(No Model.)

C. O. CASE.

DOOR KNOB.

No. 421,670. Patented Feb. 18, 1890.

Fig. 1.

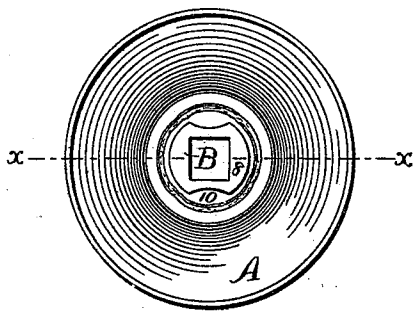


Fig. 2.

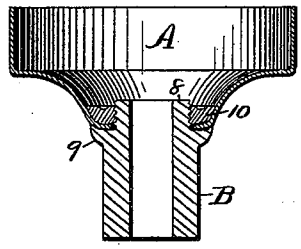


Fig. 3.

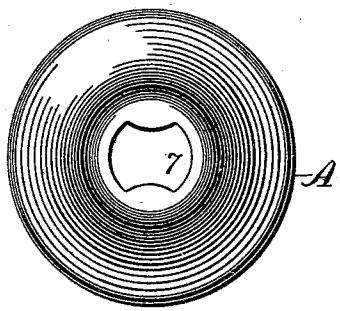


Fig. 4.

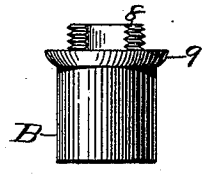


Fig. 5.

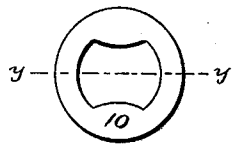


Fig. 6.



Witnesses.
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UNITED STATES PATENT OFFICE.

CROMWELL O. CASE, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO P. & F. CORBIN, OF SAME PLACE.

DOOR-KNOB.

SPECIFICATION forming part of Letters Patent No. 421,670, dated February 18, 1890.

Application filed December 6, 1889. Serial No. 332,778. (No model.)

To all whom it may concern:

Be it known that I, CROMWELL O. CASE, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Door-Knobs, of which the following is a specification.

My invention relates to improvements in door-knobs; and the object of my improvement is economy in construction, and particularly to enable a sheet-metal knob-shell to be fastened to a cast-metal knob-shank.

In the accompanying drawings, Figure 1 is a plan view of one part of a knob-shell with knob-shank attached. Fig. 2 is a sectional view of the same on line *x x* of Fig. 1. Fig. 3 is a reverse plan view of the lower part of the knob-shell. Fig. 4 is a side elevation of the knob-shank. Fig. 5 is a plan view of the holding-washer, and Fig. 6 is a sectional view of the same on line *y y* of Fig. 5.

I have illustrated only that part of the knob-shell that is secured to the knob-shank. This part is intended to be used with another sheet-metal knob shell or cap of any ordinary construction, which will be secured to the shell shown in any desired or ordinary manner of securing two such parts together.

The knob-shell A is struck up of sheet metal with a solid end, which is perforated, as at 7, Fig. 3, the contour of said perforation being substantially the same as an end view of the boss or tenon 8 on the knob-shank B. This tenon has in end view a contour which is in the form of a truncated circle or cylinder—that is to say, the form of a cylinder that is cut away upon two sides, as shown in the plan view, Fig. 1. The cylindrical sides of this tenon are made with overhanging projections, preferably by being threaded, as shown in Figs. 2 and 4.

The knob-shell A, as before stated, has a perforation 7, Fig. 3, whose contour corresponds with that of the tenon 8. Said shell is seated upon said tenon, with its end resting upon the flange 9 of the knob-shank B, the form of the tenon and perforation being such that the parts cannot rotate one upon the other. The knob-shank may be of cast-iron, or of any brittle or hard metal not malleable enough to be practically riveted. A holding-washer 10, having a perforation conforming to the contour of the tenon 8 on the knob-shank, is then placed thereon, and the whole secured together by swaging or riveting the washer until it snugly fills the space within the shell surrounding the tenon 8, including the threaded portion of the tenon. The washer of course will be of malleable metal suitable for thus riveting—as, for instance, wrought-iron or homogeneous steel. It may be riveted by a hand-setting punch and hammer; but I prefer that it shall be riveted in a riveting-machine or power-press.

By this construction I am enabled to readily and firmly secure a sheet-metal knob-shell to a knob-shank that is composed of cast-iron or other metal unsuitable for riveting, and thereby produce a knob at a small cost.

I claim as my invention—

The principal part of a knob herein described, the same consisting of the sheet-metal shell A, the knob-shank B, having tenon 8, and the holding-washer 10, the parts being secured in place by swaging or riveting said holding-washer, substantially as described, and for the purpose specified.

CROMWELL O. CASE.

Witnesses:
ALBERT N. ABBE,
C. A. BLAIR.