

(No Model.)

F. A. WILMOT.
KNOB.

No. 482,954.

Patented Sept. 20, 1892.

Fig. 1

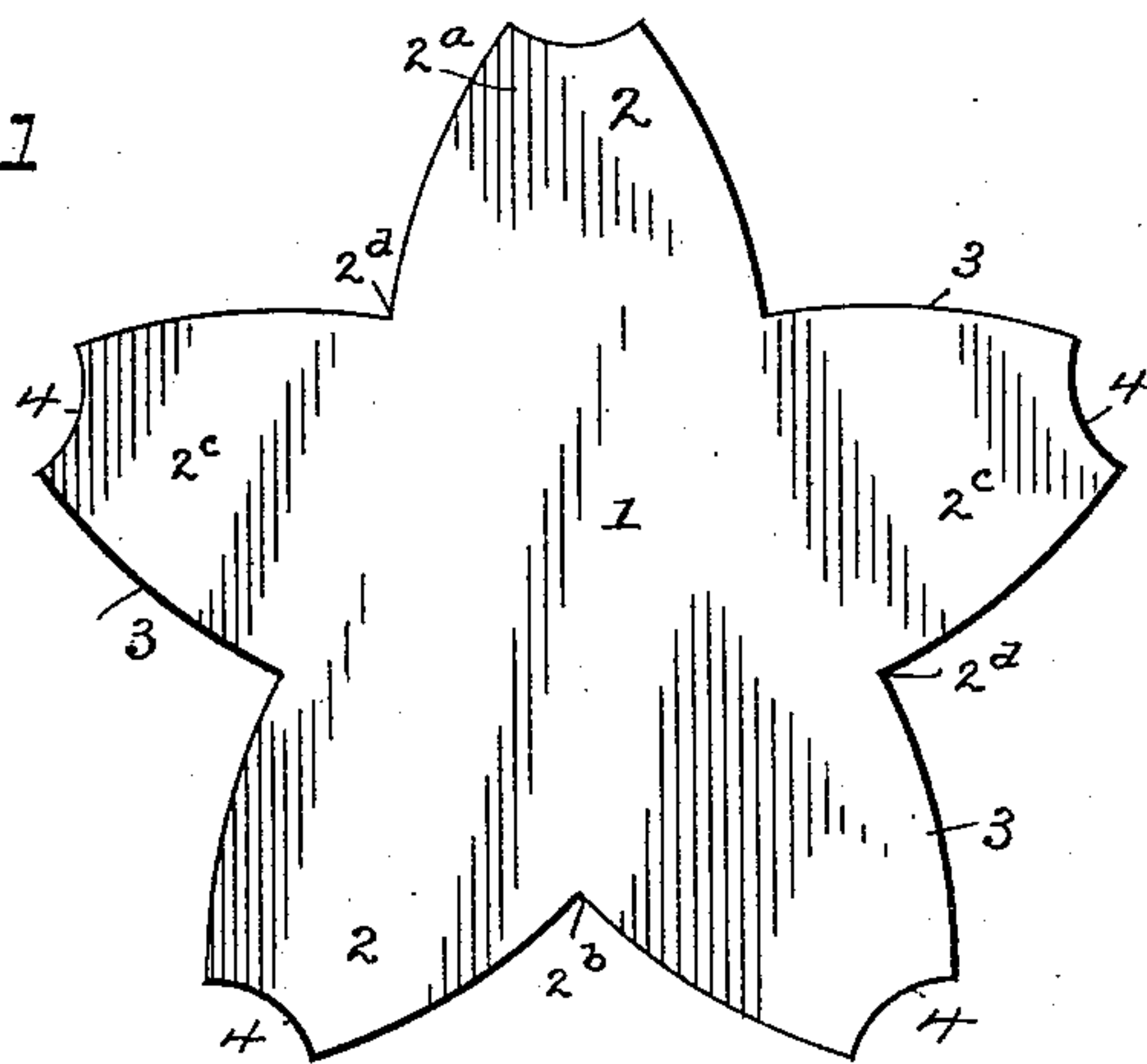


Fig. 2

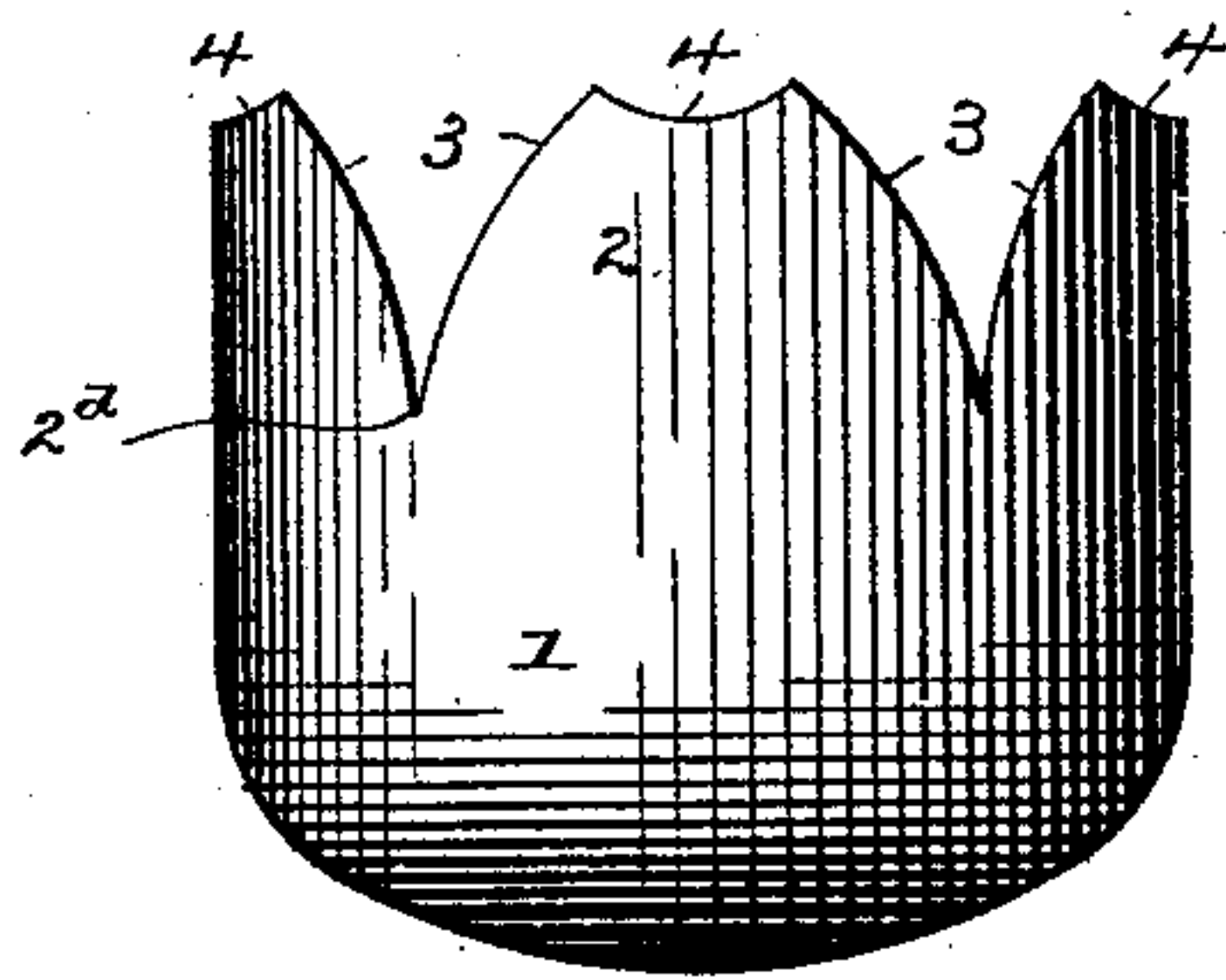


Fig. 4.

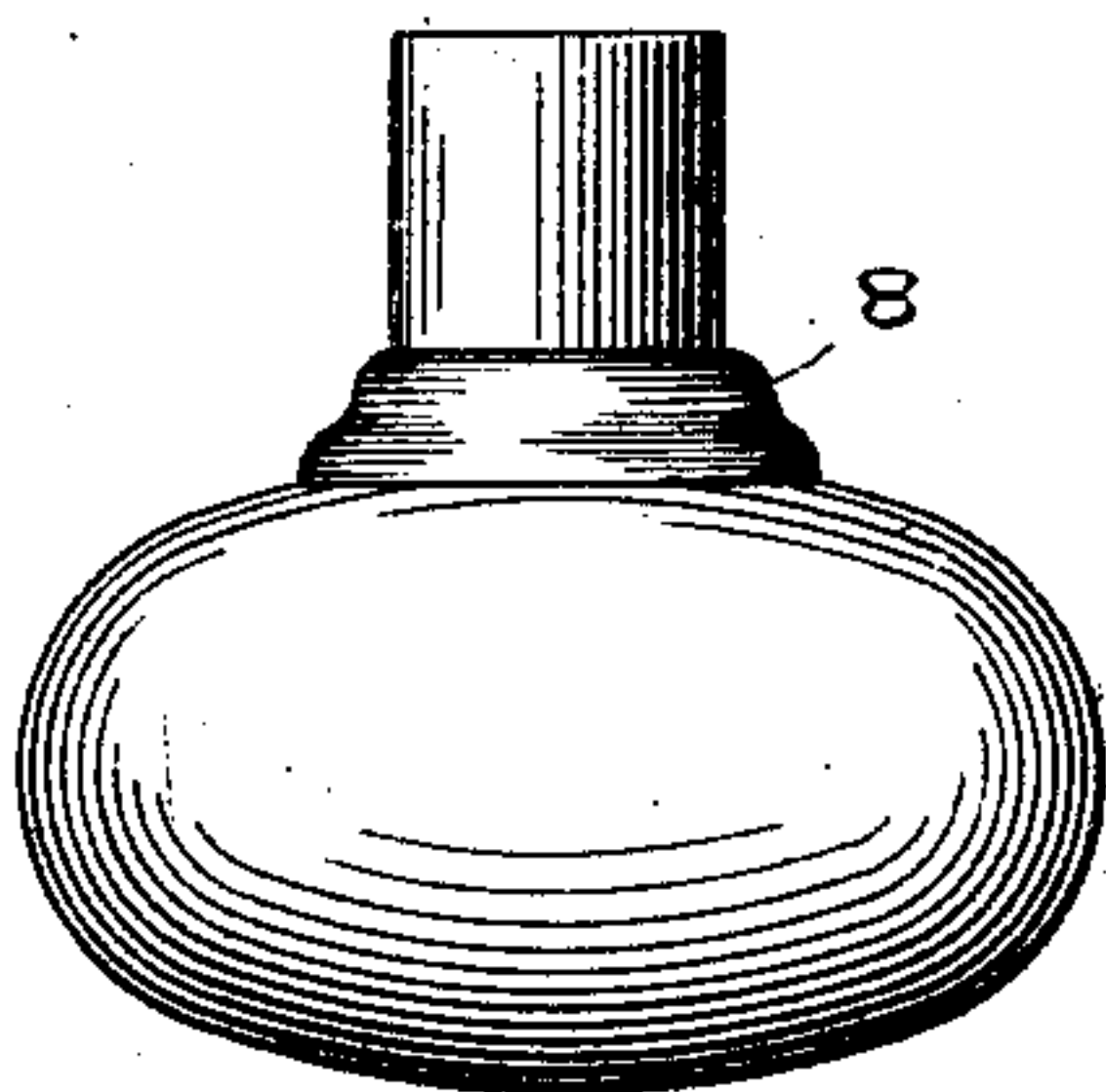


Fig. 5.

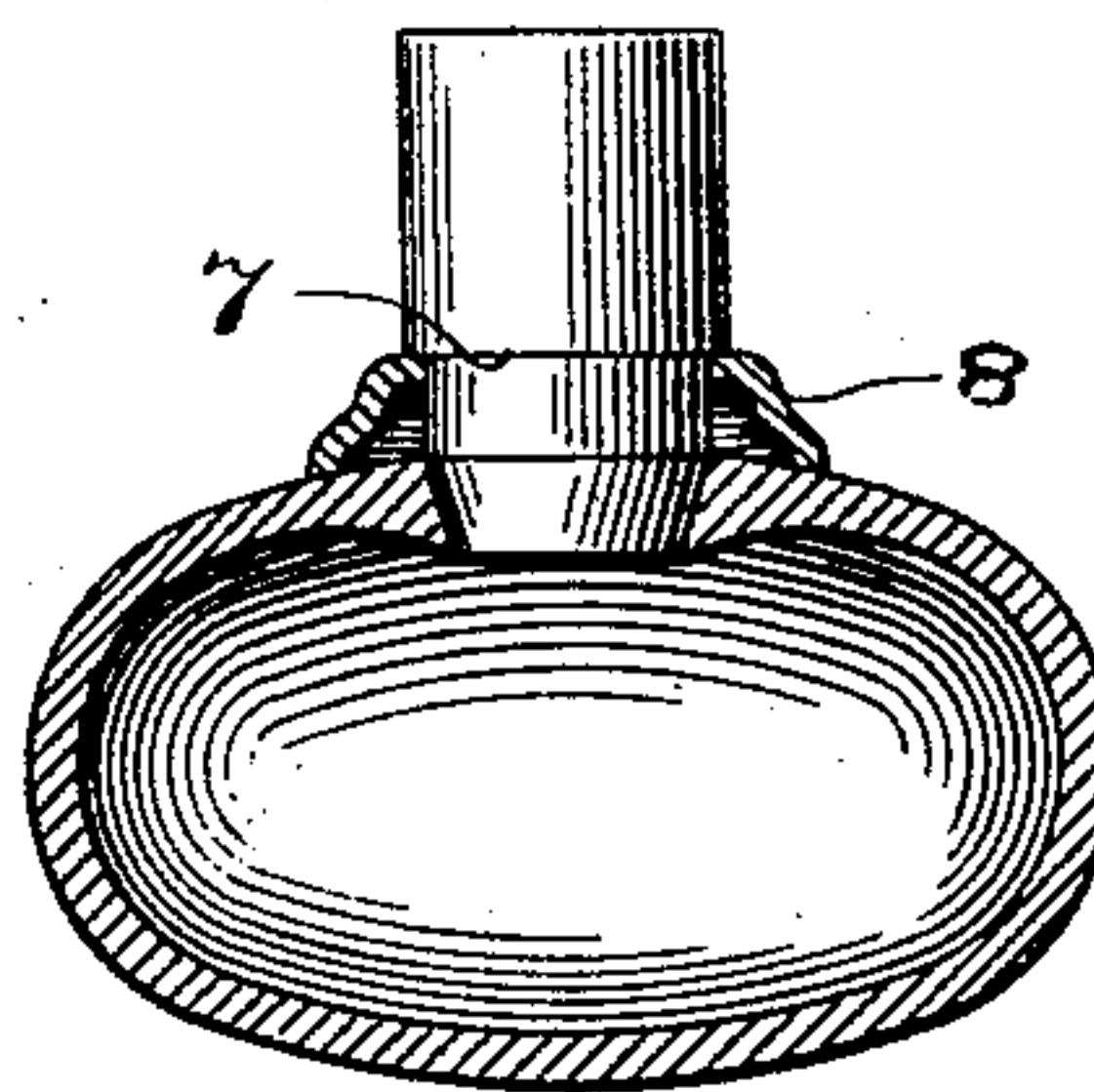
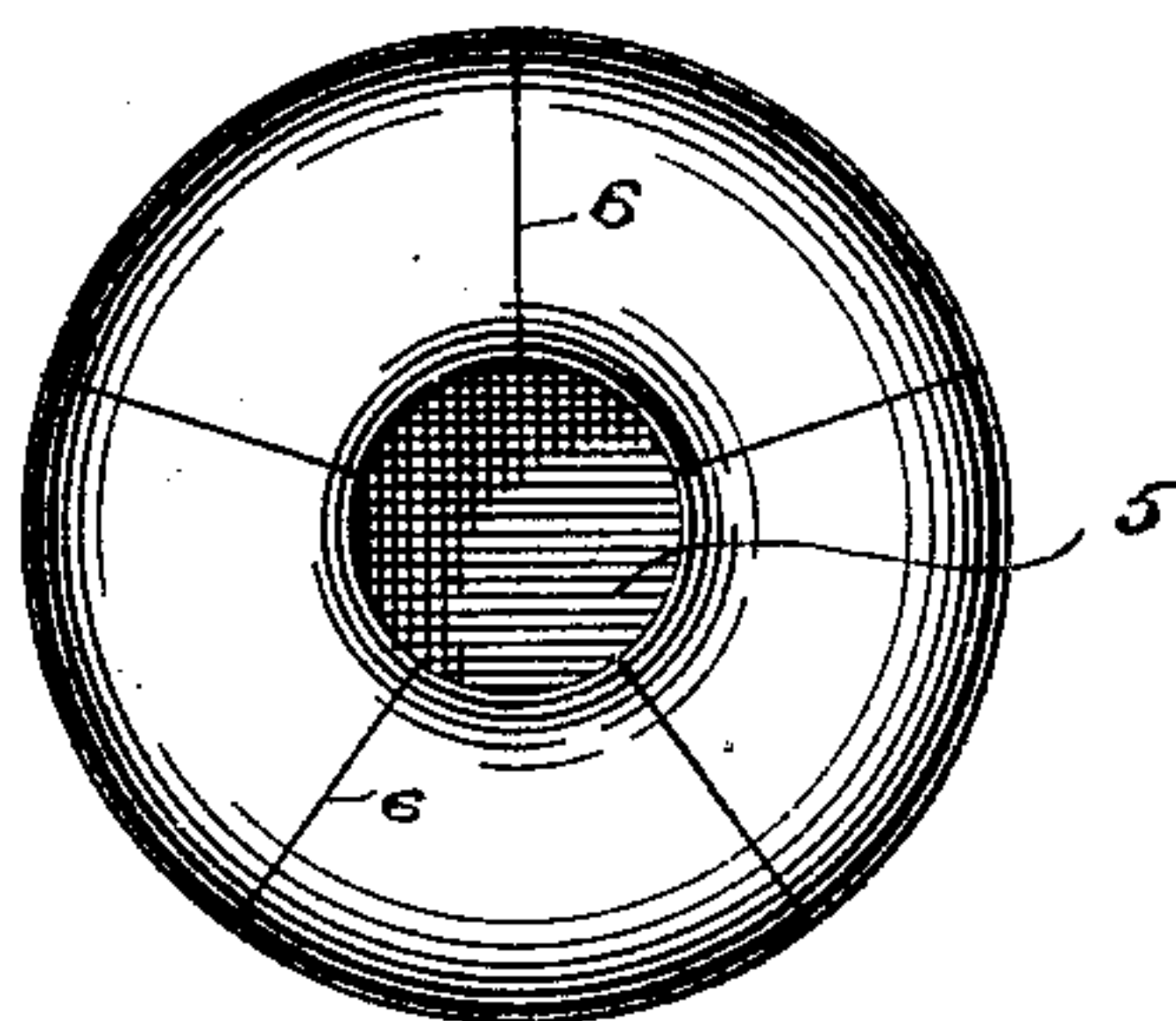


Fig. 3



Witnesses:

E. M. Gallahan
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Inventor:

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UNITED STATES PATENT OFFICE.

FRANK A. WILMOT, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE
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SPECIFICATION forming part of Letters Patent No. 482,954, dated September 20, 1892.

Application filed October 26, 1891. Serial No. 409,806. (No model.)

To all whom it may concern:

Be it known that I, FRANK A. WILMOT, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Knobs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to simplify and cheapen the construction of metallic knobs, said invention being especially adapted to the production of low-priced knobs, in which it is necessary for the purpose of competition in the market to make every possible saving in material, as well as to lessen in every way the time and the number of operations required to form the completed knob. With these ends in view I have devised the novel knob of which the following description, in connection with the accompanying drawings, is a specification, numbers being used to denote the several parts.

Figure 1 is a plan view of the blank from which my novel knob is formed; Fig. 2, an elevation of the partially-formed knob after the second or cupping operation has been performed; Fig. 3, a plan view of the completed knob—i. e., after the third or closing-in operation has been performed; Fig. 4, an elevation showing the completed knob attached to a shank; and Fig. 5 is a section of the completed knob, a collar being shown as interposed between the knob and shank.

Instead of drawing and forming my novel knobs from disks of sheet metal, as has heretofore been the custom, I use a blank consisting of a body 1, having arms 2 formed integral therewith and projecting radially therefrom. The sides of the radial arms are convex curves, as at 3, said curves intersecting at their inner ends, so that the arms resemble in shape the pieces of an orange-peel removed in quarters, the inner face of the completed knob being a convex curve. In practice, however, I preferably form the blanks with five arms instead of four, that being the form that blanks cut from strips or sheets of metal to the best advantage, there being but little scrap, as the tip of one blank, as at 2^a, extends up

into the notch in the next blank, which I have indicated by 2^b. In the blank shown and where made from sheets of metal the tips denoted by 2^c at the sides of the blank extend into the notches in the contiguous blanks, which are indicated by 2^a in the blank shown. The metal at the tips of the arms is removed, leaving concave curves, as at 4, said removal of metal being without additional expense in the formation of the blanks and the effect thereof being to leave the shank-opening already formed when the arms are closed inward to form the completed knob at the third operation. The shank-opening in the completed knob is clearly shown in Fig. 3, in which it will be seen that the entire inner face of the knob is formed from the metal of the arms. By making metallic knobs in this manner I greatly reduce the number of operations and wholly avoid the difficult drawing and closing-in operations, which are apt to produce crinkling of the metal, unless very carefully performed, when the knobs are formed from disks of metal. As already stated, my present invention is more especially applicable to the manufacture of the cheaper grades of knobs. In practice, however, very handsome and nicely-finished knobs can be formed in this manner. The seams 6 between the arms when closed to place (see Fig. 3) do not show upon the outer face of the knob at all and but slightly, if any, on the edge of the knob, said seams appearing only on the inner face. The seams are, in fact, so thoroughly closed when the arms are closed inward by the third operation that when the knobs are finished by japanning or any similar process the seams do not show at all. In practice I ordinarily form a shoulder 7 on the shank and place a collar 8 between said shoulder and the knob. The knob is welded to the end of the shank and the collar is welded both to the shoulder and to the knob.

Having thus described my invention, I claim—

1. A knob formed from a blank having radial arms the sides of which are convex curves intersecting at their inner ends, the metal at the tips being removed, leaving concave curves, so that when said arms are closed together the metal thereof will just form the

inner face of the knob and will leave the shank-opening already formed, substantially as described.

2. The combination, with the shank and the
5 collar, of a knob formed from a blank having radial arms the sides of which are convex curves intersecting at their inner ends, the outer ends of said arms being curved inwardly against the shank and rigidly secured there-
10 to, substantially as described.

3. The combination, with a shank having a shoulder 7 and a collar 8, resting against said

shoulder, of a knob formed from a blank having radial arms the sides of which are convex curves intersecting at their inner ends, 15 the outer ends of said arms being curved inward against the shank and attached thereto, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK A. WILMOT.

Witnesses:

A. M. WOOSTER,
EDITH G. ELY.