

No. 632,301.

Patented Sept. 5, 1899.

W. H. WILKINSON.

DOOR KNOB.

(Application filed June 12, 1899.)

(No Model.)

Fig. 1.

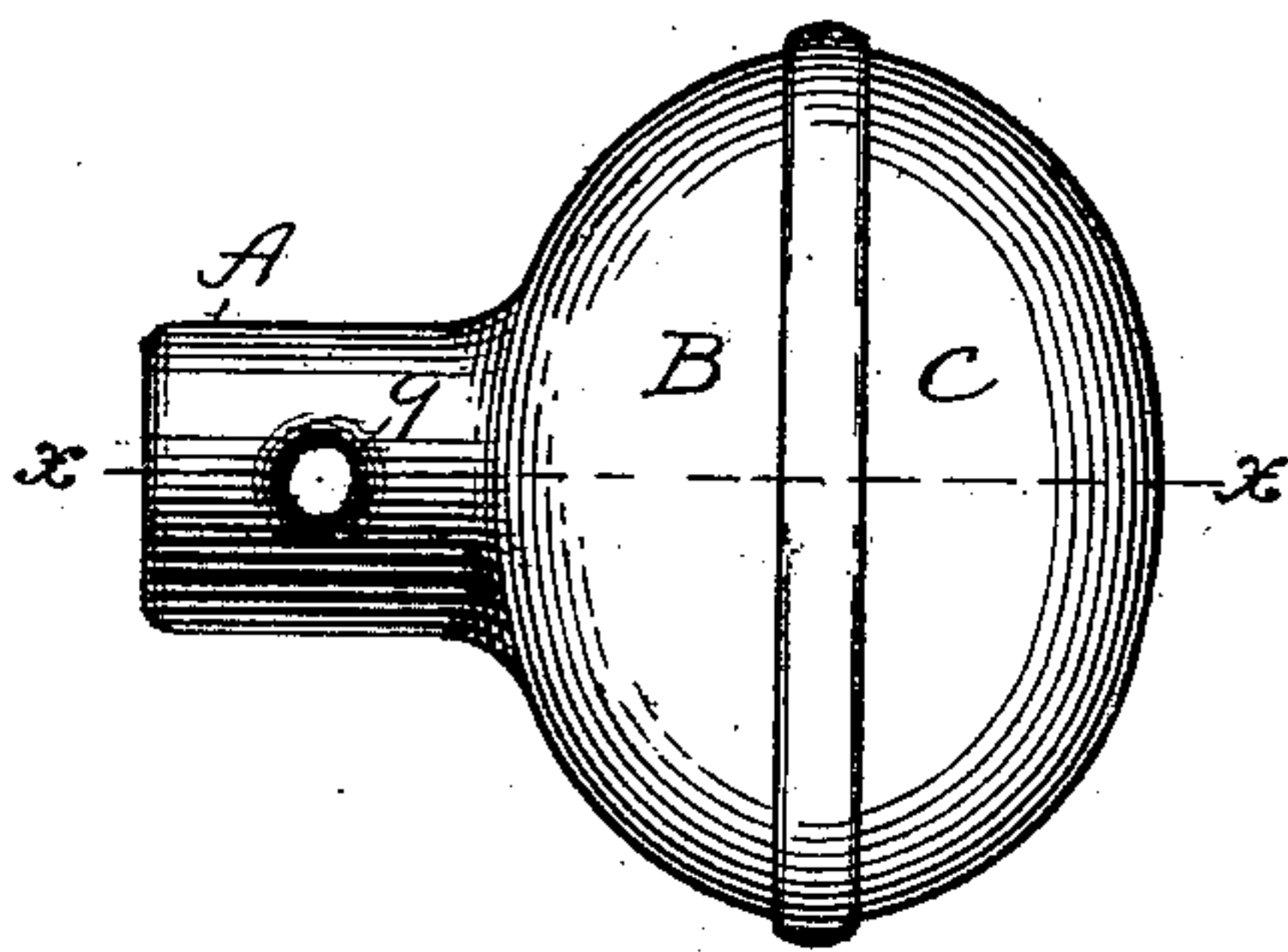


Fig. 2.

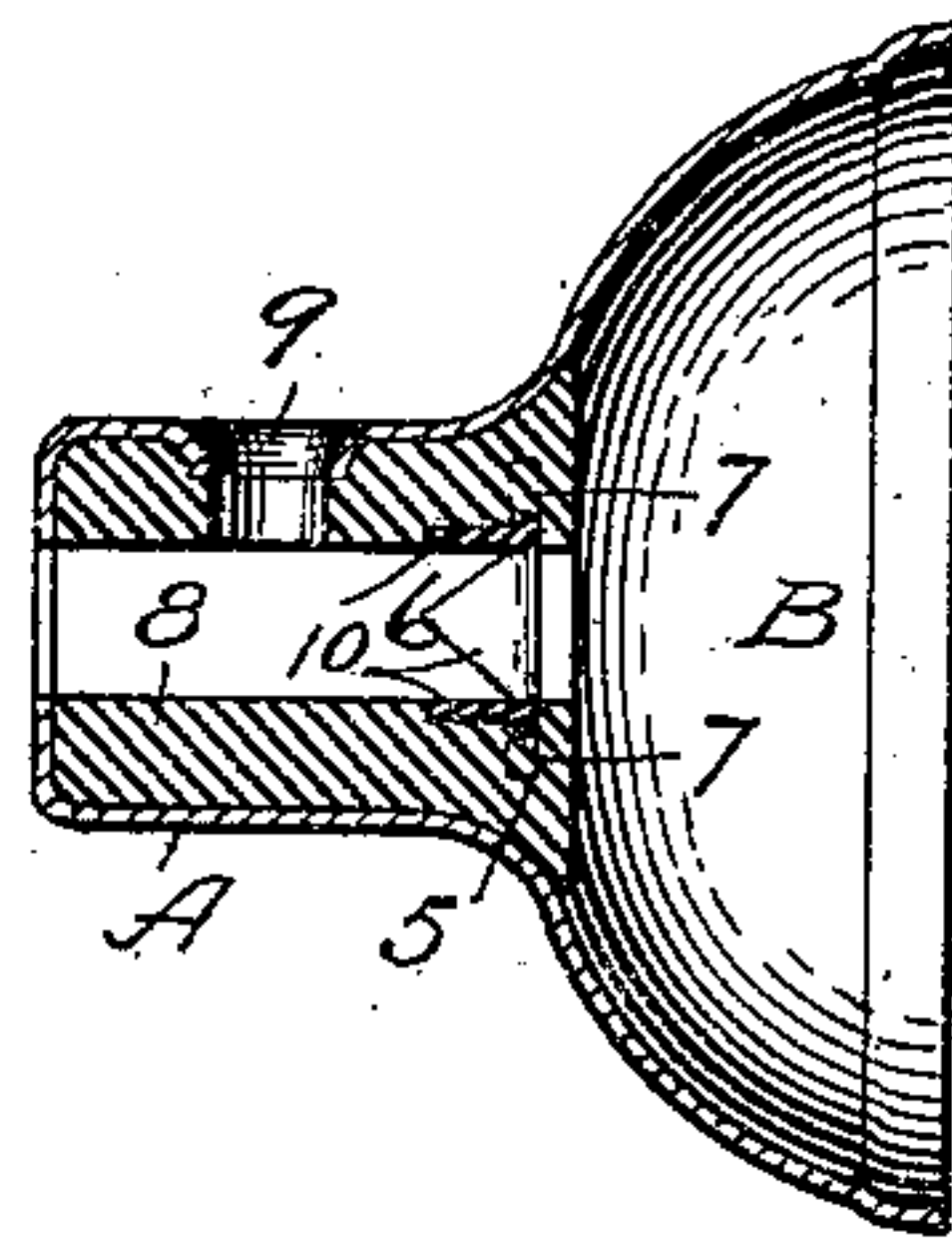


Fig. 3.

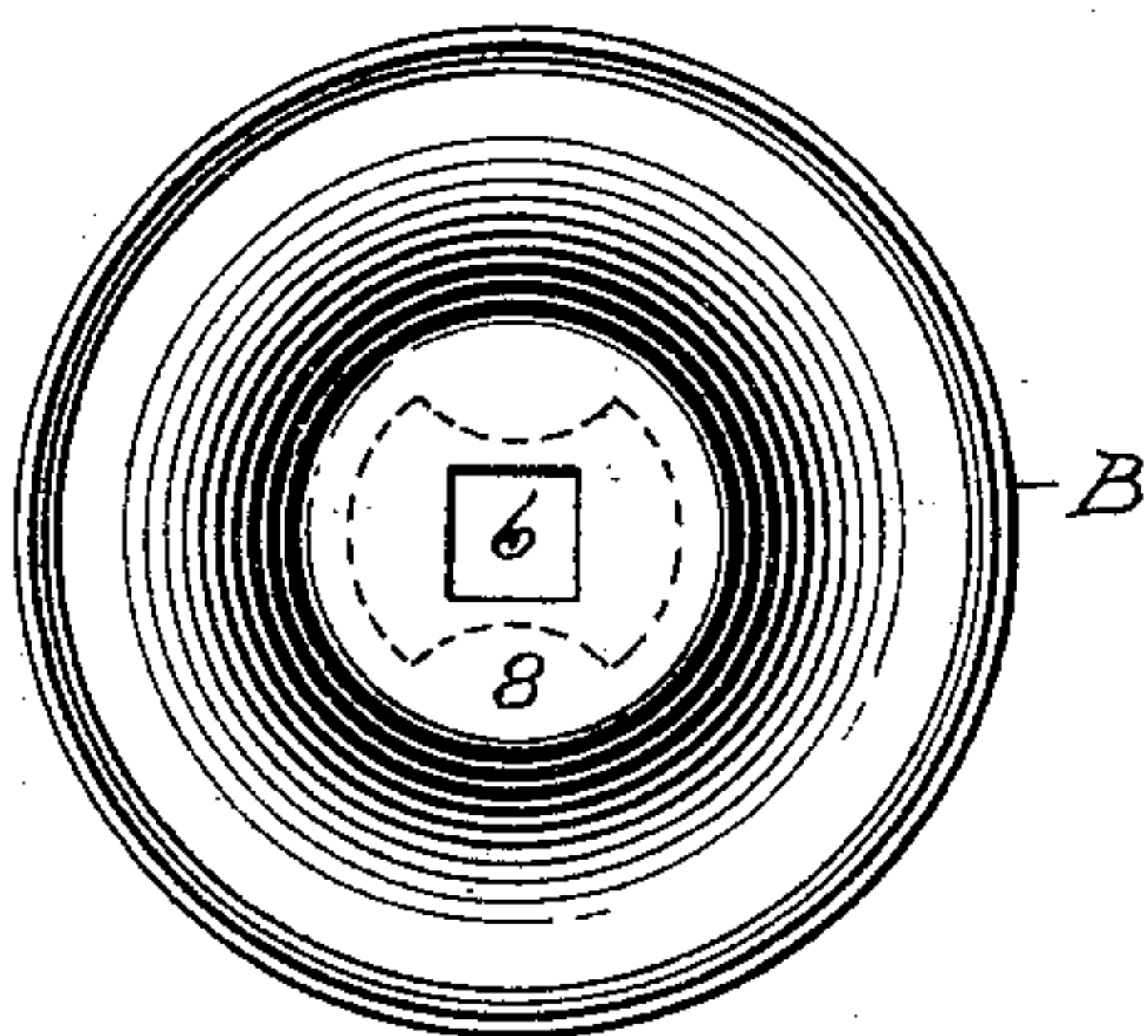
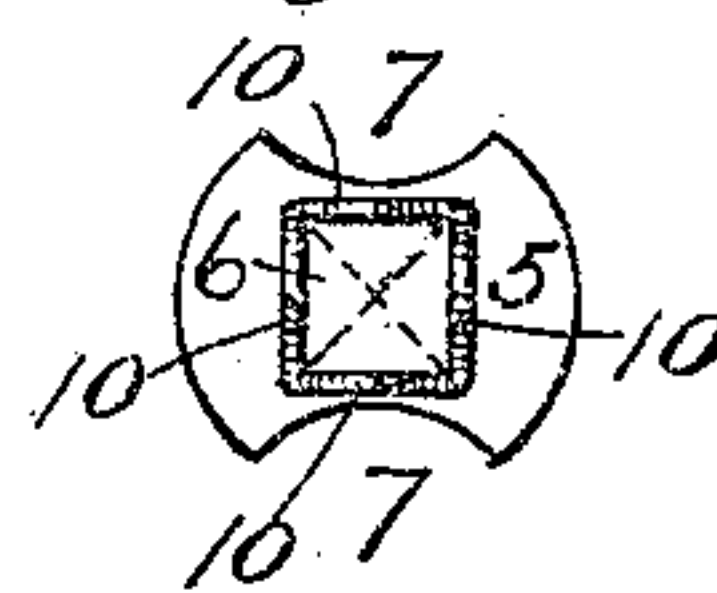


Fig. 4.



Witnesses
A. W. Stippek
P. J. Egan

Inventor
Walter H. Wilkinson
By James Shepard.
ATTY.

UNITED STATES PATENT OFFICE.

WALTER H. WILKINSON, OF ALTOONA, PENNSYLVANIA, ASSIGNOR TO THE
RUSSELL & ERWIN MANUFACTURING COMPANY, OF NEW BRITAIN, CON-
NECTICUT.

DOOR-KNOB.

SPECIFICATION forming part of Letters Patent No. 632,301, dated September 5, 1899.

Application filed June 12, 1899. Serial No. 720,203. (No model.)

To all whom it may concern:

Be it known that I, WALTER H. WILKINSON, a citizen of the United States, residing in Altoona, in the county of Blair and State of Pennsylvania, 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 the production of an efficient article.

In the accompanying drawings, Figure 1 is a side elevation of the complete knob. Fig. 2 is a sectional view of a part of the same on the line *xx*, Fig. 1. Fig. 3 is a front elevation of the part shown in Fig. 2, the contour of the reinforcing-plate of the shank being indicated by broken lines; and Fig. 4 is a detached view of the reinforcing-plate.

The outer surface or shell A of the shank and the adjacent half-knob B are formed in one piece of sheet metal by means of suitable dies, and the cap C is secured thereto in any proper manner. My improvement relates to the construction of the knob-shank on the half-knob B. After forming the said shell A of the shank integral with the half-knob B, I fill the said shell and complete the shank in the following manner: I form or provide a reinforcing-plate 5 with a central square perforation or hole 6 of a size to receive and fit an ordinary square knob-spindle. In order to get the greatest amount of spindle bearing-surface for the reinforcing-plate, I prefer to slit the metal diagonally across the intended perforation, as indicated by broken lines in Fig. 4, and then bend therefrom the four wings 10; but it is evident that the plate may be perforated by merely cutting out a square hole, as in the end of the knob-shank shell, instead of thus slitting and bending. It is also evident that the hole in the end of the knob-shank shell may be formed by thus slitting and bending, if desired. The edge of the plate 5 on diametrically opposite sides is notched or recessed, as at 7, Fig. 4, while the

remainder of the edge is circular and concentric, forming what may be called a "disk" with diametrically opposite notches 7. The end of the knob-shank shell A is perforated to correspond with the perforation in the reinforcing-plate.

The diameter of the reinforcing-plate is somewhat in excess of the inner diameter of the main portion of the shank-shell A, so that by placing the shank with the integral half-knob B uppermost and dropping the reinforcing-plate into it the said plate will rest on the metal of the shell at the junction of the shank and half-knob. A knob-spindle or other suitable core of the size and shape of a knob-spindle is then inserted through the hole in the plate 5 and into the hole in the end of the knob-shank shell A, and then soft metal is run into the said shell, filling the same and firmly embedding therein the reinforcing-plate 5, which is covered by the soft metal 8, as shown. The hole 9 for the screw-hole may be provided with a core for casting it, or the screw-hole in the shell may be merely stopped up for running the soft metal, and the screw-hole through the soft metal may be subsequently formed.

By my improvement I solidly fill the sheet-metal shell of a knob-shank in an inexpensive manner, and the two sheet-metal bearings formed by the metal at the end of the shank and the reinforcing-plate give a firm bearing on the spindle at the opposite ends of the shank, whereby the knob is efficient and durable, although cheaply formed.

I claim as my invention—

The combination of the knob-shank shell and integral half-knob formed of sheet metal, with the reinforcing-plate at the knob end of the said shank and the soft-metal filling within which the said reinforcing-plate is held, substantially as described.

WALTER H. WILKINSON.

Witnesses:

M. S. WIARD,
J. R. STODDARD.