

No. 609,974.

Patented Aug. 30, 1898.

W. A. PARSONS & W. RAWSON.
STOPPERED JAR, BOTTLE, OR OTHER RECEPTACLE.

(Application filed Mar. 14, 1898.)

(No Model.)

Fig. 1.

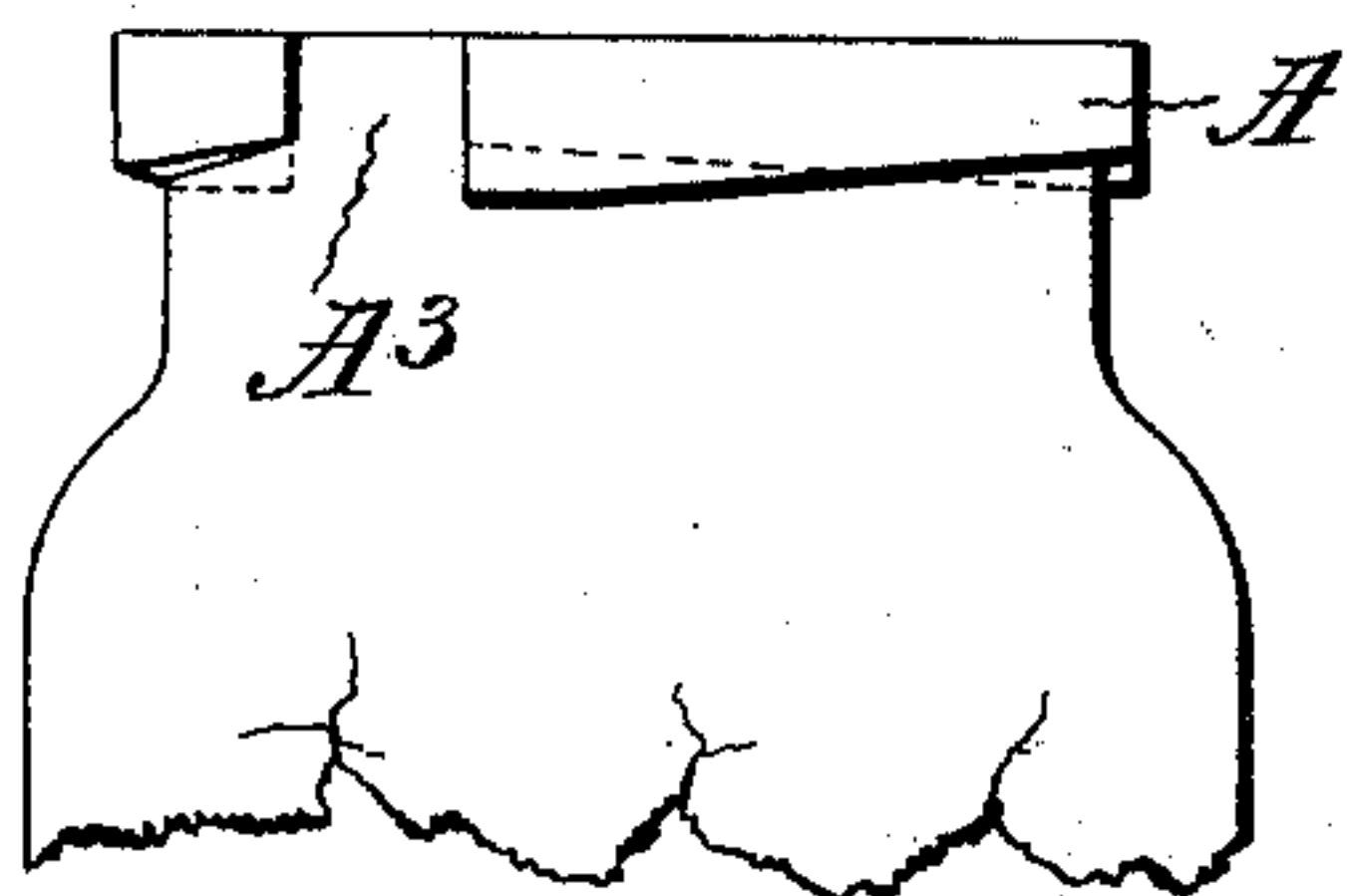


Fig. 2.

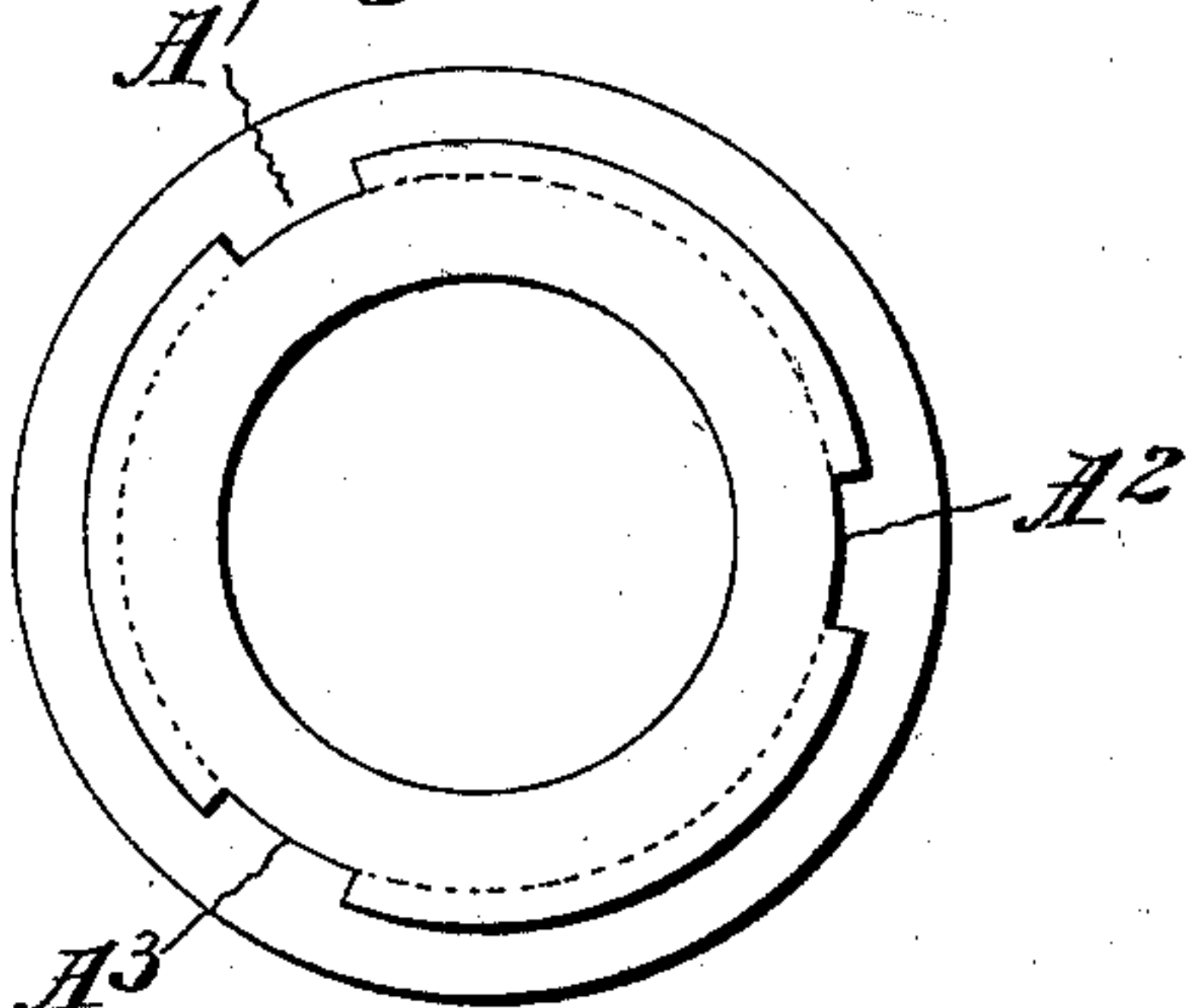


Fig. 3.

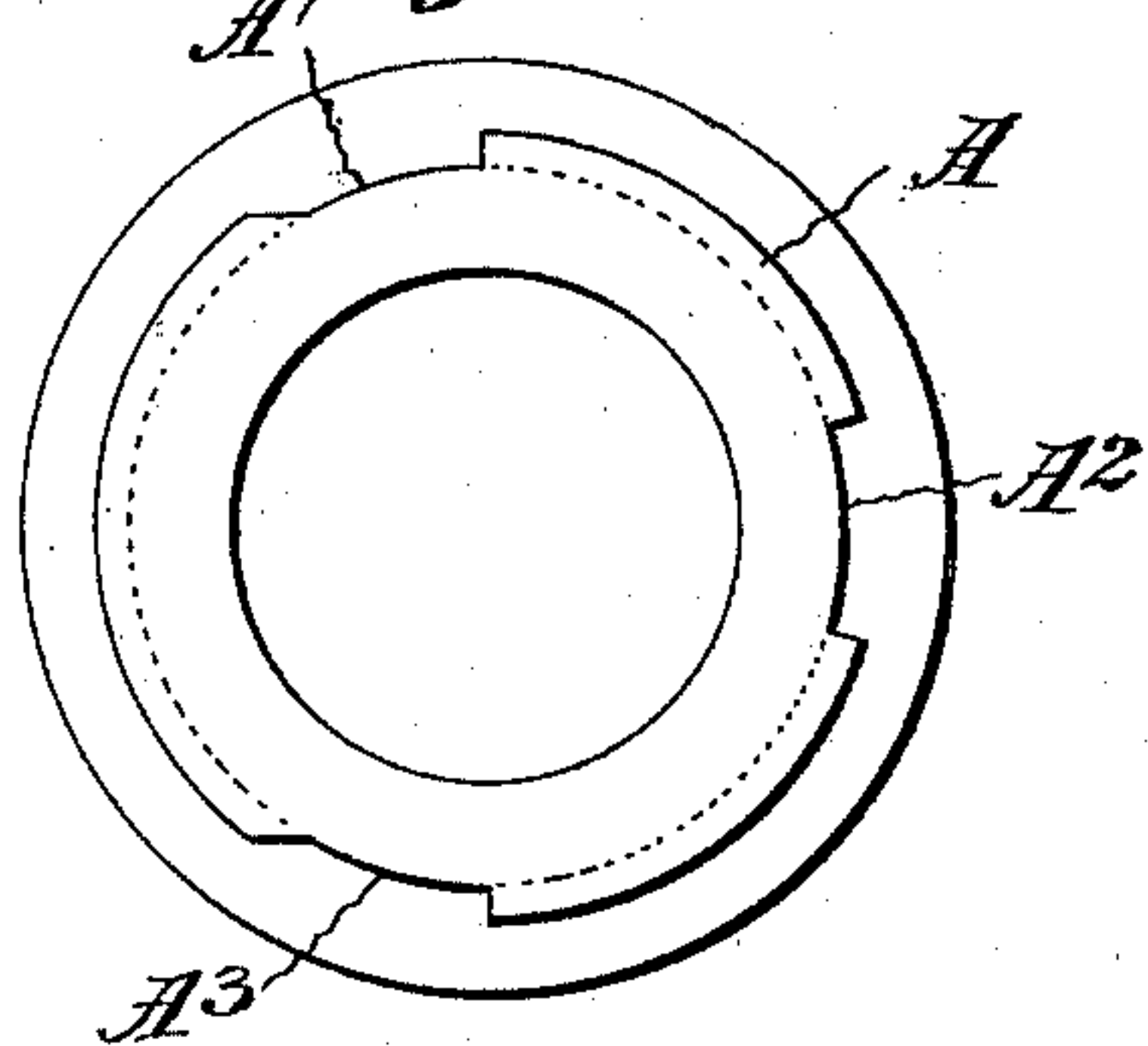
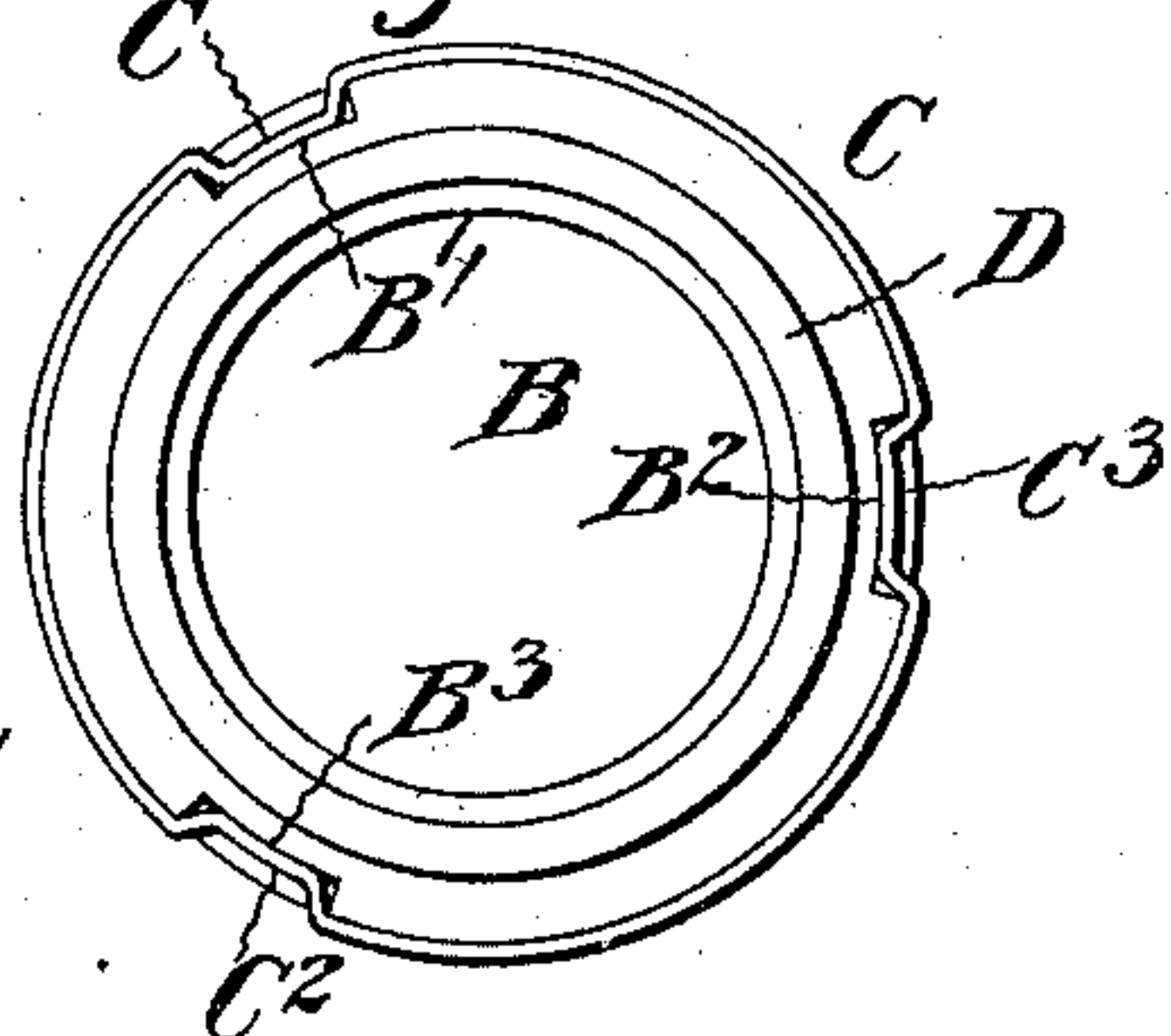


Fig. 4.



Witnesses:

Ch. Dyer

Ch. Sommers

Fig. 5.

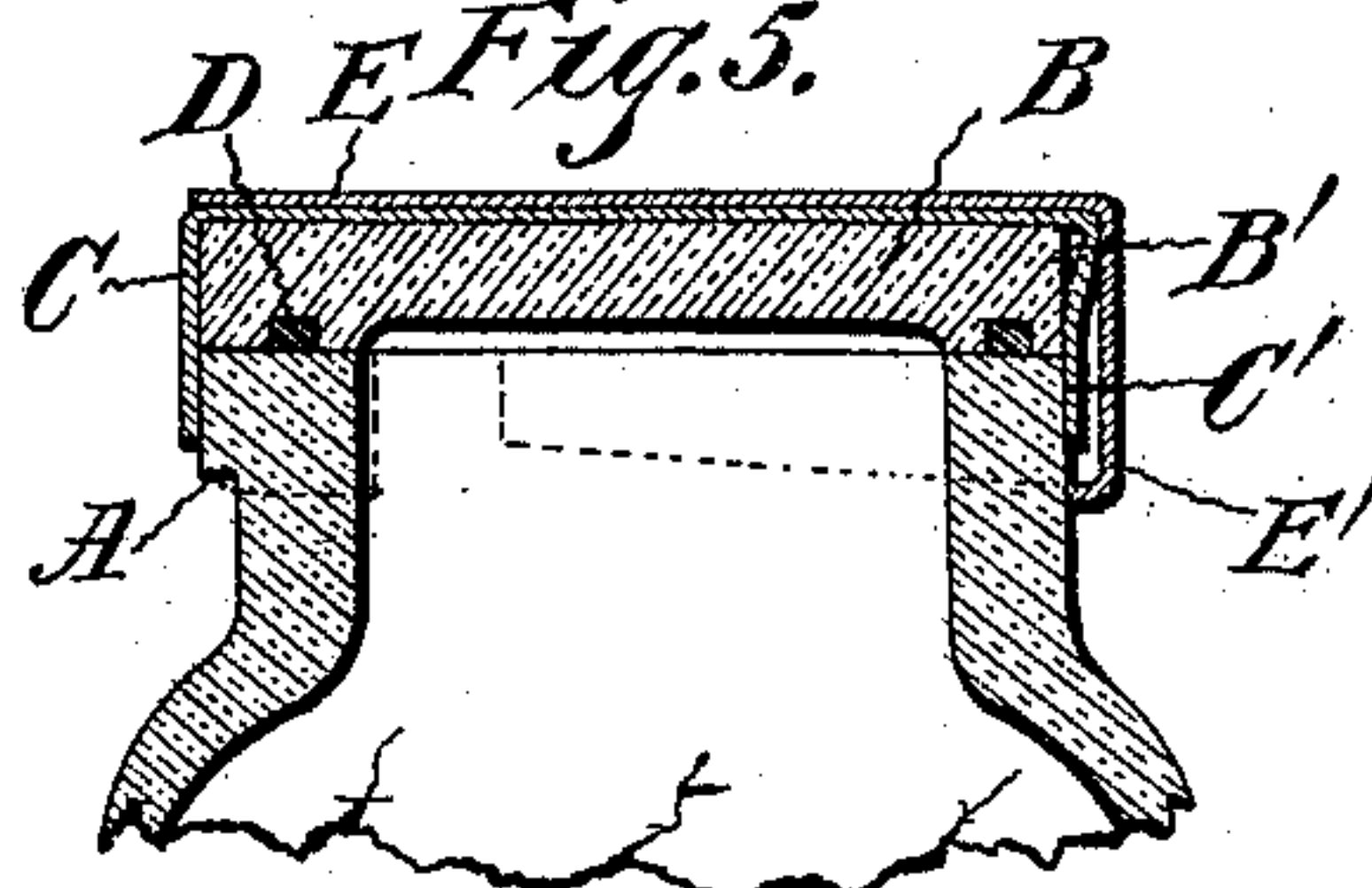


Fig. 6.

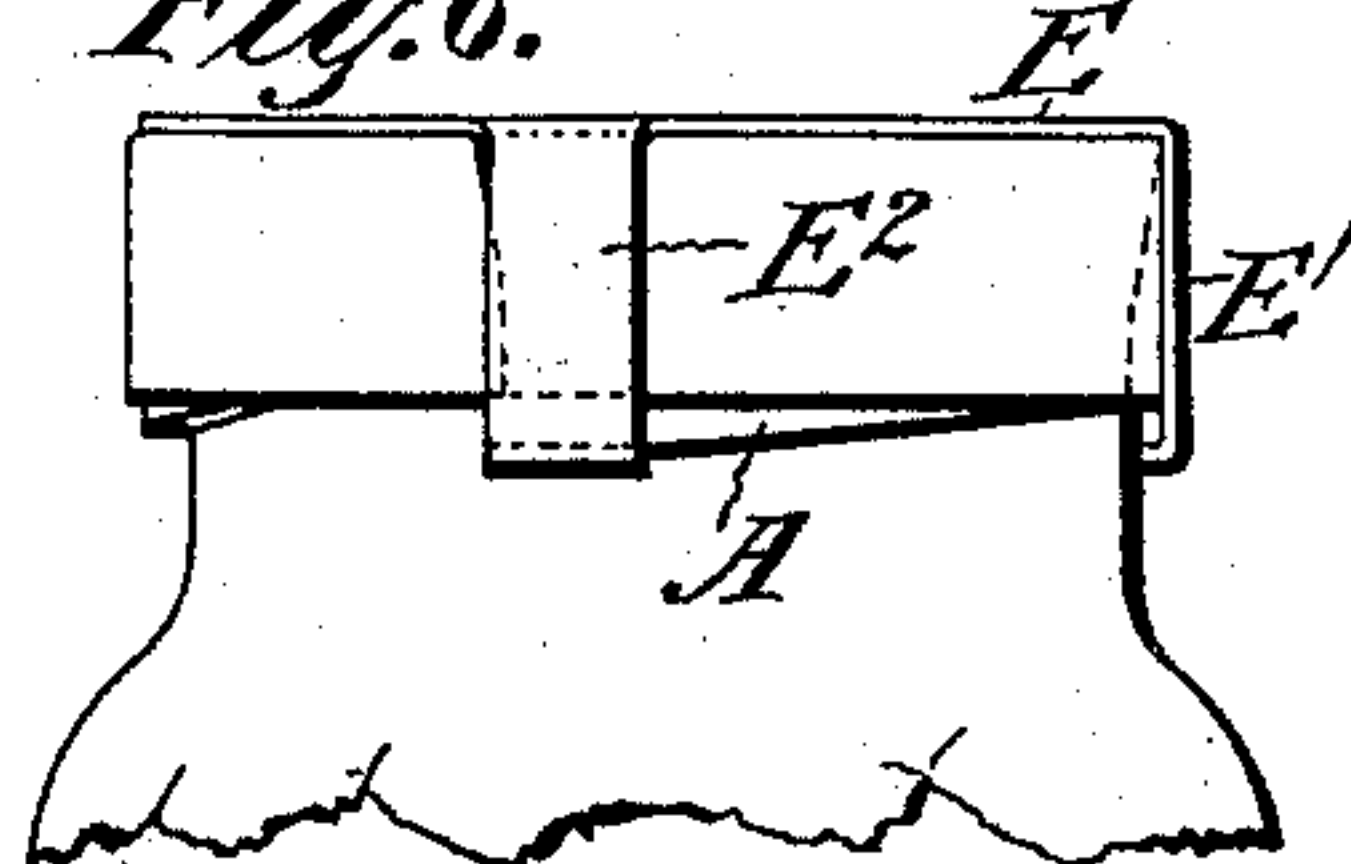


Fig. 7.

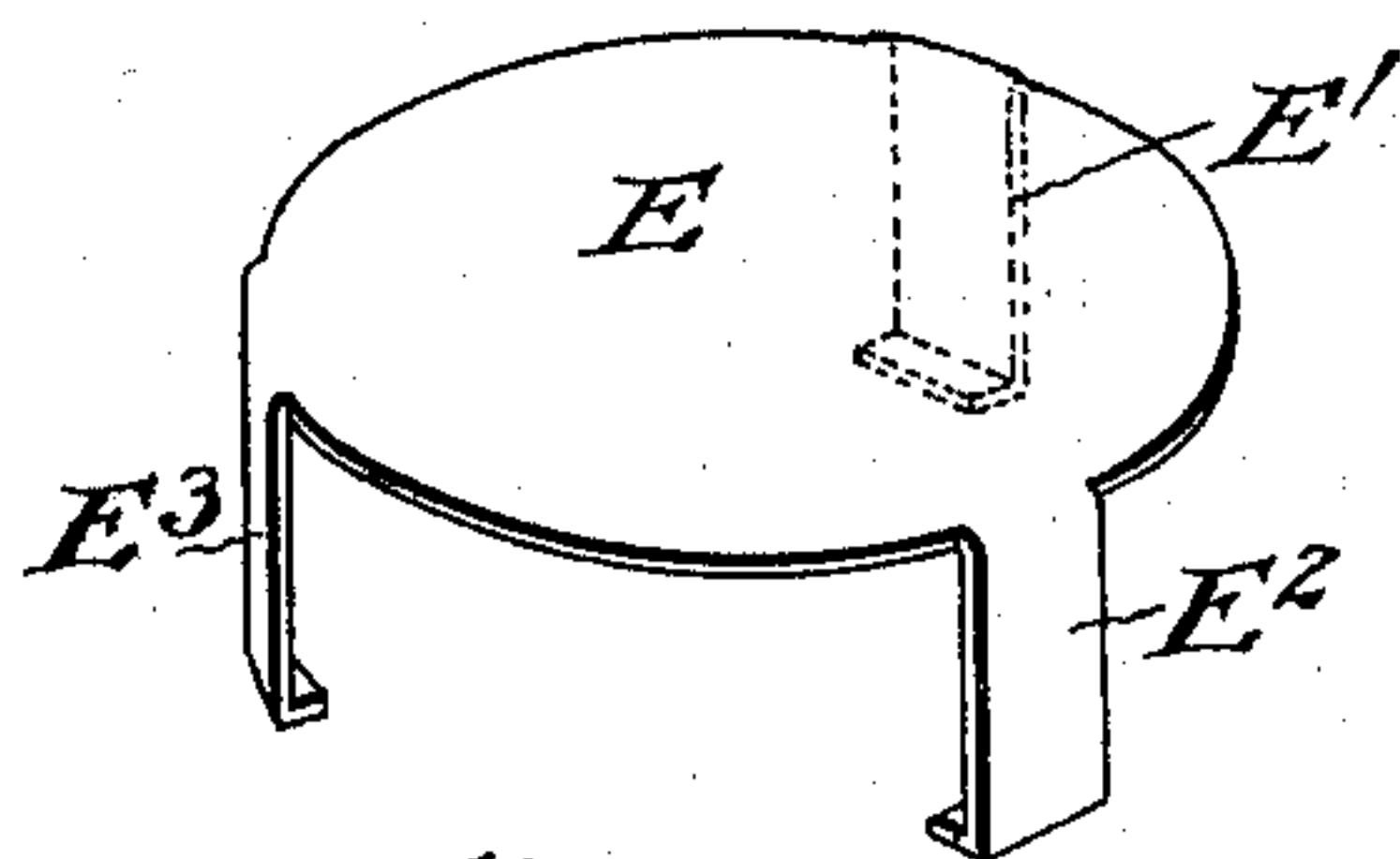


Fig. 8.

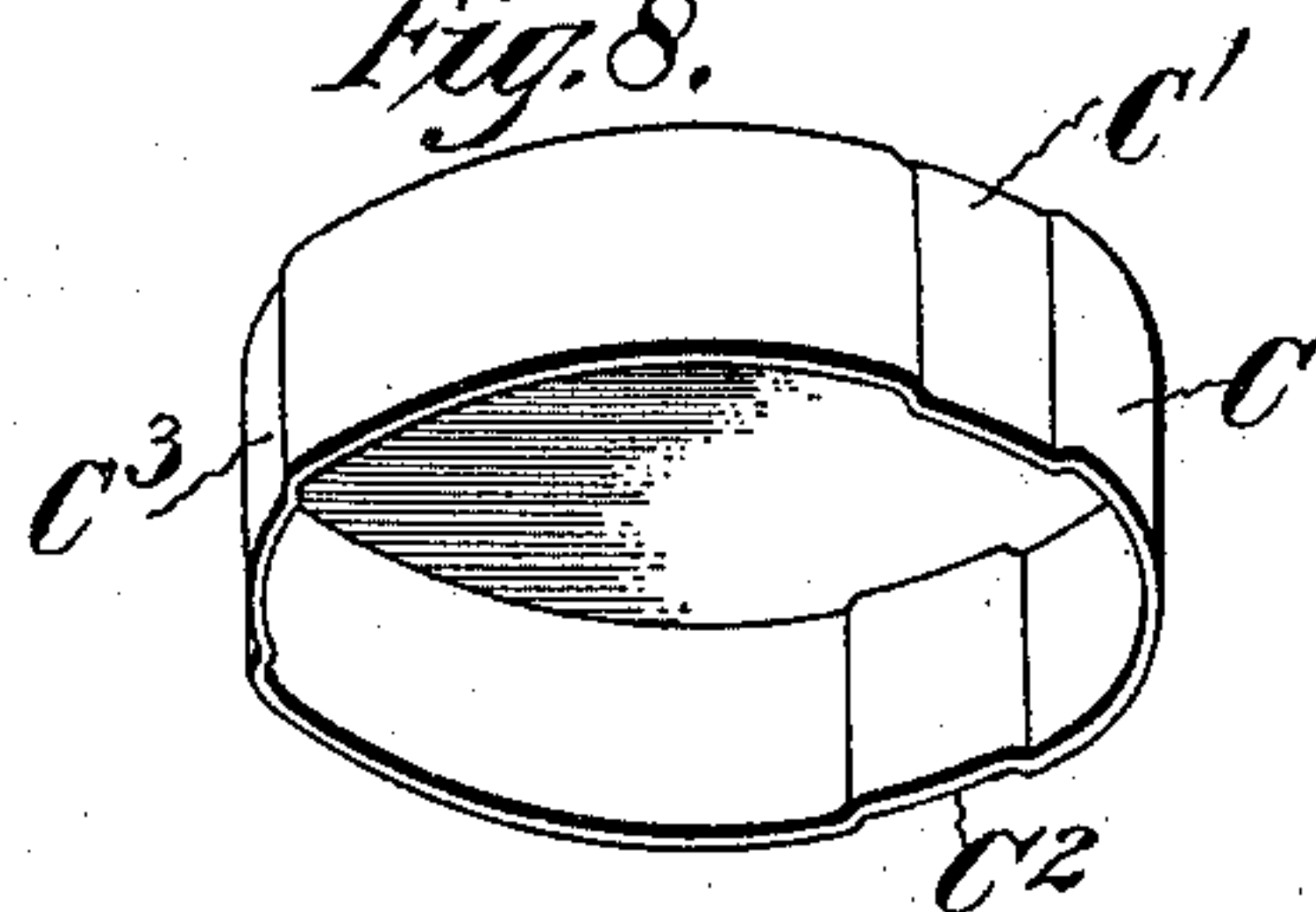
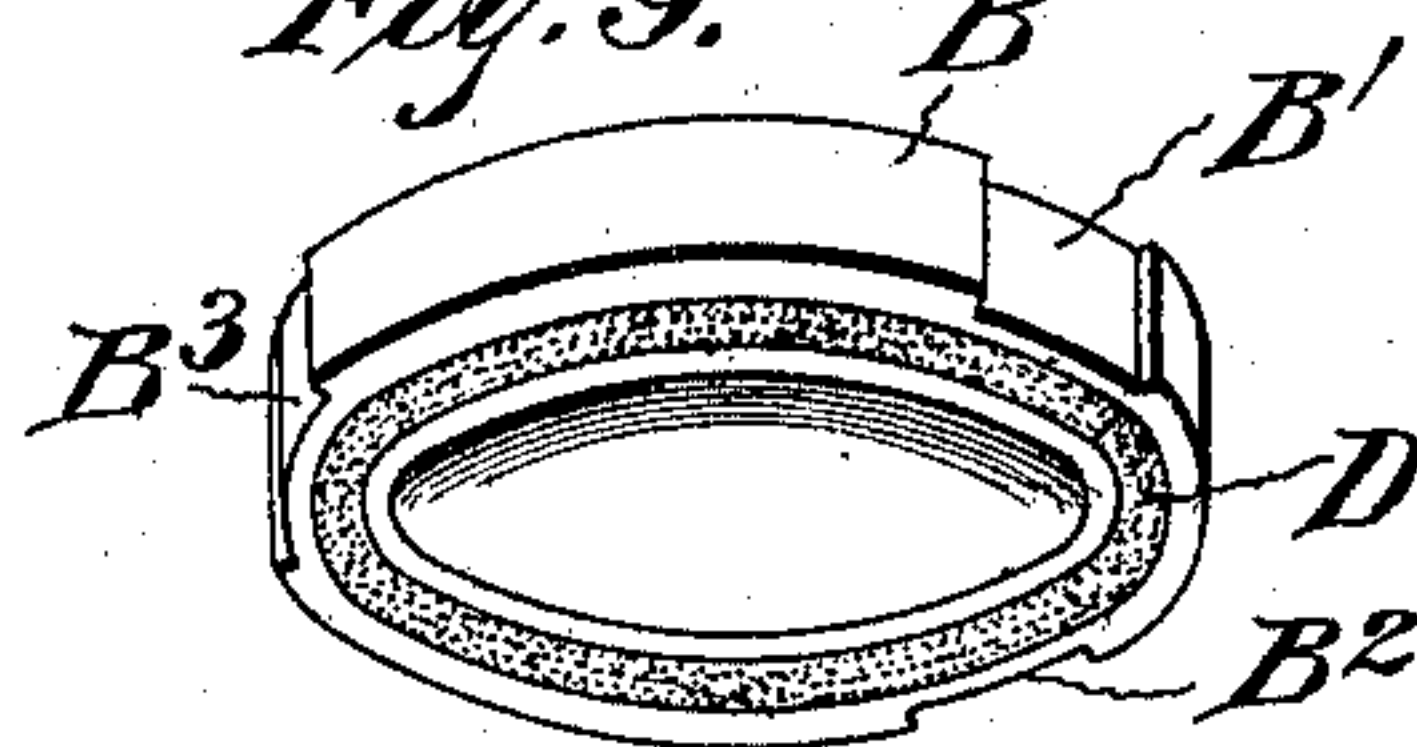


Fig. 9.



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by *[Signature]*
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM ALFRED PARSONS AND WALTER RAWSON, OF LONDON, ENGLAND.

STOPPERED JAR, BOTTLE, OR OTHER RECEPTACLE.

SPECIFICATION forming part of Letters Patent No. 609,974, dated August 30, 1898.

Application filed March 14, 1898. Serial No. 673,745. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM ALFRED PARSONS and WALTER RAWSON, subjects of the Queen of Great Britain and Ireland, residing at London, England, have invented certain new and useful Improvements in Stoppered Jars, Bottles, or other Receptacles; and we do hereby 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of our invention is to provide a fluid-tight closure for bottles, jars, and other vessels of simple construction; and it consists, essentially, in providing the vessel with a flange about its mouth, in which flange are formed three recesses, preferably equidistant from each other, dividing said flange into three segments the under faces of which are inclined in one and the same direction, and in providing a cap and means within the same adapted to close the mouth of the jar fluid-tight, the rim of said cap having inwardly-bulging portions corresponding with the recesses in the flange of the vessel, so that when said cap is seated on the mouth thereof the inwardly-bulging portions will prevent the cap from turning on its seat, and, finally, in providing a locking device movable relatively to the cap, which locking device is provided with depending more or less elastic lips or clips having their lower edges bent inwardly and corresponding in number and location to the number and location of the recesses in the flange on the vessel and the inward bulges or depressions in the cap-rim, whereby after the cap is seated on the mouth of the vessel with its said inward bulges in the recesses in the flange thereon and the clips on the locking device in register with the recesses formed by said inward depressions in the rim of the cap said locking device can be turned, the inward lower edges riding along the downwardly-inclined under faces of the flange-sections, and thus drawing the cap tightly onto the mouth of the vessel; but that our inven-

tion may be fully understood we will describe the same in detail, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation of the neck of a glass jar; Figs. 2 and 3, top plan views thereof, the latter figure showing a modification in form of the recesses in the flange formed about the mouth of the jar. Fig. 4 is an under side view of the cap. Fig. 5 is a vertical cross-section of the neck of a jar with our improved closing device applied thereto. Fig. 6 is an elevation of Fig. 5. Fig. 7 is a perspective view of the locking device, and Figs. 8 and 9 are like views of the cap portions.

The construction of the devices for closing the mouth of a vessel fluid-tight may be varied in accordance with the nature of the contents of the vessel to be so closed. If the said contents of the vessel attack wood or metal, the closure is to be modified accordingly.

In the drawings we have shown a closure especially constructed for use on jars designed to contain preserves, jellies, conserves, and the like, in which case we provide a glass cover B, preferably of the same diameter as the mouth of the jar and the flange A formed around said mouth, said flange being divided by vertical peripheral recesses $A^1 A^2 A^3$ into three sections, the under faces of which are all inclined downwardly in the same direction, as more clearly shown in Fig. 1. In the under side of the glass cover is formed an annular groove, preferably rectangular in section, in which is seated a rubber gasket D, preferably cylindrical in section, the location of the said groove being such that the gasket will seat on the face of the mouth of the vessel, as shown in Fig. 5.

The glass cover B is contained in a metal cap C, and may be cemented or otherwise secured therein, or it may be provided with vertical peripheral recesses $B^1 B^2 B^3$, corresponding in number and location with the like recesses $A^1 A^2 A^3$ in the flange A on the vessel, into which fit inwardly depressed or bulging portions $C^1 C^2 C^3$, formed in the rim or flange of the cap C, thereby preventing the cover from turning in the cap. The cap C is of such depth as to project over the sectional flange A to about the highest point of

its inclined faces. When this cap C, with its contained cover B, is applied to the mouth of the vessel, so that the inwardly-bulging portions C' C² C³ will register with the recesses A' A² A³ in the flange A, said cap will be locked against rotation on the vessel, and it is therefore obvious that the glass cover B need not necessarily be locked to the cap.

The cap carries a locking device in the form of a loose disk E, provided with three depending more or less elastic clips E' E² E³, Fig. 7, which clips can be brought into register with the recesses formed by the inwardly-bulging portions C' C² C³ in the cap-flange, and the cap-cover and locking device can be applied to the mouth of the vessel by bringing the inwardly-bulging portions in register with the recesses A' A² A³ in the flange A, after which said locking-disk can be turned, the inwardly-bent lower edge of its clips moving along the inclined under face of the flange-sections, thereby drawing the cap C and its contained cover B tightly onto the mouth of the vessel, compressing the rubber gasket D and forming a perfectly fluid-tight joint.

When the glass cover is used, we preferably grind true the seat-surface thereof, as well as that of the vessel, so that contact will be established between said surfaces to prevent contact of the contents of the vessel with the rubber gasket, which is a very practical advantage.

Slight inaccuracies in the formation of the flange A on the jar or of the clips E' E² E³ on the locking disk or ring or in the shape and size of the annular groove in the under face of the glass cover B or in the shape and size of the rubber gasket D will be found of practically little or no importance, because the elasticity of the clips and packing-gasket will compensate for such slight inaccuracies, singly or combined.

To remove the cap, it is simply necessary to turn the locking-disk E, so that its clips will move up along the inclined under faces of the flange A until said clips are in register with the aforesaid recesses, when said cap and locking-disk can be lifted off the vessel.

One of the aforesaid recesses and clips may be made wider than the others, so that the cap and locking device may always be put on in the same way.

To facilitate the formation of the flange A on the vessel, we may distribute the recesses as shown in Fig. 3, and take away or bevel one edge of two of said recesses, so that the vessel or the flange portion thereof can be made with a two-part mold or molding tool or tongues.

Inasmuch as the locking device is entirely independent of the cap and has motion relatively thereto there is no danger of its rotation being in any way interfered with, as is often the case when internally-screw-threaded caps are used on jars having externally-threaded necks.

Having thus described our invention, what we claim as new therein, and desire to secure by Letters Patent, is—

1. The combination with a vessel provided at its mouth with a flange A having vertical peripheral recesses dividing the same into sections, the under faces of which are inclined in one and the same direction, of a cap fitting over said flange the rim of which cap is provided with inward depressions fitting into the aforesaid flange-recesses, means within the cap adapted to close the mouth of the vessel fluid-tight, and a locking device movable on the cap having depending more or less elastic clips corresponding in number and location with the said flange and cap recesses and adapted to engage the under face of the flange-sections, for the purpose set forth.

2. The combination with a vessel provided about its mouth with a flange A having vertical peripheral recesses of different widths dividing the same into sections, the under faces of which are inclined in one and the same direction, of a cap fitting over said flange, the rim of which cap is provided with inward depressions fitting into the aforesaid flange-recesses, means within the cap adapted to close the mouth of the vessel fluid-tight, and a locking device movable on the cap having depending more or less elastic clips corresponding in number and location with the said flange and cap recesses and adapted to engage the under face of the flange-sections, for the purpose set forth.

3. The combination with a vessel provided about its mouth with a flange A having vertical peripheral recesses dividing the same into sections whose under faces are inclined in one and the same direction, of a cover provided with an annular groove in its under face, a packing in said groove adapted to seat on the face of the mouth of the vessel, a cap fitting over said cover and flange A, said cap having inwardly-depressed portions fitting into said flange-recesses, and a locking device movable on the cap and provided with depending more or less elastic clips corresponding in number and location with the aforesaid flange-recesses, said clips adapted to engage the inclined under faces of the flange-sections, for the purpose set forth.

4. The combination with a vessel provided about its mouth with a flange A having vertical peripheral recesses dividing the same into sections whose under faces are inclined in one and the same direction, of a cover provided with peripheral vertical recesses corresponding with the recesses in said flange A and with an annular groove in its under face, a packing in said groove adapted to seat on the face of the mouth of the vessel, a cap fitting over said cover and flange A, said cap having inwardly-depressed portions fitting into said cover and flange recesses, and a locking device movable on the cap and pro-

vided with depending more or less elastic clips corresponding in number and location with the aforesaid flange-recesses, said clips adapted to engage the inclined under faces of the flange-sections, for the purpose set forth.

5 5. The combination with a vessel provided about its mouth with a flange A having vertical peripheral recesses dividing said flange into sections whose under faces are inclined
10 in one and the same direction; of a cover for the vessel, the contacting surfaces between the cover and vessel being ground true, said cover provided with peripheral vertical recesses corresponding with those in the flange
15 A, and with an annular groove in its under face, an elastic packing-ring in said groove adapted to seat on the ground face of the ves-

sel, a cap fitting onto the cover and flange A and provided with inward depressions fitting the peripheral recesses in the cover and 20 flange, and a locking device movable on the cap and having more or less elastic clips corresponding in number and location with the recesses in said flange A, said clips adapted to engage the under face of the flange-sections, for the purpose set forth. 25

In testimony that we claim the foregoing as our invention we have signed our names in presence of two subscribing witnesses.

WILLIAM ALFRED PARSONS.

WALTER RAWSON.

Witnesses:

E. W. ECAILLE,
FRED C. HARRIS.