

No. 891,535.

PATENTED JUNE 23, 1908.

E. GOLTSTEIN.

BOTTLE CAP OR CLOSURE FOR BOTTLES, JARS, OR OTHER RECEPTACLES.

APPLICATION FILED SEPT. 10, 1907.

Fig. 1.

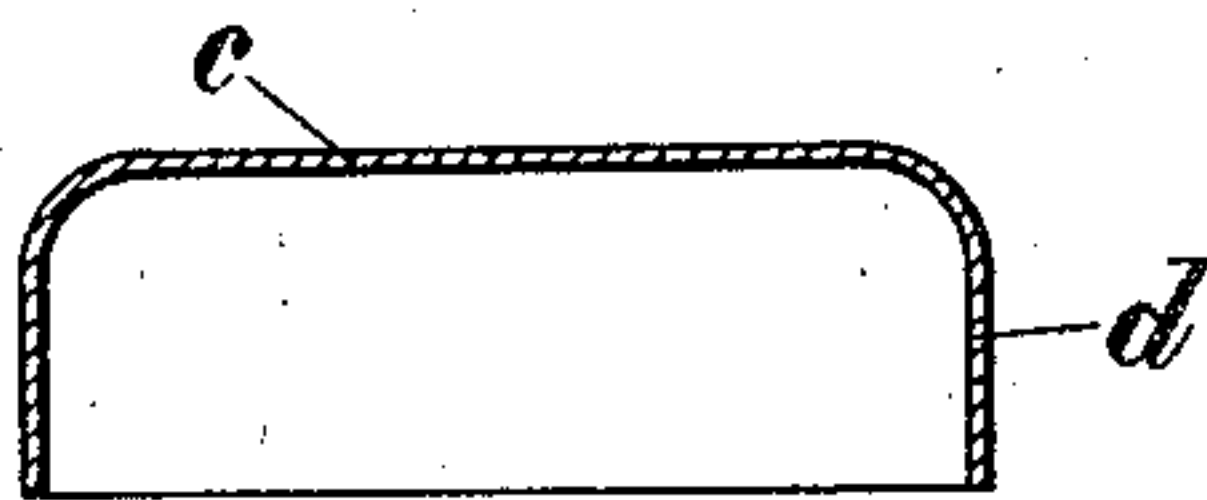


Fig. 4.

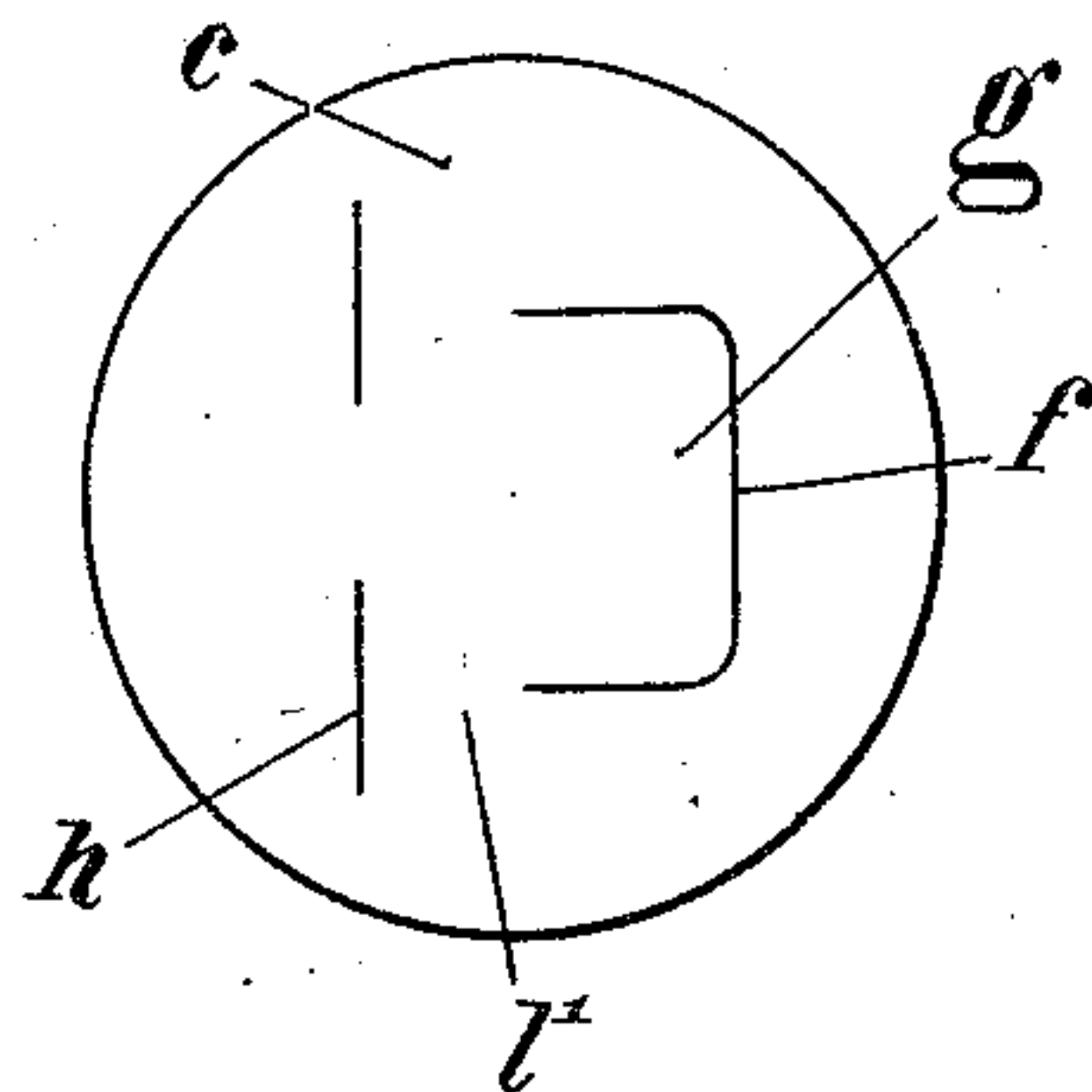


Fig. 2.

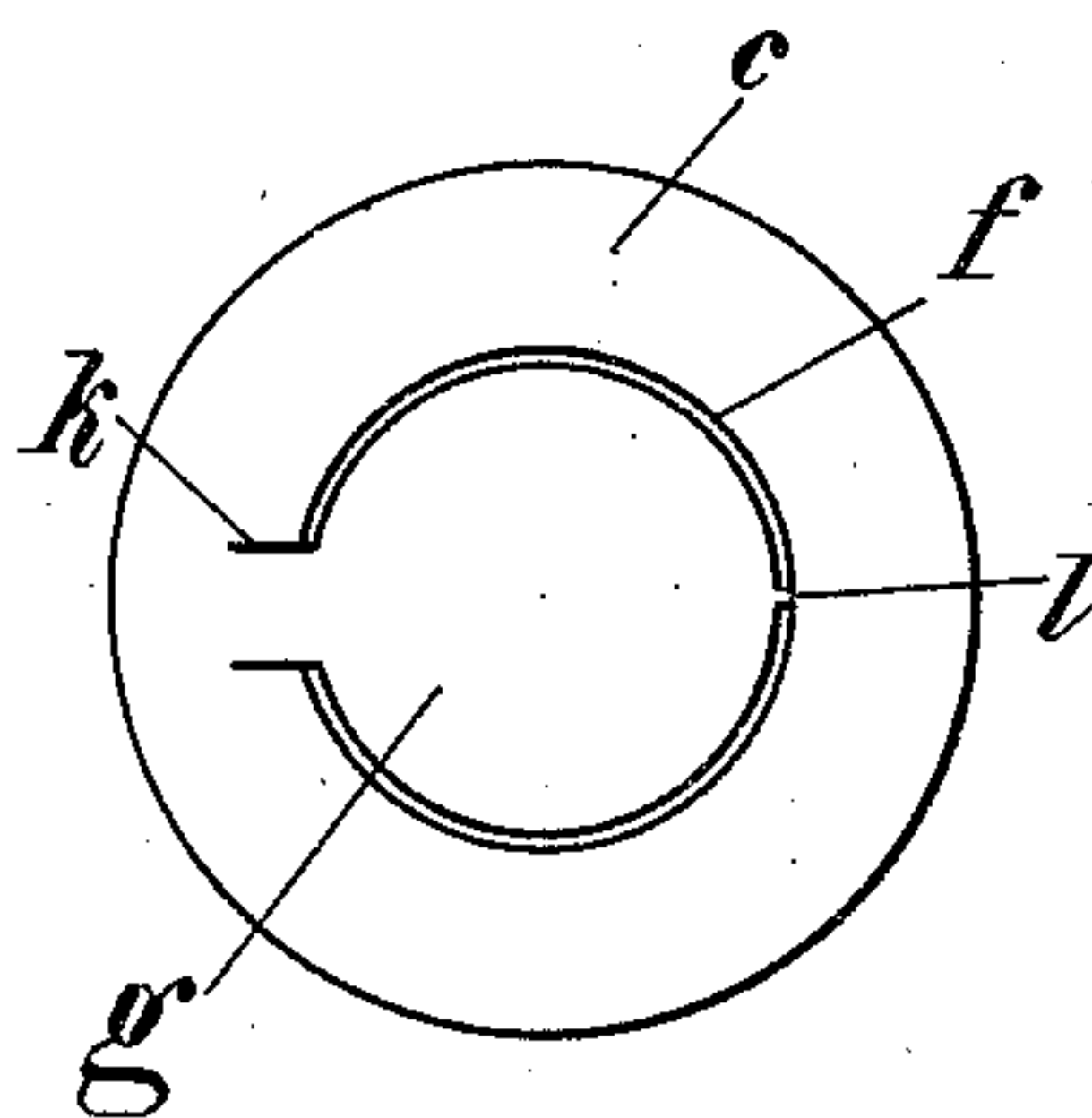


Fig. 5.

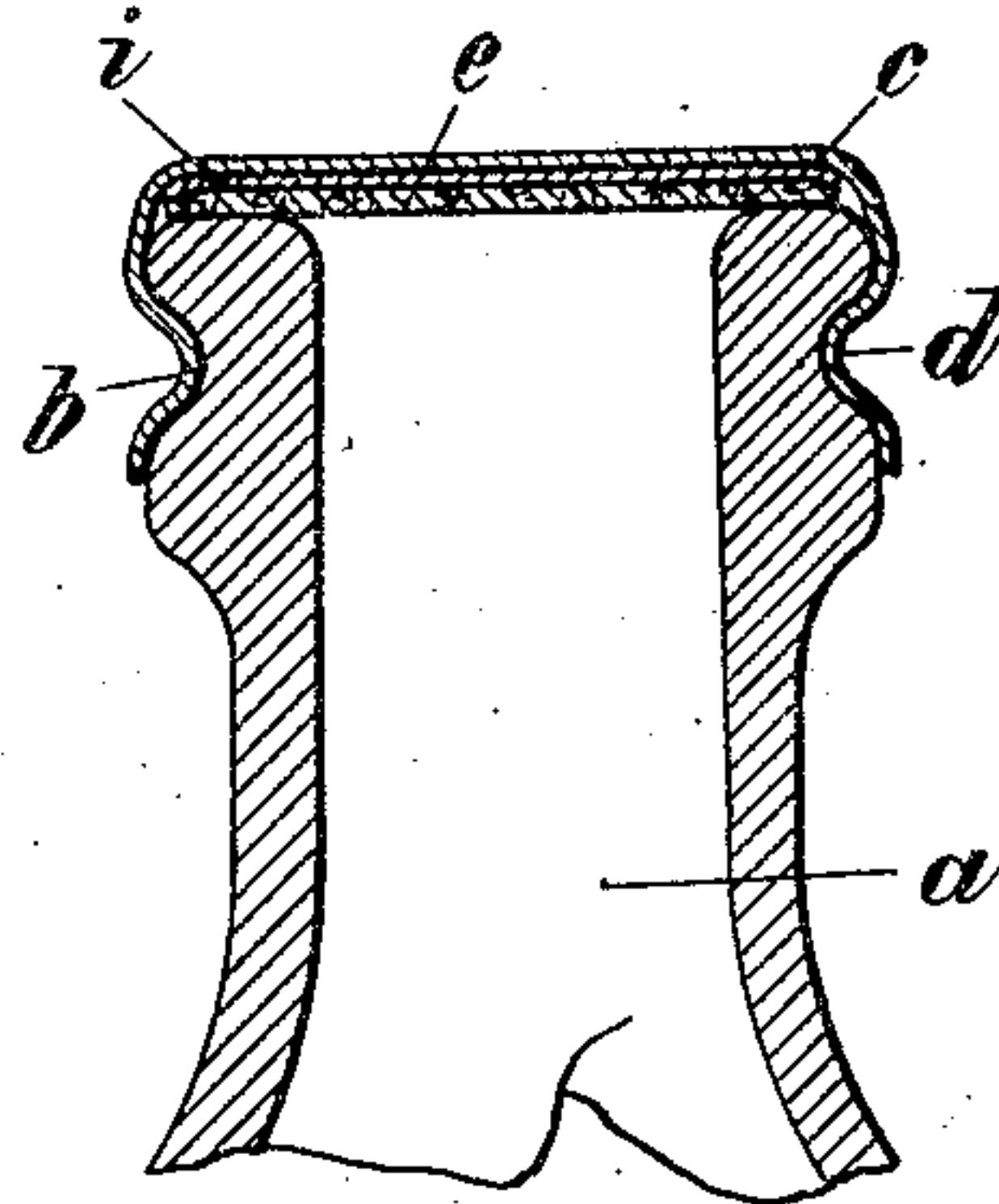
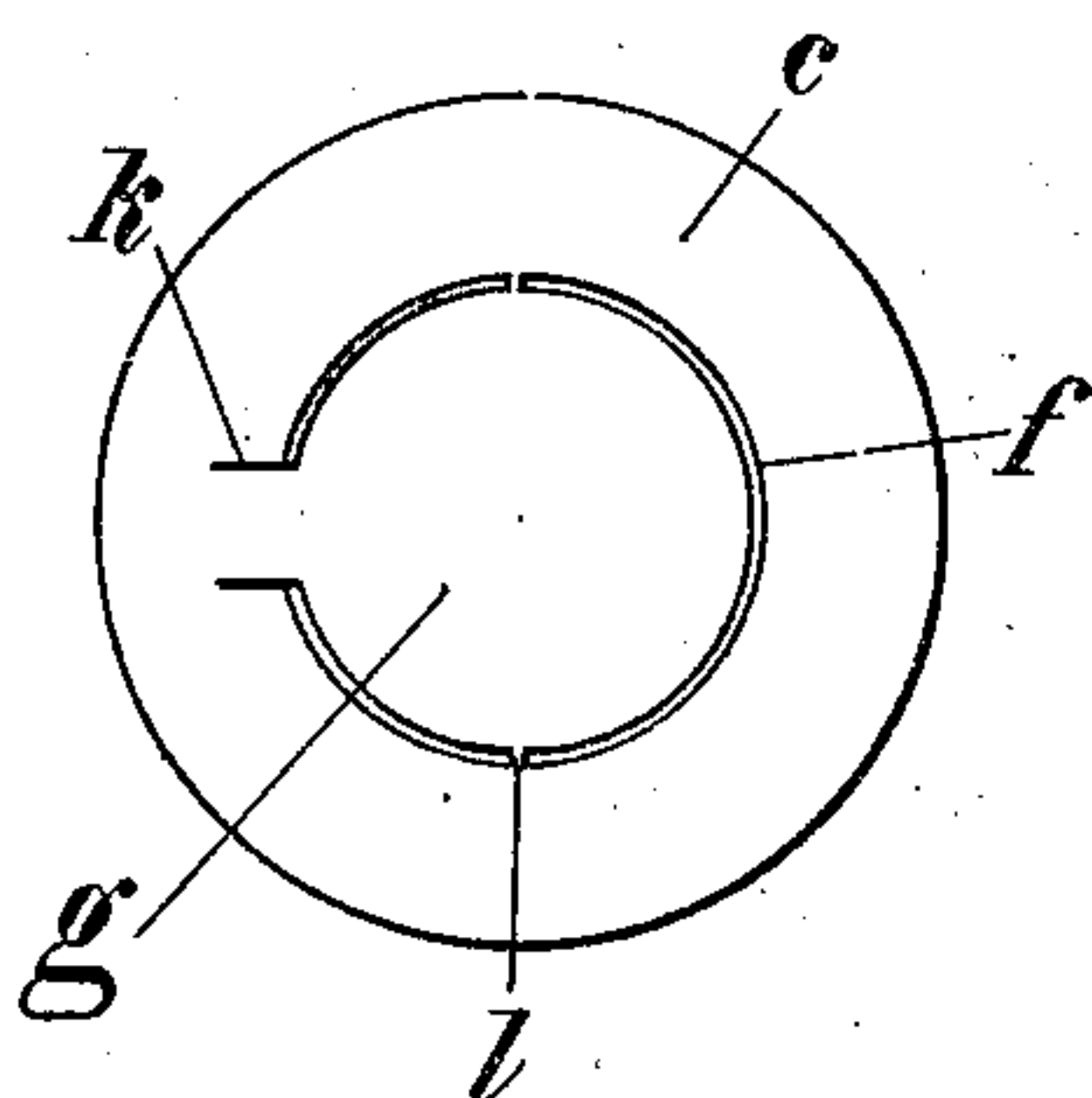


Fig. 3.



Witnesses:

John A. Kellenbeck
John Lotka

Inventor
Euse Goltstein
By Arthur H. Knapp
Attorneys

UNITED STATES PATENT OFFICE.

ELISE GOLTSTEIN, OF COLOGNE, GERMANY.

BOTTLE CAP OR CLOSURE FOR BOTTLES, JARS, OR OTHER RECEPTACLES.

No. 891,535.

Specification of Letters Patent.

Patented June 23, 1908.

Application filed September 10, 1907. Serial No. 392,090.

To all whom it may concern:

Be it known that I, ELISE GOLTSTEIN, subject of the Emperor of Germany, residing at Cologne, Rhine Province, Empire of Germany, have invented certain new and useful Improvements in Bottle Caps or Closures for Bottles, Jars, or other Receptacles, of which the following is a specification.

My invention relates to improvements in bottle caps or closures for bottles, jars, or other receptacles, and more particularly to that class of caps or closures comprising a capsule of sheet metal which can easily be torn and adapted to be rigidly connected to an outer or inner shoulder provided on the neck of the bottle or receptacle and thereby to clamp a cork or sealing disk to the bottle or jar, and which capsule is formed, at its flat portion, with a tongue-like thumb-piece which can be easily raised out of the flat portion of the capsule and grasped by the fingers of an operator, in order to tear the capsule and thereby to open the bottle or jar.

The object of the improvements is to provide a closure of this class which, though it can easily be torn, still maintains its strength and holding power, whereby a very safe and secure closure is obtained which is capable of withstanding the highest internal pressure ordinarily employed on bottled goods. For this purpose, the tongue adapted to be grasped by the fingers of the operator is not formed by a continuous slit, but of several sections between which bridges of unweakened metal are left, which, however, will easily be torn when raising the thumb-piece out of the face of the capsule and pulling the same with the fingers. The bridges are so distributed over the slit as to provide a reliable connection between different parts of the rim of the capsule and, preferably, they are located at diametrically opposite parts of the disk, so as to provide an unbroken metallic band extending along a diameter from one side of the capsule to the opposite side.

In the example illustrated in the drawing, I have shown a capsule provided with a well-known downwardly extending flange adapted to be bent or crimped into a groove formed on the upper part of a bottle or jar. But I wish it to be understood, that my invention is not limited to the particular form of the capsule or to the use of said capsule in combination with the bottle illustrated.

In the drawing, Figure 1, is a cross-section of a capsule showing the same in the form before applying it to a bottle, Fig. 2 is a top view of Fig. 1 showing the thumb piece, and its bridge part located diametrically opposite the metallic tongue left between the ends of the slit. Fig. 3, is a view similar to that of Fig. 2 and showing a modification thereof in which the bridges are located at a right angle to those of Fig. 2, Fig. 4, is a plan of a further modification in which the sections of the slit have a shape different from that of Figs. 2 and 3, and Fig. 5, is a cross-section of a bottle provided with the improved closure.

Like letters of reference are used to indicate corresponding parts in all the views.

In the example illustrated, a bottle *a* is formed near its mouth with a cap holder groove *b*. A capsule *c* is provided with a depending flange *d* adapted to be smoothly bent or crimped into or under the cap holder groove *b*. Within said capsule, and on the top of the neck of the bottle, a cork or sealing disk *e* and a sheet metal cork holder disk *f* are located, which, by the pressure exerted by the capsule *c*, are held in sealing contact with the face of the bottle.

Referring now particularly to Fig. 2 it will be seen that the capsule *c* is provided, at its flat portion, with a slit *f* of substantially circular shape and located within a certain distance away from the rim of the capsule, so as to provide a reliable annular bearing surface for the sealing disk *e*. The slit *f* has not the form of a continuous circle, the connection of the thumb-piece *g* at one part of its circumference in known manner not being broken, and at this part substantially parallel known slits or scored portions *h* are provided extending from the ends of the slit towards the rim of the capsule and providing a tongue piece, whereby, when tearing the cap, the rents are directed towards the rim of the latter. Now, in order to strengthen the capsule, the slit *f* is interrupted at a further part, so as to produce a second bridge *l* connecting the thumb-piece *g* with the margin of the capsule. As shown in the drawing, the said bridge *l* is located diametrically opposite the aforesaid tongue piece, and where but one additional bridge *l* is provided, this arrangement is considered to be the most effective one, because the continuous and strengthening strip thus produced extends, along a diameter, from one side of the rim

to the other. The bridge *l* is made broad enough to give the said diametrical strip sufficient strength to withstand the force exerted thereon by internal pressure of the bottle.
 5 But it can easily be broken, when raising one side of the thumb-piece *g*.

In the modification shown in Fig. 3, two bridges *l* are provided, which are so located as to provide a continuous diametrical strip
 10 substantially perpendicular to that of the previous example.

A further modification is shown in Fig. 4. In this example, the slits are not of circular shape, but at one side of the capsule a
 15 thumb-piece *g* is provided by a slit having its ends arranged at a certain distance from each other. When tearing the cap by a force exerted on the thumb-piece *g* a rent will be made which strikes a pair of slits *h* located
 20 at a distance from the ends of the slit *f*, and so disposed as to be certainly met by the rent produced. The said slits *h* will direct the rent with certainty to the circumference of the capsule. It will be seen, that by this
 25 arrangement a very broad bridge *l* is produced which, however, can easily be torn. The capsule thus produced has a considerable strength. In this construction also, a continuous diametrical strip is provided, that
 30 is, it is possible to draw a diameter on the cap without intersecting any one of the slits.

I claim:

1. A closure for bottles, jars, or other receptacles comprising a capsule made of a metal which can easily be torn and adapted
 35 to be secured to the mouth of the receptacle, said capsule being formed with slits providing a thumb-piece and leaving a continuous diametrical strip on the cap so that a diameter may be drawn on the cap without inter-
 40 secting any one of the slits.

2. A sealing cap for bottles and other receptacles, said cap having a top formed with slits the inner walls of which are curved and partly surround a thumb-piece, said slits be-
 45 ing so interrupted as to leave a continuous diametrical strip on the cap.

3. A sealing cap for bottles and other receptacles, said cap having a top formed with a thumb-piece, a tongue connecting said
 50 thumb-piece with the body of the cap, a bridge located at a point of the thumb-piece diametrically opposite said tongue, and slits extending along the edge of the thumb-piece from the tongue to the bridge.
 55

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ELISE GOLTSTEIN.

Witnesses:

LOUIS VANDORN,
 M. KNEPPERS.