

No. 784,513.

PATENTED MAR. 7, 1905.

A. BROCKELBANK.
CAP FASTENING FOR VESSELS.

APPLICATION FILED JUNE 15, 1904.

Fig. 1.

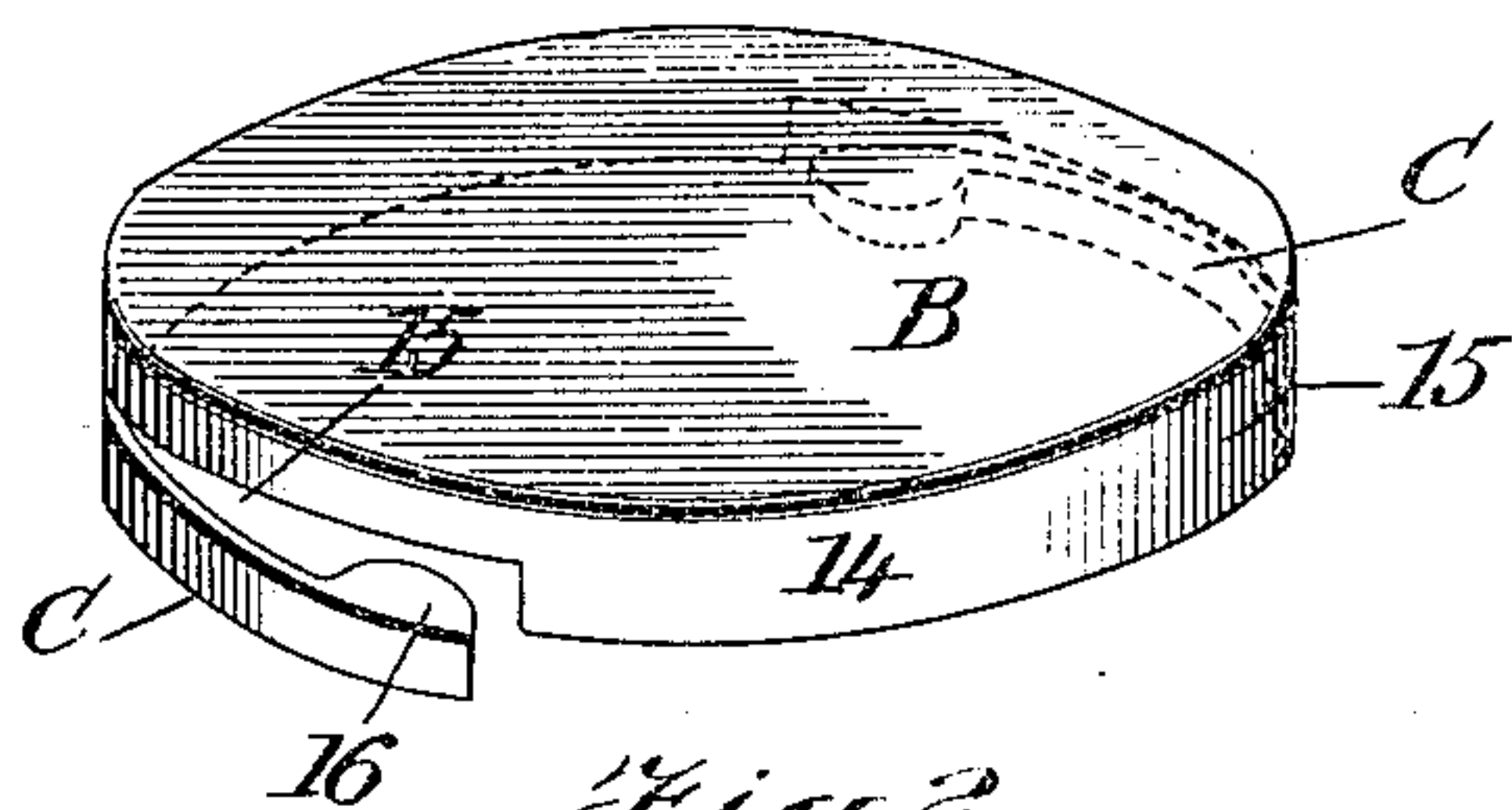


Fig. 2.

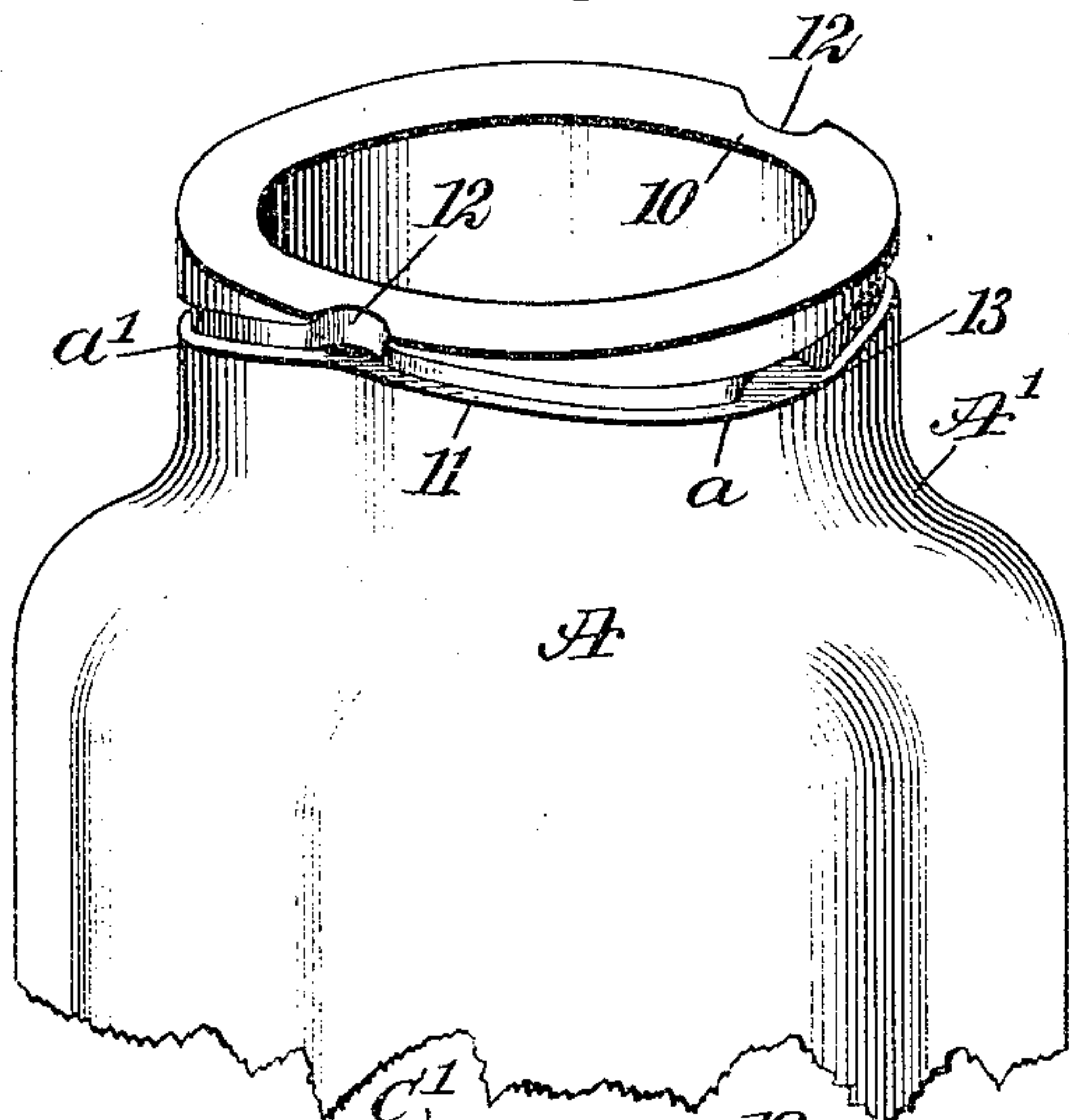


Fig. 3.

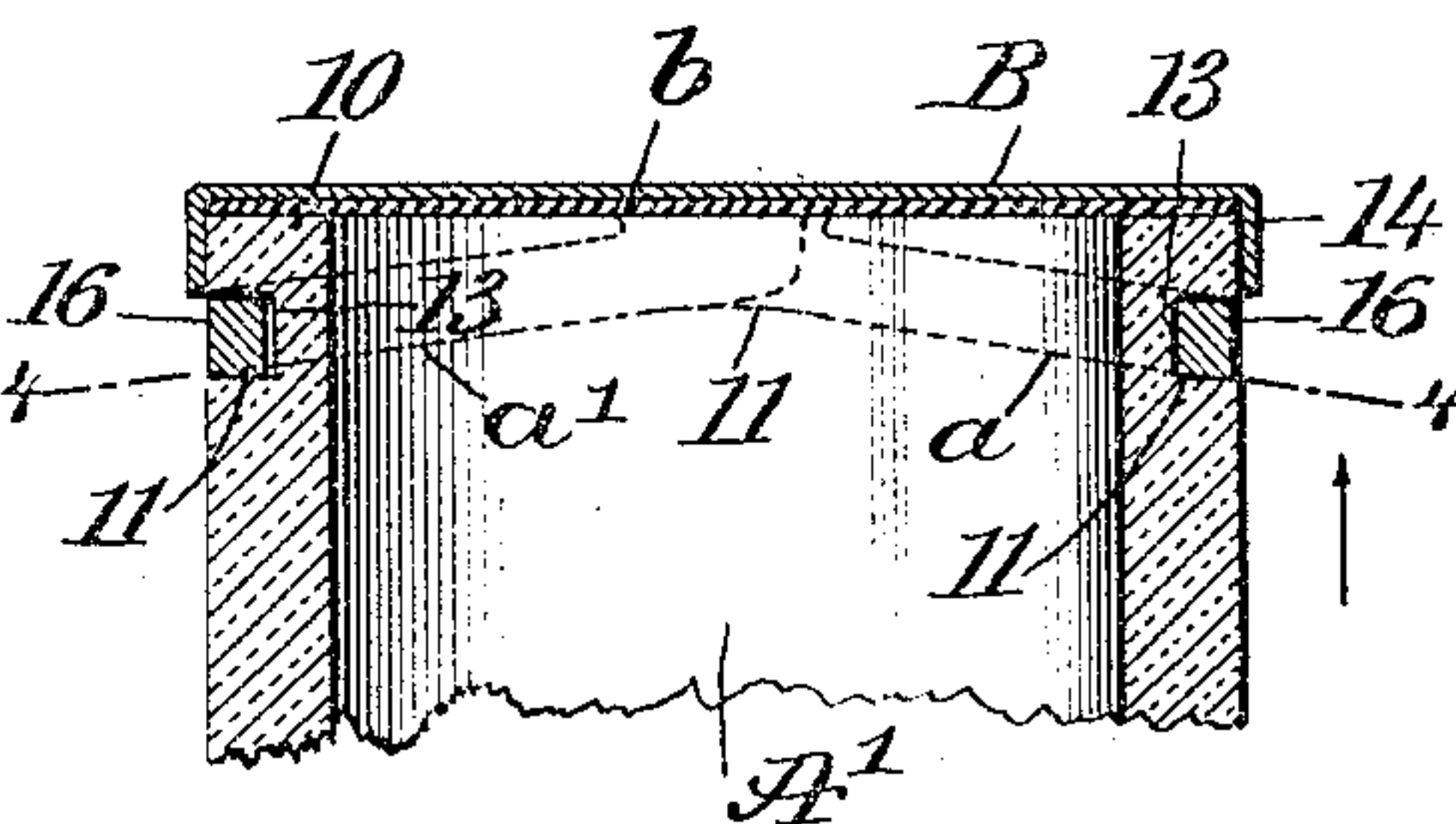


Fig. 4.

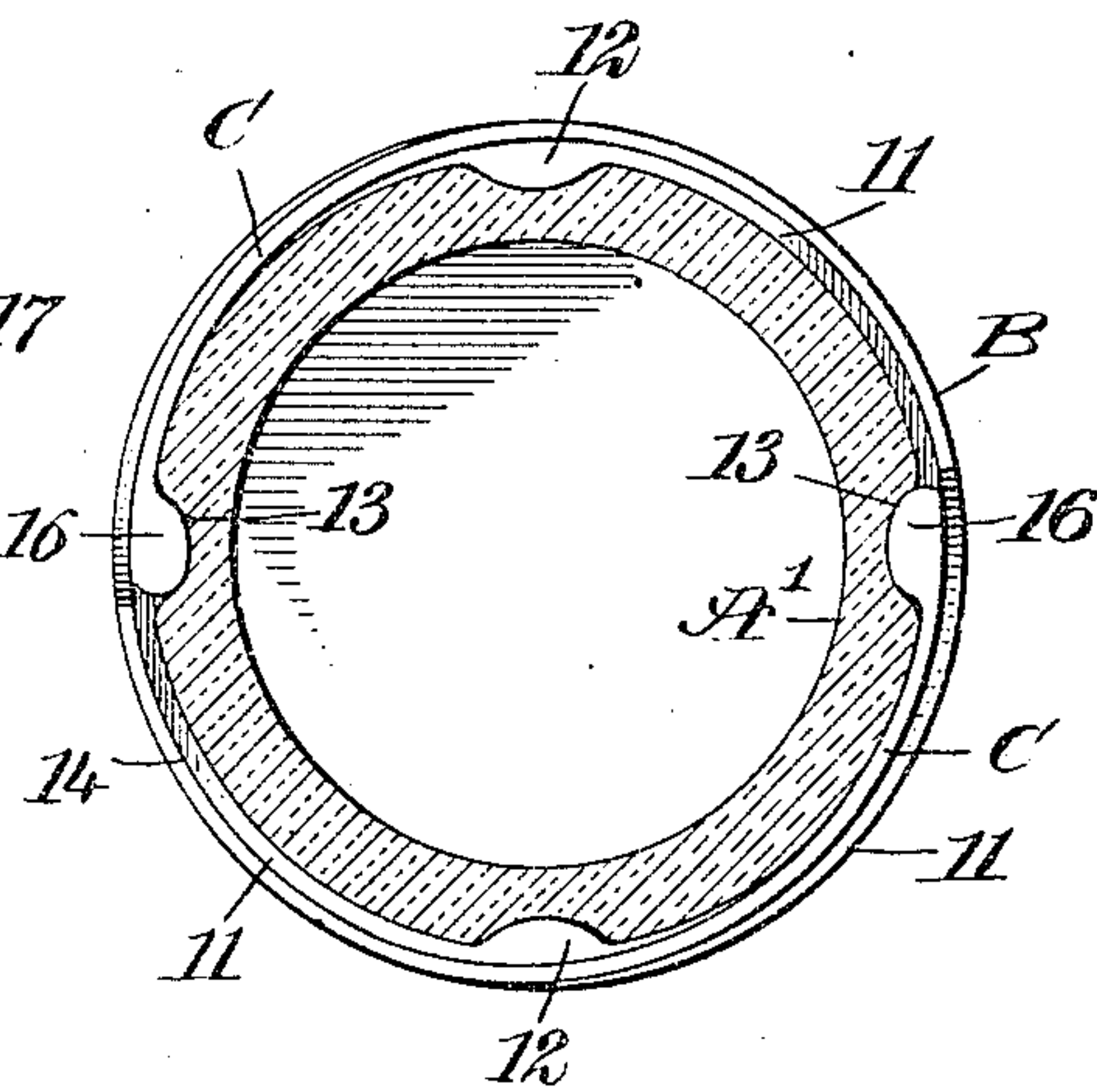


Fig. 5.

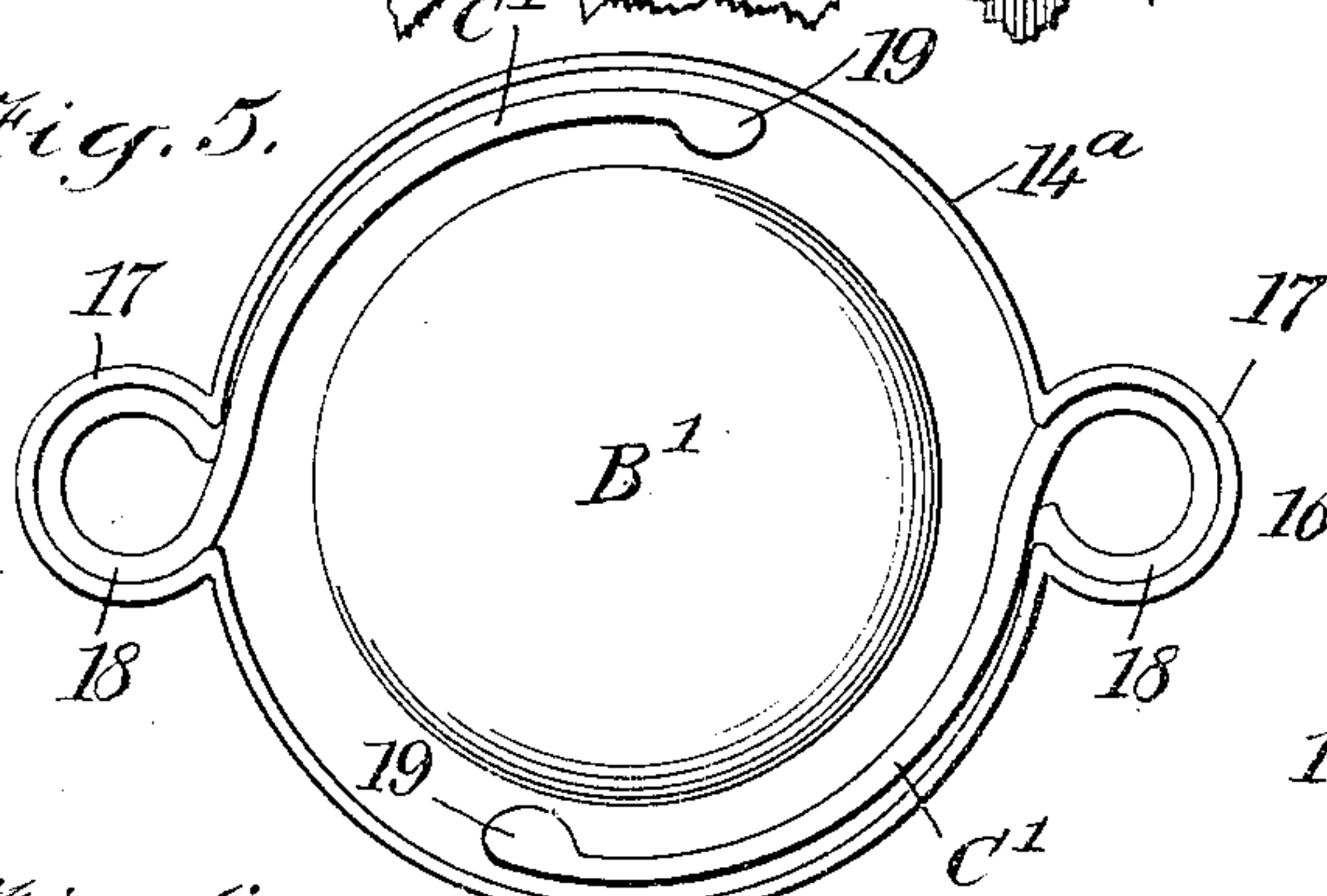
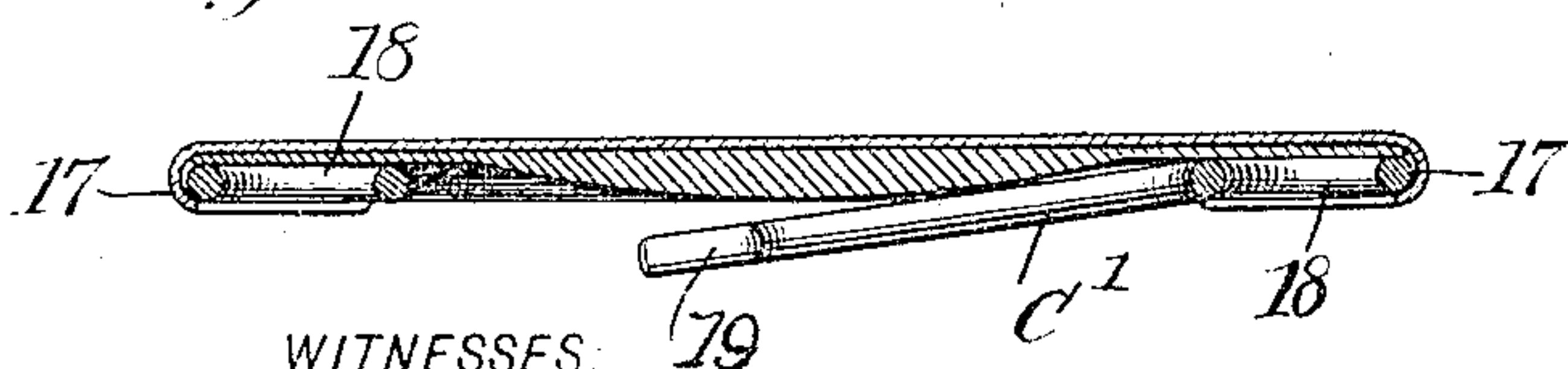


Fig. 6.



WITNESSES

Geo. H. May Jr.
Proctor

INVENTOR

Augustus Brockelbank

BY

Mumford
ATTORNEYS

UNITED STATES PATENT OFFICE.

AUGUSTUS BROCKELBANK, OF OSSINING, NEW YORK.

CAP-FASTENING FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 784,513, dated March 7, 1905.

Application filed June 15, 1904. Serial No. 212,663.

To all whom it may concern:

Be it known that I, AUGUSTUS BROCKELBANK, a subject of the King of Great Britain, and a resident of Ossining, in the county of Westchester and State of New York, have invented a new and Improved Cap-Fastening for Vessels, of which the following is a full, clear, and exact description.

The purpose of my invention is to provide a construction for the neck of a bottle or like receptacle and a construction of cap for the same which will enable the cap or cover to be quickly placed in closed position on the receptacle and turned to a locking engagement with the neck of said receptacle and further turned in the same direction to provide for a convenient removal of the cap or cover from the receptacle.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a simple form of cap or cover for the receptacle. Fig. 2 is a perspective view of the upper or neck portion of a receptacle to which the cap or cover is to be attached. Fig. 3 is a vertical section through the neck portion of the receptacle shown in Fig. 2 and likewise a vertical section through the cap or cover shown in Fig. 1, the latter being in locking position with the neck of the receptacle. Fig. 4 is a horizontal section taken practically on the line 4 4 of Fig. 3. Fig. 5 is a bottom plan view of a cap or cover slightly different in construction from that shown in Fig. 1, and Fig. 6 is a vertical section through the cap or cover shown in Fig. 5.

A represents a receptacle which is shown as a bottle having a neck A', and at a suitable distance below the mouth 10 of the neck A' an exterior endless groove 11 is produced, and opposing recesses 12, preferably of semicircular or segmental form, extend exteriorly

from the mouth 10 of the receptacle to a connection with the groove 11, as is best shown in Fig. 2. The groove 11 is in two spiral or inclined sections *a* and *a'*, as is shown in full lines in Fig. 2 and indicated in dotted lines in Fig. 3, the inclinations of which sections of the groove 11 start from a terminal at the recesses 12 in the mouth portion 10 of the receptacle. In the further construction of the grooved portion of the neck A' at the opposing lowest portions of the sections *a* and *a'* of the groove 11, or those portions which are farthest from the mouth 10 of the receptacle, semicircular or segmental recesses 13 are formed in the back wall of the said exterior groove 11, as is especially shown in Figs. 2 and 4.

B represents a simple form of cap or cover for the mouth of the receptacle A, which cap or cover is provided with a downwardly-extending marginal flange 14, of spring material, and at diametrically opposite sides of the cover-flange 14 opposing circumferential cuts 15 are made, forming thereby opposing spring-tongues C, constituting an integral portion of the aforesaid cap or cover, and these tongues C are made to incline more or less downward in direction of their free ends and, as is shown in Fig. 1, are provided at their free ends with inwardly-projecting semicircular lugs 16. When the cap or cover is placed upon the receptacle, the lugs 16 of the cap are fitted in the recesses 12 at the mouth 10 of the receptacle, and as the cover or cap is pressed down the lugs enter the groove 11 in the neck of the receptacle. Upon turning the cap or cover B the lugs 16 on the spring-tongues C will find seats in the recesses 13 in the back wall of the groove 11 in the receptacle and will at such time hold the cap or cover in place, and such cap or cover will be drawn sufficiently downward to cause an inner packing or washer *b*, carried by the said cap, to be tightly clamped against the upper surface of the mouth of the receptacle, thus providing for the receptacle being tightly and hermetically sealed. When the cap or cover is to be removed, it is turned in the same direction as before, and as the lugs 16 of the

spring-tongues C are of segmental form, and likewise the recesses or pockets 13 receiving them, the lugs 16 readily enter and readily leave the said recesses or pockets. When the lugs 16 on the spring-tongues of the cap or cover B are opposite the exterior recesses 12 at the mouth of the receptacle A, the cap or cover B may be instantly and readily removed from the receptacle.

10 In Figs. 5 and 6 I have illustrated a slightly-different form of cap or cover; but the same principle is preserved as that shown in Fig. 1. The cap or cover B' shown in Figs. 5 and 6 is provided with a downwardly-extending flange 14^a; but at opposite points in the said flange 14^a pockets 17 are formed, and in these pockets the coiled ends 18 of spring-tongues C' are held, and the body portions of these tongues extend in opposite directions below the said cover, having a downward inclination, as is shown in Fig. 6, corresponding to the downward inclination of the tongues C shown in Fig. 1. Each spring-tongue C' is provided at the inner portion of its free end with a segmental lug 19, and the lugs 19 of the spring-tongues C' correspond to the lugs 16 on the spring-tongues C in the form of cap or cover shown in Fig. 1.

30 The method of applying the cap or cover to the receptacle when constructed as shown in Figs. 5 and 6 is the same as when the cover is made as shown in Fig. 1, and likewise the two forms of covers are removed from the receptacle in the same manner.

35 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In cap-fasteners for vessels, a cap having spring-tongues forming a part of its lower section, the tongues having locking-lugs at the inner faces of their free ends.

40 2. A cap-fastener for vessels, consisting of a cap, opposing spring-tongues secured at one of their ends to the flange portion of the cap, the tongues being inclined downwardly in direction of their free ends and provided at the inner faces of their free ends with segmental lugs.

45 3. A vessel provided with an exterior groove at its neck, recesses leading from the

mouth of the vessel into the said groove, recesses formed in the back wall of the groove, all the recesses being of segmental form, a cap or cover for the mouth portion of the said receptacle, and spring-tongues carried by the said cap or cover, provided at their free ends with segmental lugs on their inner faces, which lugs are entered into the said groove through the mouth-recesses of the receptacle and are adapted to fit in the recesses in the back wall of the groove in the neck of the vessel.

4. A receptacle provided with an exterior groove at its neck portion and recesses leading from the mouth of the vessel to the groove, the said groove being in two spiral sections commencing and terminating at the said recesses at the mouth, each section of said groove being provided with a recess in its rear wall, a cap or cover for the said vessel, and spring-tongues forming a portion of the cap or cover, having lugs at their free ends adapted to pass through the recesses at the mouth of the vessel to enter the recesses in the back wall of the groove in the vessel.

5. A vessel provided with an exterior groove at its neck portion, segmental recesses extending from the mouth of the vessel into the groove, said groove being in two oppositely-inclined sections, the inclinations starting from and terminating at said recesses, each section of the groove being provided with a segmental recess in its rear wall, a cap or cover for the vessel, spring-tongues forming a portion of the flange of the cap or cover, the tongues being inclined downward in direction of their free ends, and segmental lugs formed at the inner faces of the free ends of the said spring-tongues, which lugs are adapted to be seated in the recesses in said groove.

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

AUGUSTUS BROCKELBANK.

Witnesses:

J. FRED. ACKER,
JNO. M. RITTER.