

H. OP DE HIPT.  
 JAR CLOSURE.  
 APPLICATION FILED NOV. 22, 1910.

997,505.

Patented July 11, 1911.

2 SHEETS—SHEET 1.

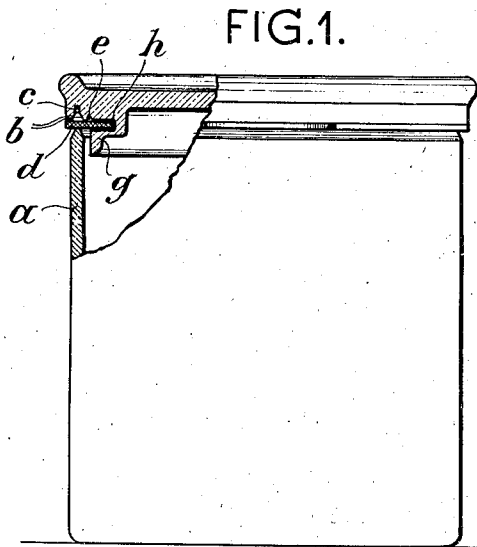


FIG. 1.

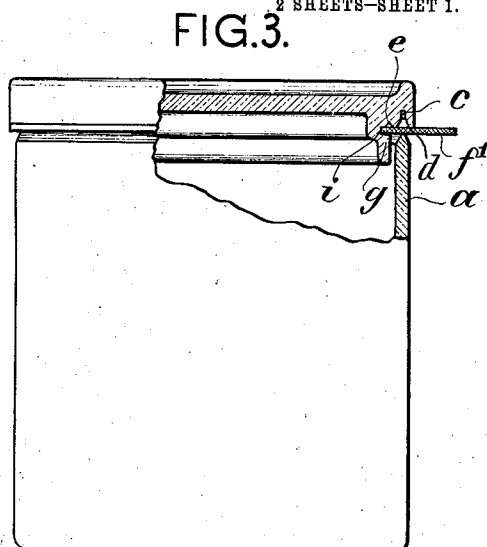


FIG. 3.

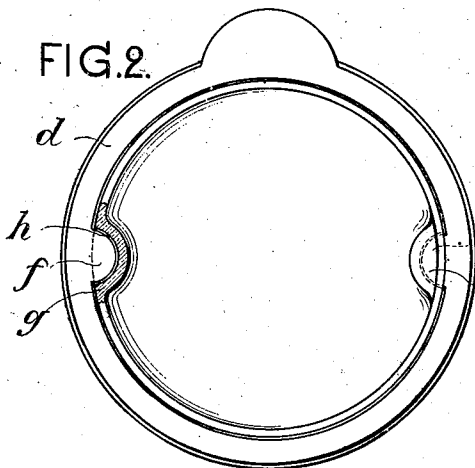


FIG. 2.

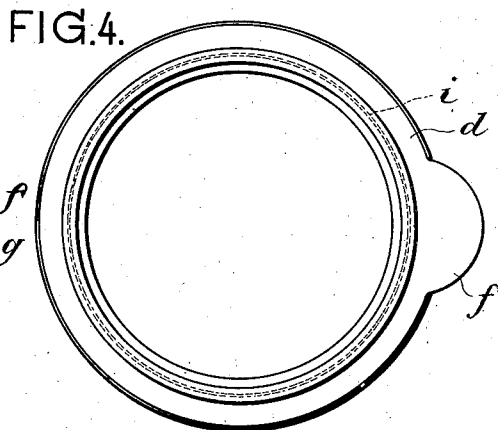


FIG. 4.

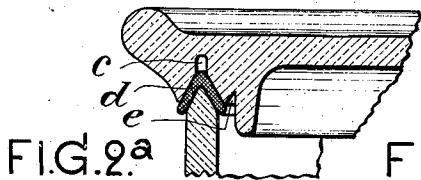


FIG. 2<sup>a</sup>

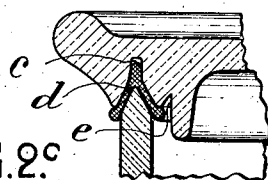


FIG. 2<sup>b</sup>

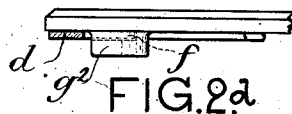


FIG. 2<sup>a</sup>

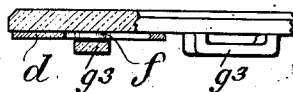


FIG. 2<sup>b</sup>

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2 SHEETS—SHEET 2.

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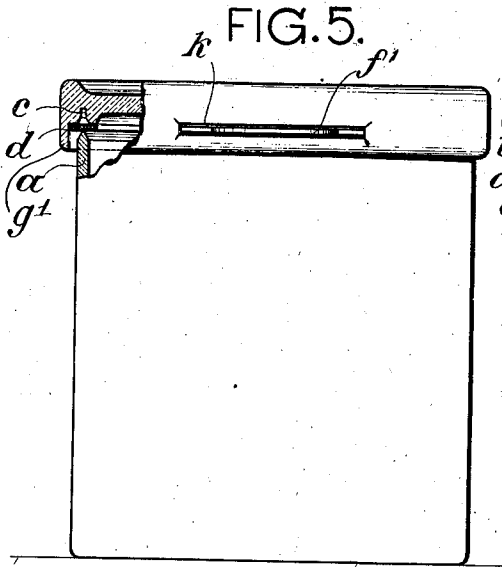


FIG. 5.

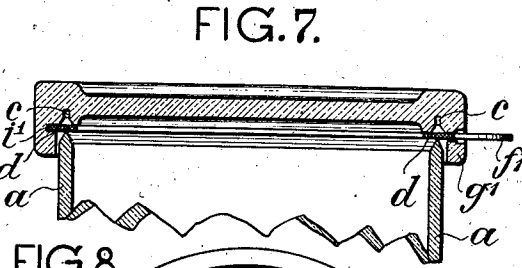


FIG. 7.

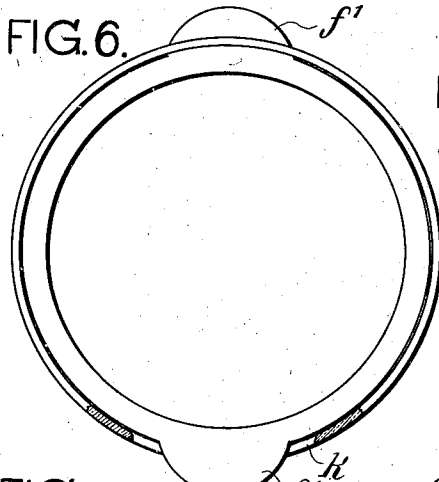


FIG. 6.

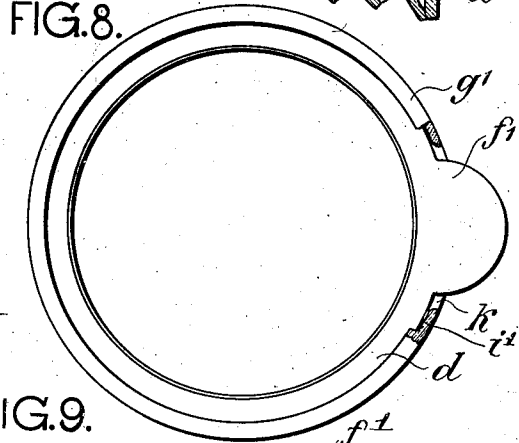


FIG. 8.

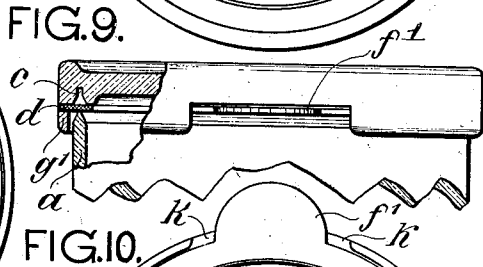


FIG. 9.

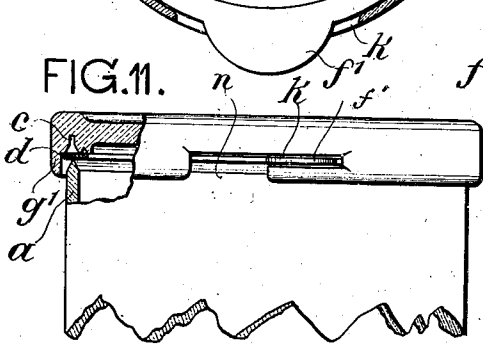


FIG. 11.

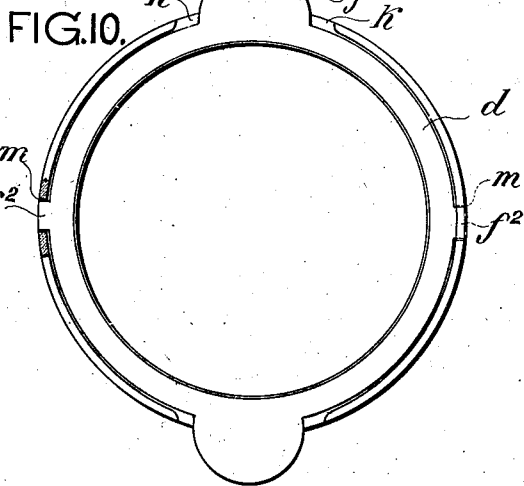


FIG. 10.

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# UNITED STATES PATENT OFFICE.

HERMANN OP DE HIPT, OF WEHR, GERMANY.

## JAR-CLOSURE.

997,505.

Specification of Letters Patent. Patented July 11, 1911.

Application filed November 22, 1910. Serial No. 593,595.

To all whom it may concern:

Be it known that I, HERMANN OP DE HIPT, a citizen of Germany, residing at Wehr, Grand Duchy of Baden, Germany, have invented a new and useful Jar-Closure, of which the following is a specification.

This invention relates to a jar closure of novel construction, and more particularly to novel means for effecting a tight and uniform packing between the jar and its cover.

In the accompanying drawing: Figure 1 is an elevation partly in section of a jar provided with my improved closure; Fig. 2 a bottom view partly in section of the lid and gasket; Fig. 2<sup>a</sup> a section through the joint before being finally closed; Fig. 2<sup>b</sup> a similar section through the finally closed joint; Fig. 2<sup>c</sup> a detail of a modification of the lid and gasket; Fig. 2<sup>d</sup> a detail of another modification thereof; Fig. 3 an elevation partly in section of a jar showing a further modification of the lid and gasket; Fig. 4 a bottom view of the lid and gasket of Fig. 3; Fig. 5 an elevation partly in section of a jar showing a further modification; Fig. 6 a bottom view partly in section of the lid and gasket of Fig. 5; Fig. 7 a vertical section of a further modification of the closure; Fig. 8 a bottom view partly in section of the lid and gasket of Fig. 7; Fig. 9 an elevation partly in section of a further modification of the closure; Fig. 10 a bottom view partly in section of the lid and gasket of Fig. 9, and Fig. 11 an elevation partly in section of a further modification of the closure.

The body *a* of a suitably shaped jar or vessel is provided with a symmetrically tapering upper edge or rim formed by an inner and an outer bevel, such inner and outer bevels extending respectively to the inner and outer sides of the vessel. The lid is provided with a groove *b* adapted to receive said edge and made of flaring or inverted V-shape in cross section. At its top or apex groove *b* opens into a contracted channel or recess *c*, the sides of which are substantially parallel. Channel *c* is symmetrical in cross section and is centered vertically above the tapering edge of vessel *a*, when the lid is closed. A flat flexible gasket *d* is placed between jar rim and lid the width of said gasket exceeding that of the mouth of groove *b*. Thus when pressure is applied, the gasket will be so bent as to lie snugly

between the flaring top of the jar and the flaring sides of groove *b*. During this operation the central zone of the gasket will be accommodated within recess *c*, so that an undue compression of the gasket is here prevented, and the gasket will thus be uniformly compressed throughout its width. In other words, the gasket is relieved from vertical pressure, and is subjected to a sliding or distending pressure only, so that a uniform adjustment of its particles is effected. This even distribution is assisted by a small groove *e* of the lid arranged concentric to groove *b*. Furthermore as the gasket becomes tightly stretched over the upper edge of the jar, a tight packing is also obtained along its central zone, immediately below recess *c*. It should further be noted, that if owing to inaccuracies, either the inner or the outer bevel of the jar should not become tightly packed, this will be compensated for, by an increased efficiency of the packing at the other bevel. So also the packing will accommodate itself to inaccuracies of the joint, so that the latter need not be ground true, and a corresponding economy is effected. In order to prevent gasket *d* from becoming unseated when the jar is opened or closed, it is provided with a suitable number of inwardly extending flaps or ears *f*. From the lid there depends an inner rim *g* and above such rim are formed laterally extending recesses *h* adapted for the reception of the ears, so that the gasket is held in position without tension.

In Fig. 2<sup>c</sup> the recessed rim *g* is replaced by a number of recessed bosses *g*<sup>2</sup> depending from the lid and adapted to receive ears *f*, while in Fig. 2<sup>d</sup> the ears are received within apertured keepers *g*<sup>3</sup> of the lid.

In Figs. 3 and 4 the lid is provided above rim *g* with a continuous annular groove *i*, adapted for the reception of the inner rim of gaskets *d*, while outwardly extending flaps *f* constitute finger pieces.

In Figs. 5 and 6 the lid is provided with an outer rim *g*<sup>1</sup> having slits *k* for securing the lugs *f*<sup>1</sup> of gasket *d*.

In Figs. 7 and 8 outer rim *g*<sup>1</sup> besides having slits *k* for lugs *f*<sup>1</sup>, is provided with an annular groove *i*<sup>1</sup>, that receives the outer rim of gasket *d*. In this modification the parts *k*, *f*<sup>1</sup> may be omitted if desired.

In Figs. 9 and 10 tongue *f*<sup>2</sup> and slits *k* are

retained, while additional projections  $f^2$  of the gasket are received within additional recesses  $m$  of flange  $g'$ .

In Fig. 11 the slits  $h$  that receive tongues  $f'$ , are partly open as at  $n$  for facilitating the introduction of the tongues into the slits.

I claim:

In a jar closure a vessel having a symmetrically tapering rim the inner and outer bevels of which extend respectively to the corresponding sides of the vessel, combined with a cover having a symmetrically tapering groove the walls of which are arranged parallel to the corresponding rim-bevels and having also a channel opening into the apex

of said groove, and with a flat gasket removably secured to the lower side of the cover and extending across the groove, said gasket being adapted to be bent over the tapering rim and to be uniformly forced against the groove-walls, whereby the surplus of material congregated at the crest of the gasket is free to enter the channel so as to effect a maximum and uniform compression of the gasket along both rim-bevels.

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