

No. 699,515.

Patented May 6, 1902.

W. F. GILBERT.

DOOR KNOB.

(Application filed Feb. 17, 1902.)

(No Model.)

Fig. 1.

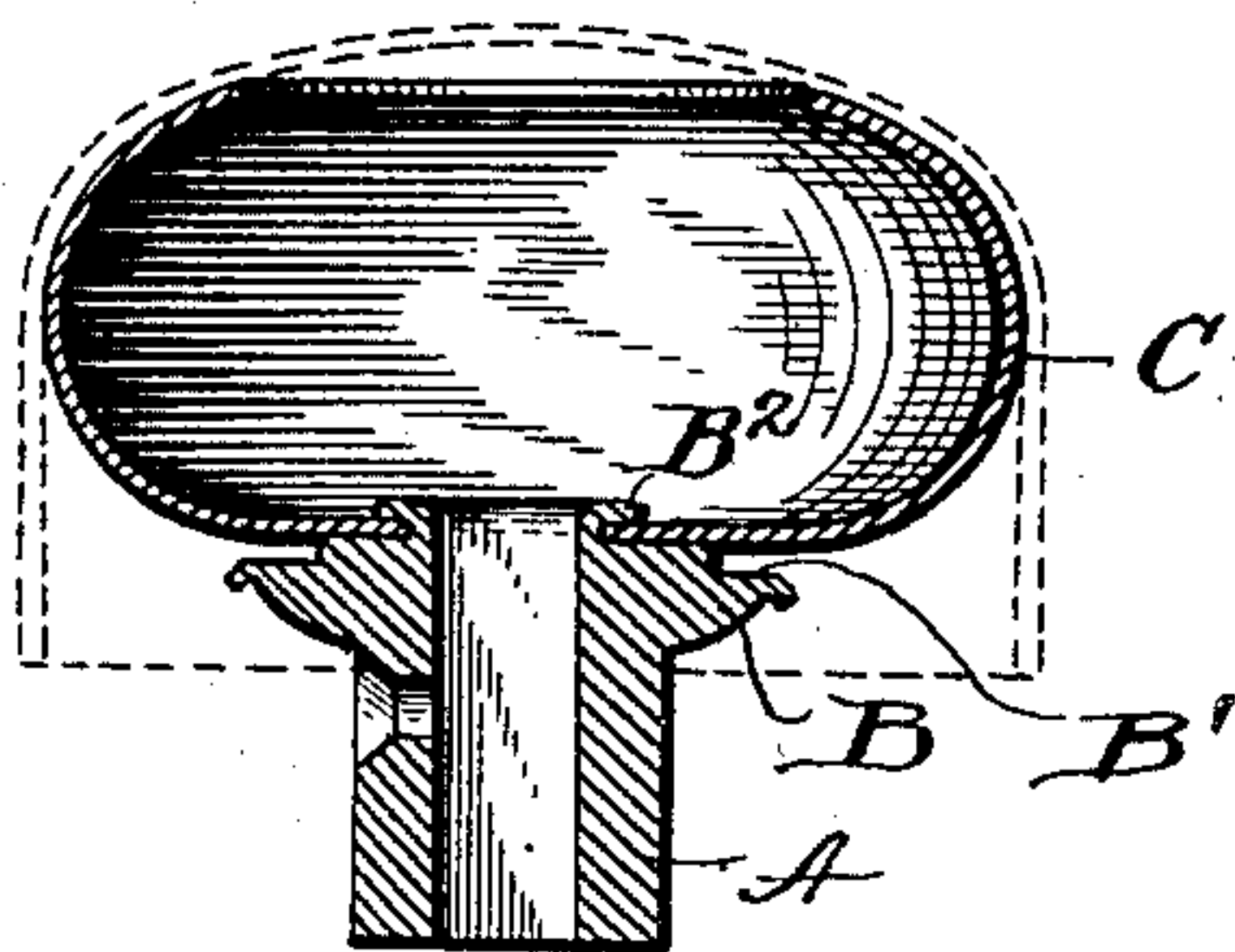


Fig. 2.

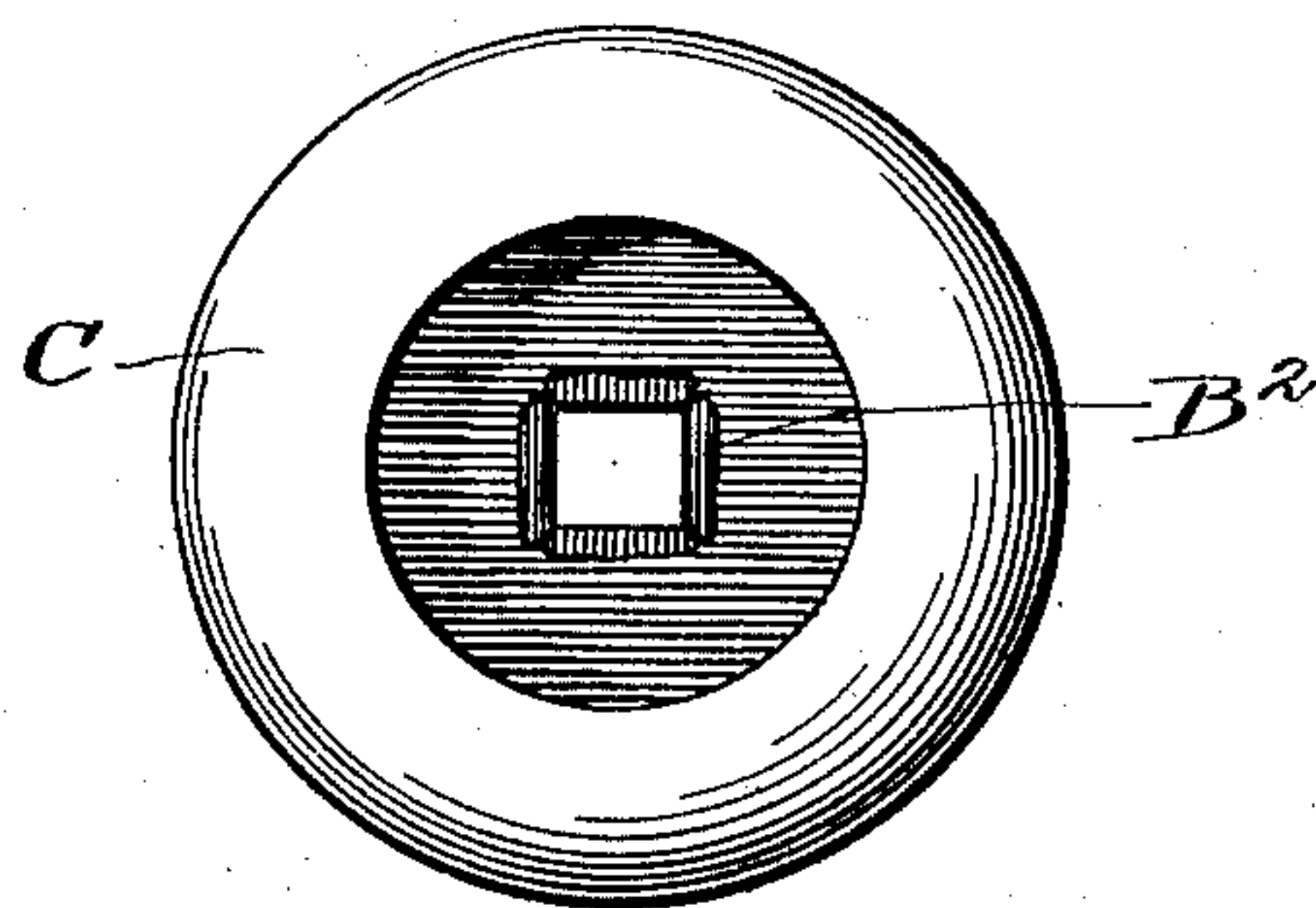


Fig. 3.

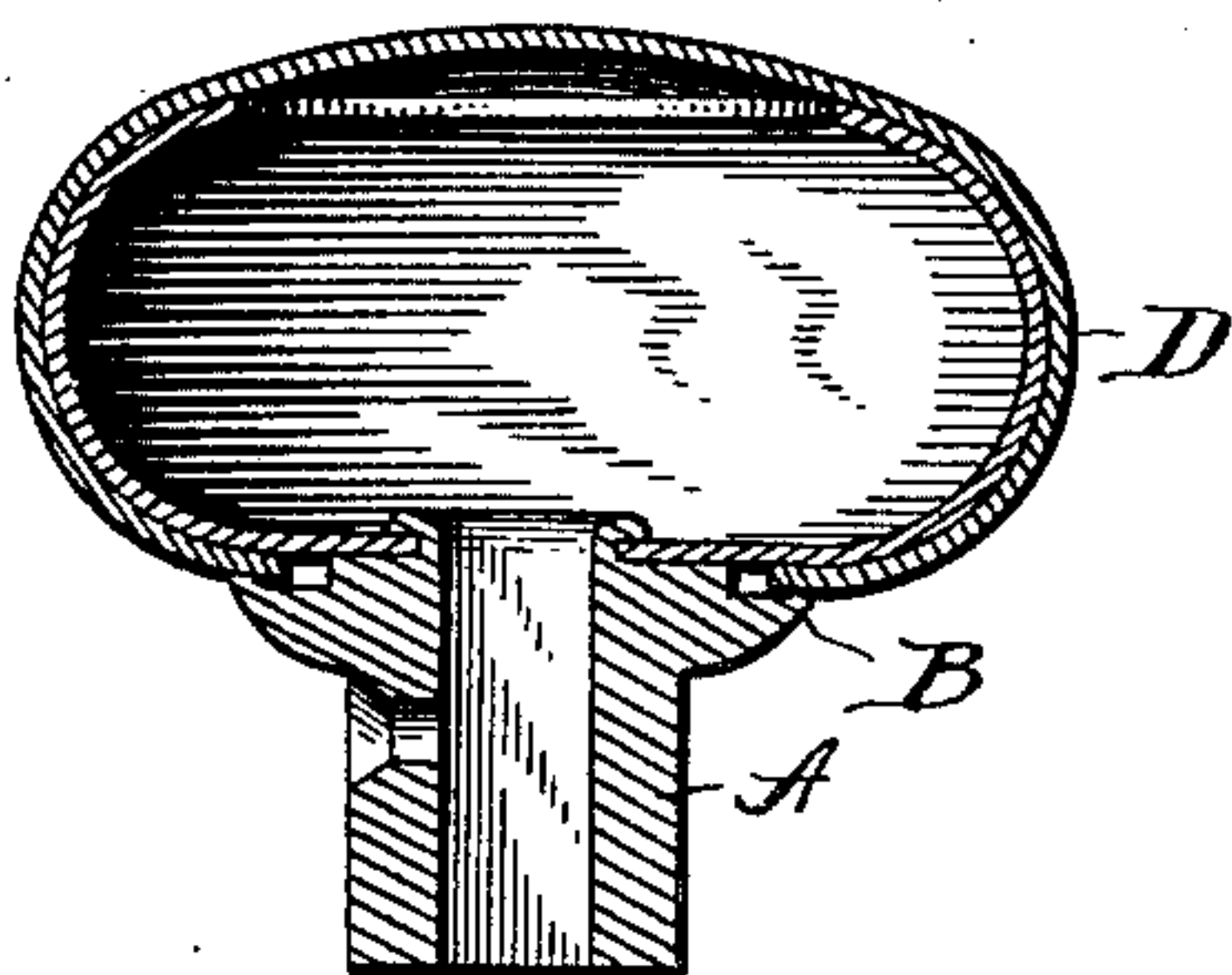
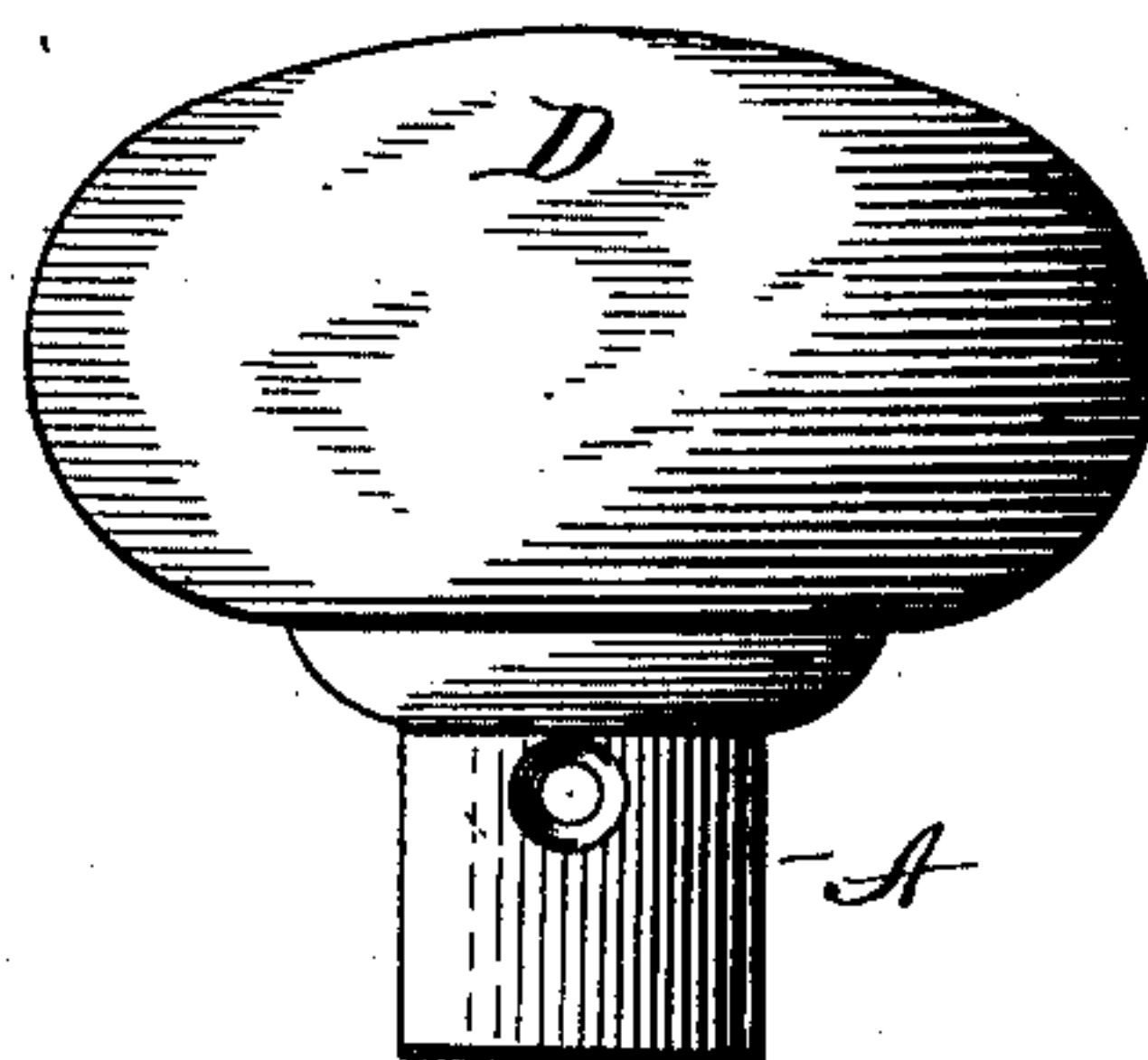


Fig. 4.



WITNESSES:

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DOOR-KNOB.

SPECIFICATION forming part of Letters Patent No. 699,515, dated May 6, 1902.

Application filed February 17, 1902. Serial No. 94,373. (No model.)

To all whom it may concern:

Be it known that I, WILBUR F. GILBERT, a citizen of the United States, residing at New Britain, in the county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Door-Knobs, of which the following is a full, clear, and exact description.

My invention relates to door-knobs.

Among the main objects of my invention are simplicity and economy of construction, strength, and durability.

In the drawings, Figure 1 is a section of an incomplete portion of the knob, showing the cover or envelop constituting the outer surface of the knob proper in dotted outline. Fig. 2 is a plan view of what is shown in solid lines, Fig. 1. Fig. 3 is a longitudinal section of the finished article. Fig. 4 is a side elevation of the finished article.

A is a shank, which may be formed of any suitable material, having the usual central spindle-passage. B is a flange thereon. The upper part of the flange constitutes a bearing-shoulder B' for the outer envelop or cover of the knob. Between the bearing-shoulder B' and the spindle-opening is a slightly-elevated portion constituting another shoulder, upon which rests a mandrel C.

B² is an expanded flange adjacent the spindle-opening, setting over the mandrel C² and holding it firmly to its supporting-shoulder upon the inner end of said shank.

The parts thus far described are shown in Fig. 1, and it will be observed that the edge of the flange B is turned down slightly for the purpose hereinafter described.

In Fig. 2 it is shown that the preferable form of the flange B² is angular, so that by shaping the central opening in the lower side of the mandrel C correspondingly the said mandrel will not turn on the shank in use. The mandrel C is preferably made of iron or steel of proper thickness to afford a sufficient foundation upon which to finally shape the outer envelop. To that end the mandrel C is more than cup-shaped, by which I mean its upper edge is turned in to form a top opening of greater diameter than the opening in the lower part of said mandrel, yet of lesser diameter than the full diameter of said

mandrel. This construction prevents the knob from becoming telescoped, the said inturned outer end of the said mandrel being sufficiently strong to give a firm support and inner foundation to said envelop D. The opening in the upper side of the mandrel C gives access to that portion of the shank A which is turned down into the flange B². When the mandrel C has been secured in place, a cup-shaped envelop, approximating in cross-section the outline shown by the dotted lines in Fig. 1, is slipped onto the mandrel, and the edge of said cup-shaped envelop is drawn in in any suitable way, so that it finally assumes the shape shown in Fig. 3, in which it will be observed the edge of the envelop projects sufficiently far in toward the shank A that when the flange B is turned up against said envelop the said shoulder B' will engage therewith, while the edge of said flange will close the space between the parts and firmly unite said parts and give a finished graceful appearance to the product, as shown in Fig. 4.

Not only during the operation of the forming of the knob is the mandrel C useful, in that it prevents the improper shaping of the envelop, but after the article is complete it prevents the telescoping or bruising of the shell or envelop and reinforces and strengthens the knob, so that fairly thin material may be employed in making the shell or envelop, thus resulting in economies without the sacrifice of strength and durability.

What I claim is—

A door-knob comprising, a shank, a supporting-shoulder thereon, a mandrel bearing upon said supporting-shoulder a portion of said shank being flanged inside of said mandrel to secure the same in place, the outer edge of said mandrel being turned inwardly said mandrel forming front and rear bearing-surfaces, an envelop for said mandrel, a flange on the knob-shank said flange bearing against the inner edge of said envelop.

Signed at New Britain, Connecticut, this 12th day of February, 1902.

WILBUR F. GILBERT.

Witnesses:

C. A. BLAIR,
G. E. ROOT.