H. TUCKER.
Door-Knob.

No. 212,161. Patented Feb. 11, 1879.

Fig. 1.

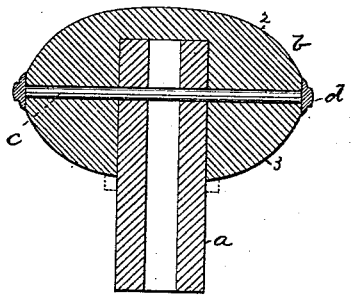
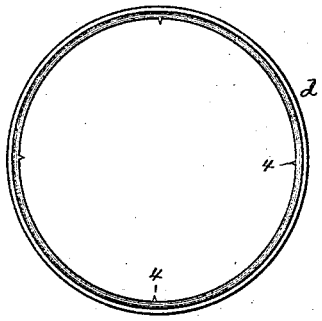


Fig. 2.



Witnesses.
N. E. Whitney.
L. F. Connor.

Inventor.
Hiram Tucker.
by Crosby & Gregory
Attys

UNITED STATES PATENT OFFICE.

HIRAM TUCKER, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN DOOR-KNOBS.

Specification forming part of Letters Patent No. **212,161**, dated February 11, 1879; application filed November 1, 1878.

To all whom it may concern:

Be it known that I, HIRAM TUCKER, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Knobs, of which the following description, in connection with the accompanying drawings, is a specification:

This invention relates to knobs for doors and other purposes; and consists, essentially, of a wooden bulb, or a moldable bulb, composed, for instance, of paper, papier-maché, hard rubber, diatite, celluloid, or vitreous or ceramic substances, combined with a shank, a pin, and a metallic annulus, made to embrace the said bulb at its point of greatest diameter, to strengthen the said bulb and prevent it from chipping or being broken, and also to prevent the displacement of the pin.

Figure 1 represents, in vertical section, a knob embodying this my invention; and Fig. 2 is a separate view of the annulus.

The shank *a*, which receives the knob-spindle, may be made as shown in full lines, or may be provided with a collar or flange, as shown in dotted lines.

The bulb *b*, if composed of wood or other material which can be readily cut, is turned in a suitable lathe, so as to present two convexed portions, 2 3—the one, 2, to serve as the front, and the other, 3, to serve as the back, portion of the bulb when in place upon the shank, it entering a suitable hole made in the bulb.

If the bulb is of a moldable material, as described, it will be formed or shaped in a suitable mold, and may be more or less ornamented.

In the manufacture of this improved knob, the bulb will preferably be placed upon the shank, and a pin, *c*, will be inserted through the bulb and shank, as shown in the drawing, and then the metallic annulus *d* will be placed or pressed about the outside of the bulb at its point of greatest diameter. The said annulus may be compressed, contracted, or spun, so as to firmly and closely bind the bulb and prevent it from cracking, checking, or being chipped or broken.

It will be noticed that the annulus, as so far described, covers the ends of the pin *c*, and prevents its displacement or being seen; but, instead, it is obvious the pin may be inserted through the annulus itself after the latter is applied to the bulb.

Instead of making the bulb of one single piece of wood, it may be made of several pieces, glued together as a solid piece, and by gluing together various colored pieces of wood of regular or irregular forms the bulb may be variegated, or made to present in wood various ornamental designs.

The annulus may be provided with internal spurs, 4, to enter the bulb and assist in holding the annulus from turning upon the bulb.

I claim—

1. The bulb fitted to the end of the metal shank, combined with the metallic annulus, made to embrace and fit the periphery, to strengthen the bulb and prevent chipping and splitting, and with the pin passed through the bulb, shank, and annulus, substantially as described.

2. The combination of the shank *a*, bulb *b*, and pin *c* with the metallic annulus *d*, which serves the double purpose of preventing the falling out of the pin and the chipping or defacement of the bulb, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HIRAM TUCKER.

Witnesses:

G. W. GREGORY,

N. E. WHITNEY.