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H. F. KEIL.
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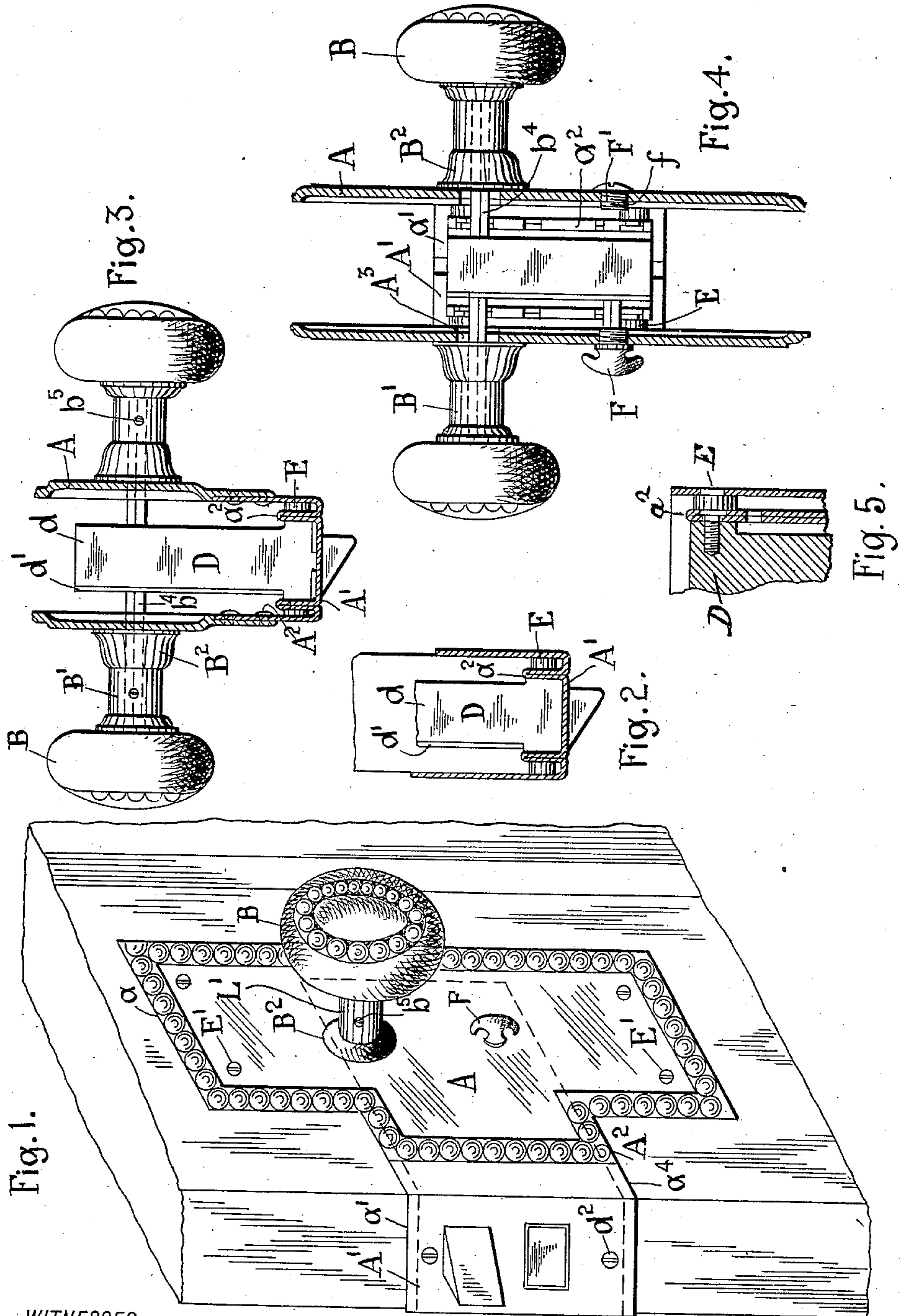


Fig. 1.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 2.

WITNESSES

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HENRY FRANCIS KEIL, OF BRONXVILLE, NEW YORK.

LOCK.

No. 886,219.

Specification of Letters Patent.

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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 escutcheons and face plate, the escutcheons, against which the knob shanks bear, having orifices larger than the knob spindle, and which embody certain novel features of construction and combination and arrangement of parts, 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 is a perspective view of a lock in which the invention is embodied, the lock-face being fixed in width; Figs. 2 and 3 are sections, showing the lock partly applied to and also fastened on both sides to a bevel edged door; Fig. 4 is a section through the knob; and Fig. 5 is a view in detail of the lock-face 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 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, 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 as shown in Fig. 1, or whether it is composed of a plurality of plates rigidly fastened together, as shown in Fig. 3 of the present embodiment, in which latter figure 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 shanks preferably inclose the spindle or lock-rod and ordinarily pass through orifices of the escutcheon plates. The lock-case D is a complete article of itself consisting of the body *d* and cap *d*¹ and is supported within the combined escutcheons and lock-face 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*¹, *a*² (or, as it were, flanges of the escutcheon plates, extensions 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*¹ 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*¹ rest against the sides and front edge of the door, the lock-face A¹ 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 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 operating the screws E¹.

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 face plate, 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, 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', the entire structure rigidly upon the door.

In some cases I prefer to construct the combined escutcheons and face plate of such a thickness, 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 lock-face which is fixed in width and not expansible laterally, as shown in Fig. 1.

I ordinarily construct the knob roses B^2 so as to be carried by the escutcheons and to allow some play or movement of the knob shanks encircled by the same. The said knob roses may consist of separate pieces either loosely or rigidly attached to the escutcheons A, and the knob shanks are secured to the knob spindle b^4 by means of screws b^5 .

The orifices A^3 formed in the escutcheon plates are larger than the knob spindle b^4 , the knob roses B^2 and knob shanks B^1 in this embodiment being constructed and arranged to bear directly against the escutcheons through which the knob spindle passes.

The escutcheon plates and edges or flanges thereof, together with the borders of the face plate and extensions thereof, serve to form a resistance means to the strain of pulling on the knob, and prevent the knobs, the shanks of which rest against the escutcheons, from being pulled or forced out of the door, or any lateral displacement of the lock. Thus by pulling on one knob a resistance is afforded to the opposite shank by the escutcheon plate

resting on the other side of the door, which serves to resist the said strain or pull on the knob, whereby any undue pull or strain on a knob is prevented from causing any displacement of the lock.

In case the combined escutcheon plates and face plate is to be applied to a bevel 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. 2. I then force the other escutcheon plate inwardly until the flexible lock-face registers with the said beveled edge, whereupon the last named escutcheon plate may be screwed down to the door, as shown in Fig. 7. By reason of the enlarged orifices A^3 , the lock-case D and the knob spindle b^4 which still remain in alinement, are allowed to be deflected slightly without in any manner impairing the operation of the same, as is illustrated in Fig. 3, the said orifices being covered and concealed by the knob roses B^2 .

I provide means for actuating the lock from either side of a door, as a manual actuating device or thumb piece F. Each escutcheon plate has a threaded orifice f in one of which orifices is placed the short screw F^1 , and in the other is screwed the manual actuating device F. In applying the manual actuating device or thumb piece to the lock, the escutcheons are spread apart, and the irregularly formed and ordinarily angular and in this embodiment preferably square bolt-actuating shank of the manual actuating device is inserted in an ordinarily angular orifice f of the bolt actuating hub or disk f^2 of the lock mechanism, whereupon when the escutcheons resume their normal positions again, the thumb piece F will be undetachably held in working position so as to serve to operate the latch.

The escutcheons which are preferably made of cast metal are secured to the extensions of the face plate by passing the lugs which are cast integrally with the said escutcheons through orifices in the face plate extension, and then upsetting the ends thereof.

By forming the face plate and escutcheons in separate pieces the distance of the face plate from the knob or knob shank may be varied, and the size of the combined escutcheons and face plate thus changed horizontally. Two strips a^4 are cut 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 orifices in the escutcheons larger than lock spindle, the lock shanks resting against the said escutcheons, 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:

In a lock, a combined escutcheons and face plate to rest against the sides of a door and extending around its front edge and of

greater dimensions than and overlapping a notch cut in the stile of the door, a lock mechanism adapted to be inserted in the said notch and supported by the said combined escutcheons and face plate, the escutcheons having orifices greater in diameter than the knob spindle encircled by the same, and knobs having shanks adapted to bear directly against the escutcheon plates and roses supported by the knob shanks and slidable on the escutcheons.

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 twenty-fourth day of April, 1906.

HENRY FRANCIS KEIL.

Witnesses:

F. A. WURZBACH,

CHAS. H. ARENDT.