

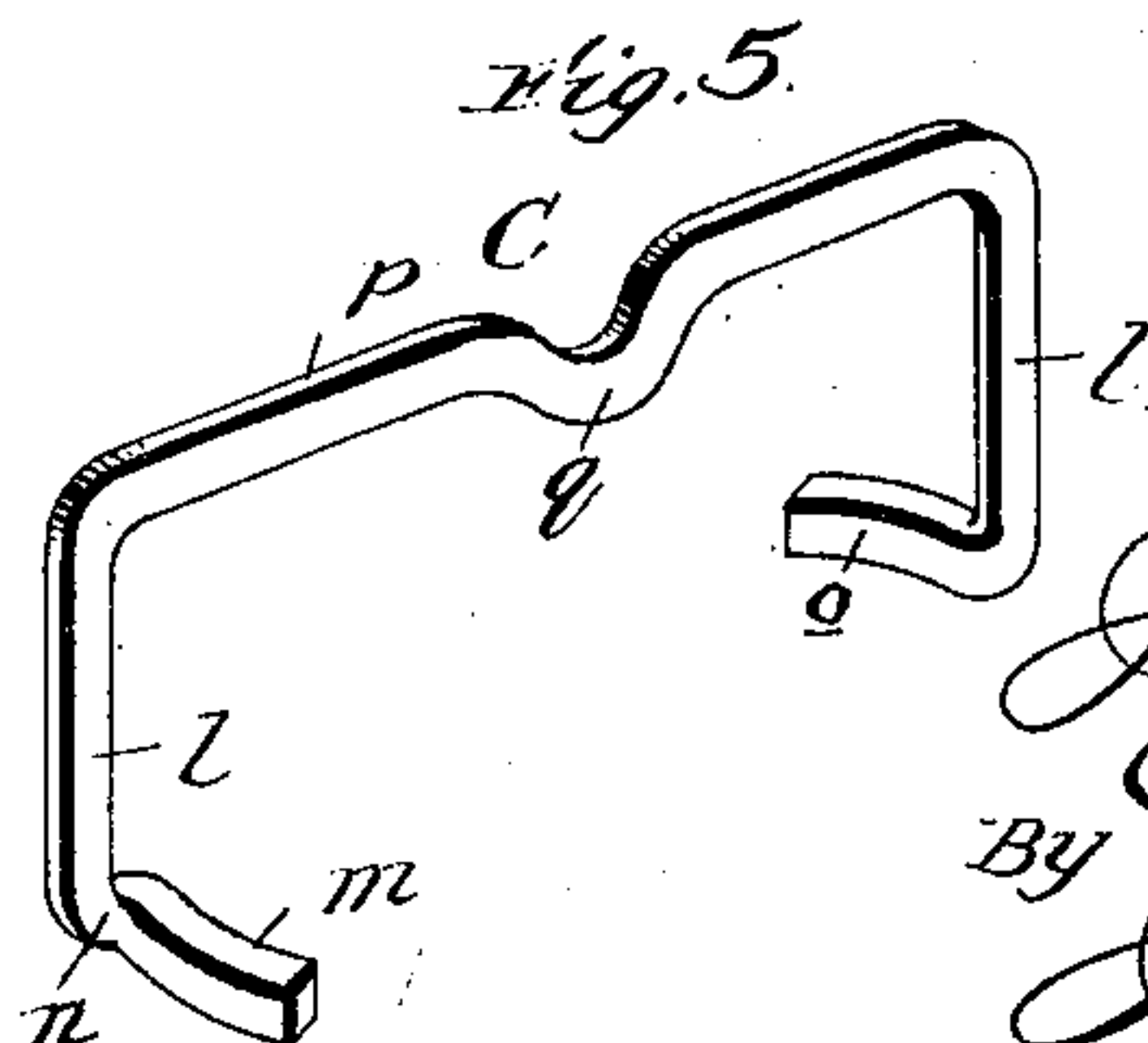
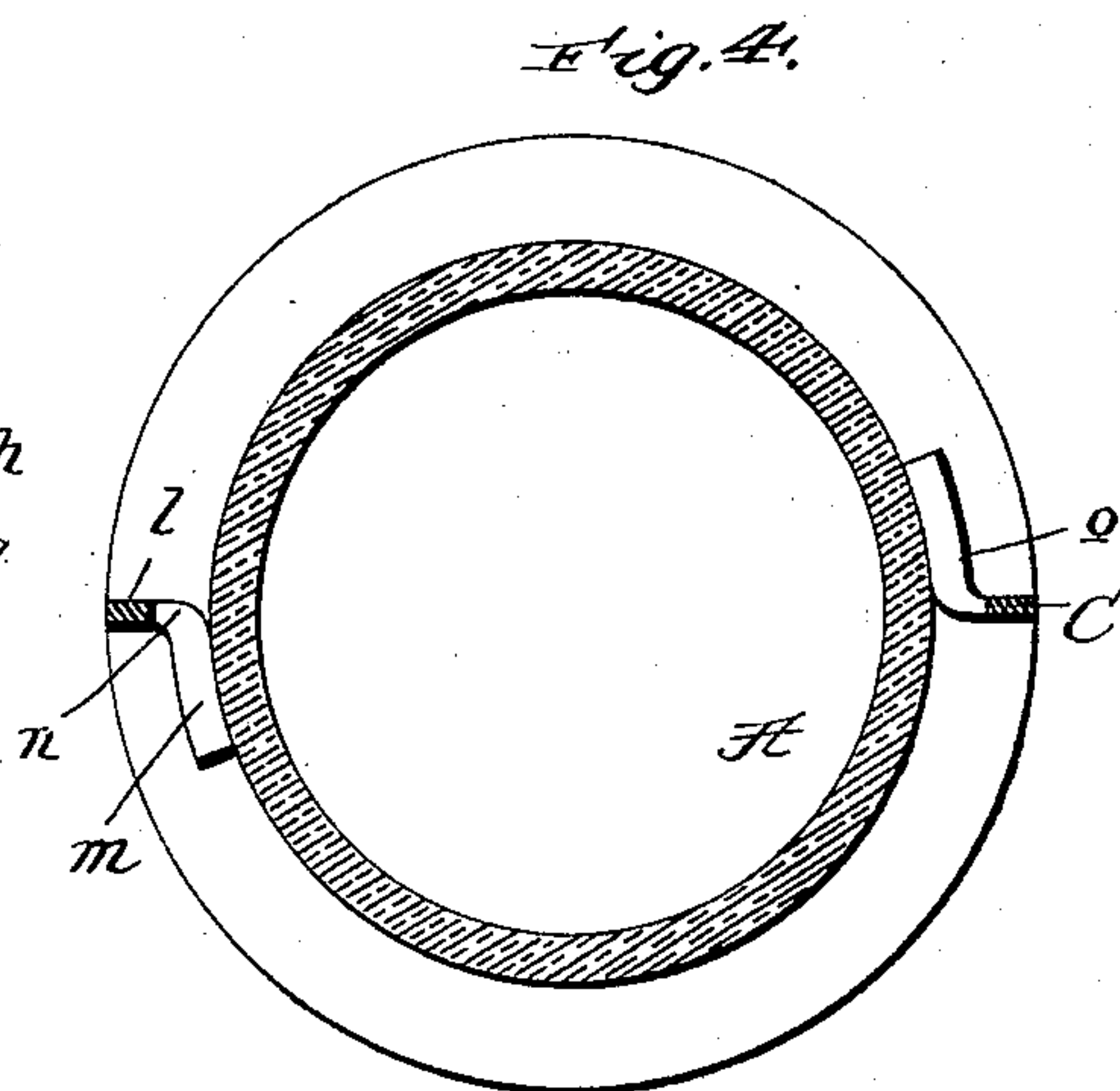
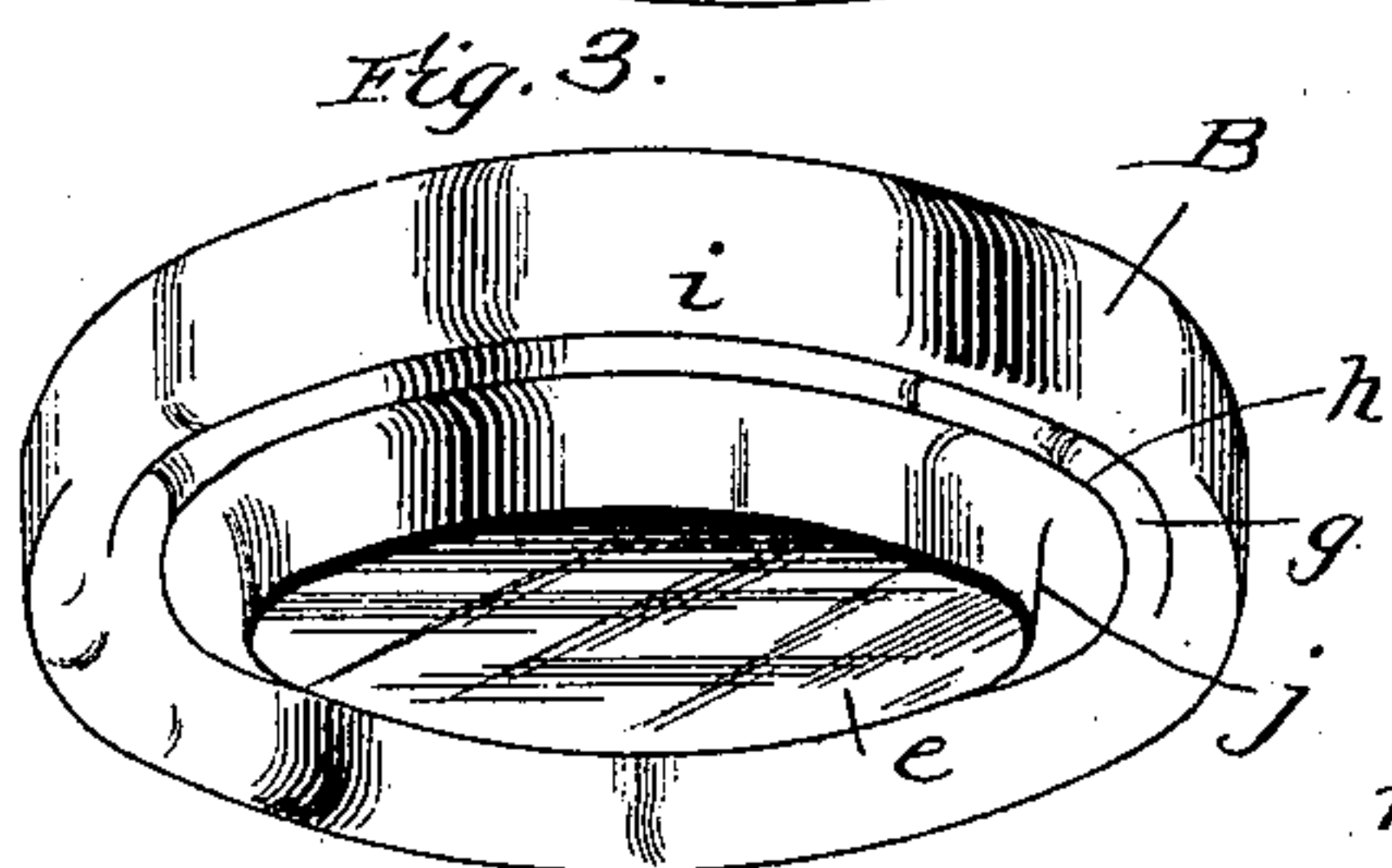
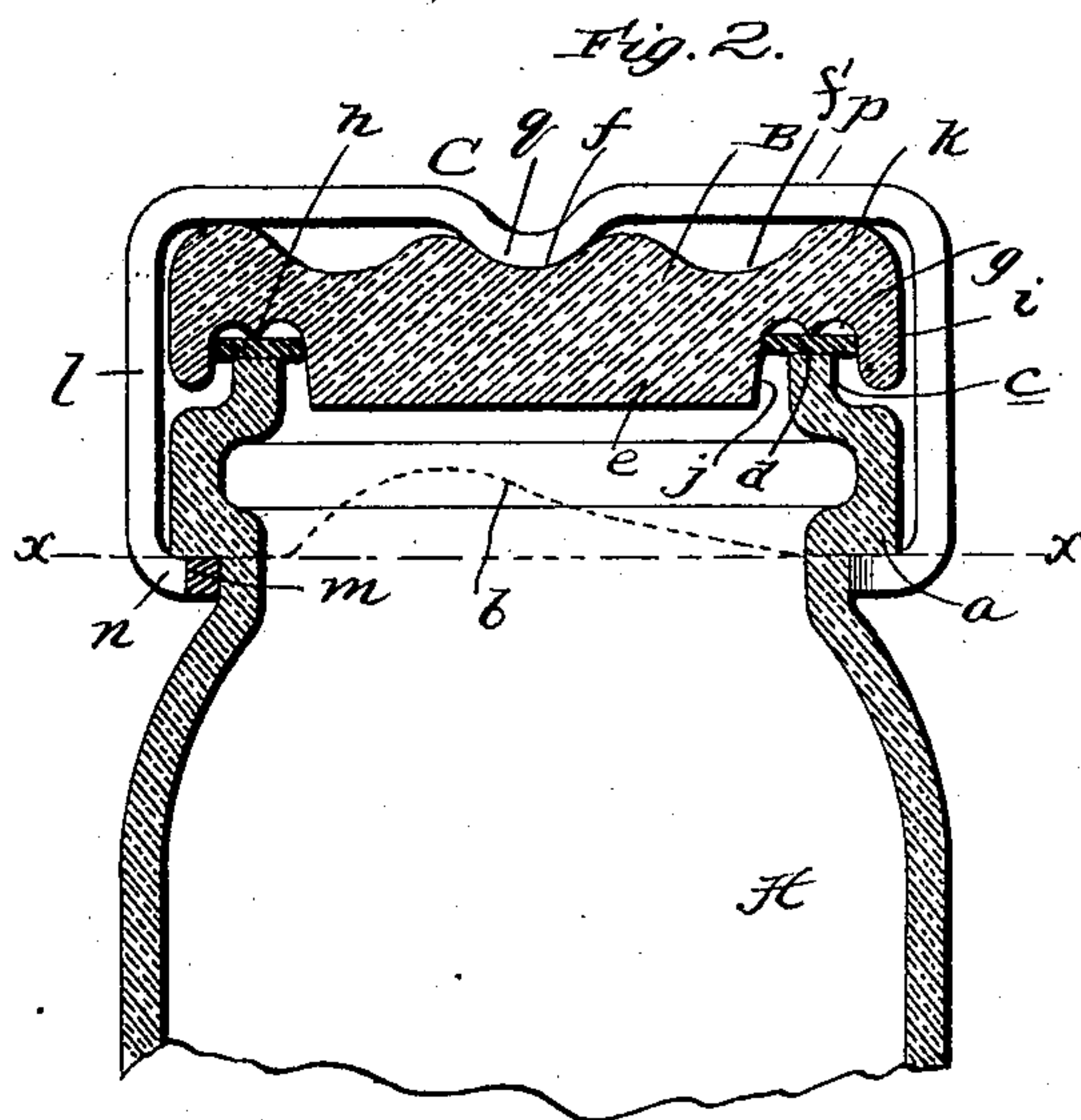
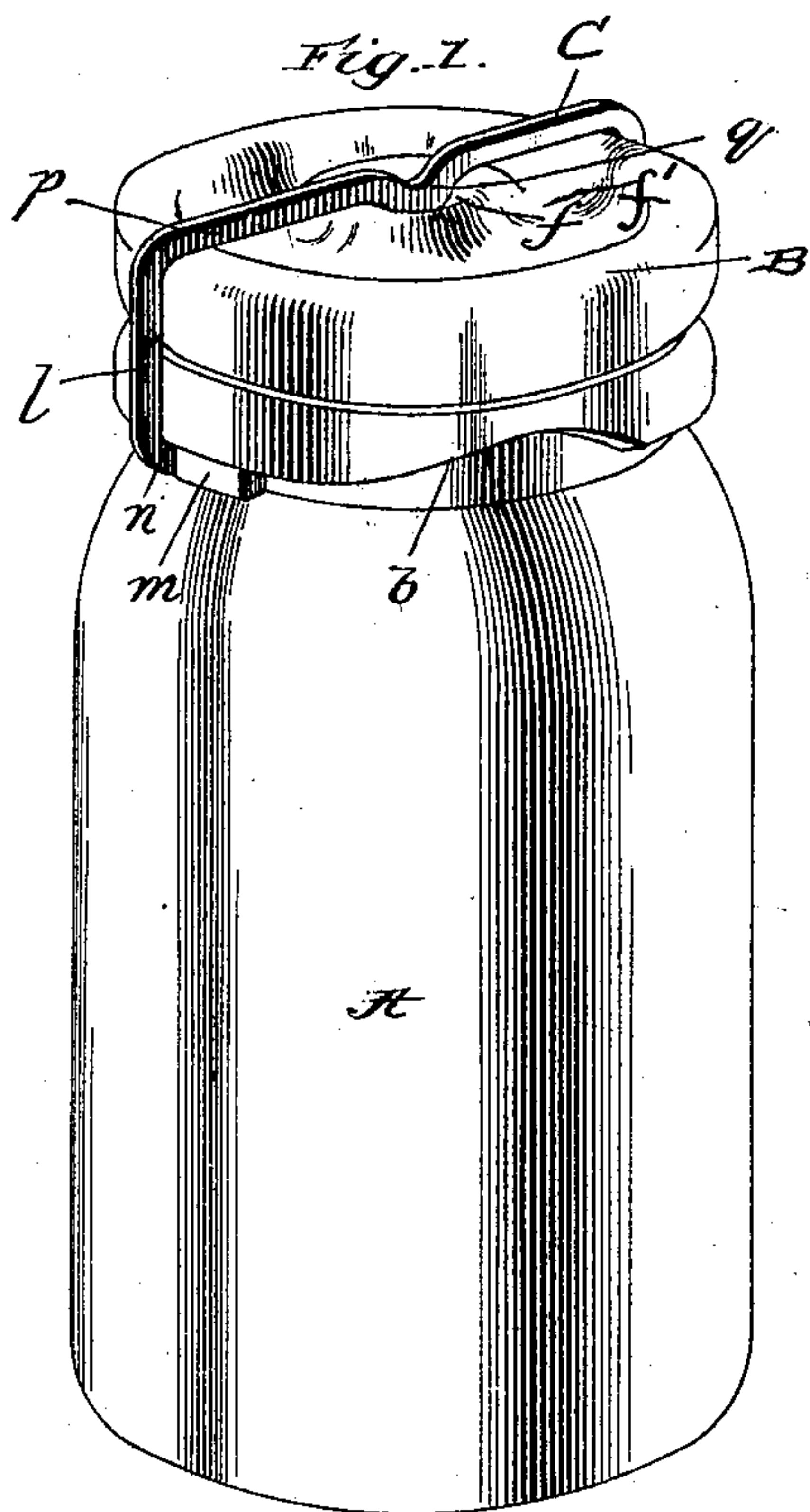
No. 611,958

Patented Oct. 4, 1898.

J. L. & E. A. DE STEIGER.
JAR OR BOTTLE FASTENER.

(Application filed May 11, 1897. Renewed July 28, 1898.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

JOSEPH L. DE STEIGER AND EDWARD A. DE STEIGER, OF LA SALLE,
ILLINOIS.

JAR OR BOTTLE FASTENER.

SPECIFICATION forming part of Letters Patent No. 611,958, dated October 4, 1898.

Application filed May 11, 1897. Renewed July 28, 1898. Serial No. 687,111. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH L. DE STEIGER and EDWARD A. DE STEIGER, citizens of the United States, residing at La Salle, in the county of La Salle and State of Illinois, have invented certain new and useful Improvements in Jar or Bottle Fasteners; and we do 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.

This invention relates to improvements in fruit and other jars and wide-mouthed bottles, and the novelty and many advantages will appear from the following description and claims when taken in connection with the annexed drawings, in which—

Figure 1 is a perspective view of a jar provided with our improvements. Fig. 2 is an enlarged vertical sectional view with a part of the jar broken away. Fig. 3 is a perspective view of the cover removed. Fig. 4 is a cross-sectional view taken in the plane indicated by the line $x x$ on Fig. 2, and Fig. 5 is a perspective view of the fastener removed.

Referring by letter to the said drawings, A indicates a jar or bottle, as the case may be, and may be mainly of the ordinary form or configuration. This jar is provided externally and adjacent to its mouth with an annular flange or shoulder a , and said shoulder is provided on opposite sides of the mouth with reduced portions b , the said portions b having their sides curved upwardly and thence downwardly in opposite directions for the purpose which will presently appear. The jar is furthermore provided above the shoulder a with a reduced portion c , which forms a bearing for a ring or gasket d .

B indicates the cover. This cover, which may be formed of glass or other suitable material, has depending from its under side the plug e , which is designed to enter the mouth of the jar or bottle, and it is provided upon its upper side and centrally with a depression or recess f and is also provided in said upper side with the circular groove f' , which surrounds the central depression f and is designed for a purpose presently described. The cover is furthermore provided in its under side with an annular recess g , within which

is formed an edge h , which is designed to bear upon the top of the jar, with the gasket d interposed. In practice this edge h rests about the center of the top of the jar, and when pressure has been applied, as will be presently described, the ring or gasket will be forced against the depending flange i and also against the wall j of the plug, so as to form an air-tight joint. The cover is thickened, as shown at k , so as to resist great pressure where the strain of the fastener is naturally brought in operation, and the thickened portion is preferably rounded, as shown.

C indicates the fastener, which is composed of metal, preferably of square wire in one piece. This fastener comprises a transverse portion p , with the central downward bend or depending portion q , and having its ends bent downwardly, as at l , and thence inwardly, as at m . From these inward bends the material of one branch is carried in one direction curvilinearly, as shown at m , preserving the curvature of the jar and inclined to correspond with the incline under the shoulder of the jar, and the opposite terminal is carried in a similar manner, but in an opposite direction, as shown at o .

The fastener is mainly of the construction shown and described in the patent numbered 574,306, granted to J. L. De Steiger, under date of December 29, 1896, the difference being in having formed in the transverse portion p the central downward bend or depending portion q , which is designed to bear in the recess or indentation f of the cover, and in having the curvilinear ends m and o inclined to correspond with the inclines under the shoulder of the jar. By means of the recess or indentation f in the cover the fastener will be retained in position upon the cover when it is being turned to fasten it under the shoulder of the jar.

In virtue of the circular groove f' in the upper side of the cover it will be observed that the operator is enabled to secure a good hold upon the fastener and apply sufficient power thereto to move the curvilinear ends m thereof in opposite directions from beneath the reduced portions b of the flange a to positions beneath the non-reduced portions of said flange.

In operation, the jar being filled, the gasket is first placed upon the top so as to rest upon the reduced portion thereof. The cover is then placed with the plug entering the mouth, so that its edge will bear upon the gasket, which latter is confined between the wall of the plug and the depending flange *i*. The fastener having been seated in the recess or indentation of the cover and its curvilinear branches entered in the curved portions *b* beneath the flange or shoulder *a*, by simply turning the fastener the cover will be forcibly drawn down by the action of the fastener in passing under the deeper portion of the flange *a*, and the gasket or ring will be subjected to such pressure as to force its inner edge against the plug and its outer edge against the inner side of the flange *a*, thereby forming a tight joint. To remove the cover, it is simply necessary to reverse the movement of the fastener until the branches *m* have been brought to the reduced portions *b*, when the cover and fastener may be taken off. It is obvious that the inclined or reduced portions *b* on the flange or shoulder may be so formed that the cover can be removed by turning the fastener either to the right or left.

Having thus described our invention, what we claim is—

1. The combination of the jar or bottle provided with the external flange *a*, having the reduced portions *b*, at diametrically opposite points forming recesses in the under side of said flange and also having the under sides of the reduced portions curved, the cover arranged upon the jar or bottle and having the central depression *f*, and the circular groove *f'*, surrounding said depression and also having the portion *k*, surrounding the groove *f'*, and the fastener *C*, formed of one piece of wire and comprising the horizontal portion bearing upon the portion *k*, of the cover and having the downward bend *q*, at its middle

seated in the depression *f*, of the cover, and the end portions *l*, depending from the ends of the horizontal portion and having the terminals *m*, *o*, arranged beneath the flange *a*, and extending in opposite directions and curved in conformity to the outside of the jar, substantially as specified.

2. The combination of the jar or bottle provided with the external flange *a*, having the reduced portions *b*, at diametrically opposite points forming recesses in the under side of said flange and also having the under sides of the reduced portions curved, the cover formed in one piece and having the annular recess in its under side with the edge formed therein, the plug to enter the mouth of the bottle, the flange to depend below and surround the upper edge of the bottle, the central depression *f*, in its upper side, the circular groove *f'*, in its upper side surrounding the central depression, and the thickened portion *k*, surrounding the circular groove *f*, the ring or gasket arranged in the annular recess in the under side of the cover and adapted to bear upon the upper edge of the bottle, and the fastener *C*, formed of one piece of wire and comprising the horizontal portion bearing upon the portion *k*, of the cover and having the downward bend *q*, at its middle seated in the depression *f*, of the cover and the end portions *l*, depending from the ends of the horizontal portion and having the terminals *m*, *o*, arranged beneath the flange *a*, and extending in opposite directions and curved in conformity to the outside of the jar, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

JOSEPH L. DE STEIGER.
EDWARD A. DE STEIGER.

Witnesses:

F. J. PINARD,
LOUIS BURKART.