

No. 888,056.

PATENTED MAY 19, 1908.

F. P. BARNEY.  
JEWELRY.

APPLICATION FILED JULY 13, 1907.

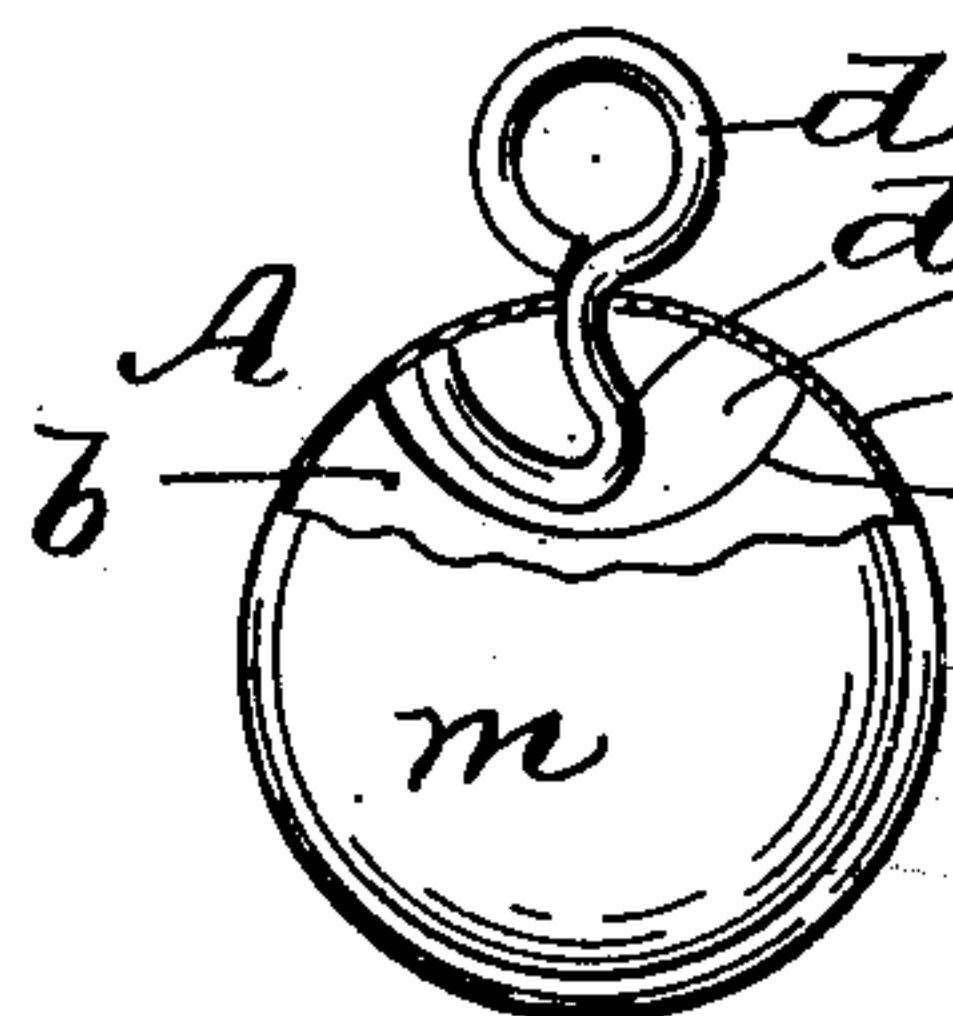


FIG. 1.

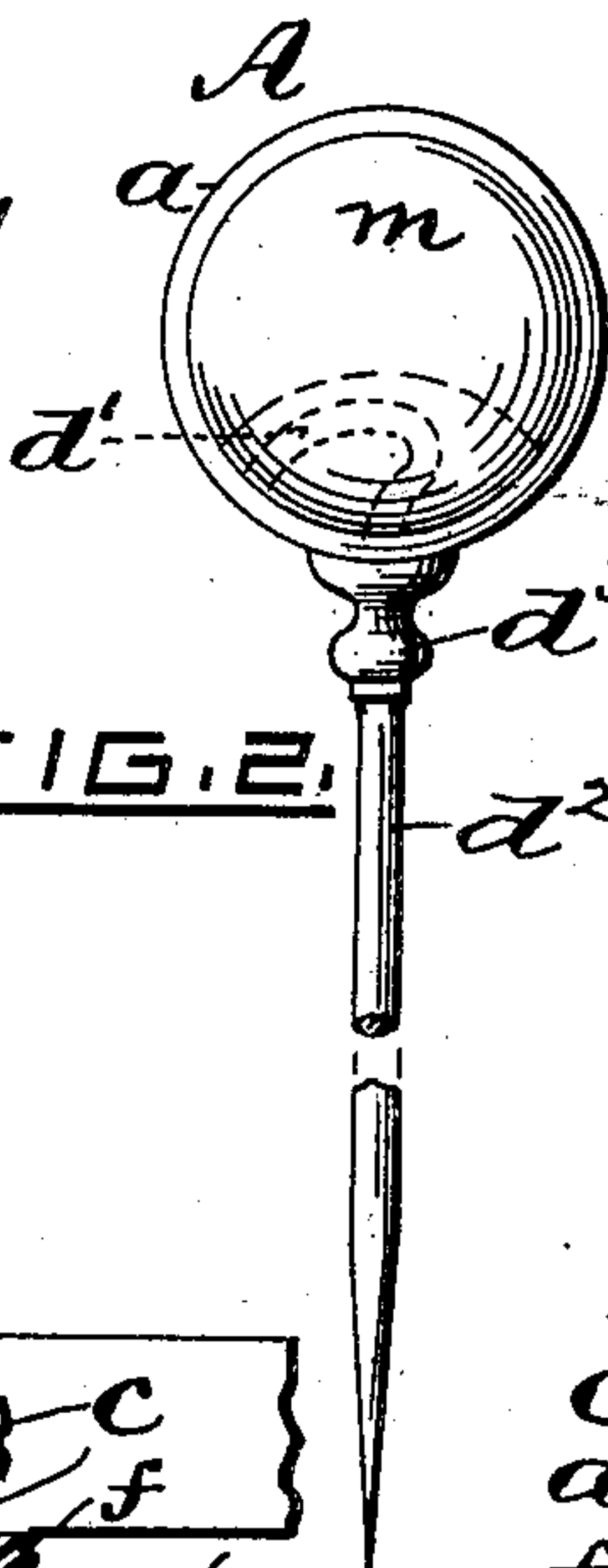


FIG. 2.

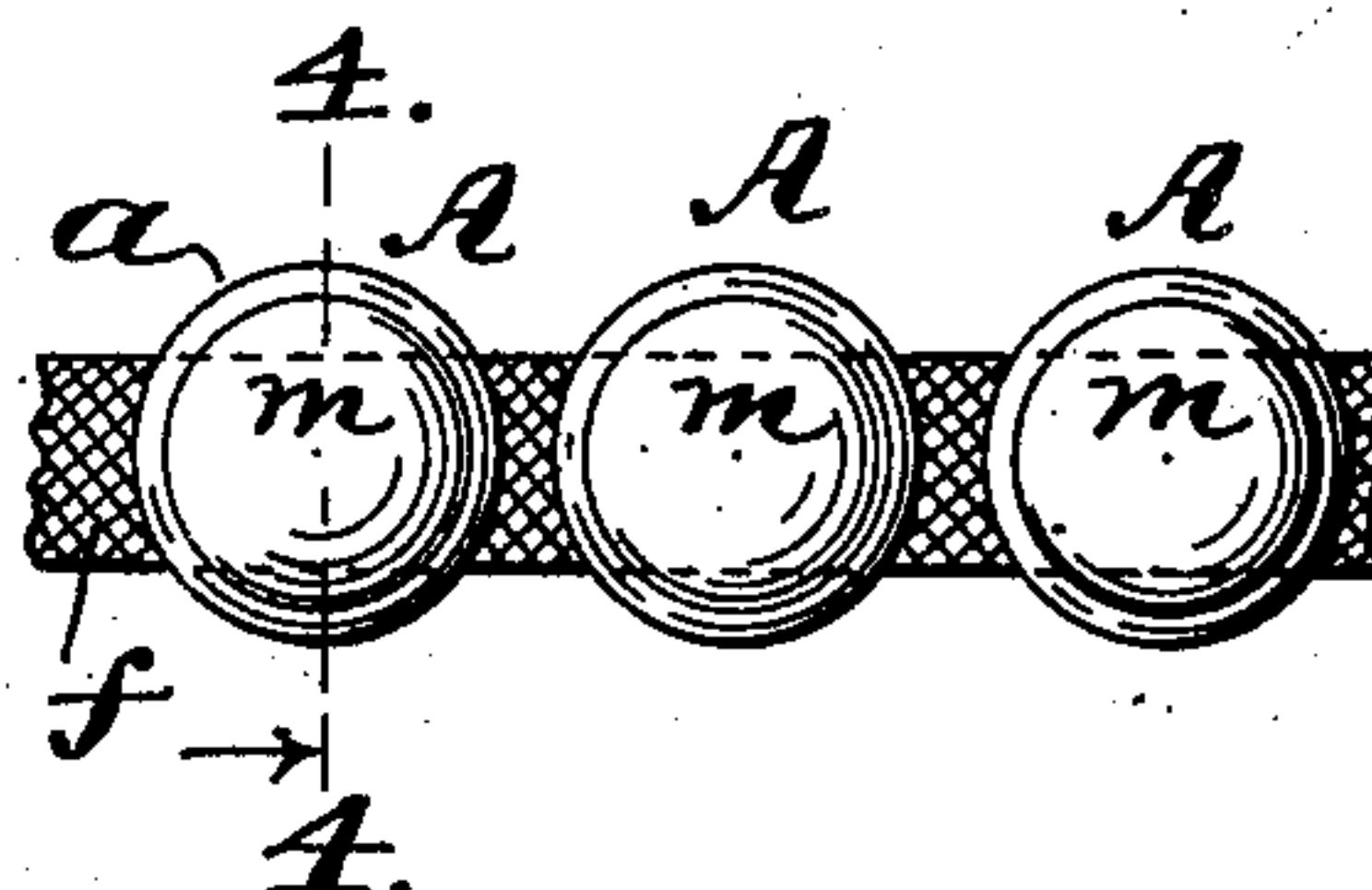


FIG. 3.

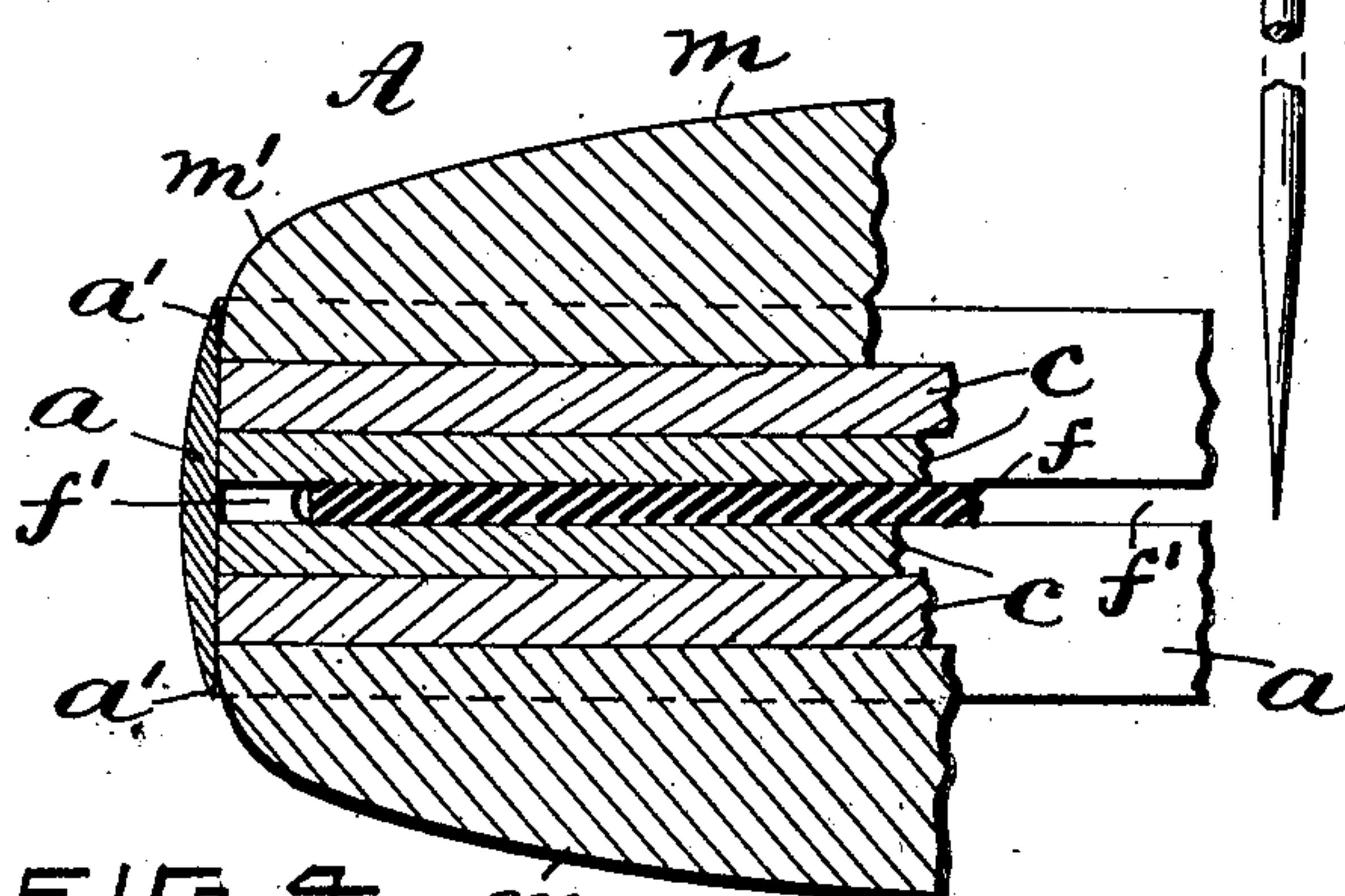


FIG. 4.

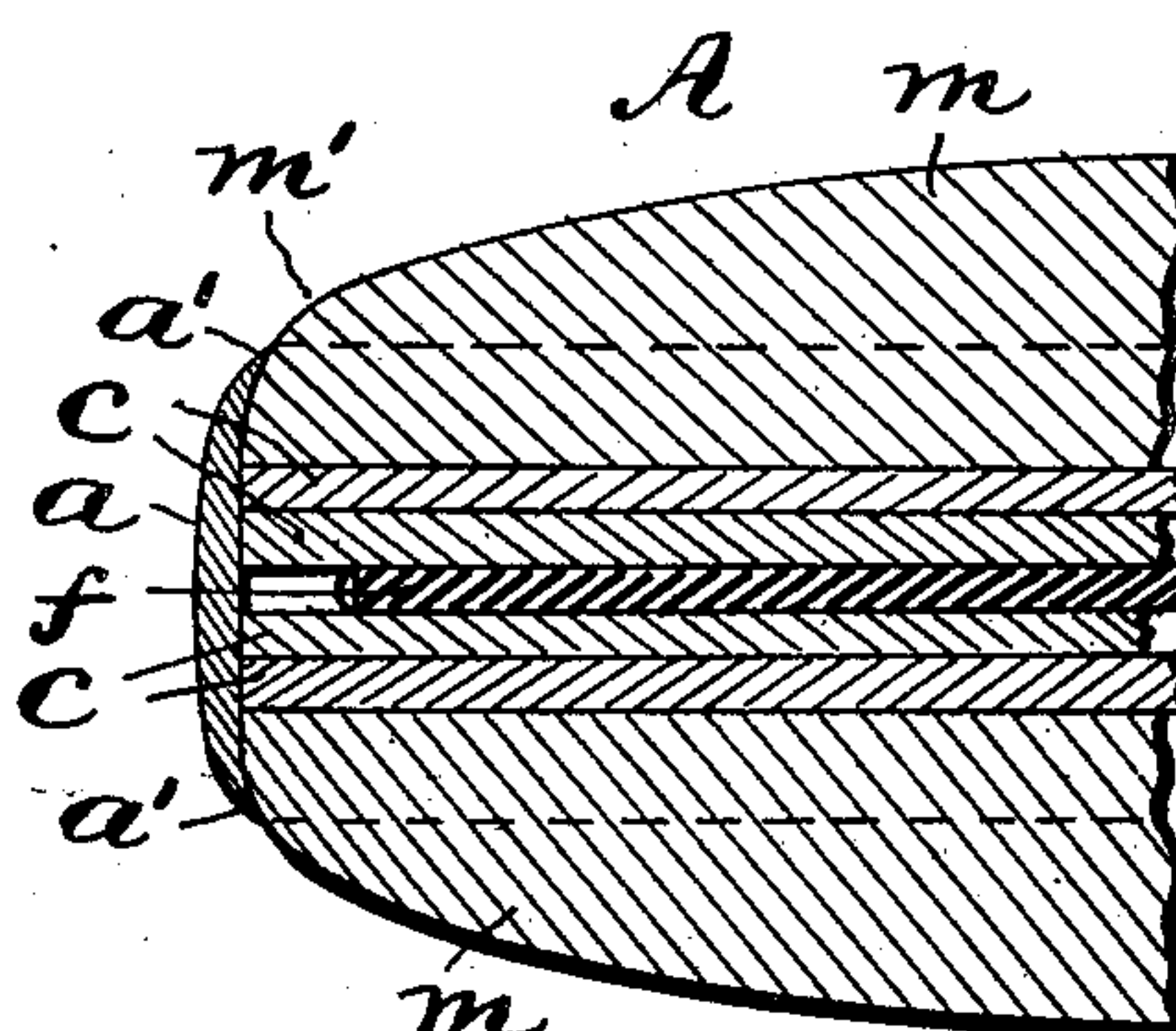


FIG. 5.

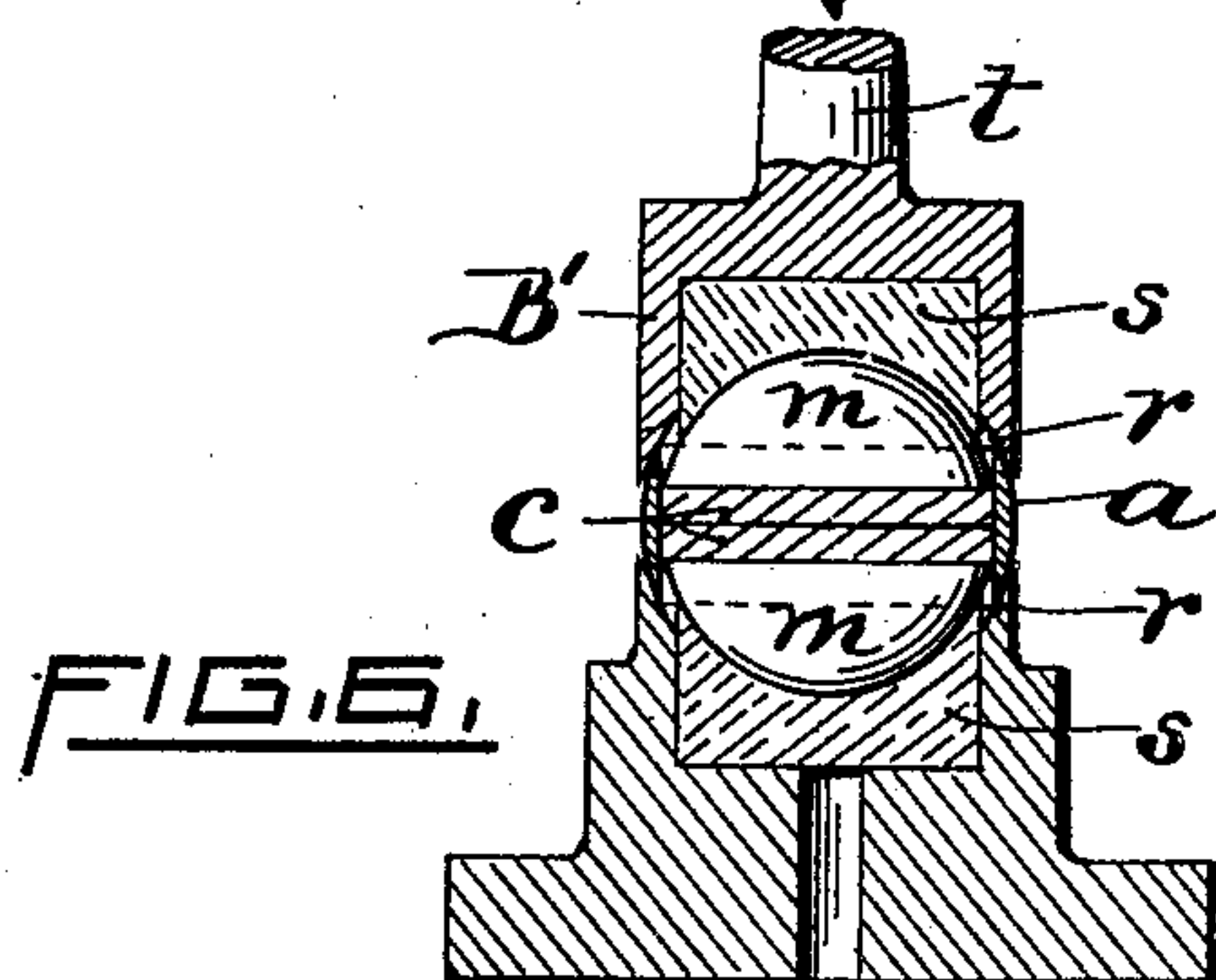


FIG. 6.

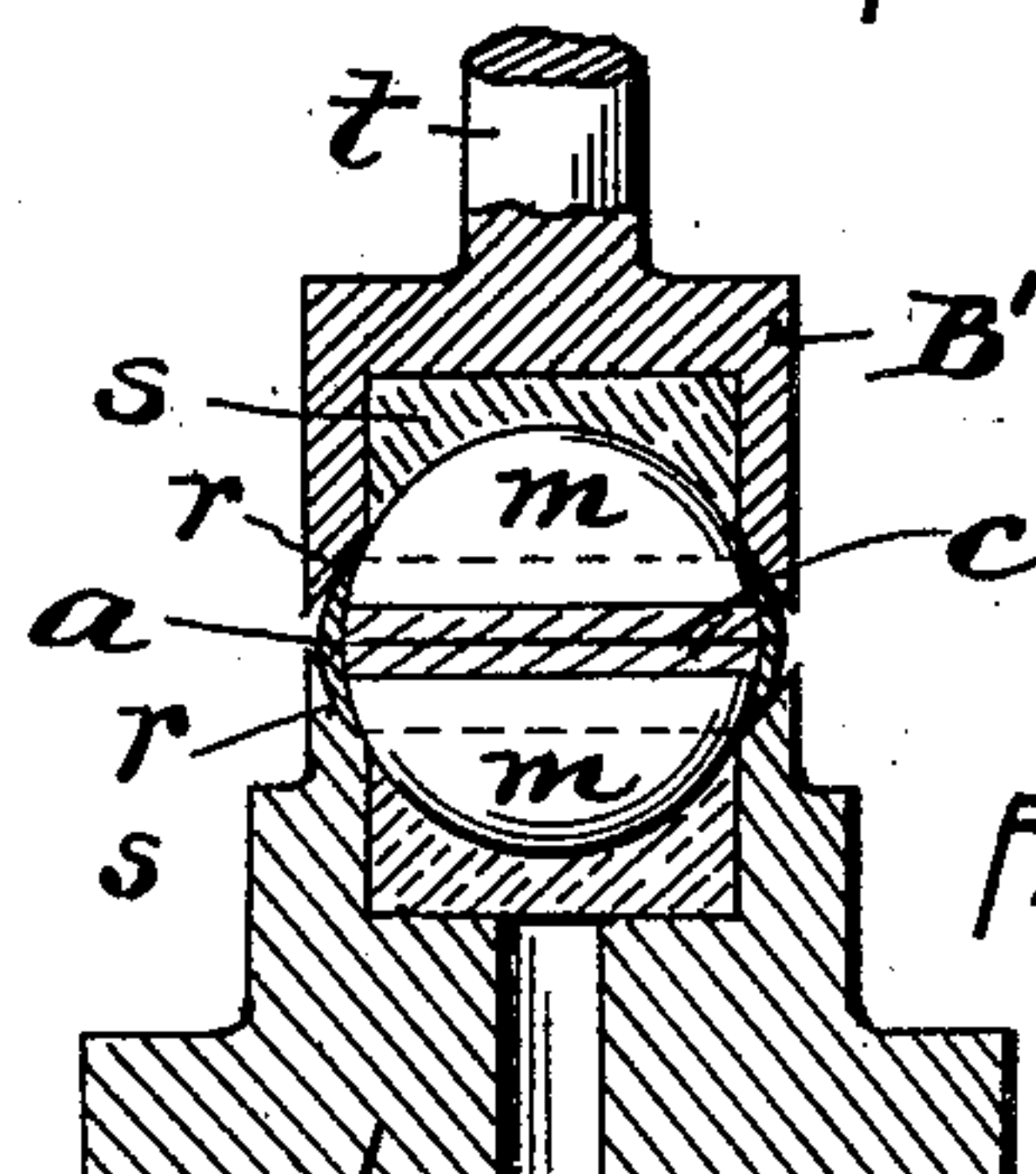


FIG. 7.

WITNESSES.

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# UNITED STATES PATENT OFFICE.

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## JEWELRY.

No. 888,056.

Specification of Letters Patent.

Patented May 19, 1908.

Application filed July 13, 1907. Serial No. 383,547.

*To all whom it may concern:*

Be it known that I, FRANK P. BARNEY, a citizen of the United States of America, and a resident of Chartley, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Jewelry, of which the following is a specification.

My present invention relates to an article of jewelry having a more or less spheroidal form, as for example, a charm, head of a hat-pin, etc.

The invention consists of the novel construction and arrangement of parts herein-after described and set forth in the claims.

The object sought to be attained by the present improvement is the production more especially of spherical-shaped articles of jewelry having a comparatively narrow central band of metal constituting the setting for the stones, gems, &c., forming the obverse sides of the articles; the latter being devoid of the objections or disadvantages usually present in articles of such class.

In my improvement no solder is or need be used; the band itself is seamless, and having its normal inner face perpendicular or transversely of the normal horizontal plane. The outer peripheral surface is convex shape, that is to say it is comparatively thick at the center or midway of the band's width and gradually diminishing in thickness therefrom in either direction and terminates in comparatively thin and sharp edges, which later are adapted to be readily bent inwardly upon the stone or ornamental members by suitable tools or dies, thereby insuring when thus bent a stronger and more perfect joint or connection, the band itself at the same time remaining true and symmetrical and being in no wise distorted or changed from its normal structure, except as stated.

In the accompanying sheet of drawings, Figures 1, 2 and 3 represent front views of the device embodying my improvement, and showing different applications or modifications of the same. Fig. 4 is a partial transverse sectional view, greatly enlarged, corresponding substantially with a section taken on line 4 4 of Fig. 3, showing the normal relative position of the front members, band ring, &c., before they are firmly secured together. Fig. 5 is a similar view showing the several parts after they are secured in place.

Fig. 6 represents in longitudinal central section and in reduced scale a tool or pair of ring-bending or swaging dies, the latter being indicated in the initial movement, and Fig. 7 is a corresponding view showing the relation of the dies, &c., at the completion of the setting or bending operation.

In the drawings A designates articles of jewelry embodying my improvement. That is to say, a charm or pendant in Fig. 1; the head of a hat-pin in Fig. 2, and a portion of a watch-fob or bracelet in Fig. 3. Each head or unit A consists essentially of the seamless annular ring or band *a* of metal having a substantially concavo-convex form cross-sectionally, the oppositely disposed ornamental outer members, *m m*, constituting the obverse and reverse sides of the head, and the members interposed between the adjacent backs of the parts *m*. The band *a* is made considerably thicker at the center or midway of its width than at the edges. In fact the stock gradually tapers each way from the center toward the edges, the latter being quite thin or wedge-shaped, as indicated at *a*<sup>1</sup>, Fig. 4.

The members *m* may be disk-shaped and made of colored glass, stone, &c., as desired. I prefer to make the bottom or back of each member flat, and having the upper or outer surface convex shaped and being well rounded at its perimeter, as shown at *m*<sup>1</sup>. The outer diameter of the parts *m* is equal to or slightly less than the inner diameter of the ring.

In case the units A are to be employed in a flexible bracelet or watch-fob the connecting medium *f* may be made of textile material, fine interlocking chain-links, &c., in a well-known manner. In such case the band *a* is provided with two central alining slotted openings *f*<sup>1</sup> cut transversely therethrough; the size of the openings obviously being such as to freely receive the connection *f* therein. I prefer to interpose backing or packing disks *c* of somewhat compressible material, as soft cardboard, between the said parts *m* and *f*. See Fig. 4.

In the case say of a charm A, indicated in Fig. 1, a suitable wire *d* is first passed through a hole formed in the band *a* and then bent to form a shank *d*<sup>1</sup>, its free end bearing against the inner face of the band. A central packing disk *b* having a thickness equal to that of the wire may be used, the part contiguous to



said shank being cut away, as indicated at  $b^1$ . If desired a disk  $c$  may be placed between each of the members  $m$  and  $b$ . A similar construction is represented in Fig. 2, wherein the stem  $d^2$  of the hat-pin passes through the band  $a$  and is bent to form a shank  $d^1$ . A suitable sleeve or "trimming" member  $d^3$  is secured to the stem by "pinching".

The means for bending or inwardly deflecting the thin edges  $a^1$  of the ring  $a$  may be effected by suitably mounted fixed and movable reversely arranged registering lower and upper circular swaging dies  $B, B^1$ , represented in Fig. 6. The inner end or working face of each die is as drawn counterbored to receive therein a block of comparatively stiff rubber  $s$  or other suitable spring. The inner side of the annular circumscribing rim or working part of each die is beveled at  $r$  at a suitable angle so that when it forcibly contacts with the outer surface of the edge portion  $a^1$  the latter will thereby be bent inwardly upon the adjacent surface of the member  $m$ .

Fig. 6 shows the two dies in position, the springs  $s$  bearing snugly against the respective members  $m$ . Now, assuming the dies to be mounted in a suitable press and the shank  $t$  of the upper or movable die  $B^1$  to be secured to the usual plunger, the continued downward movement of said die in coöperation with the stationary bottom die  $B$  forcibly presses the members  $m$  somewhat closer together, thereby compressing the springs and to some extent compressing the several packing members  $c$  against the confined parts,  $d^1$  or  $f$ , as the case may be, and also at the same time by means of the beveled portion  $r$  of the dies simultaneously bending or deflecting both edges of the ring  $a$  snugly against the curved or beveled rims  $m^1$  of the respective members. It may be added that in the thus completed unit, represented in Fig. 7, neither the wire nor the connecting medium  $f$  is shown, the packing-disks  $c$  being in section.

I claim as my improvement and desire to secure by United States Letters Patent,—

1. As an improved article of manufacture a charm or other kindred article of jewelry, the same consisting of a pair of oppositely disposed ornamental members constituting the obverse and reverse sides of the article, each having a substantially plano-convex form cross-sectionally, suitable packing material interposed between the adjacent plane or back faces of the members, and a seamless annular metal ring or band snugly encircling said members, the two edge portions of the band being materially thinner transversely than the center part and bent over onto the convex surfaces of the respective members, substantially as described.

2. An article of jewelry substantially as hereinbefore described, the same comprising a seamless metal annular band or ring having a substantially plano-convex form cross-sectionally terminating in thin bendable edges, one or more perforations extending transversely through the ring, a pin or connecting member passing through said perforation, oppositely disposed outer ornamental members located in said band and constituting the obverse and reverse sides of the device, compressible packing material interposed between the backs of said outer members and the adjacent faces of said connecting member, and having the edge portions of the band bent so as to impinge upon the adjacent exterior surfaces of the outer members, thereby at the same time forcing the latter toward each other and pressing the packing material into snug frictional contact with the said pin or connecting member.

Signed at Providence, R. I., this 12th day of July, 1907.

FRANK P. BARNEY.

Witnesses:

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