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L. A. DEXTER

1,825,264

DOOR HANDLE STRUCTURE

Filed Aug. 12, 1929

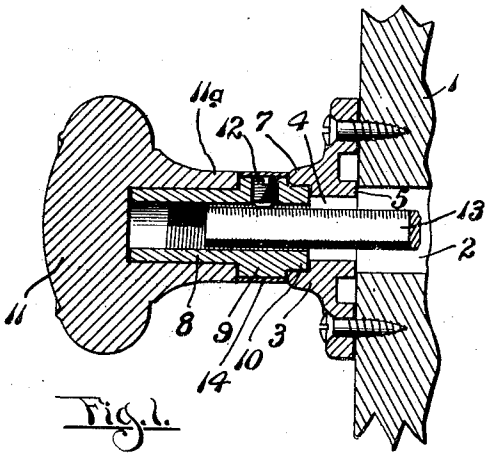


Fig. 1.

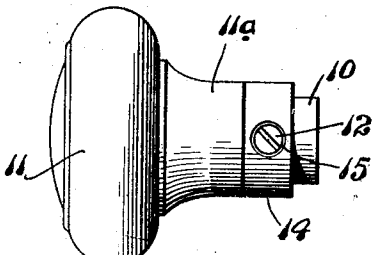


Fig. 2.

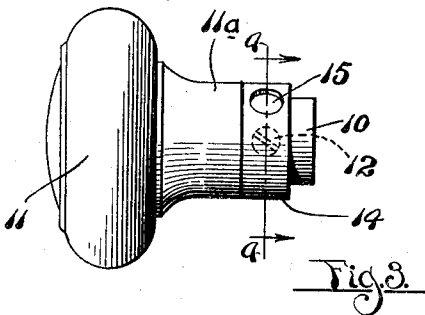


Fig. 3.

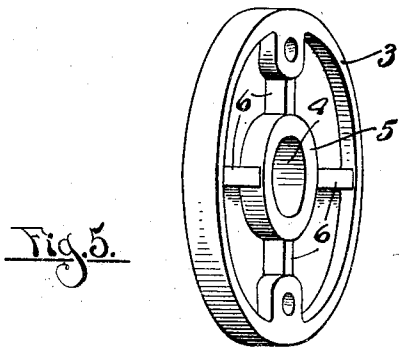


Fig. 5.

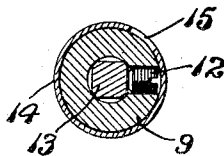


Fig. 4.

Inventor

Lucien A. Dexter

By Livian and
Van Antwerp
Attorneys

UNITED STATES PATENT OFFICE

LUCIEN A. DEXTER, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR TO NATIONAL BRASS COMPANY, OF GRAND RAPIDS, MICHIGAN, A CORPORATION OF MICHIGAN

DOOR HANDLE STRUCTURE

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This invention relates to a door knob or handle construction and is primarily concerned with the production of a novel knob and escutcheon plate made from phenolic condensation product or equivalent material and having associated therewith a very simple and practical means for preventing disconnection of the knob from the lock operating rod or bar which passes through the door and to which a knob is usually attached at each end thereof. The attachment is by a screw threading into an opening through the knob and bearing at its end against a side of said rod or bar. This screw is liable to become loose and work out and in many cases is lost, and when it does move outwardly as described the connection of the knob to the rod or bar is destroyed; and one object and purpose of the present invention is to prevent such undesired unscrewing of the said screw yet having the screw readily accessible should it at any time need to be withdrawn or removed.

An understanding of the invention for effecting the purposes stated may be had from the following description, taken in connection with the accompanying drawings, in which,

Fig. 1 is a fragmentary vertical section through the door knob construction of my invention showing the same attached to a door.

Fig. 2 is a side elevation of the knob construction with the set screw therein accessible for removal.

Fig. 3 is also a side elevation of the knob construction but with the screw covered up and inaccessible and held against undesired outward movement.

Fig. 4 is a transverse vertical section substantially on the plane of line 4-4 of Fig. 2 and,

Fig. 5 is a perspective view of the inner side of the escutcheon plate.

Like reference characters refer to like parts in the different figures of the drawing.

The door 1 to which the knob construction of my invention is to be applied is of any usual conventional type and has a transverse opening 2 therethrough through which the

operating rod or bar for the lock mounted on the door passes.

Escutcheon plate 3 is disposed against a side of the door around an end of the opening 2. It has a smaller opening 4, the axis of which is coincident with the axis of the opening 2 in the door, and is formed with an inwardly extending annular flange at its edges, and a circular boss or ring 5 surrounds the inner end portion of the opening 4. Radial strengthening ribs 6 extend from the ring 5 to the outer flange of the plate and an annular outwardly extending rib 7 is made around the outer end of the opening 4 through the plate whereby a recess is provided within said rib for the reception of the inner end of the knob.

The escutcheon plate described is preferably made from phenolic condensation product and may be readily molded and baked in the form described and given any desired color whereby a very pleasing and attractive appearance is presented. The plate is attached to the door by means of screws which pass through the same and thread into the adjacent side of the door.

In the construction of the knob proper, which is to be used in connection with the escutcheon plate, a metal sleeve 8 is provided which has an enlarged section 9 adjacent its inner end with an exterior diameter greater than the exterior diameter of the sleeve 8, integral with which is a projecting section 10 the exterior diameter of which is smaller than the part 9 and of a length and size to be received within the recess of the escutcheon plate surrounded by the rib 7.

A knob member 11, also preferably of phenolic condensation product, is secured to the sleeve 8 extending beyond the outer end of the same and having a neck 11a the inner ends of which come against one end of the enlarged section 9 of the sleeve. The knob member 11 and the neck 11a thereof likewise are readily molded to the desired form and may be given any desired color and appearance.

In the section 9 of the sleeve a radial interiorly threaded opening is made in which a short set screw 12 is to be threaded to bear

at its inner end against a side of the rod or bar 13 which extends through the door lock or latch to operate the same on turning the knob. The bar 13 is substantially square in

abuts said enlarged portion of the sleeve and one edge of said band.

In testimony whereof I affix my signature.

LUCIEN A. DEXTER. 70

5 cross section and may be either threaded at its corners as shown to screw into the sleeve 8, or the sleeve 8 may have a longitudinal opening therein square in cross section, both forms being old and well known in door
10 locks and latches.

A continuous band 14 of sheet metal is located around the larger section 9 of the sleeve 8 and is of a size that while it rather snugly engages the outer side of the part 9
15 it still may be moved around the same. This band has an opening 15 therein slightly larger than the opening in which the screw 12 is threaded, and by moving the band to proper position, as shown in Fig. 2, the
20 outer end of the screw 12 is exposed and accessible so that a screw driver may be used for withdrawing the screw, or for driving the screw so as to bring its inner end against the bar 13 when the knob is at-
25 tached to the bar. After the knob is secured in place the band 14 is moved to completely cover the end of the screw 12 as indicated in Fig. 3. This will insure that the screw can-
30 not work outward and it is evident that the knob when once secured to the bar 13 will be held in secure relation thereto until the band 14 is moved to proper position for ac-
35 cess to the screw to designedly remove the same. The outer side of the band 14 is flush with the outer sides of the neck 11a of the knob member 11, preferably, as shown in Fig. 1.

The construction described is very prac-
40 tical and has been proven so in use. The invention is defined in the appended claim and is to be considered comprehensive of all forms of structure coming within its scope.

I claim:

In a construction of the class described,
45 a sleeve having a longitudinal opening therein and formed with an enlarged smooth portion of an exterior diameter greater than the remaining portions of the sleeve at a point between the ends of the sleeve, said en-
50 larged portion of the sleeve having a thread- ed opening therethrough, a set screw thread- ed into said opening, a continuous flat metal band, having a smooth interior surface, around the larger portion of the sleeve and
55 over said set screw and having an opening in a side thereof of an area larger than the cross section of the set screw, said band be- ing movable around the sleeve to bring said opening to the set screw, said band snugly
60 engaging the sleeve whereby accidental movement relative thereto is prevented, and a knob member located around and secured to one end portion of the sleeve and extend- ing beyond the same, said knob at its inner
65 end having a neck, the free end of which

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