

(No Model.)

W. H. BURNETT.  
CAN OR JAR CLOSURE.

No. 594,130.

Patented Nov. 23, 1897.

Fig. 5.

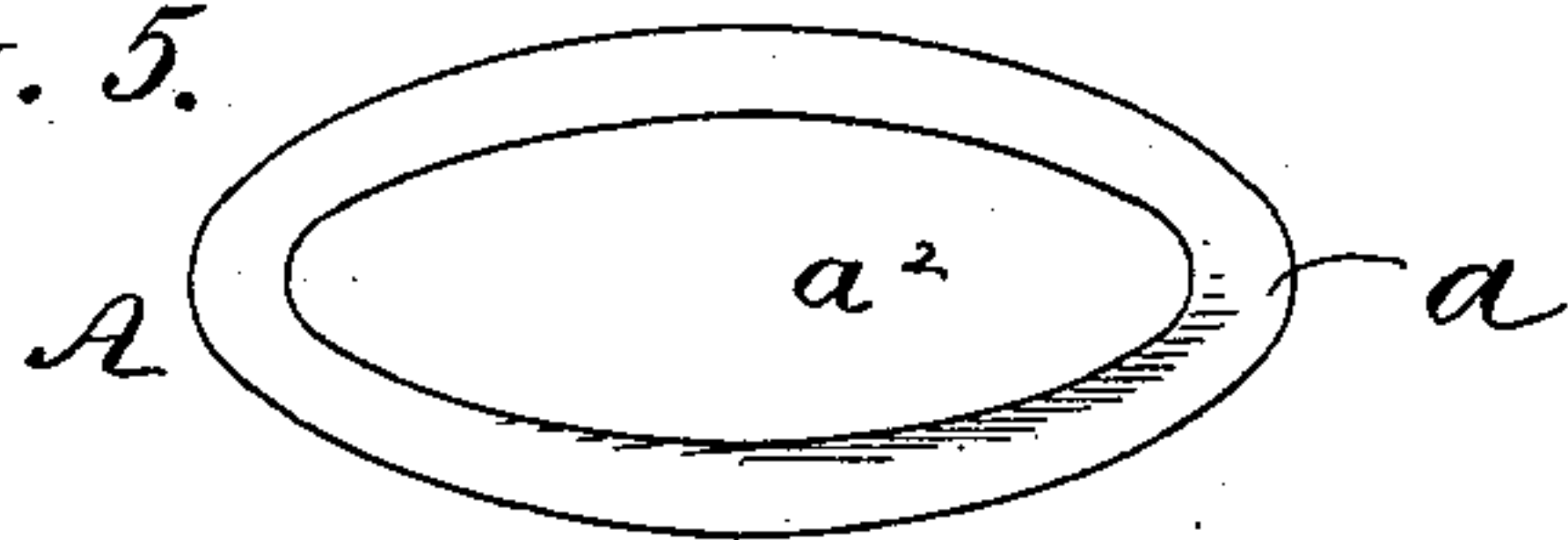


Fig. 4.

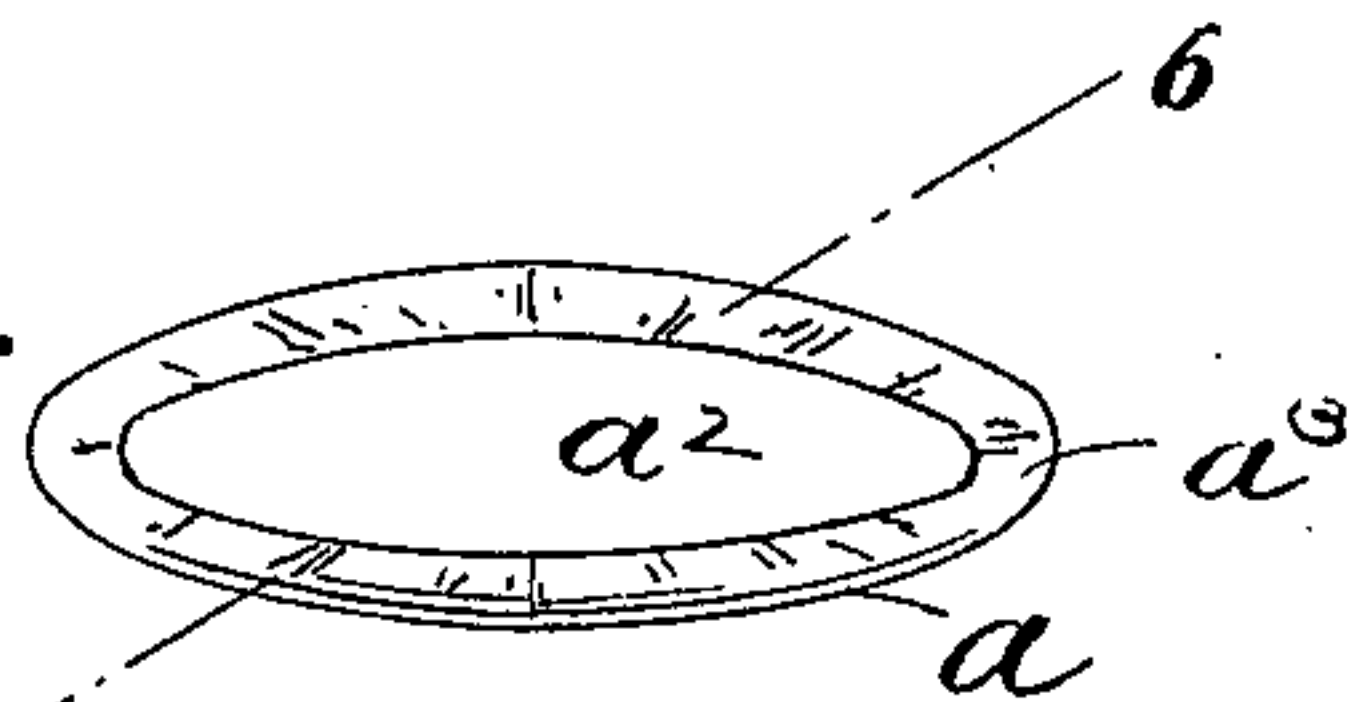


Fig. 6.

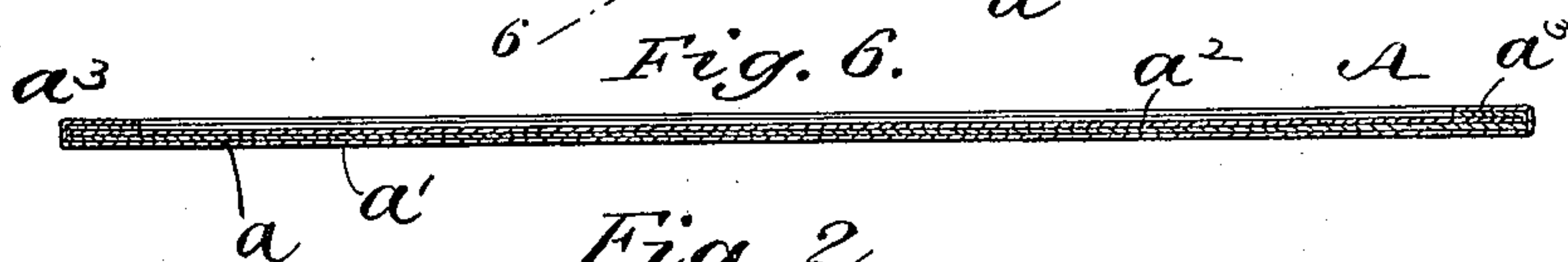


Fig. 2.

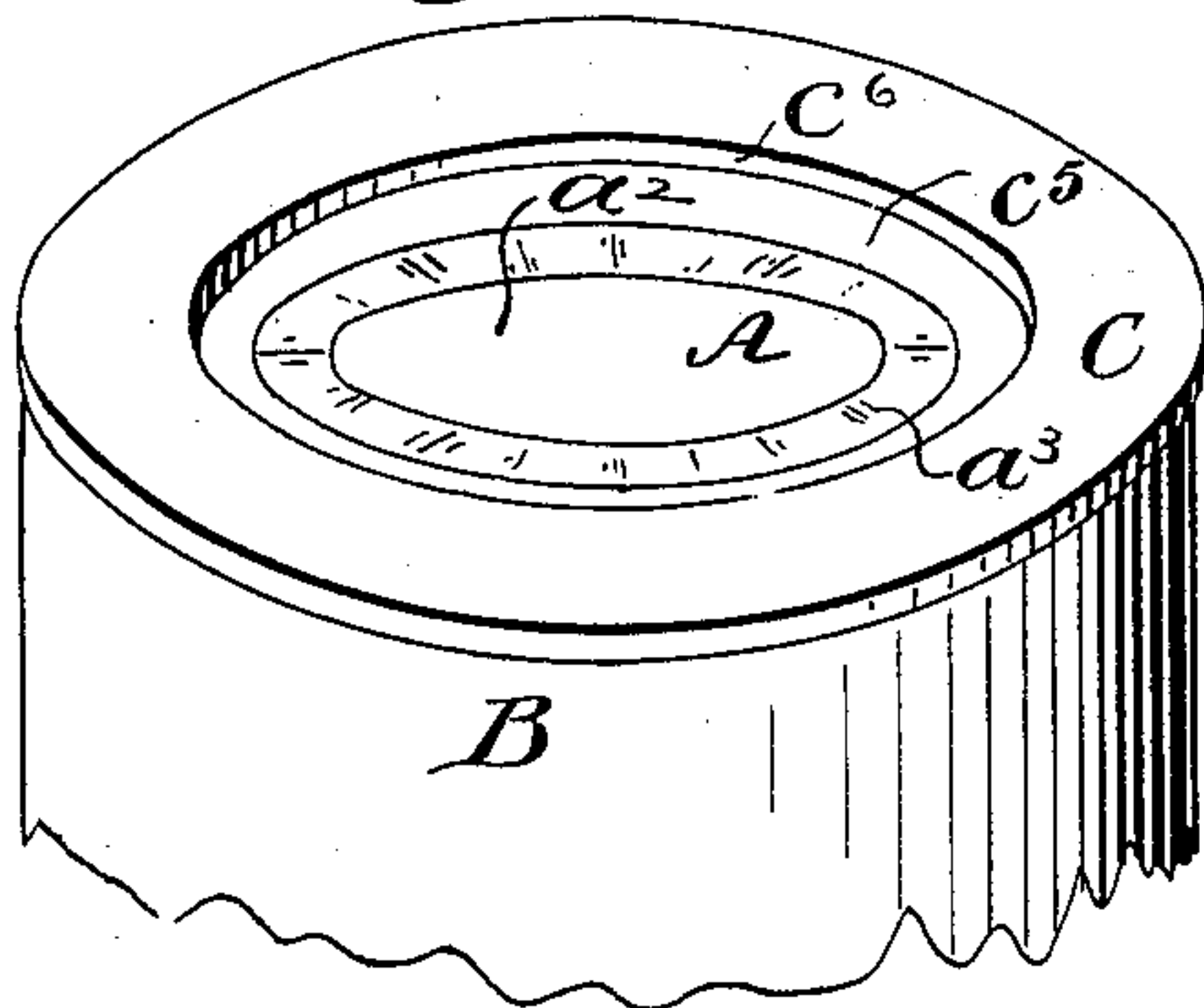


Fig. 7.

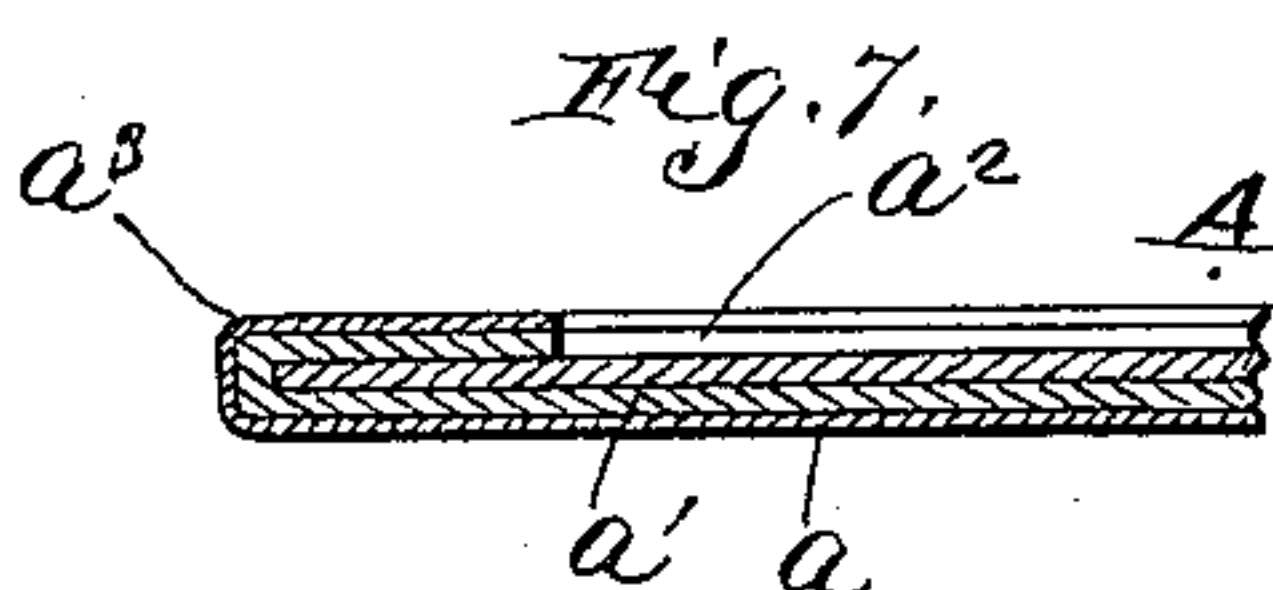


Fig. 1.

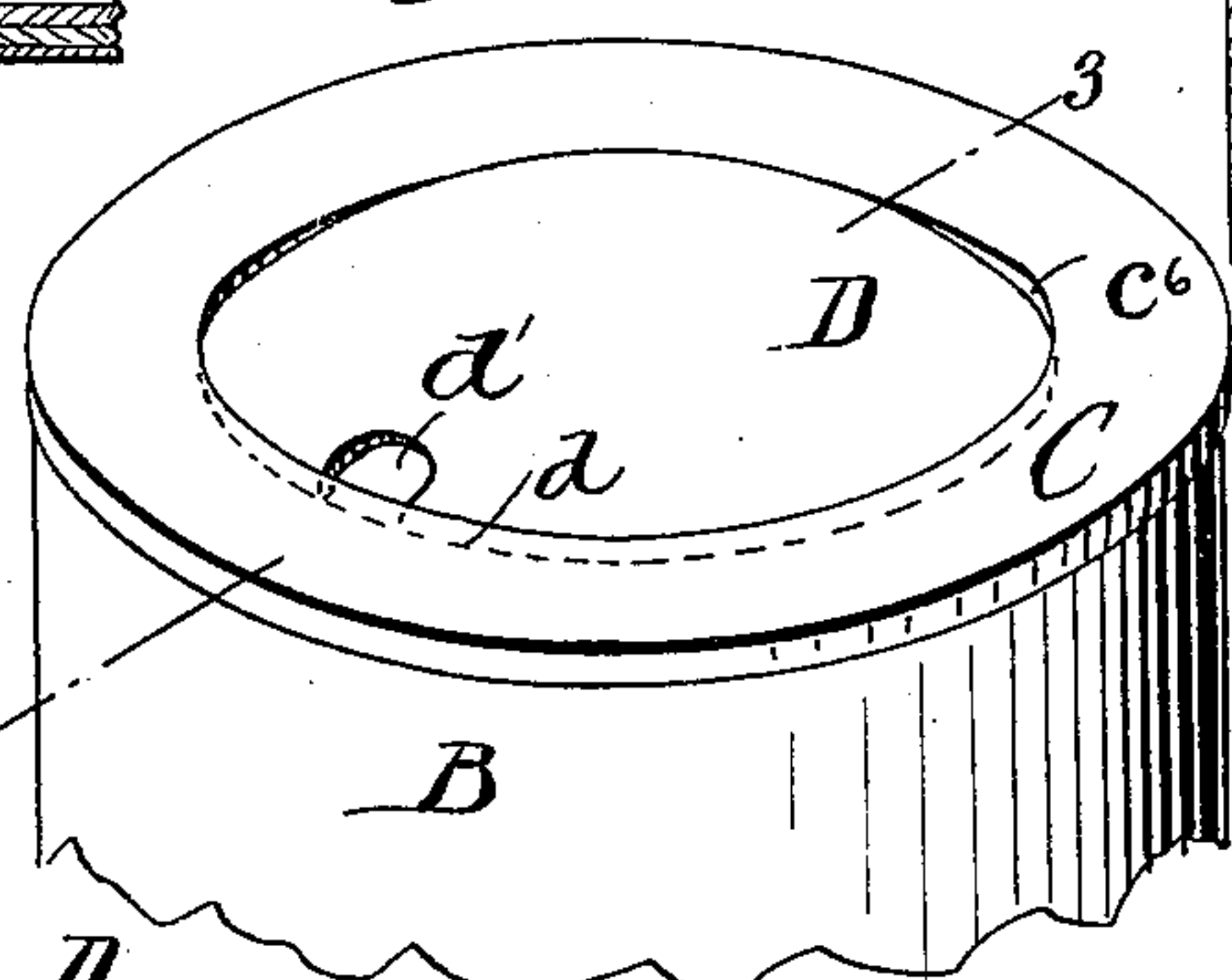


Fig. 3.

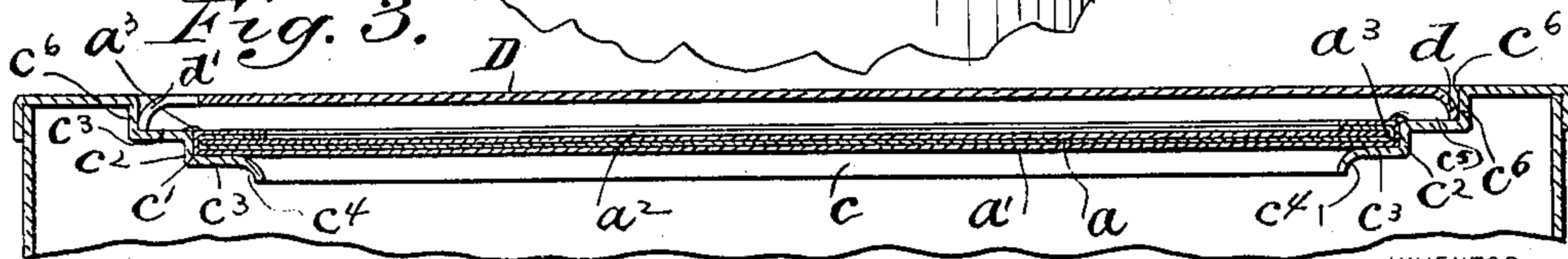
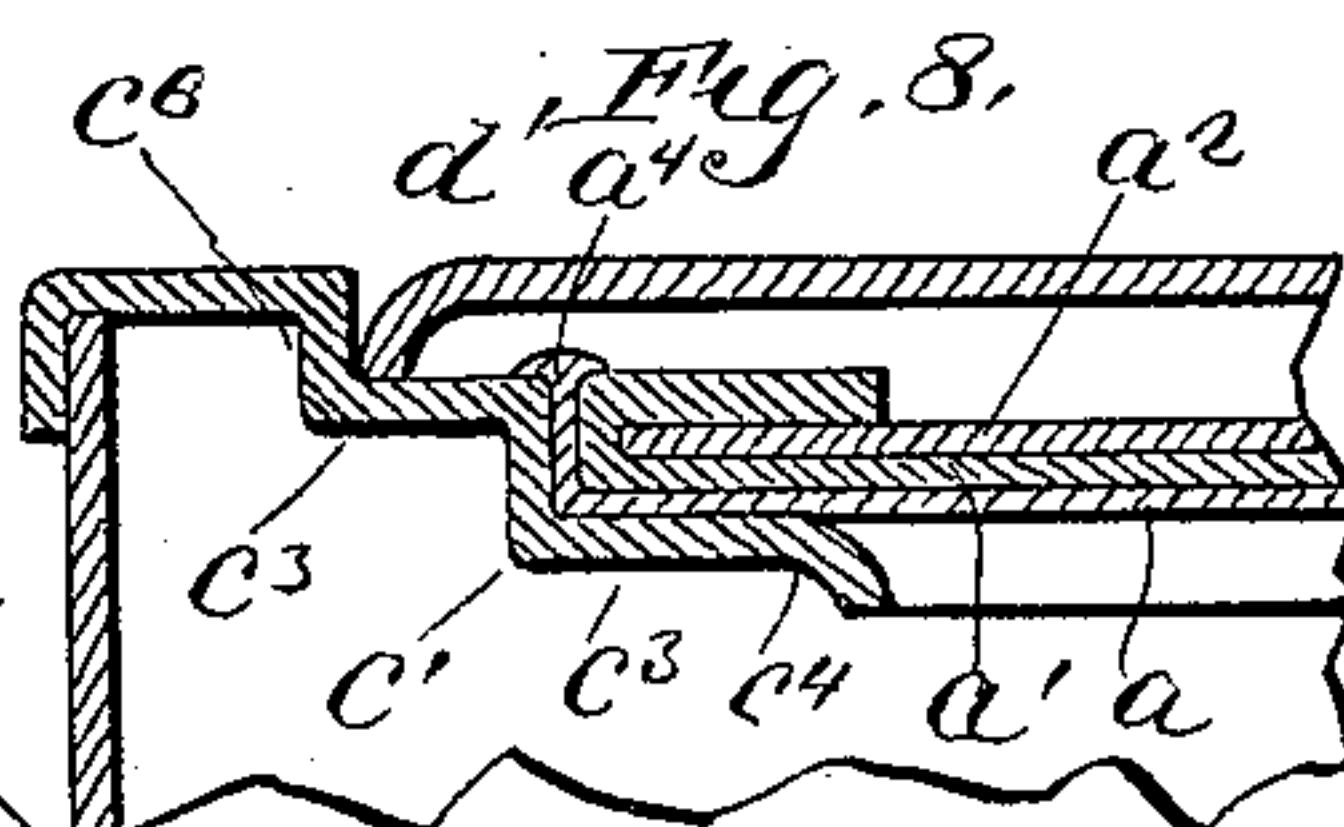


Fig. 8.



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# UNITED STATES PATENT OFFICE.

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## CAN OR JAR CLOSURE.

SPECIFICATION forming part of Letters Patent No. 594,130, dated November 23, 1897.

Application filed October 23, 1896. Serial No. 609,822. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM HENRY BURNETT, a citizen of the United States, and a resident of Red Hook, county of Dutchess, and State of New York, have invented certain new and useful Improvements in Can or Jar Closures, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to that class of can or jar closures which embody disks or caps adapted to be sealed or secured in position.

The object of my invention is to provide a simple and improved closure of this character which will be especially convenient and effective in operation, which will be simple and inexpensive in construction, and which is adapted to be readily and quickly opened without the employment of special tools or cutting devices.

In the drawings, Figure 1 is a perspective view showing the top of a can provided with my improved closure. Fig. 2 is a corresponding view with the protective cap removed. Fig. 3 is a detail transverse sectional view taken on the line 3 3, Fig. 1. Fig. 4 is a perspective view of the sealing-disk. Fig. 5 is a perspective view illustrating the sheet-lead and paper disks from which the sealing-disk is constructed. Fig. 6 is a detail transverse sectional view taken through the sealing-disk on the line 6 6, Fig. 4. Fig. 7 is an exaggerated section of the disk shown in Fig. 6. Fig. 8 is an exaggerated view of part of the section shown in Fig. 3.

Referring to the drawings, A designates the improved sealing-disk comprised in my invention. This disk consists, primarily, of a sheet-lead disk  $a$ , the under or bottom surface of which is coated or plated with tin, as at  $a'$ . The tin coating may be applied to the sheet-lead by any usual or suitable process, such as electroplating or by pouring molten tin over the lead. The supplementary disk  $a^3$ , formed of waterproof paper or analogous material, is connected with the tin-coated sheet-lead disk and forms the top of the complete sealing-disk. The connection of the metallic and paper disks (which compositely form the sealing-disk) is effected by bending

the edges of the former around the latter, as shown at  $a^3$ , this bent edge thus forming a binding-flange surrounding and inclosing the edge of the paper disk and exposing the tin-coated surface of the sheet-lead disk at said outer edge. It will be understood that the sealing-disk constructed as above described is soft and pliable and is adapted to be readily broken or perforated with the finger.

B designates the body of the can or other vessel, having the top C adapted to be used in connection with my improved closure device. The top is provided with an opening  $c$ , surrounded by a circumferential groove  $c'$ , forming an annular shoulder  $c^2$ , and the groove-seat  $c^3$ , the edge of the latter being preferably curved downwardly or inwardly, as at  $c^4$ . This curved edge is provided to obviate any liability of damage to the soft sealing-disk sheet by the latter being forced downwardly within said edge by atmospheric pressure in the application of the closure devices.

In practice the sealing-disk A, which conforms in diameter to the circumferential groove  $c'$ , surrounding the top opening  $c$ , is set in position within said groove, so that it is supported upon the groove-seat  $c^3$  and has its outer edge  $a^3$  abutting against the shoulder  $c^2$ . The waterproof-paper disk  $a^2$  thus forms the top surface of the sealing-disk, with the tin-coated sheet-lead edge projecting around the same, as at  $a^3$ .

To effect a permanent or hermetical sealing of the closure in connection with the improved disk constructed as herein shown and described, solder is applied over the annular line, as seen at  $a^4$ , between the shoulder  $c^2$  and the edge of the disk A by means of an ordinary soldering-iron, which will cause an amalgamation of the metals and securely close and seal the joint. It will be understood that the tin coating or plating melts at approximately  $10^\circ$  lower temperature than ordinary solder, while the sheet-lead melts at approximately  $40^\circ$  lower temperature than solder, so that complete amalgamation of the metals at the joint formed by the edge of the sealing-disk and the shoulder  $c^2$  is effected. The relative construction and arrangement of the groove and sealing-disk and the groove-seat  $c^3$  and the sealing of the disk at its turned-over top edge  $a^3$  as carried out in my inven-



tion preclude the possibility of any lead coming into contact with the contents of the can during the process of sealing.

D designates a protective cap which is set within a corresponding annular groove  $c^5$ , formed above the sealing-disk groove  $c'$  and embodying the annular wall or shoulder  $c^6$ . The circumferential outer edge  $d$  of the protective cap D is bent or curved downwardly in a convex manner, as shown, which edge is adapted to be sprung into position within the annular shoulder  $c^6$ , in which relative position the protective cap will be normally retained by its spring function. A recess or notch  $d'$  is formed in the edge of the protective cap, which may be conveniently engaged by the finger or any ordinary pointed article to spring the protective cap off from engagement with the grooved top of the can or vessel.

The operation and advantages of my invention will be readily understood.

The improved closure embodied in my invention is very quickly, inexpensively, and conveniently applied and can be safely sealed to hermetically protect the contents of the vessel. When it is desired to open the closure, it is only necessary to spring off the protective cap and then perforate or break the soft sealing-disk by means of the finger or any other convenient manner.

In the operation of passing the soldering-iron over the turned edge  $a^3$  after the sealing-disk is seated in position within its groove the outer groove  $c^5$ , with its shoulder  $c^6$ , will form a continuous guide for the soldering-iron in

its passage over the edge of the sealing-disk, this provision of a guide during the operation of sealing being an important desideratum in the facility and safety of the operation, inasmuch as accidental slipping of the soldering-iron onto the surface of the soft sealing-disk would practically destroy the latter.

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

An improved closure for cans or other vessels, comprising, in combination with the can or vessel having the top opening surrounded by the groove  $c'$  forming the groove-seat  $c^3$  and the shoulder  $c^2$  and having the groove extending from the shoulder  $c^2$  and forming the outer shoulder  $c^6$  the sealing-disk embodying the soft-metal disk and the supplementary top disk, the edge of the soft-metal disk being bent around the supplementary disk and adapted to be hermetically sealed in connection with the shoulder  $c^2$  by the amalgamation of the metals, and the protective cap having the downturned edge adapted to be sprung into position within the shoulder  $c^6$ , substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 21st day of October, 1896.

WILLIAM HENRY BURNETT.

Witnesses:

C. SEDGWICK,  
B. McCOMB.