

No. 776,276.

PATENTED NOV. 29, 1904.

H. G. VOIGHT.  
SCREWLESS DOOR KNOB.  
APPLICATION FILED JULY 14, 1904.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

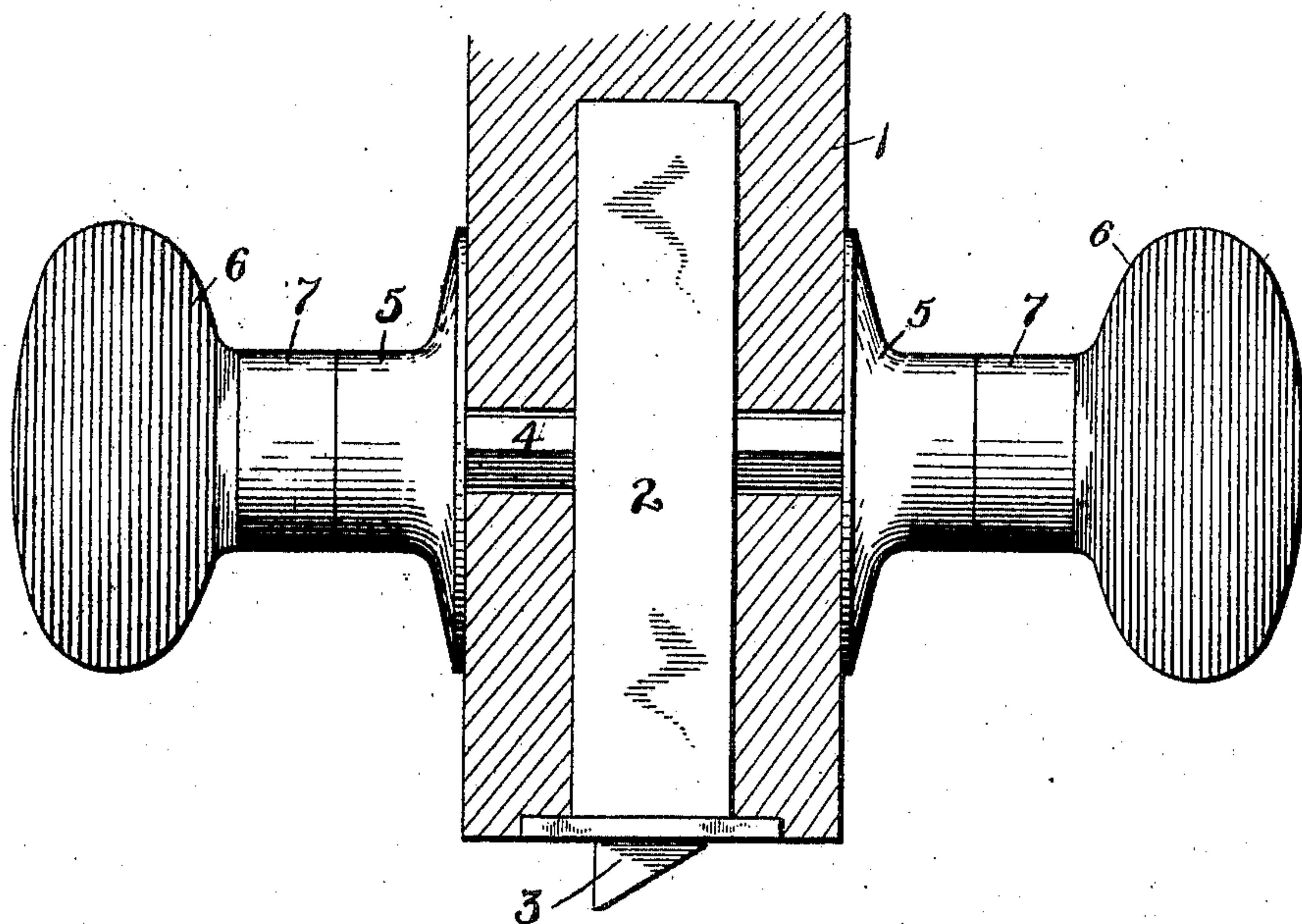
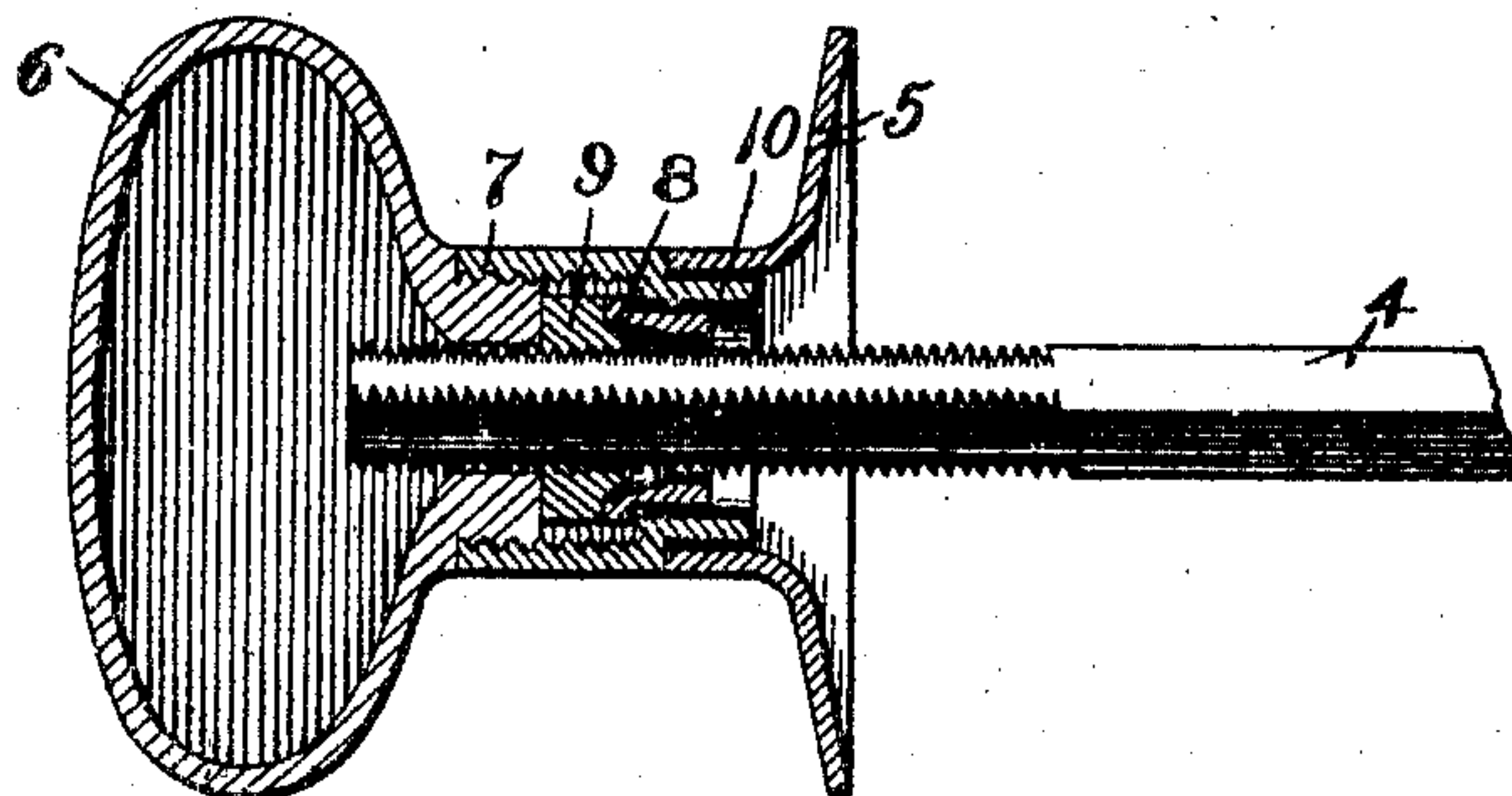


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

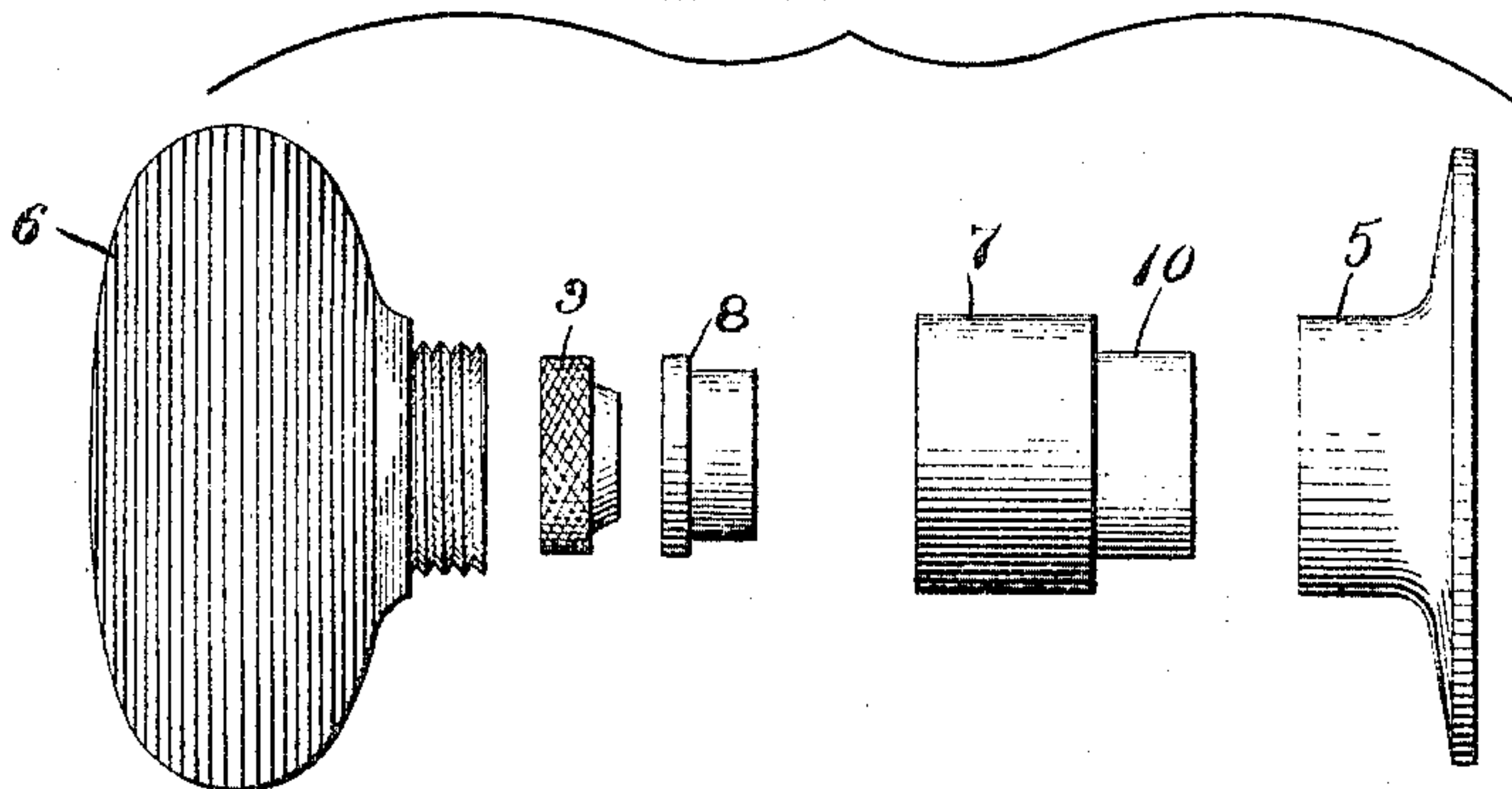


Fig. 5.

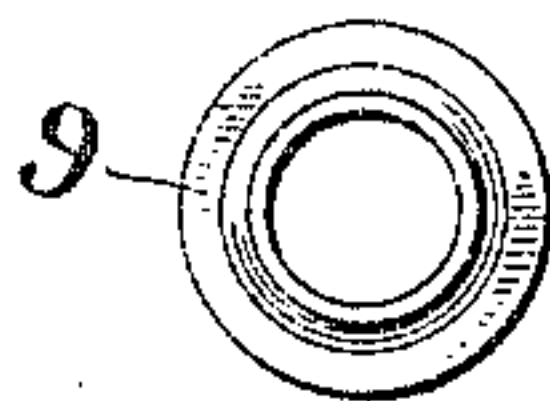


Fig. 4.

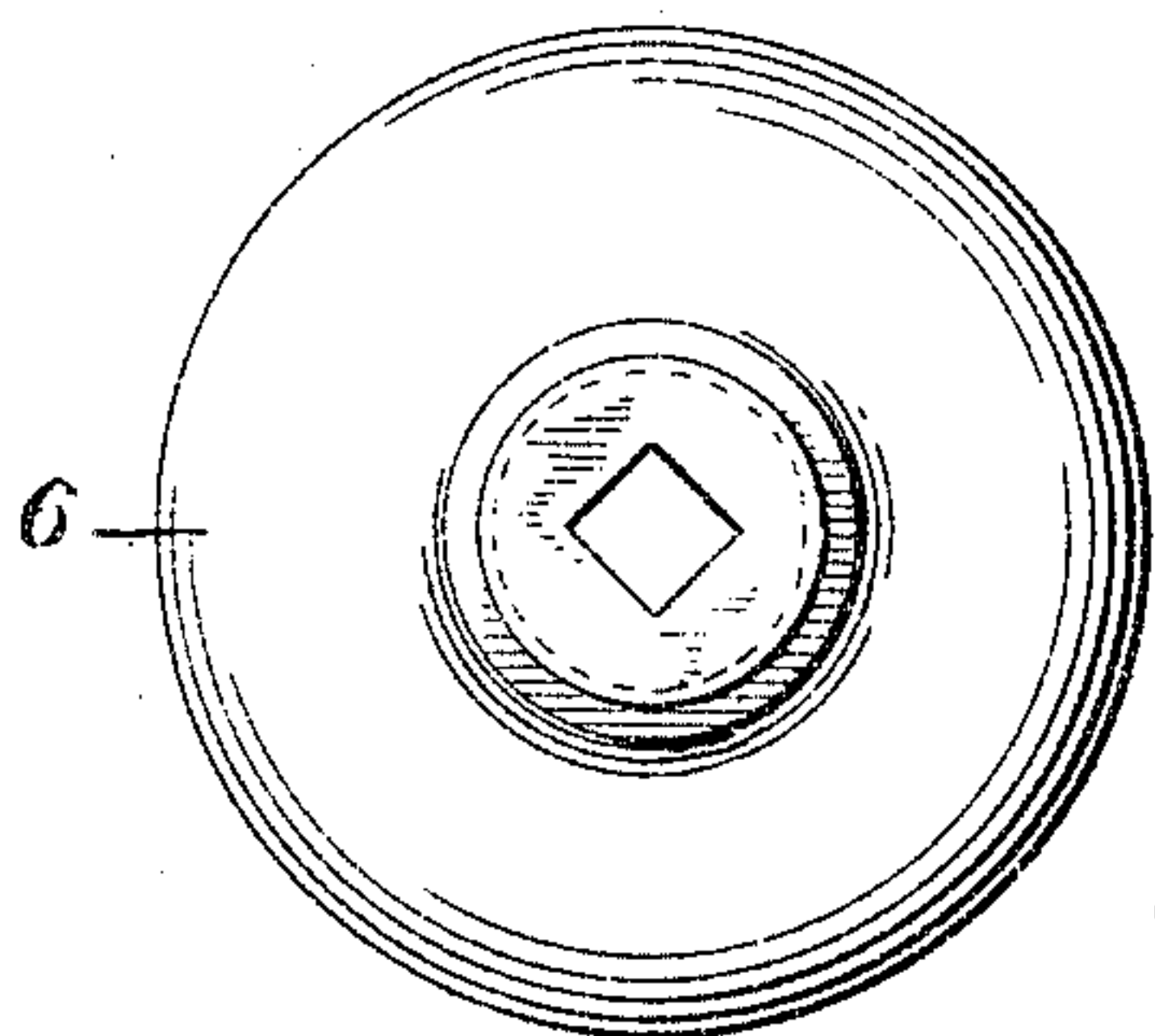


Fig. 2.

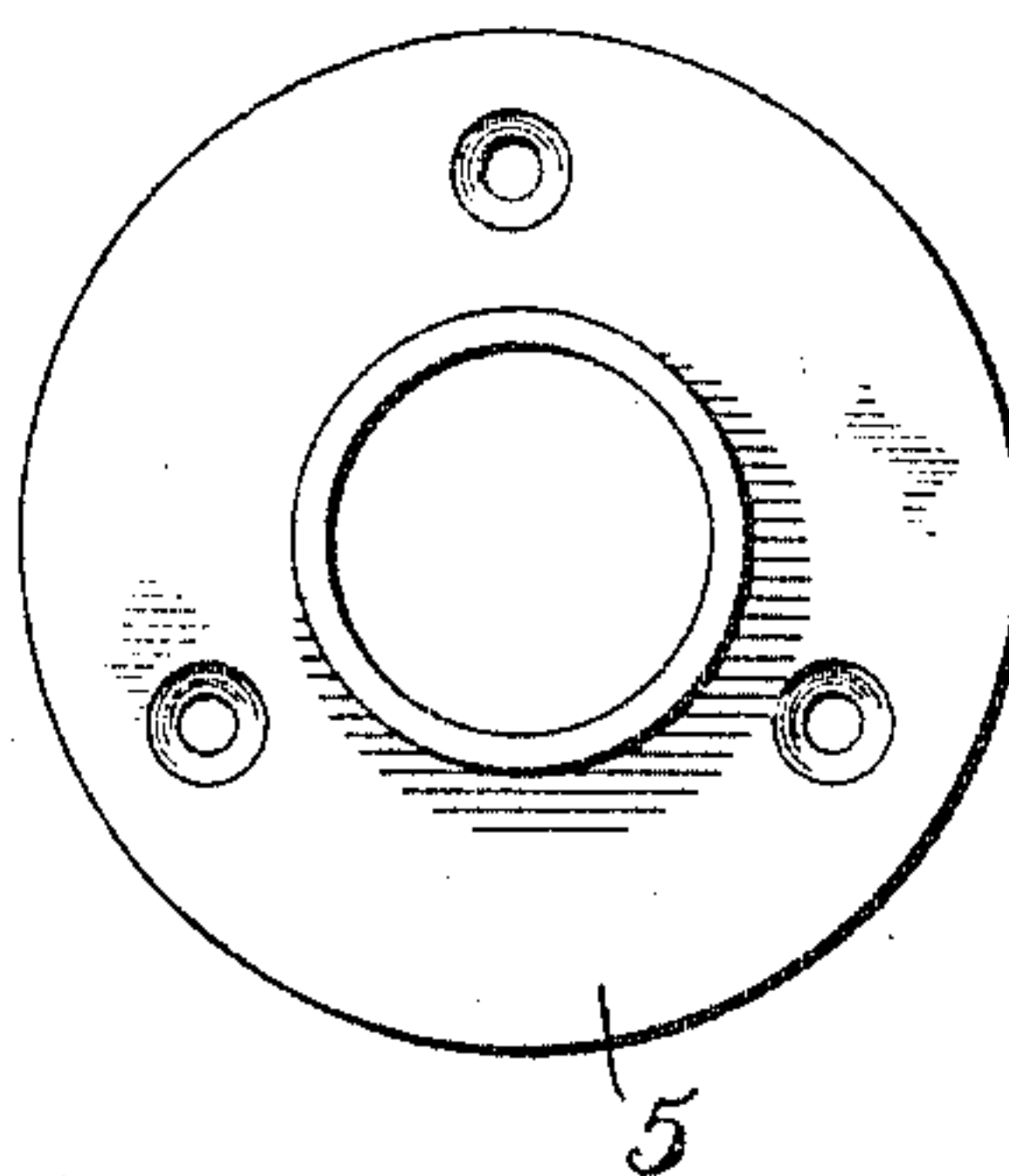


Fig. 6.

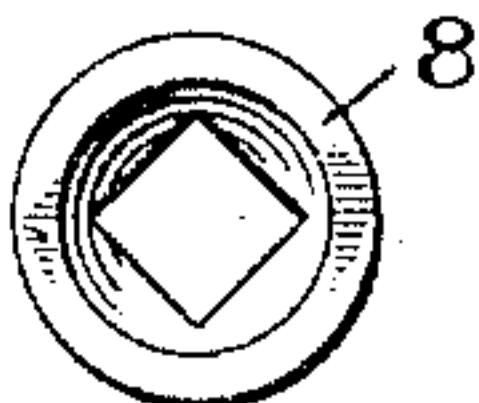
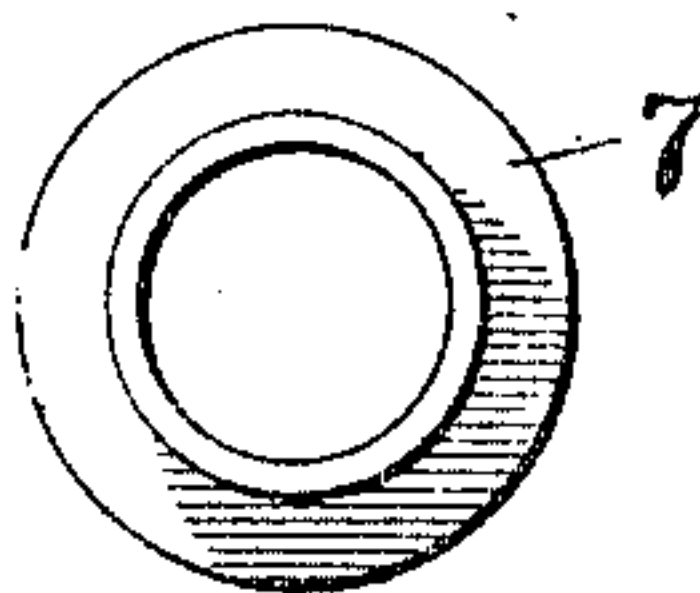


Fig. 7.



Witnesses

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# UNITED STATES PATENT OFFICE.

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RUSSELL & ERWIN MANUFACTURING COMPANY, OF NEW BRITAIN,  
CONNECTICUT, A CORPORATION OF CONNECTICUT.

## SCREWLESS DOOR-KNOB.

SPECIFICATION forming part of Letters Patent No. 776,276, dated November 29, 1904.

Application filed July 14, 1904. Serial No. 216,461. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY G. VOIGHT, 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 Screwless Door-Knobs, of which the following is a full, clear, and exact description.

My invention relates to so-called "screwless knobs;" and it consists in certain improvements over those shown in my former patent, No. 554,804, of February 18, 1896, as will be seen from a reading of the following specification.

The main object of my invention is to provide simple, inexpensive, and effective means for rendering the knob readily adjustable upon the spindle and attachable and detachable at will without the use of an exposed screw.

In the drawings, Figure 1 is a plan view of the parts assembled as they appear in place. Fig. 2 is a longitudinal section of one of the knobs and the associated parts. Fig. 3 is a side elevation of the several details detached from one another. Fig. 4 is a view of the inner end of the knob. Figs. 5, 6, 7, and 8 are end elevations of separate details.

1 represents a portion of a door.

2 represents an ordinary mortise-lock provided with the usual latch 3.

4 is a knob-spindle having its ends threaded at the corners.

5 5 are rose-plates.

6 6 are knobs.

7 7 are screw-thimbles which correspond in construction to the screw-thimbles shown in my said former patent and which are arranged to engage directly with the short-threaded shank or hub at the inner end of the knob. The screw-thimble 8 constitutes the knob-shank proper and takes a bearing against or in the rose 5, as desired. In the particular form shown, the screw-thimble 7 is reduced at its inner end, as at 10, to extend into said rose.

8 is a non-rotatable washer slidably mounted upon the spindle 4, the function of which will be hereinafter explained.

9 is an adjusting member or screw-sleeve

having a screw-threaded connection with the spindle 4, so as to be longitudinally adjustable thereon by rotating said screw-sleeve in one direction or the other. In this respect this member corresponds to the screw-sleeve described in my former patent.

Within the screw-thimble 7, which constitutes the knob-shank, is a shoulder which takes up against the inner side of the non-rotatable washer 8, the said washer being located between the internal shoulder on said screw-sleeve and the adjusting member 9. When the parts are assembled as shown in Fig. 2, as the knob-shank 7 or screw-sleeve is rotated it will not rotate the adjusting device 9, since it does not contact therewith, but instead contacts with the washer 8, which latter is, as above indicated, non-rotatable on the spindle. The result is that when the adjusting member has been located in the desired position the knob-shank 7 may be readily turned without danger of disturbing said adjustment.

In my former patent I provided pins upon the adjusting member 9, which interlocked with the knob; but this form entails greater expense than the present form and is less effective, in that by the present form the adjusting member may be set at any desired angle relatively to the spindle 4, whereas in the specific form shown in my earlier patent the adjusting member could only be set at such angles relatively to the spindle as there were perforations in the knob to receive the interlocking pins on the adjusting member.

If desired, the washer 8 may have a short sleeve-like extension, as shown in the drawings, whereby it may take a longer bearing upon the spindle 4 and whereby the side of said washer adjacent to the adjusting member or sleeve 9 may be provided with a tapered end or elongated bearing, as shown, said elongated bearing projecting into the flared entrance of the adjacent washer.

From the foregoing it will be seen that while my knob attachment is generally similar to the attachment made the subject-matter of my aforesaid patent it differs therefrom in that I provide a simple and inexpensive non-ro-



tatable washer and interpose the same between the rotatable knob-shank and the rotatable adjusting device to prevent the rotation of the latter by the rotation of the former, the washer performing the function, therefore, of the pins shown in my former patent.

What I claim is—

1. In a device of the character described, a knob, a rotatable knob-shank arranged to be screwed onto said knob, a spindle, an adjusting device screw-threaded on said spindle, a washer mounted on said spindle but held against rotation relatively thereto, said washer being located between said rotatable knob-shank and said rotatable adjusting device to prevent the dislocation of the latter by the rotation of the former.

2. In a device of the character described, a knob, a rotatable knob-shank arranged to be screwed onto said knob, a spindle, an adjusting device screw-threaded on said spindle and having an elongated threaded bearing, a washer mounted on said spindle and having a sleeve-like extension cut away on one side to receive the extended bearing of the adjusting

member, said washer being held against rotation relatively to said spindle, said washer being located between said rotatable knob-shank and said rotatable adjusting device to prevent the dislocation of the latter by the rotation of the former.

3. In a device of the character described, a knob, a screw-threaded hub at the inner end thereof, a knob-shank arranged to screw onto said hub, a spindle arranged to enter said knob and held against rotation relatively thereto but not relatively to said knob-shank, an adjusting device mounted on said spindle and a screw-threaded connection between said adjusting device and said spindle, said device bearing against the inner end of said knob-hub, a non-rotatable washer interposed between said rotatable adjusting device and said rotatable knob-shank.

Signed at New Britain, Connecticut, this 12th day of July, 1904.

HENRY G. VOIGHT.

Witnesses:

M. S. WIARD,

F. E. SUNBURN.