

G. HENDERSON.

JAR CLOSURE.

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941,417.

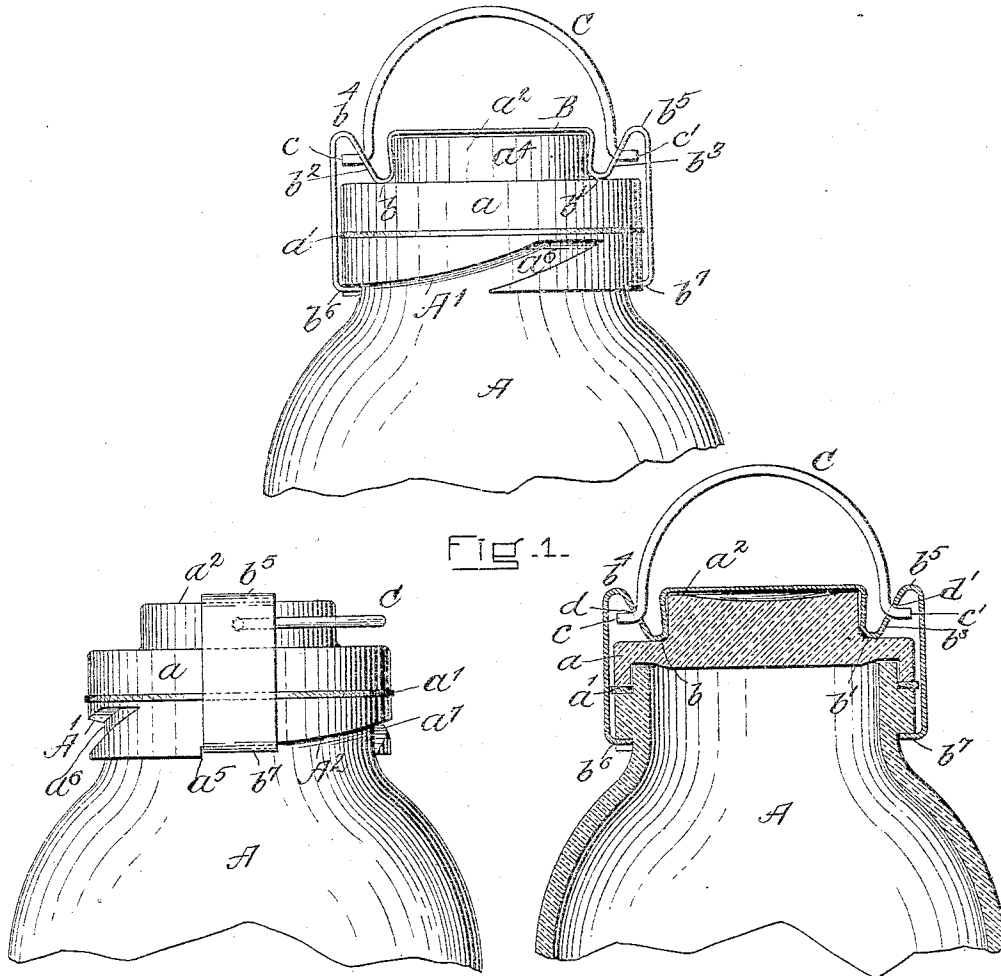


Fig. 1.

Fig. 2.

Fig. 3.

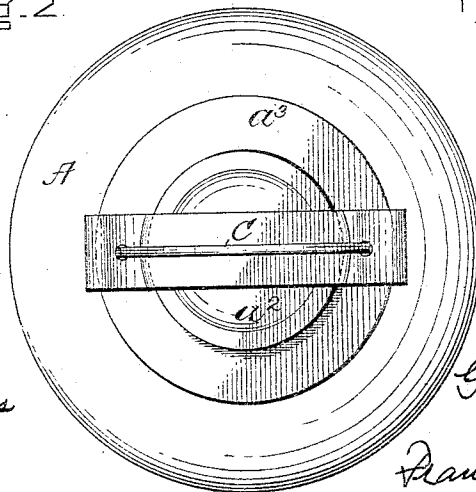


Fig. 4.

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JAR-CLOSURE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE HENDERSON, of Dorchester, in the county of Suffolk and Commonwealth of Massachusetts, have invented a new and useful Improvement in Jar-Closures, of which the following is a specification.

My invention relates to a form of closure which is especially adapted to jars and large bottles and which is effected by means of a spring clamp extending over the cover of the jar and drawn tightly down thereupon, when revolved, by engagement with downwardly slanting shoulders on the neck of the jar or bottle.

It is the special object of my invention to so shape the spring clamp and jar cover as to afford a combined arrangement which shall not only give increased pressure upon and varied contact with the cover, but also have such a disposition of parts that the spring clamp will not be exposed to accidental contacts which may displace it, and it will not so project above the top of the cover as to interfere with the packing of jars, one on top of another. It has also been my purpose to devise a form of spring clamp which will readily admit the insertion of a convenient handle therein.

My invention may best be understood by reference to the accompanying drawing in which—

Figure 1 shows part of a jar closed with my device, the spring clamp being shown in side elevation with the handle raised. Fig. 2 shows the jar closed as in Fig. 1 with the spring clamp viewed endwise and the handle lowered. Fig. 3 shows in cross section the parts arranged as in Fig. 1. Fig. 4 is a top view of the parts arranged as in Fig. 1.

Referring now more particularly to the drawings A represents the jar and *a* its cover which sets upon a rubber gasket *a*¹ in the usual manner. The cover *a* is provided with a raised portion *a*² which leaves a narrow surface *a*³ extending around it. This raised portion *a*² has an upwardly extending surface *a*⁴. Across the raised portion *a*² and down along the surface *a*⁴ extends a spring clamp B which bends sharply upward at the points *b* *b*¹ where it contacts with the surface *a*³ on opposite sides of the raised portion *a*². There are abruptly rising parts *b*² *b*³ on the clamp B which curves abruptly at points *b*⁴ *b*⁵ and extends down to where

it is provided with gripping parts *b*⁶ *b*⁷ which are adapted to engage the under side of the slanting shoulders A¹, A² on the neck of the jar A. These slanting shoulders A¹, A², are preferably provided with top surfaces as at *a*⁵ and between them are grooves *a*⁶, *a*⁷ in which the gripping parts *b*⁶ *b*⁷ may be entered preparatory to turning the clamp B into place. C represents the handle which has ends *c*, *c*¹ outwardly extending to permit it to be sprung into place in holes *d*, *d*¹ in the abruptly rising parts *b*², *b*³ on the clamp B.

The operation of my device is as follows: The cover *a* having been placed upon the jar the clamp B is then placed over the cover *a* and its gripping parts *b*⁶, *b*⁷ inserted in the grooves *a*⁶, *a*⁷ beneath the shoulders A¹, A². The clamp B is then revolved so as to draw it downward as its gripping parts *b*⁶, *b*⁷ continue to follow the downward trend of the slanting shoulders A¹, A².

From the formation of the spring clamp B it is evident that as its ends bearing the gripping parts *b*⁶, *b*⁷ are drawn downwardly the clamp, at its points *b*, *b*¹, will bear more and more heavily upon the surface *a*³ of the cover *a* while at the same time, because of the direction of force down the abruptly rising parts *b*², *b*³ of the clamp B the clamp B will be sprung in so as to grip somewhat the surface *a*⁴ of the raised portion *a*². This inward gripping of the surface *a*⁴ may be increased, if it is so desired by so shortening that portion of the clamp B that the points *b*, *b*¹ will not bear upon the surface *a*³ but the downward pressure of the clamp B may come upon the top rim of the raised portion *a*², but I prefer the form shown.

The handle C being loosely mounted may be placed in a horizontal position, as shown in Fig. 2, where it will not interfere with the packing of jars one on top of another. It is also possible to remove the handle C by simply springing its ends *c*, *c*¹ inwardly so as to withdraw them upon the holes *d*, *d*¹. The spring clamp B is made sufficiently stiff to bear the strain of an upward lift on the handle C without appreciably diminishing its pressure on the cover *a*. By reason of its multiplicity of bearings upon the cover *a* and because of the fact that the spring tension is derived from short spring members, I believe that my clamp B is far superior to any now in use for exerting a heavy pres-

sure upon the jar cover, and because its springing parts do not, when in operative position, protrude above the part which lies along the raised portion a^2 of the cover a they will not be affected by weighty objects placed on top of the jar. Moreover because the clamp B has but a small part of it off-
10 standing from the cover a whereby it may be exposed to accidental blows which might displace it and because of the lateral as well as downward pressure which it may be made to exert upon the cover a , I believe it to maintain itself in place more securely than any form of spring clamp now in use.

15 Having thus fully described my invention what I claim is—

1. In a device of the character specified the combination of a jar, slanting shoulders thereon, a cover, and a revoluble spring
20 clamp adapted to engage said shoulders and, upon the revolution thereof, to bear upon said cover with both lateral and downward pressure.

2. In a device of the character specified the combination of a jar, slanting shoulders thereon, a cover provided with an extension
25 part a narrow surface about the base of said extension part, and a spring clamp adapted to engage said shoulders and to fit over said extension part and to bear downwardly upon
30 said surface upon the tightening of said spring clamp by the revolution thereof.

3. In a device of the character specified the combination of a jar, slanting shoulders
35 thereon, a cover provided with an extension part, a revoluble spring clamp adapted to engage said shoulders and fit over said extension part and to grip the same laterally

upon the tightening of said spring clamp by the revolution thereof.

4. In a device of the character specified the combination of a cover provided with an extension part, a clamp adapted to fit
40 over said extension part and along the sides thereof said clamp bearing flexible members forming spring-pressure elements rising on
45 opposite sides of said extension part to a height not exceeding the height of that part of said clamp which fits over said extension
50 part.

5. The combination of a jar, slanting shoulders on the neck thereof, a cover to said
55 jar provided with an extension part, a narrow surface about the base of said extension part, an upwardly extending surface on said extension part, a revoluble clamp adapted to
60 fit across the top of said extension part and down along the upwardly extending surface of said extension part on either side thereof, flexible members forming spring pressure
65 elements on said clamp rising on opposite sides of said extension parts to a height not exceeding the height of that part of said clamp which fits over said extension part,
70 gripping members on said clamp adapted to engage said slanting shoulders and upon the revolution of said clamp to draw the same down upon said cover in a manner whereby it may firmly engage both said narrow surface about the base of said extension part and said upwardly extending surface on
said extension part.

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Witnesses:

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