No. 798,209. PATENTED AUG. 29, 1905.

B. PHELPS.

KNOB FOR DOORS AND LATCHES.

APPLICATION FILED MAR. 2, 1905.

Fig. 1.

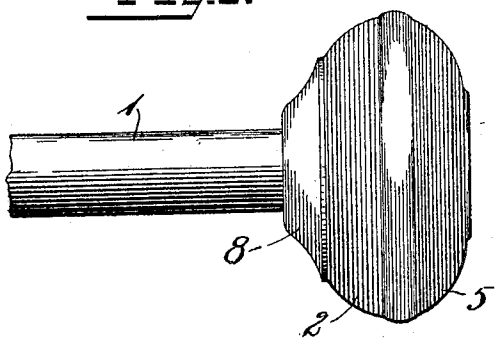


Fig. 4.

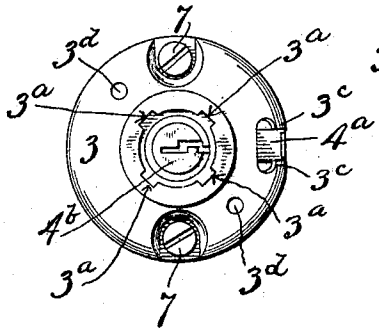


Fig. 5.

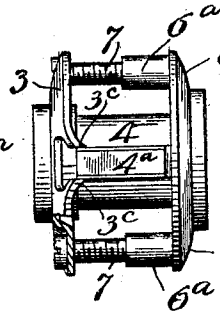


Fig. 6.

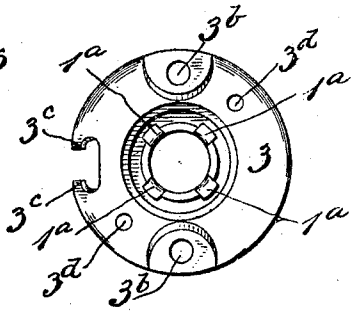


Fig. 2.

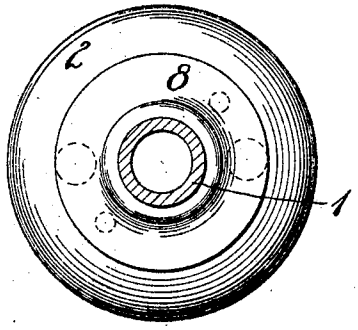
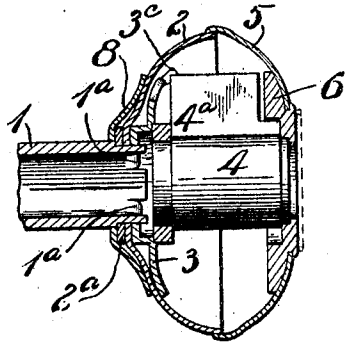


Fig. 3.



Witnesses

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KNOB FOR DOORS AND LATCHES.

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Application filed March 2, 1905. Serial No. 248,175.

To all whom it may concern:

Be it known that I, BYRON PHELPS, a citizen of the United States, residing at Seattle, King county, State of Washington, have invented certain new and useful Improvements in Knobs for Doors and Latches, of which the following is a full, clear, and exact description.

My invention relates to improvements in knobs, the main object being to provide a knob of a type which is so constructed that a lock of a suitable character may be placed within the same and properly held.

The construction is simple, effective, and comparatively inexpensive, since it permits of the use in the main of wrought or sheet metal parts.

In the drawings, Figure 1 is a side elevation of my improved knob. Fig. 2 is an end elevation looking from left to right of the knob shown in Fig. 1. Fig. 3 is a longitudinal section. Fig. 4 is an end view of the interior-lock-retaining device detached. Fig. 5 is a side elevation thereof. Fig. 6 is a view of the inside of the left-hand plate shown in Fig. 5, showing the means for securing the knob-shank to said plate.

1 is the knob-shank, having a shouldered inner end upon which the inner or base section 2 of the knob proper is held. If desired, this shoulder may be extended by means of a washer 2^a, which will afford a broader seat for said base 2. Within the section 2 is a plate which in the form shown performs several valuable functions. It serves as a retaining means to hold the base 2 against its seat on the shank 1. It also provides a seat for the flanged portion of the shank, whereby not only are the parts held together, but the knob when assembled is prevented from rotating independently of the shank. It also affords a seat for the inner end of the lock 4, and it also prevents the hub-carrying portion of the lock from rotating independently thereof when assembled.

5 is the cap-section of the knob proper, the edge of which is arranged to fit upon the edge of the base 2. The cap 5 is centrally perforated to receive the member 6 or internal reinforce which forms the outer seat for the lock proper. This piece 6 may be first formed with an annular cylindrical flange, as indicated in Fig. 5 in solid lines and in Fig. 3 in dotted lines, which flange may be turned down, as shown in the figure last referred to, so as to securely unite the member 6 with the cap 5. The member 6 carries the bosses 6^a. The wall of the passage in the plate 3 through which the knob-shank 1 passes is notched or recessed, as at 3^a 3^a, (see Fig. 4,) and when the shank is put in place the edge thereof may be struck out or upset into said recesses 3^a 3^a, as indicated at 1^a 1^a. (See Fig. 6.) These upset portions 1^a perform the double function of rivets and splines.

3^b 3^b are screw-holes in the plate 3, and 7 7 are screws arranged to take into the bosses 6^a, whereby the plates 3 and 6 may be drawn toward each other.

8 is a knob-rose which overstands and protects the heads of the screws, the said rose being held in place in any suitable manner.

4 is a lock, the ends of which are suitably supported or seated between the reinforcing-plates 3 and 6. The lock shown is of the pin-cylinder type, in which 4^a is the pin-casing, and 4^b is the hub. On the plate 3 are the struck-up shoulders 3^c 3^c, between which the edge of the pin-casing is normally located, so that when the parts are assembled the lock is not only held against endwise movement, but is also prevented from rotation, the hub 4^b of course being rotatable in the usual manner and for the usual purpose.

Since substantially all of the parts of the knob may be produced from sheet or wrought metal, the construction is inexpensive and because of the novel arrangement of parts is most durable.

3^d 3^d are rivet-holes to permit the use of rivets as additional means for securing the base 2 to the plate 3, if additional means are desired.

Obviously various changes may be made without departing from the spirit and scope of the invention.

What I claim is—

1. In a knob, in combination, a base and a cap, an internal reinforcing-plate for said base and an independent internal reinforcing-plate for said cap and means to draw the same together, and a lock contained within said knob and supported by said plates.

2. In a knob, in combination, a base and a cap, an internal reinforcing-plate for said base and an independent internal reinforcing-plate for said cap and means to draw the same together, a lock contained within said knob and supported by said plates, and means carried by one of said plates to hold said lock against independent rotation.

3. In a knob, a base and a cap, a shank supporting said base, a reinforcing-plate within

said base and secured to said shank and holding said base between itself and the shank, a cap and a reinforcing-plate secured therein, means engaging said plates and arranged to draw said base and cap together, a lock within said knob and supported by said plates against longitudinal and rotary movement.

4. A knob comprising a shank having a reduced end, a base supported thereon, a reinforcing-plate secured to the extreme end of said shank and holding said base between itself and said shank, registering screw-passages through said base and said plate, a cap, a reinforcing-plate secured within the same, bosses on the inner side of said plate registering with the aforesaid screw-passages in the opposite plate, screws for drawing said parts together, and a covering plate or rose mounted on said shank and overstanding said screw-passages in said base.

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Witnesses:
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