(No Model.)

C. O. CASE.

METHOD OF MAKING PARTS OF HOLLOW DOOR KNOBS.

No. 407,817. Patented July 30, 1889.

Fig. 1.

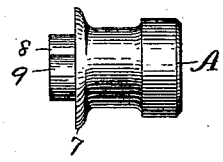


Fig. 2.

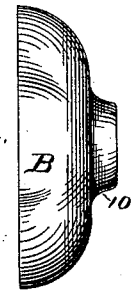


Fig. 3.

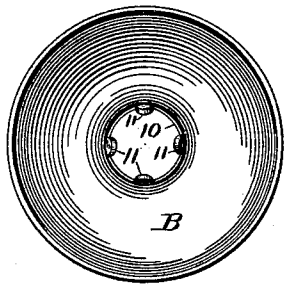


Fig. 4.

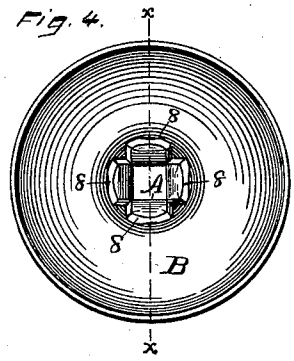


Fig. 5.

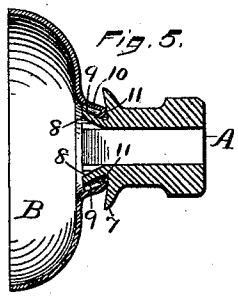
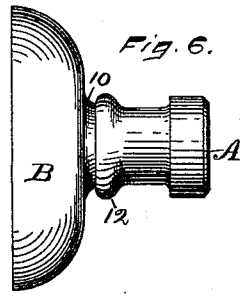


Fig. 6.



Witnesses.
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UNITED STATES PATENT OFFICE.

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

METHOD OF MAKING PARTS OF HOLLOW DOOR-KNOBS.

SPECIFICATION forming part of Letters Patent No. 407,817, dated July 30, 1889.

Application filed May 16, 1889. Serial No. 310,966. (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 the Method of Making Parts of Hollow Door-Knobs, of which the following is a specification.

My invention relates to improvements in the method of making parts of hollow door-knobs; and the objects of my improvement are economy in construction and general efficiency and durability of the product.

In the accompanying drawings, Figure 1 is a side elevation of a cast-metal knob-shank formed in accordance with my method. Fig. 2 is a side elevation of that part of the knob-shell which is to be secured to said shank. Fig. 3 is a plan view of said shell. Fig. 4 is a plan view of said shell and shank in a partially-finished condition. Fig. 5 is a sectional view of the same on line *x x* of Fig. 4, and Fig. 6 is a side elevation in the final form.

My invention relates particularly to making the knob-shank and one part of the shell which forms the hollow knob and securing them together. The other half of the knob-shell, which is not shown, may be attached in any ordinary manner and is not peculiar to my present invention.

A designates a cast-metal knob-shank having the ordinary axial hole for the square spindle, an outwardly-projecting flange 7, and a tenon 8, having side recesses 9.

B designates the half knob-shell, which is struck up of sheet metal, with a centrally-projecting hub 10, which is first formed with a solid end, in the removing of which portions of the metal are left and turned inward to form the projections 11, (see Figs. 3 and 5,) for fitting into the recesses 9 of the tenon 8, as shown most clearly in Fig. 5.

The parts A and B being thus formed, are placed together in the manner already indicated and the tenon 8 spread outwardly, as shown in Figs. 4 and 5, to firmly secure together the parts A and B. In thus heading or spreading out the tenon 8 it will split or divide into prongs, as shown most clearly in Fig. 4, the splits or divisions being on a line with the corners of the spindle-hole. The projections 11 in the recesses 9 prevent the parts A and B from rotating one upon the other, while the bending over of the tenon 8 prevents the parts from being disconnected. In order to make a better finish and at the same time to still more firmly secure the parts together, the flange 7 is forced down upon the hub 10 of the shell B and formed into the bead 12. (Shown in Fig. 6.) This latter operation is best done by spinning in a lathe or in a machine specially designed for that purpose.

By my method of making the knob parts I produce a neat and substantial knob shank and shell in a simple and inexpensive manner.

I claim as my invention—

That improvement in the method of making parts of knobs which consists in providing the knob shank A and shell B, having, respectively, the flange 7 and hub 10, securing the parts together by spreading out or heading the end of the knob-shank, and turning the flange 7 down upon the end of the hub 10 of the shell, substantially as described, and for the purpose specified.

CROMWELL O. CASE.

Witnesses:

A. N. ABBE,

CHARLES F. CORBIN.