

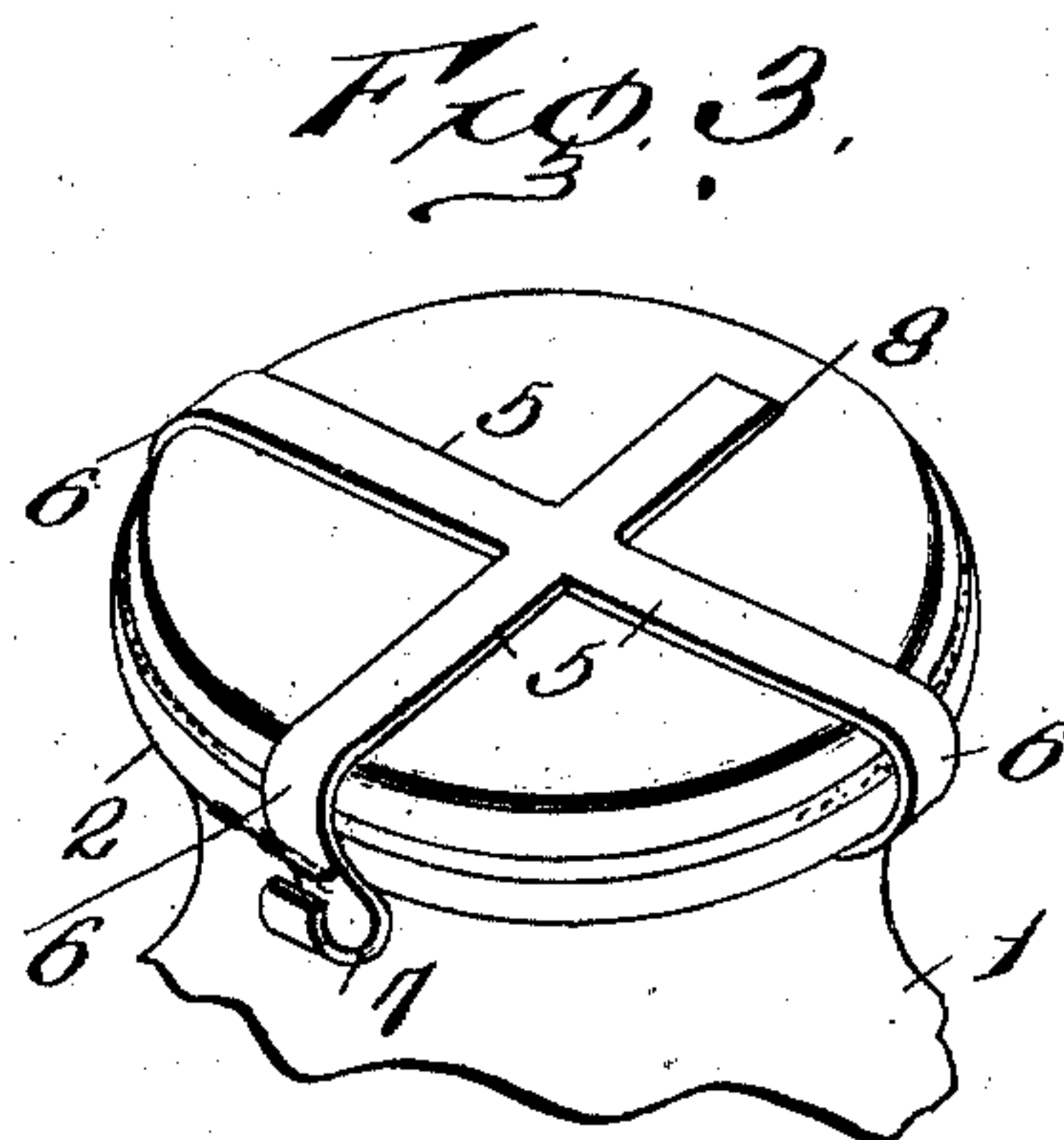
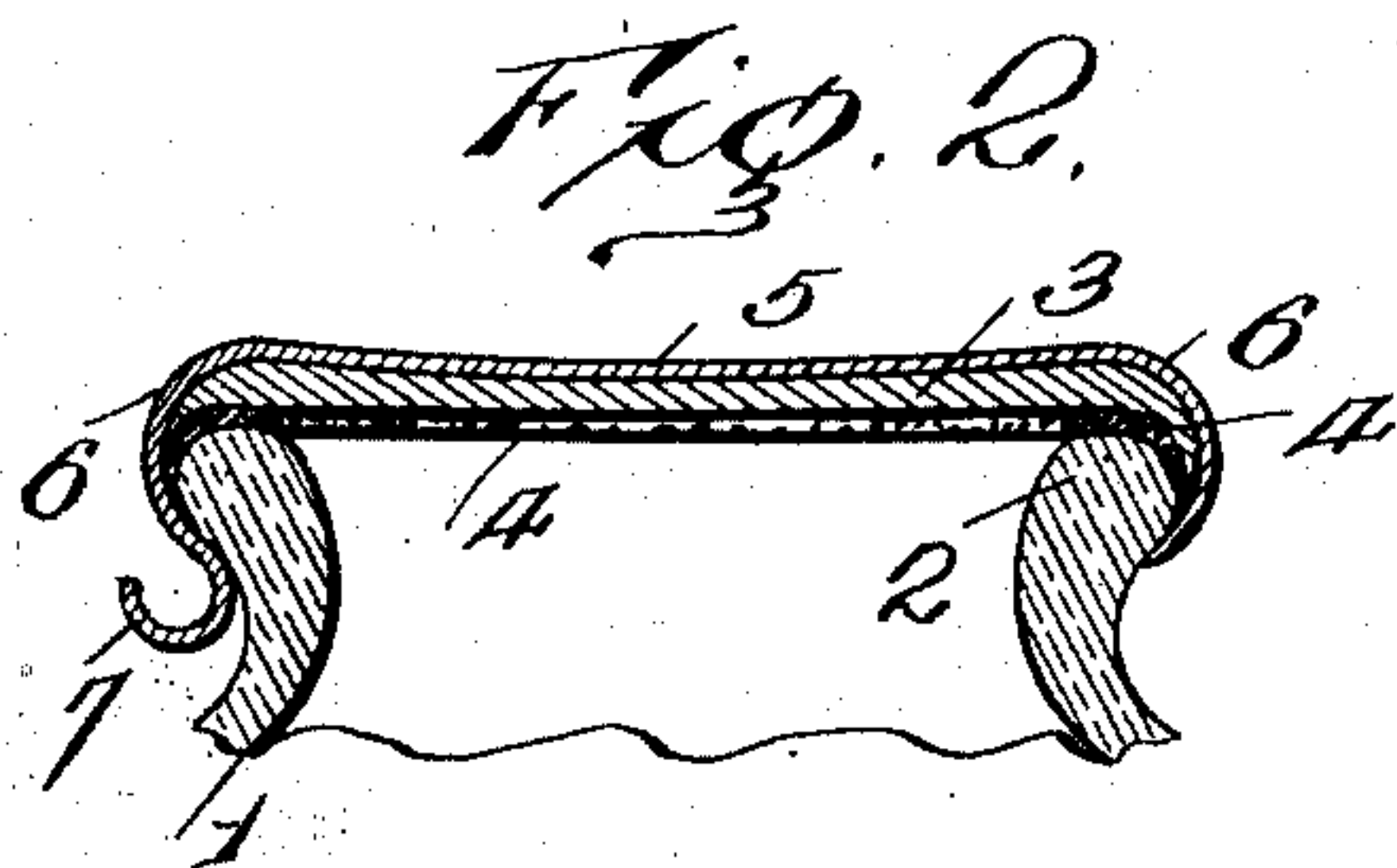
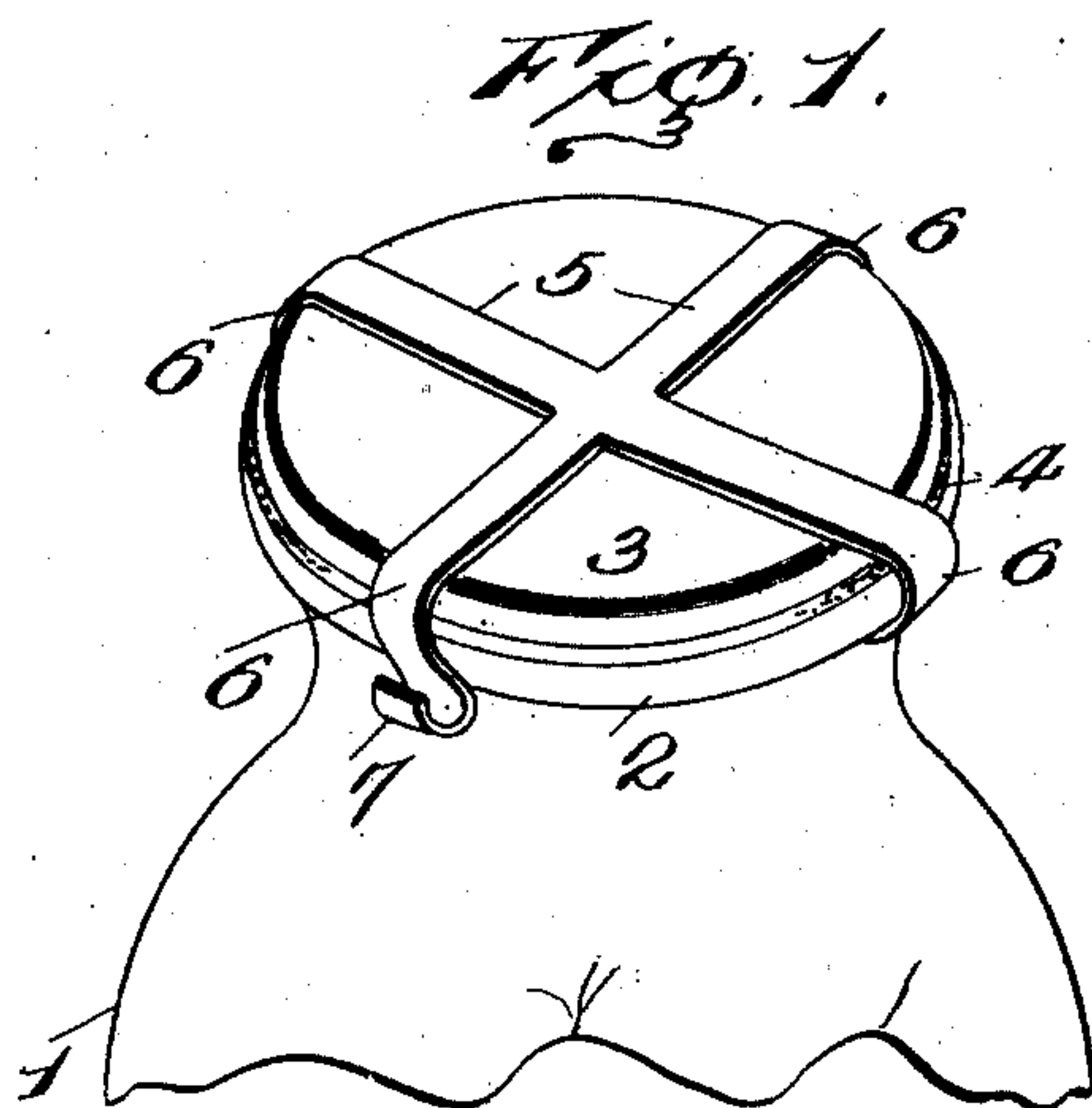
No. 865,187.

PATENTED SEPT. 3, 1907.

J. KUNKEL.

JAR CLOSURE CLAMP.

APPLICATION FILED JULY 11, 1907.



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UNITED STATES PATENT OFFICE.

JOHN KUNKEL, OF WELLSBURG, WEST VIRGINIA.

JAR-CLOSURE CLAMP.

No. 865,187.

Specification of Letters Patent.

Patented Sept. 3, 1907.

Application filed July 11, 1907. Serial No. 383,274.

To all whom it may concern:

Be it known that I, JOHN KUNKEL, a citizen of the United States, residing at Wellsburg, in the county of Brooke and State of West Virginia, have invented certain new and useful Improvements in Jar-Closure Clamps, of which the following is a specification.

This invention contemplates certain new and useful improvements in jar closure clamps of that type which embody a series of divergent arms that are provided at their ends with hooks designed to extend down and over and around the bead at the mouth of the jar or bottle to hold the disk or similar closure in place on said mouth.

The object of my invention is to provide an improved device of this character which will equalize the pressure upon the closure to the best possible advantage, and one which may be cheaply manufactured and which will be efficient in operation as well as easy of application and removal.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the results reference is to be had to the following description and accompanying drawings, in which

Figure 1 is a perspective view showing the application of my invention in actual use. Fig. 2 is a vertical sectional view through the upper portion of a jar, my improved clamp being applied thereto. Fig. 3 is a perspective view illustrating a slight modification.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawing, the numeral 1 designates a jar which is provided at its mouth with the usual rounded rim bead 2.

3 designates the closure which is in the form of a disk adapted to fit upon the mouth of the jar, and 4 designates a gasket or washer which may be interposed between the disk and that portion of the mouth in which the closure fits.

My improved clamp is composed of spring metal or material and embodies four divergent arms that emanate from a central portion at substantially right angles to each other. In that form of the invention illustrated in Fig. 1, these arms, designated 5, are all provided at their ends with downwardly and inwardly facing hooked extremities 6 which are designed to extend down over and underneath the rim bead 2 so as to securely hold the device over the closure 3 and seal the mouth of the jar.

As best illustrated in Fig. 2, the arms slope downwardly from their hooked or outer ends towards their inner ends where they are all connected together in an integral manner, as shown, whereby to provide at the center of the clamp a depressed portion which causes the clamp in an operative position to press firmly upon

the center of the disk 3, the pressure being equalized in four different directions at right angles to each other so as to distribute the pressure to the best possible advantage. One of the arms 5 is continued beyond its hook 6 in an outward and upwardly curled direction, so as to produce a convenient finger piece. It is particularly noted that the arms 5 diverge substantially at right angles from each other, and that the diametrically opposite arms, or those in alinement with each other, are approximately equal to the outside diameter of the rim bead 2. Hence in the practical application of the clamp to the mouth of the bottle, it is evident that the clamp may be slipped into place by a sliding movement until that hook which is opposite the finger piece 7 comes tightly into engagement with and against the rim bead, the other arm of this diametrically opposite pair sliding upon the upper face of the disk 3 in this movement, this sliding action being accommodated by the spring characteristics of the clamp. It will thus be seen that even before the hook 6, which is extended into the finger piece 7, shall have been brought into locking engagement with the rim bead, the other three equidistant hooks are firmly engaged with the said rim bead and that therefore to complete the locking operation, it is only necessary to grasp the finger piece 7 and snap its hook down over the rim bead. Thus when the device is in place, the pressure will be equalized upon all sides, and it will be impossible to accidentally snap the device from the jar by striking it sidewise, which is a serious defect of that type of spring closure clamps known as the Y type.

In that form of the invention illustrated in Fig. 3 the same construction is disclosed except that one of the divergent arms terminates short of the edge of the disk 3 and the rim bead, and is thus devoid of any hook. This form of closure is applied, like the form shown in Fig. 1 by a sliding movement, the only difference being that the hook 6 which is extended to form the finger piece 7, takes the place of that hook 6 in Fig. 1, which is opposite the hook with the extension, and that in Fig. 3, the hook with the extension brings up against the rim bead 2 in the sliding movement without any snapping action of the opposite arm designated 8, this latter merely serving to equalize the pressure of the four equidistant or diverging arms upon the disk 3, said pressure being focalized at the center of the said disk and emanating from said center in four equidistant radial lines.

Having thus described the invention, what is claimed as new is:—

1. The combination with a jar or the like, provided with a rim bead, and a disk closure on said bead, of a clamp comprising four spring arms integrally connected together at their inner ends from which they diverge at right angles to each other, all of said arms sloping towards the center of the clamp, one of said arms being provided at its outer end with a downwardly and inwardly facing hooked extremity and beyond the hook with an outwardly and

upwardly curled finger piece, and the two adjacent arms being provided with downwardly and inwardly facing hooked extremities that are adapted to fit the said rim bead, the two said arms being substantially of a length, 5 combined, equal to the outside diameter of the rim bead, whereby the clamp may be slid laterally upon the rim bead until the three named hooks engage the sides of the same, the equidistant divergence of the arms and their sloping towards the center, serving to distribute the pressure of the clamp upon the disk and also serving to focal- 10 ize the pressure at the center of the latter.

2. As a new article of manufacture, a clamp for jar closures comprising divergent spring arms 5, having their

outer ends downwardly and inwardly bent to form hooks, the hooks of one of the arms being upwardly bent to form 15 a finger piece, an extension 8 projecting from the adjacent arms 5 aforesaid, said extension terminating adjacent the peripheral portion of the closure, the inner end portions of the arms 5 and the extension 8 being in a plane lower than the outer end portions. 20

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

JOHN KUNKEL. [L. S.]

Witnesses:

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