

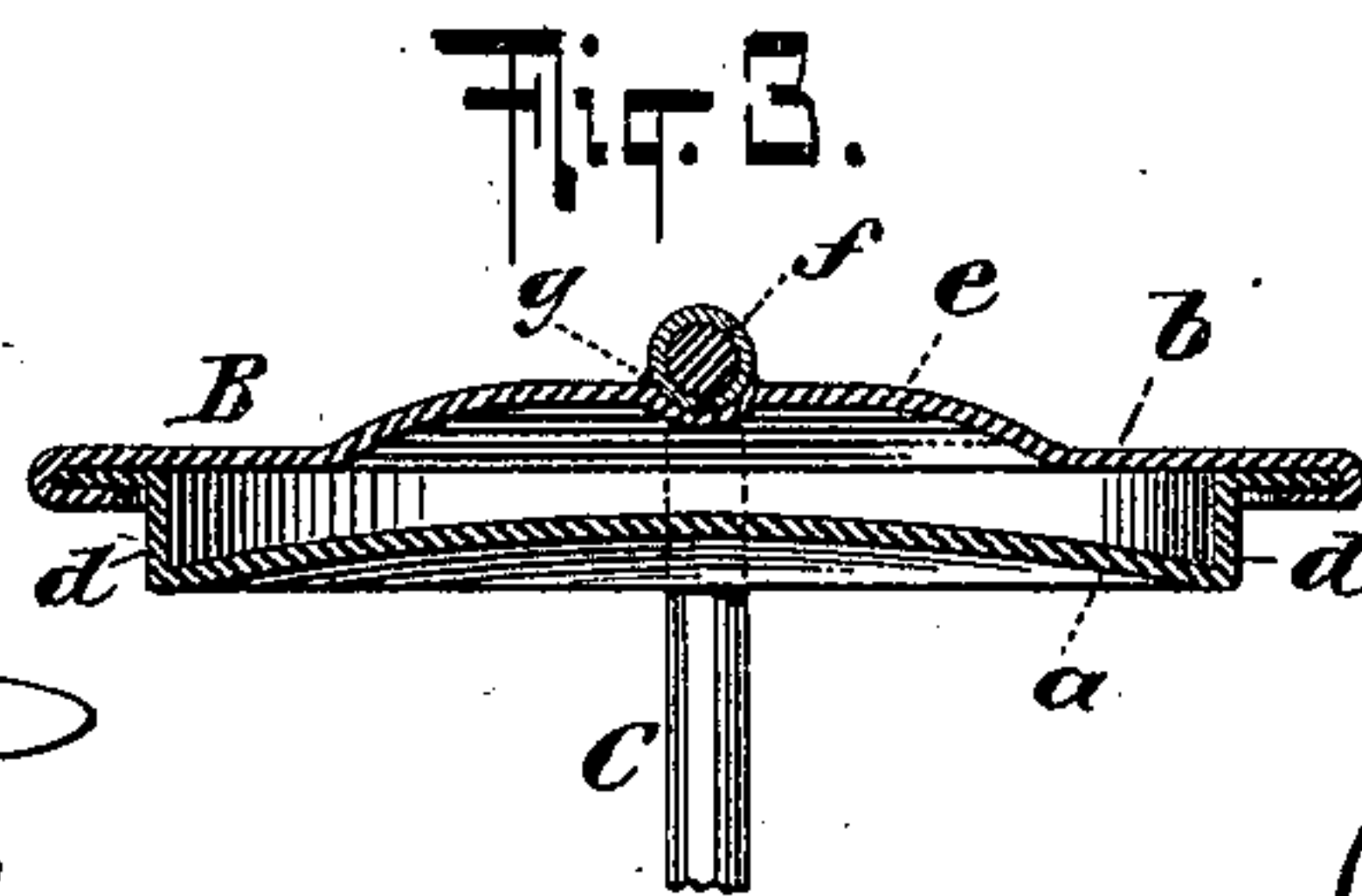
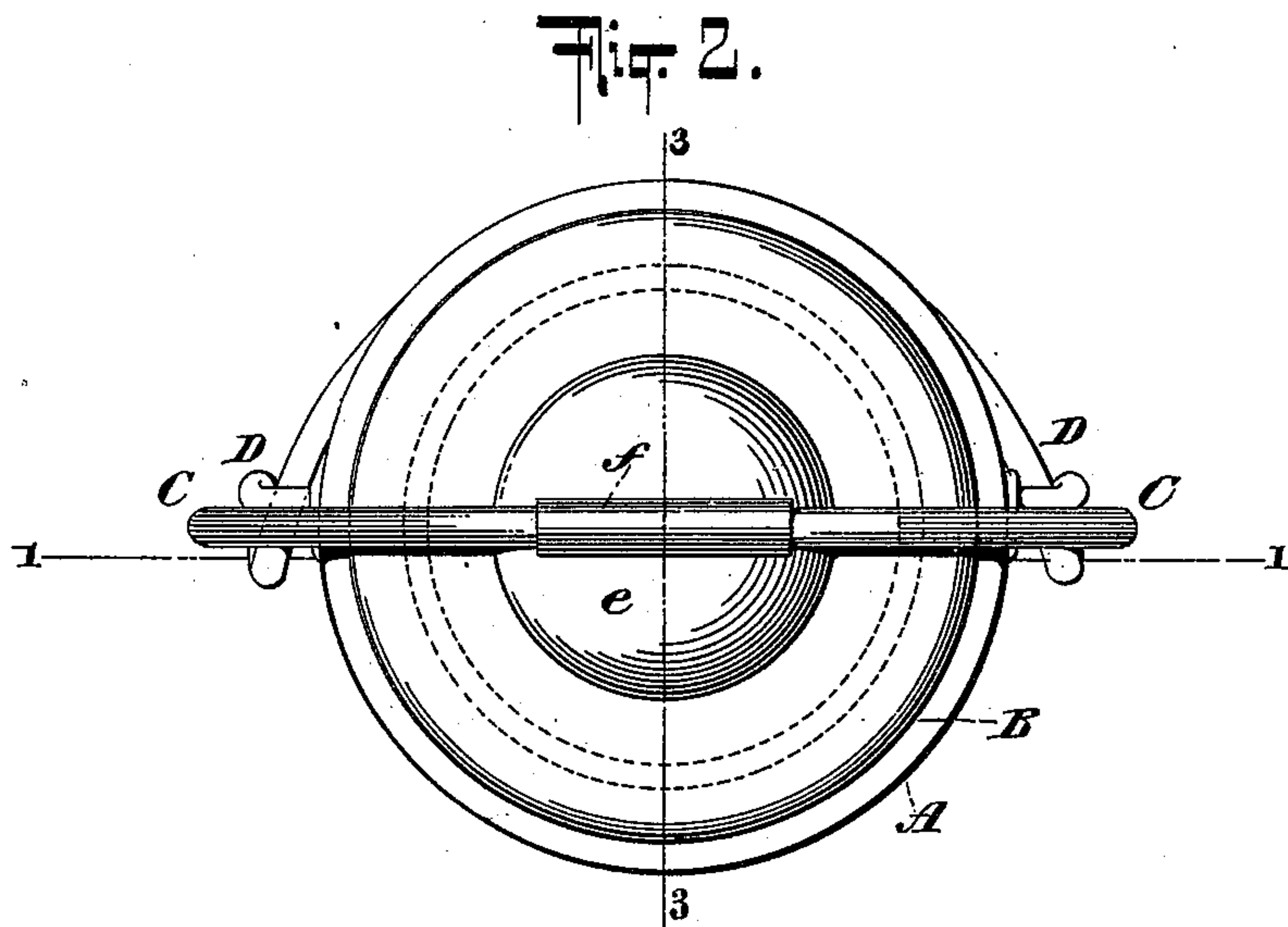
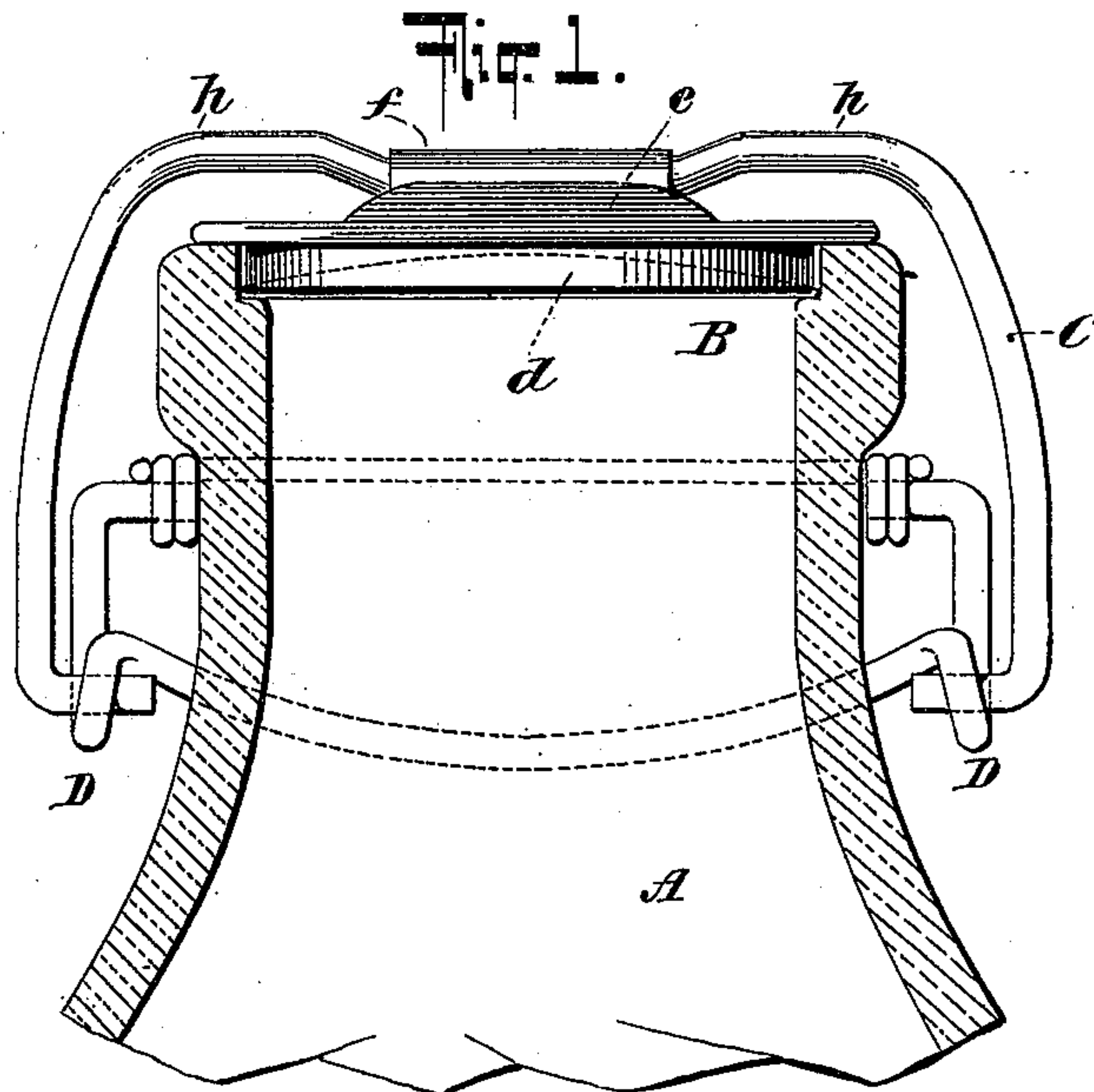
No. 663,988.

Patented Dec. 18, 1900.

A. V. WHITEMAN.
BOTTLE CAP.

(Application filed June 6, 1899.)

(No Model.)



WITNESSES:
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ABRAM V. WHITEMAN, OF PORT CHESTER, NEW YORK.

BOTTLE-CAP.

SPECIFICATION forming part of Letters Patent No. 663,988, dated December 18, 1900.

Application filed June 6, 1899. Serial No. 719,524. (No model.)

To all whom it may concern:

Be it known that I, ABRAM V. WHITEMAN, a citizen of the United States, and a resident of Port Chester, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Bottle-Caps, of which the following is a specification.

The invention relates to improvements in caps for milk-bottles and the like; and its object is to produce a cap of increased longevity, efficiency, and cleanliness.

In carrying my invention into effect I provide a cap whose upper central portion is convexed and capable of having a downwardly-yielding or spring-like action under pressure, and upon this convexed or raised central portion of the cap is retained the transverse bar of the swinging bail, whose opposite horizontal portions exterior to the retaining-sleeve are slightly raised, so that the bail may also yield or have a spring-like action under pressure. Thus the cap itself is so constructed that it, apart from the bail, affords a yielding or spring-like action in use and is preferably combined with a bail which also possesses provision for a spring-like action, whereby the cap as a completed article becomes of greatly-increased efficiency and longevity over all usual caps whose spring action is confined to the bail and directed solely in line therewith instead of being distributed uniformly to and along the entire rim of the cap, as is the case with my invention. The sleeve which retains the swinging bail is centered in a slight recess formed in the top of the dome or convex portion of the cap, and the cap is devoid of the customary annular groove or grooves found in the caps commonly used and which form convenient receptacles for dirt.

The nature and objects of the invention and satisfactory means for carrying the same into effect will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a central vertical section of a portion of a bottle equipped with a cap constructed in accordance with and embodying the invention. Fig. 2 is a top view of same and denotes by the dotted line 1 1 the section on which Fig. 1 is taken, and Fig. 3 is a

section of the cap on the dotted line 3 3 of Fig. 2.

In the drawings, A designates the upper portion of a bottle; B, the closing-cap therefor; C, the swinging bail, and D the customary bearings for said bail.

My invention is confined to the cap B and, as an additional part, to the combination of the novel cap B with the swinging bail C of the character shown.

The cap B in its preferred form comprises the lower and upper disks *a b*, the upper disk at its edges being seamed over upon the edges of the lower disk, and said lower disk having the downwardly-extending annular flange *d*, adapted to enter the mouth of the bottle, while the outer edges of said disk extend outward over the upper edges of said bottle. The upper disk *b*, except at its central portion, presents smooth upper surfaces, and at its central portion said disk is convex or dome-shaped, as at *e*. The dome *e* serves two purposes, one being to afford a spring action to the cap when under pressure and the other being to receive the transverse sleeve *f* for the swinging bail C. The thickness of the material in the upper disk *b* is purposely such that the dome *e* is rendered capable of yielding downwardly to a limited extent under pressure, and in this regard my cap differs from all other bottle-caps heretofore constructed and is a great advance over the same, since the yielding or spring dome *e* adds to the efficiency and longevity of the cap, improving its sealing qualities and imparting an amount of life or resiliency to the cap which will increase the period of its usefulness.

The dome *e* is slightly recessed, as at *g*, to receive the sleeve *f*, and the latter has its joint within said recess and is soldered in position, whereby no unnecessary spaces or crevices are left for the accumulation of dirt or to interfere with the proper and convenient cleansing of the cap.

The swinging bail C is of wire. Its central portion is held within the sleeve *f*, and exterior to the ends of said sleeve said bail is bent upward, as at *h h*, in order to render the bail capable of limited spring action under pressure. When the bail C of the character

shown is combined with the cap hereinbefore described, added spring efficiency is imparted to the article, and the latter is improved and rendered more durable and useful.

5 The cap presented herein has been produced with a view of increasing the efficiency and durability of the article and of providing such construction throughout as to decrease the tendency of dirt to gather thereon and
10 facilitate the cleansing of the same.

What I claim as my invention, and desire to secure by Letters Patent, is—

The bottle-cap comprising the upper and lower disks *b, a*, seamed together at their outer
15 edges, said disk *a* having the annular flange

d adapted to pass within the bottle-neck, and said disk *b* having the yielding or spring dome *e* surrounded by the plain flat surfaces which extend entirely to the outer edge of the cap and are free of the disk *a* except from the 20 said flange *d* outward, combined with the swinging bail for said dome; substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 5th day of 25 June, A. D. 1899.

ABRAM V. WHITEMAN.

Witnesses:

CHAS. C. GILL,
E. JAS. BELKNAP.