

No. 793,525.

PATENTED JUNE 27, 1905.

E. C. HILL.
JAR CLOSURE.

APPLICATION FILED DEC. 27, 1904.

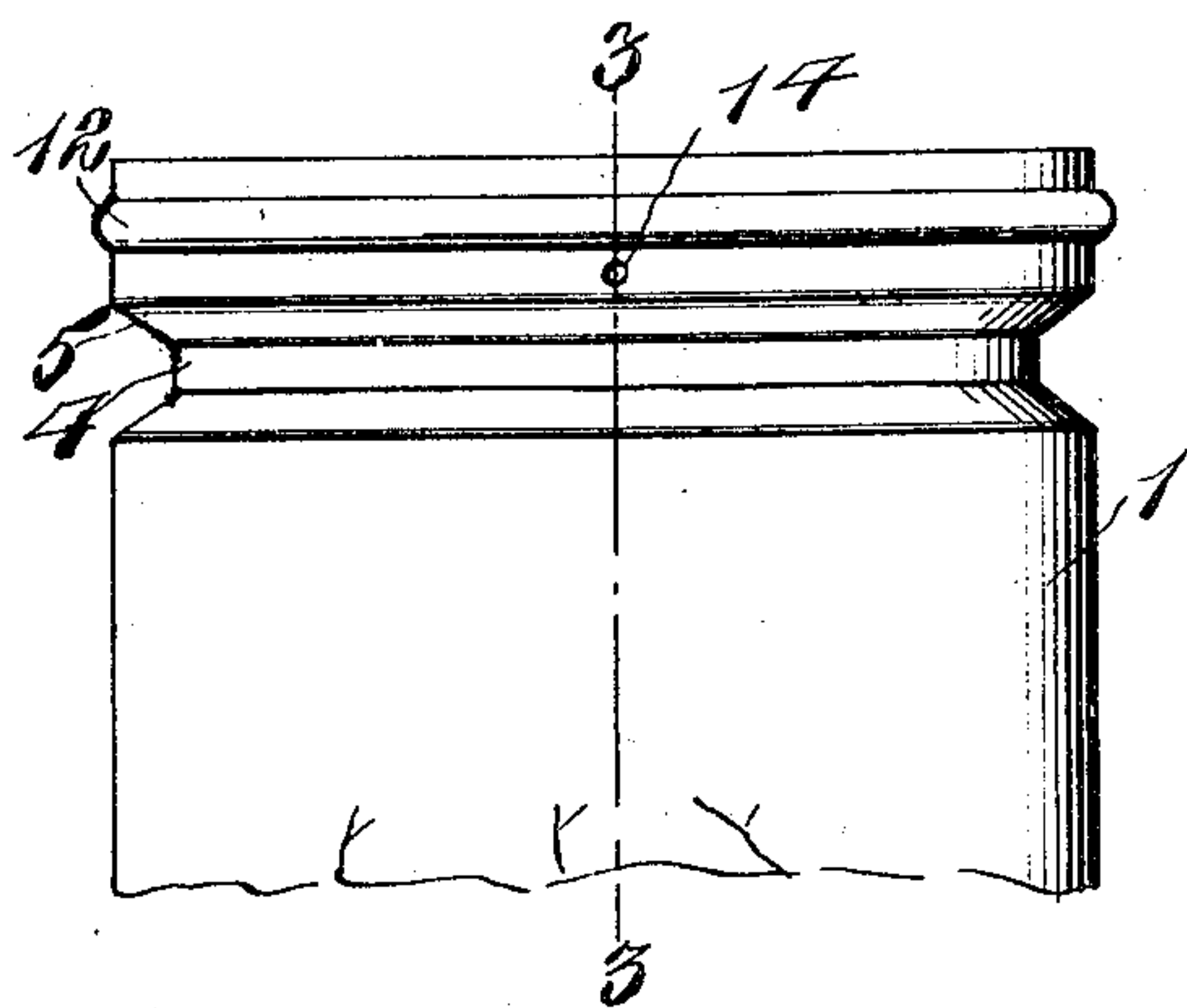


Fig. 1.

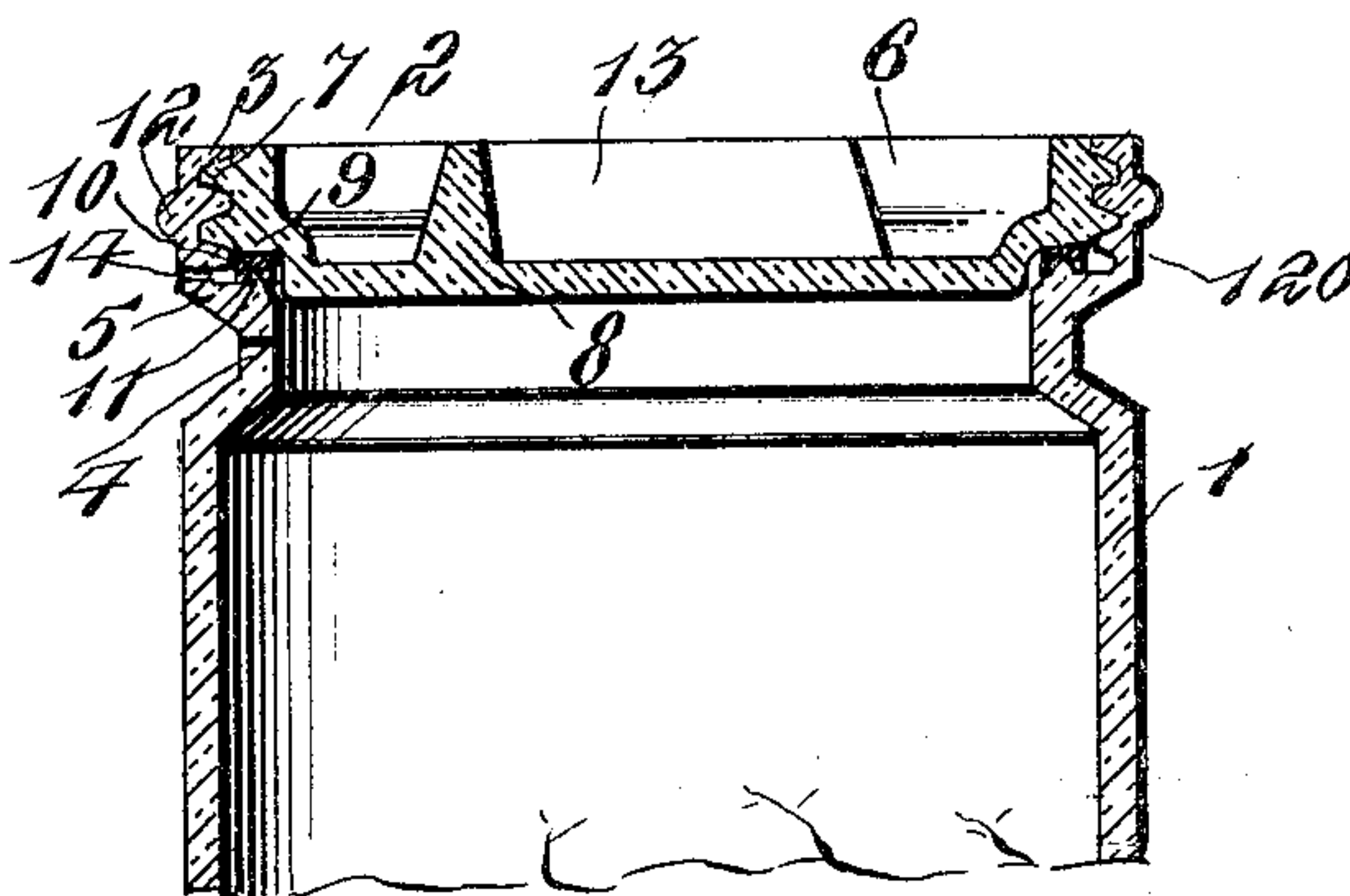


Fig. 3.

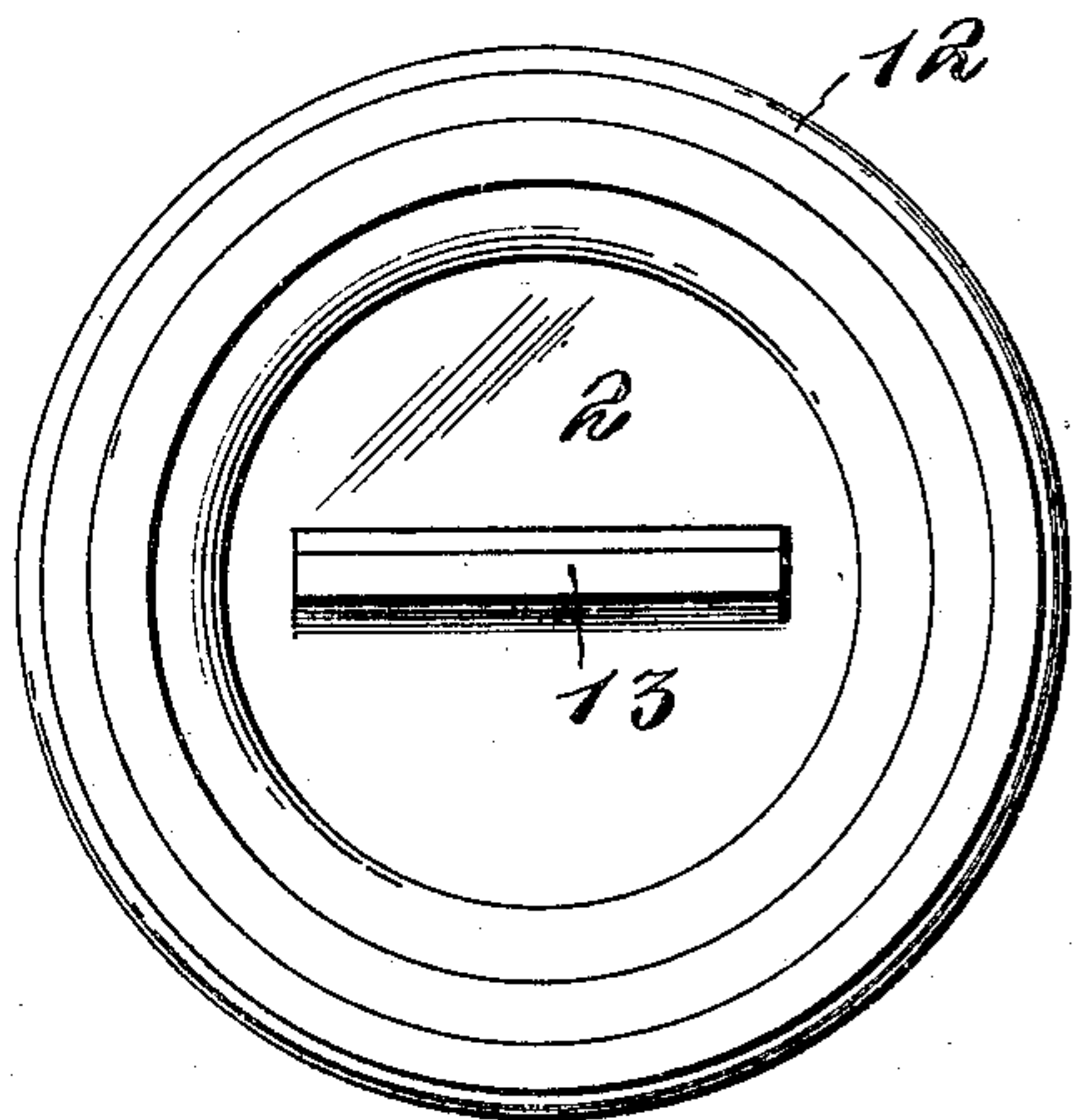


Fig. 2.

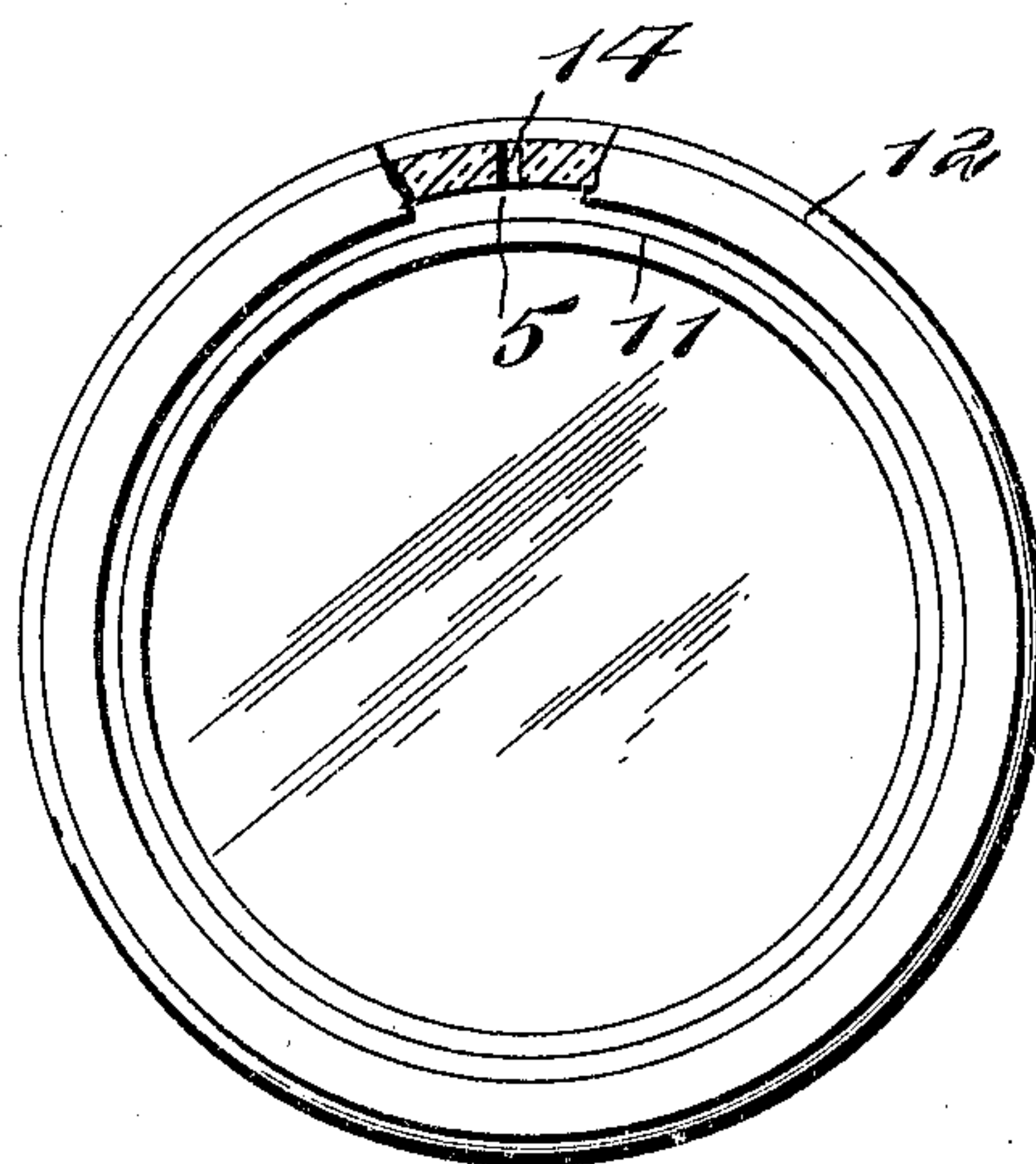


Fig. 7.

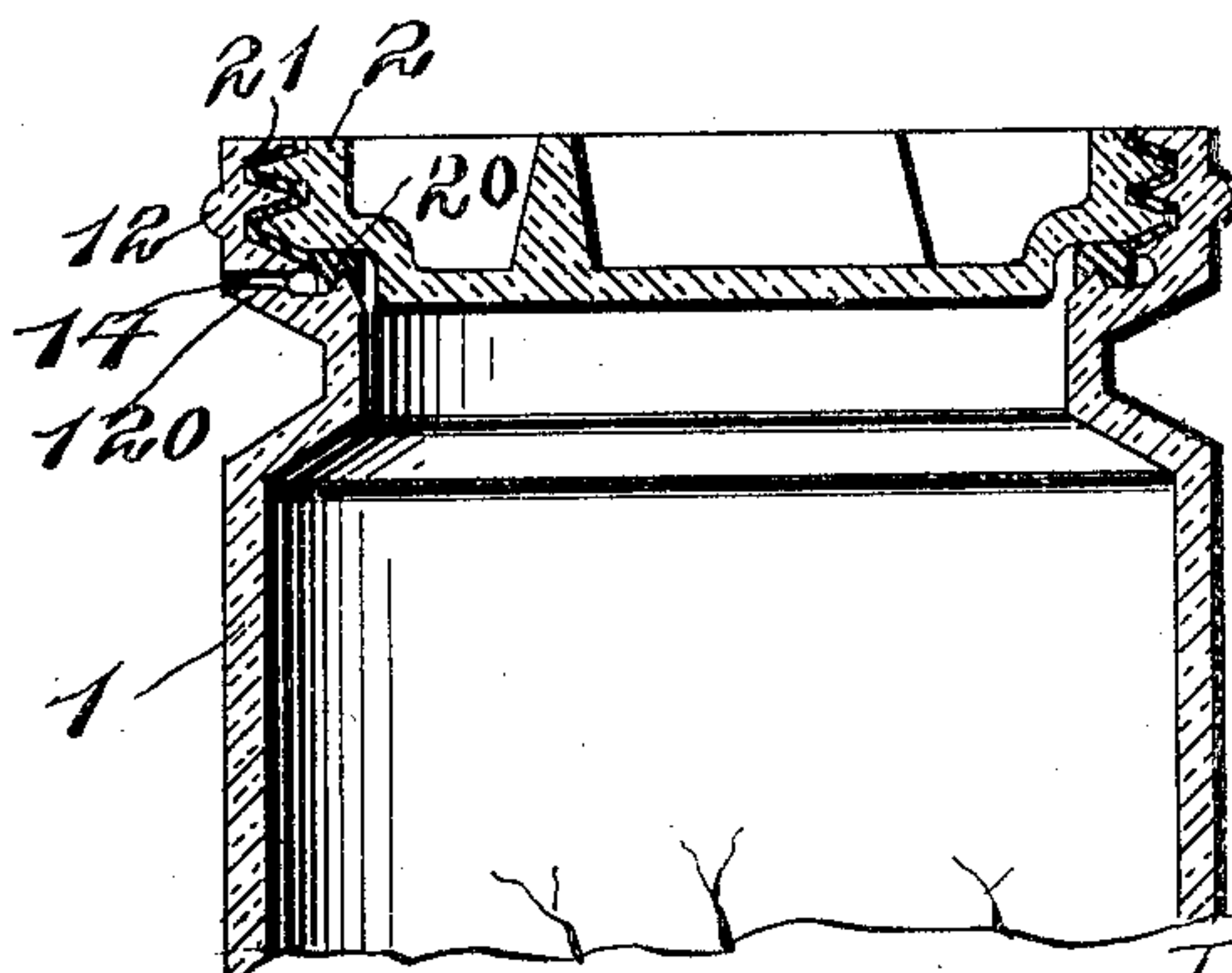


Fig. 5

Witnesses

Witnesses
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JAR-CLOSURE.

SPECIFICATION forming part of Letters Patent No. 793,525, dated June 27, 1905.

Application filed December 27, 1904. Serial No. 238,422.

To all whom it may concern:

Be it known that I, EDGAR CAMPBELL HILL, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Jar-Closures; and I do 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 relates to improvements in closures for jars, bottles, and similar containers.

One object of my invention is to provide a simple and durable closure of this character which will form a perfect seal for the jar or other container.

Another object of my invention is to provide means whereby the vacuum formed in a sealed jar or container may be readily broken or destroyed to facilitate the removal of its cover or closure.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of the upper portion of a glass fruit-jar constructed in accordance with my invention. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical sectional view taken on the line 3 3 in Fig. 1. Fig. 4 is a plan view, partly in section, of the neck of the jar, the cover and the packing-washer being removed; and Fig. 5 is a detail sectional view showing a modified form of sealing ring or washer.

Referring to the drawings by numeral, 1 denotes the upper portion of a glass jar, bottle, or similar container, and 2 denotes a removable cover or closure for the same. The top or neck 120 of the jar 1 is interiorly screw-threaded, as shown at 3, and beneath the screw-threads is formed an annular contracted portion or neck proper, 4, which provides an annular inwardly-extending shoulder 5. The cover 2, which has its top recessed, as shown at 6, is exteriorly screw-threaded, as at 7, to permit it to be engaged with the screw-threads

3 in the neck 120, and is formed with a lower reduced or contracted portion 8, which forms an annular flange or shoulder 9, adapted to coact with the shoulder 5 to receive a packing-washer 10. This packing ring or washer 10 is preferably formed of rubber, waxed paper, felt, or other resilient substance which will effect a perfect seal between the jar and its cover, and to increase the efficiency of this packing or seal the shoulder 5 is preferably formed with an annular rib 11, which is V-shaped in cross-section. In order to strengthen the neck portion 120 of the jar, the same is formed with an annular rib or enlargement 12, and to similarly strengthen the cover 2 and provide a finger-piece to facilitate its application or removal the said cover is formed with a transversely-extending rib 13, located in its recessed portion 6, as shown.

It will be seen that when the cover 2 is screwed down into the neck of the jar the packing washer or ring 10 will be compressed between the shoulders 4 and 9 to effect a perfect seal of the jar. In order to break or destroy the vacuum which is formed within the sealed jar by the cooling of its contents after the same has been placed therein while in a heated state, I provide in the neck portion 120 of the jar, slightly above the shoulder 5 and in alinement with the packing ring or washer 10, a small opening or aperture 14, into which a needle, pin, or similar instrument may be inserted for the purpose of piercing the packing ring or washer 10. It will be seen upon reference to Fig. 3 of the drawings that when such an instrument is inserted in the opening 14 and the packing ring or washer 10 is pierced air will be permitted to pass through said opening 14 and the hole in the washer or ring and into the jar, so that its cover 2 may be readily unscrewed.

In Fig. 5 of the drawings I have shown a modified form of sealing-washer, which may be used in place of the washer 10. (Shown in Fig. 3.) This new form of washer comprises a thick annular body portion 20 and a thin right-angularly-projecting annular flange or web 21, which when the top 2 is screwed into the neck of the jar or container 1 will conform to the shape of the screw-threads 3 and 7, as

shown in Fig. 5, for the purpose of providing a more perfect seal for the jar and preventing friction of the cap against the threads in the neck of the jar.

5 From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

10 Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. The combination of a jar or similar container having an internally-screw-threaded
20 neck formed with a contracted portion that provides an annular inwardly-extending shoulder, a packing-ring upon said shoulder, and an externally-screw-threaded cover adapted to engage the threads in said neck and formed
25 with a reduced lower portion which provides a flange to engage the packing-ring upon said

shoulder, said jar being also formed with a small opening or aperture above said shoulder and in the plane of said packing-ring, whereby a needle or other instrument may be inserted
30 to pierce said packing-ring and destroy the vacuum in said jar or container to permit said cover to be readily removed, substantially as described.

2. The combination with a jar having an in-
35 ternally-screw-threaded neck and an inwardly-extending annular shoulder beneath said screw-threads, and a cap having external screw-threads and an annular shoulder, of a packing-ring comprising an annular body
40 adapted to be engaged by the shoulders on said cap and said jar, and a thin web or flange adapted to be engaged by the screw-threads on said cap and jar, substantially as described.

In testimony whereof I have hereunto set
45 my hand in presence of two subscribing witnesses.

EDGAR C. HILL.

Witnesses:

HENRY L. ROCKEL,
FLORA BRAIN.