

No. 743,494.

PATENTED NOV. 10, 1903.

E. O. HAIN.
JAR CLOSURE.

APPLICATION FILED JULY 10, 1903.

NO MODEL.

Fig. 1.

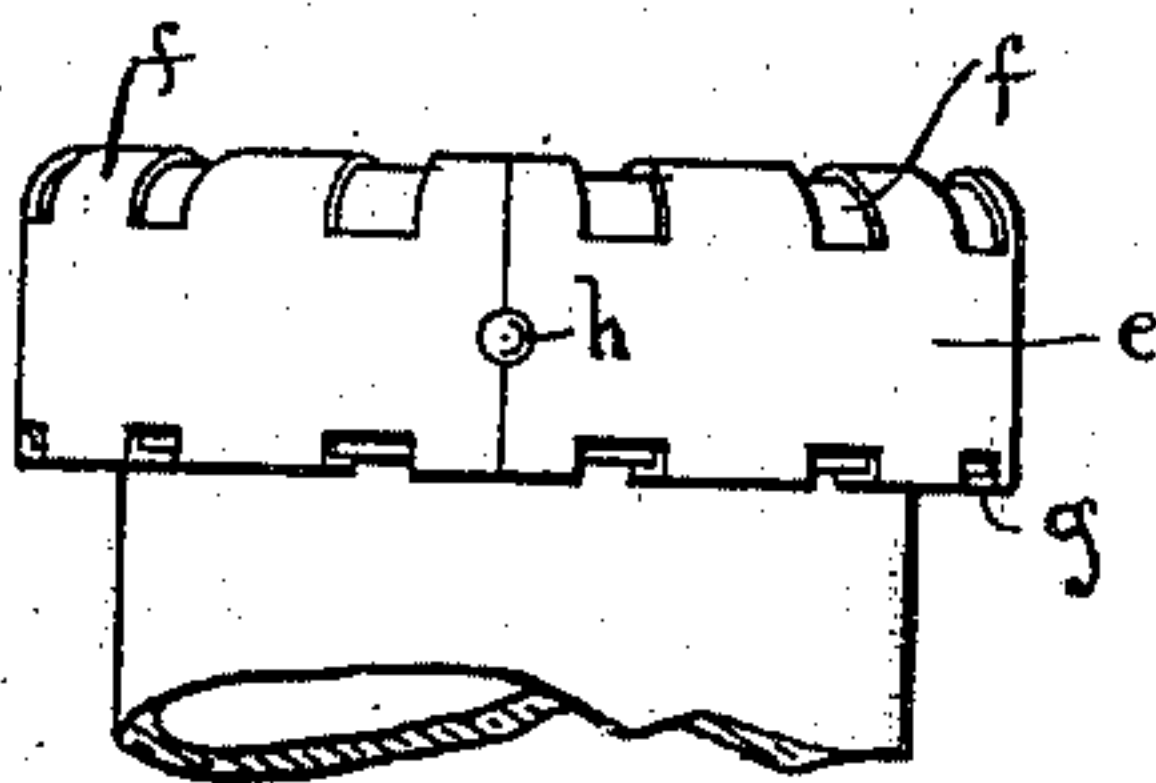
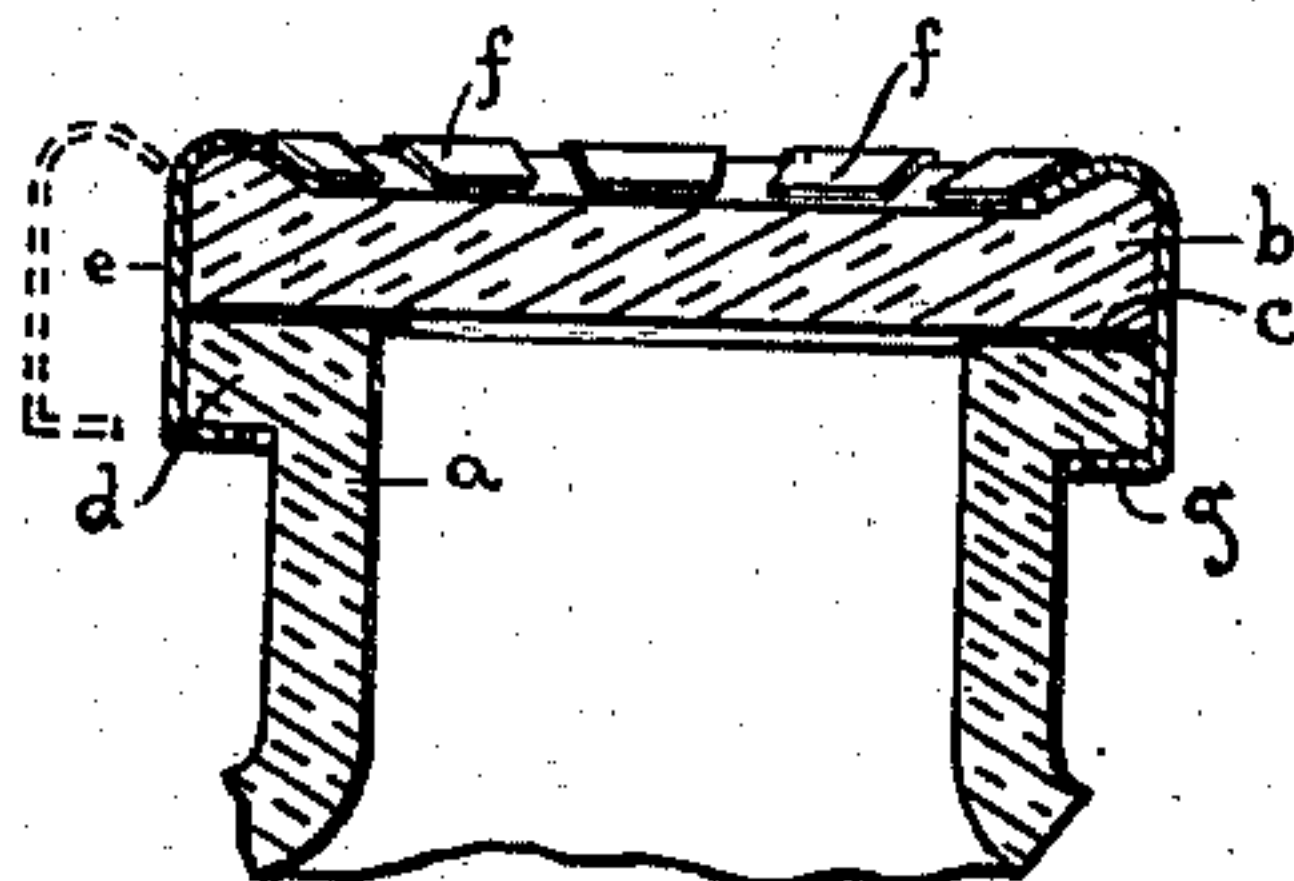


Fig. 2.

Fig. 3.

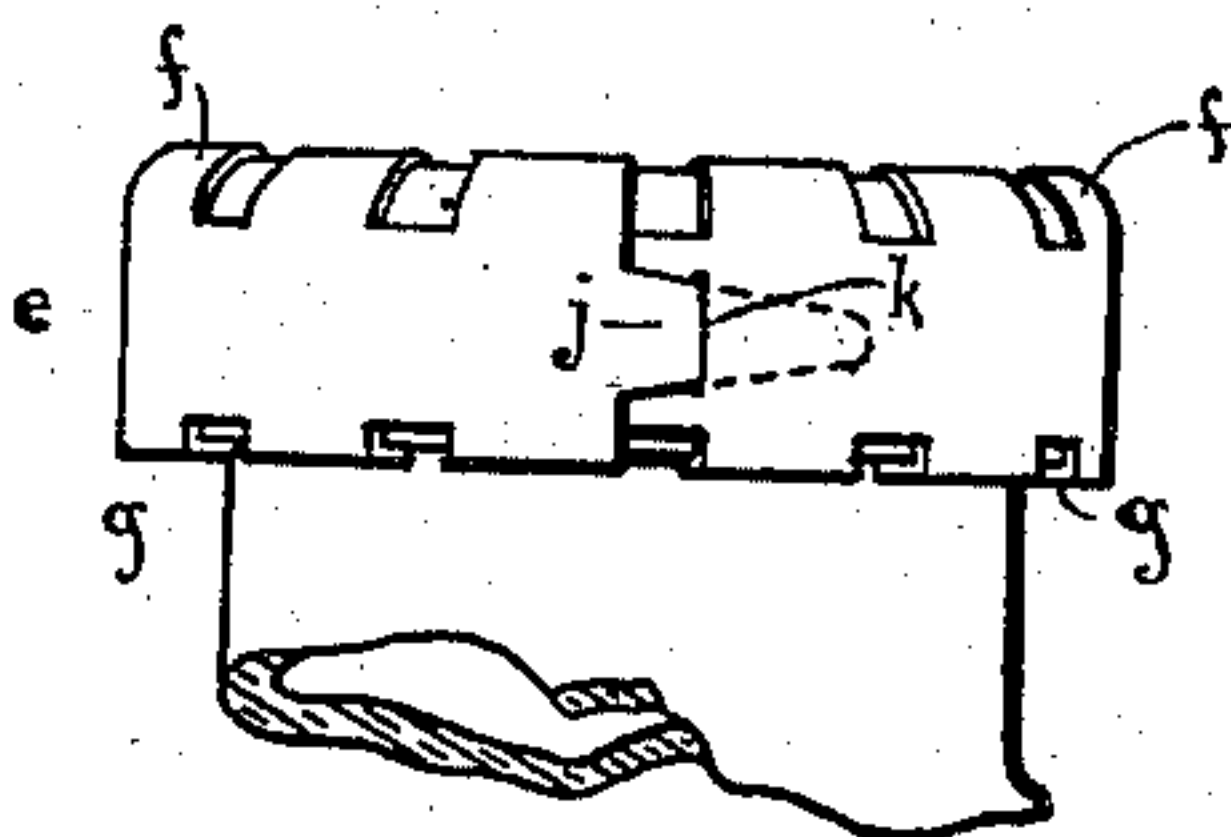


Fig. 3.

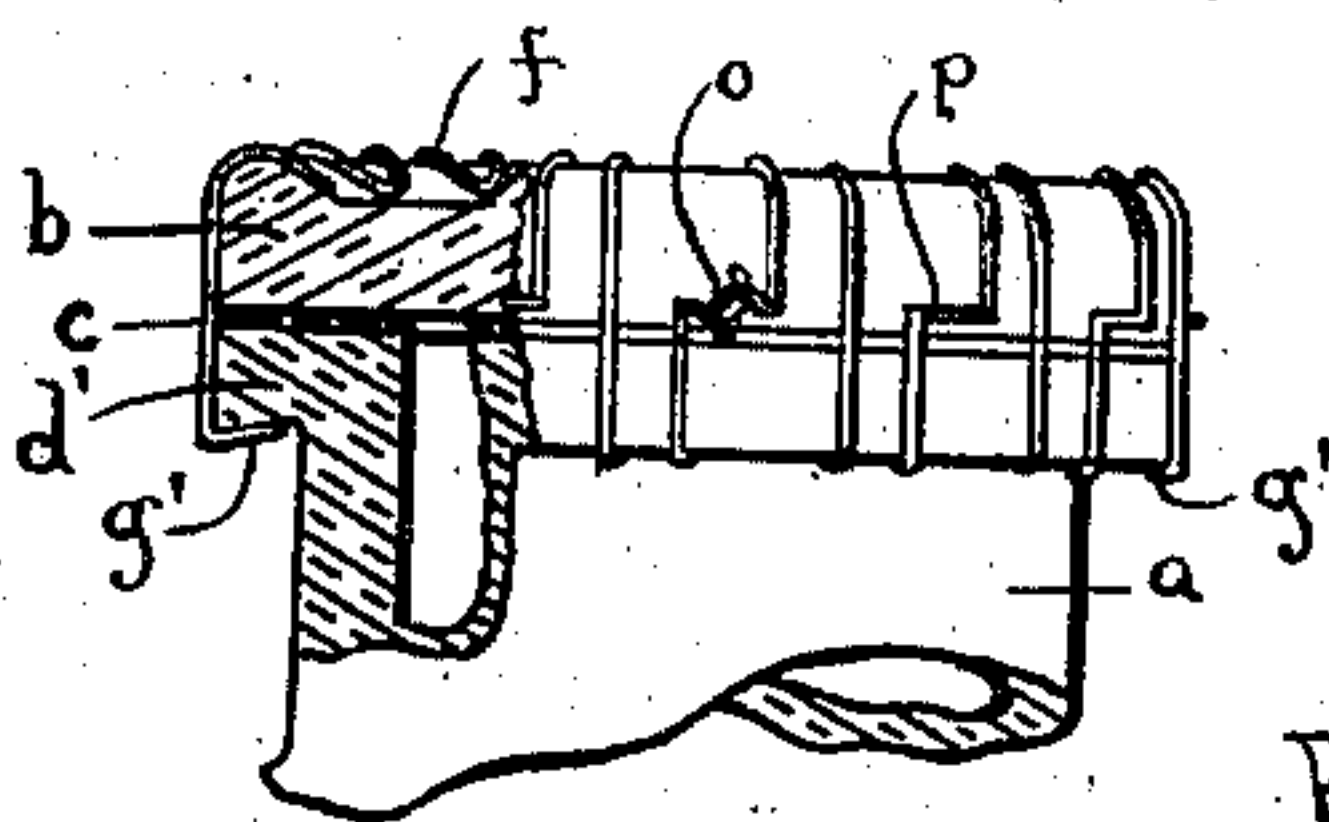
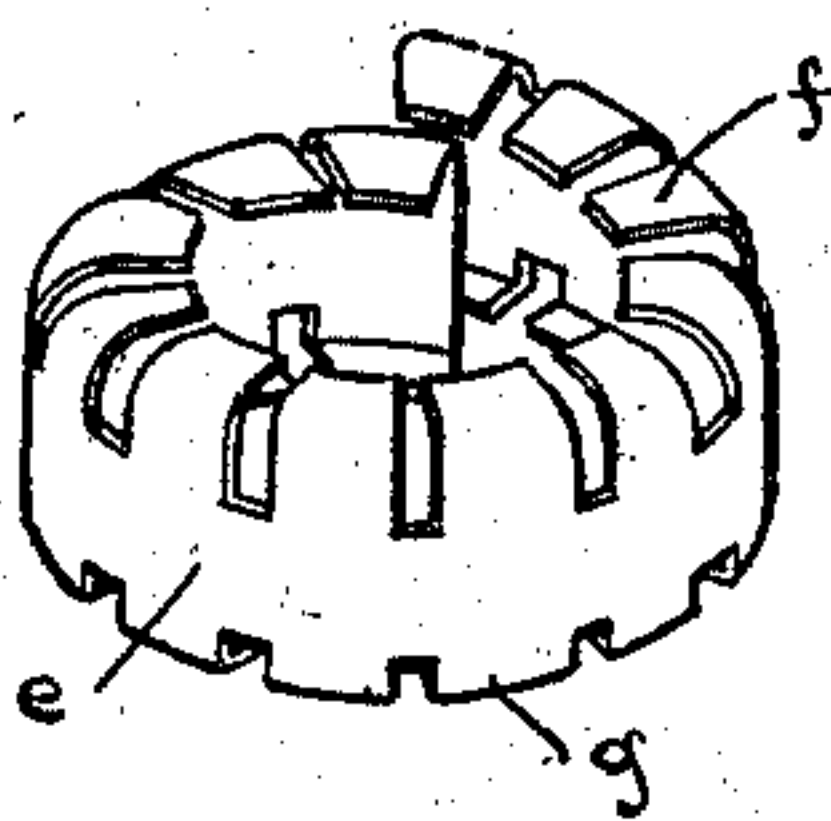


Fig. 4.

WITNESSES:

Brennan West.
M. T. Willey

Edward O. Hain, INVENTOR.

BY A. E. Foulsh
ATTORNEY.

UNITED STATES PATENT OFFICE.

EDWARD O. HAIN, OF CLEVELAND, OHIO.

JAR-CLOSURE.

SPECIFICATION forming part of Letters Patent No. 743,494, dated November 10, 1903.

Application filed July 10, 1903; Serial No. 164,933. (No model.)

To all whom it may concern:

Be it known that I, EDWARD O. HAIN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and useful Improvement in Jar-Closures, of which the following is a specification.

This invention relates to jar-closing devices, and has for its objects the production of a device of this character that is more easily applied, more securely held in position, and more easily removed than those heretofore made. These objects I attain in the structures illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view through a portion of a jar having one form of my invention applied thereto. Fig. 2 is side elevation of the same, showing one way of securing the ends of the band together. Fig. 3 is a similar view showing another way of securing these ends together. Fig. 4 is a view, partly in section and partly in elevation, of the neck of a jar having another form of my invention applied thereto; and Fig. 5 is a perspective view of a detached band, showing the form it naturally assumes before being applied to a jar.

Taking up the detailed description of the invention, *a* represents the upper part or neck of a jar or similar device, and *b* represents the cover therefor, said cover resting, preferably, upon a ring *c* of packing material. While I do not wish to limit myself to the exact shape of jar and cover shown, I prefer to make the jar with a flange *d*, that has its lower side substantially at right angles to the central axis of the jar, and to form the cover with a rounded bead about its upper edge. In Fig. 4 I have shown the flange, which is there designated *d'*, as having a slightly-inclined lower surface.

The cover is held on the jar by means of a band of resilient material—as steel, spring-brass, &c.—said band consisting of a central strip or portion *e*, from the upper edge of which projects a series of spring-fingers *f*, while a corresponding series of spring-fingers *g* projects from the lower edge, the fingers in the two series being preferably arranged opposite one another, the corresponding fingers in the series taken together forming spring-

clips. Each finger of each of the series is bent so as to fit the corresponding part of the cover or the jar when the band is in position, as shown in Fig. 1.

The strip *e* may be left straight or flat in the manufacture of the band; but it is preferably bent into the circular form shown in Fig. 5, the diameter of the band then being slightly smaller than the cover and the jar upon which it is intended to be used, so that the ends of the band overlap slightly. When thus bent, the resiliency in the strip *e* holds the same about the edge of the cover when applied and tends to assist in snapping the finger-clips over the bead on the cover and in holding them in position. In either case, however, the band is applied to the jar by snapping the clips in place, the clips first taking the position indicated in dotted lines in Fig. 1, when by applying a little pressure to the outer part of the fingers *f* they are successively forced over the bead on the cover until they are all in place, when the band presents the appearance indicated in Fig. 2, with the ends abutting.

The clips being of resilient material, they will securely hold the band in place under ordinary usage; but at times it will be desirable to secure the abutting ends of the band together, which may be done by placing a small drop of solder *h* over the ends, as indicated in Fig. 2, or, if preferred, a tongue *j* may be extended from one end of the band and projected through a slit *k* in the other end, as shown in Fig. 3. As stated, however, it is only in cases where the jars are to be subjected to rough usage or when the contents are under pressure that any securing means other than the clips will be required.

In Fig. 4 I have shown a modified form of band, said band being formed of a continuous piece of spring-wire that is bent from the center alternately in opposite directions, so as to form spring-fingers *f'* and *g'*. This band is applied in the same manner as the one shown in Fig. 1, and when in place the ends may be hooked or twisted together, as shown at *o*. It will be seen that the clips are connected together at their centers by means of bent portions *p*, said portions corresponding to the central strip or portion *e* of the other form.

In opening the jar it is only necessary to

disconnect the ends of the band, when by taking hold of one end of the same and pulling outwardly the fingers will successively yield to the force applied until the band will be
5 stripped entirely away. However, the fingers and the band immediately return to their original condition and are ready to be applied again.

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

1. In a jar-closure, a series of spring-clips engaging with the jar and the cover and holding the latter in position, and means connecting the clips so that they are held together and
15 may be successively stripped from the jar by a continuous pull.

2. A jar having a flanged neck, a cover therefor having a curved bead formed thereon, a series of spring-clips engaging with the
20 said flange and bead to hold the cover in position, and means connecting the clips so that they are held together and may be successively stripped from the jar by a continuous
25 pull.

3. A jar having a cover and a device for holding the cover in position, said device consisting of a central portion, and fingers projecting from the edges of the latter, said fingers
30 being formed of resilient material so that they are adapted to grip the cover and the jar and hold them securely together.

4. A jar having a cover, a band of spring material for surrounding the edge of the
35 cover, spring-fingers forming clips projecting from the edges of the band, said fingers being bent so as to grip the cover and the jar and hold them securely together, the resiliency of the band holding the clips in position.

5. A jar having a flange about its neck and a cover resting upon the flange, said cover
40 having a bead about its edge, a strip of resilient material adapted to be applied to the jar so as to encircle the latter, resilient fingers projecting from the edges of the strip, said fingers being bent so as to conform to the
45 shape of the opposite faces of the flange and the bead, and means for securing the ends of the strip together.

6. A jar having a flange about its neck and a cover resting upon the flange, said cover
50 having a bead about its edge, a device for holding the cover in position, said device consisting of a central portion and fingers projecting from the edges of the latter, said fingers being formed of resilient material and bent so that those on one edge approach toward those on the other edge, whereby when
55 the said device is applied to the jar the fin-

gers must be spread apart as they pass over
60 the bead, and after passing the same they grip the cover and hold it to the flange of the jar.

7. A jar having a flange about its neck, and a cover resting upon the flange, said cover
65 having a bead about its edge, a device for holding the cover in position, said device consisting of a central strip and fingers projecting from the edges of the latter, said fingers being formed of resilient material and bent so
70 that those on one edge approach those on the other edge, whereby when the said device is applied to the jar the fingers must be spread apart as they pass over the bead, and after passing the same they grip the cover and hold
75 it to the flange of the jar, and means for securing the ends of the strip together.

8. A jar having a flange about its neck and a cover resting upon the flange, said cover
80 having a bead about its edge, a device for holding the cover in position, said device consisting of a central strip and fingers projecting from the edges of the latter, said fingers being formed of resilient material and bent so that those on one edge approach toward
85 those on the other edge, whereby when the said device is applied to the jar the fingers must be spread apart as they pass over the bead, and after passing the same they grip the cover and hold it to the flange of the jar,
90 a tongue projecting from one end of the said strip, and a slit in the other end of the same through which the said tongue can be inserted to hold the device in position.

9. A jar having a cover, a strip of resilient
95 material curved so as to be of smaller diameter than the cover, and spring-fingers projecting from the edges of the band, the fingers holding the cover in position and the resiliency of the strip acting to hold the fingers
100 in place when the jar is closed.

10. A jar having a flanged neck and a cover, a device for holding the cover in position, said device consisting of a central portion and
105 resilient fingers projecting from the edges of the latter, the fingers being bent at such an angle to the said central portion that the fingers on one edge must be bent back from the fingers on the opposite edge in order to span the flange and the cover when the device is being
110 applied.

In testimony whereof I affix my signature in the presence of two witnesses.

EDWARD O. HAIN.

Witnesses:

S. E. FOUTS,
C. N. FISCUS.