city of New York, county and State of New York this second day of April, 1906.

HENRY FRANCIS KEIL.

Witnesses:

F. A. WURZBACH,
CHAS. H. ARENDT.