No. 843,516. PATENTED FEB. 5, 1907.

A. L. CAPRINI.

CAN CLOSURE.

APPLICATION FILED MAY 2, 1906.

Fig. 1.

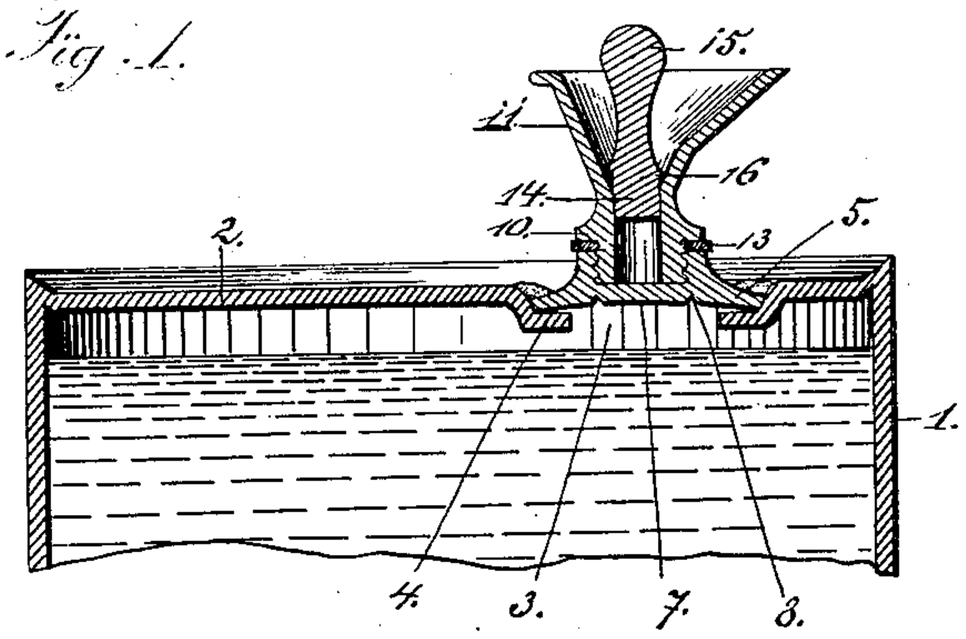



Fig. 2.

Fig. 3.

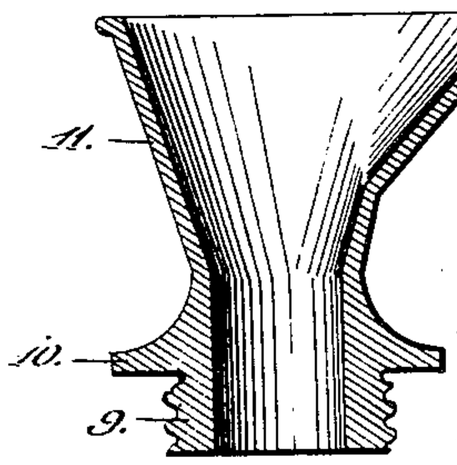



Fig. 4.

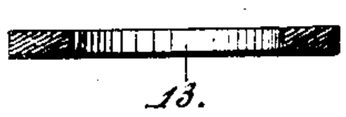
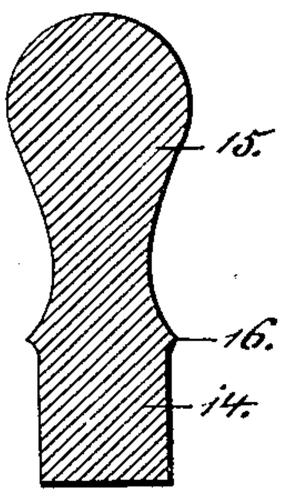



Fig. 5.



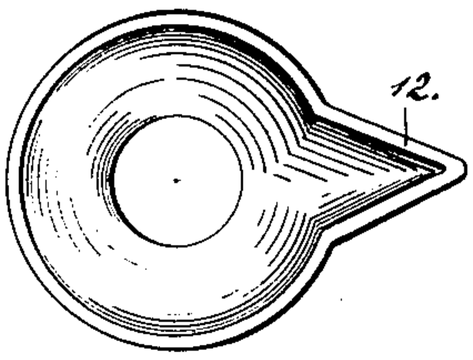
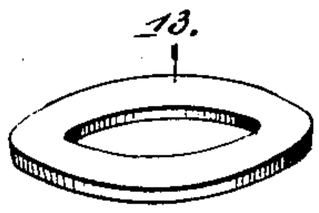




Fig. 6.



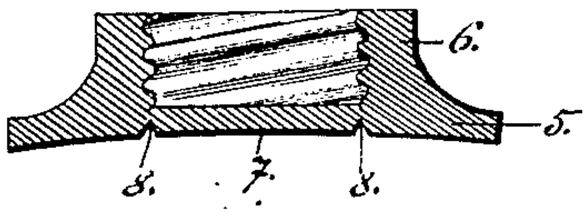




Fig. 7.

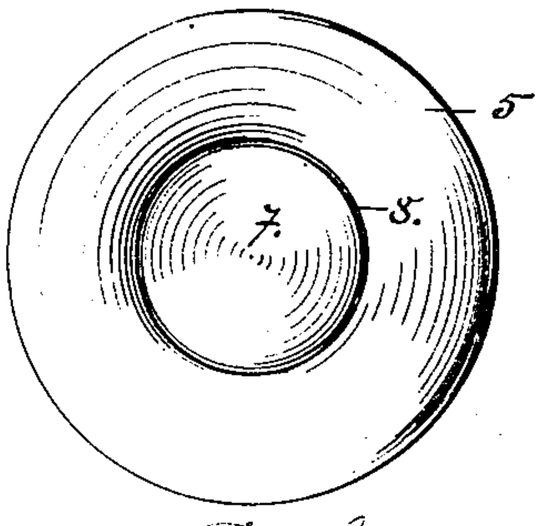



Fig. 8.

Witnesses:
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Attorneys.

# UNITED STATES PATENT OFFICE.

ALEXANDER L. CAPRINI, OF PITTSBURG, PENNSYLVANIA.

## CAN-CLOSURE.

No. 843,516. Specification of Letters Patent. Patented Feb. 5, 1907.

Application filed May 2, 1906. Serial No. 314,828.

*To all whom it may concern:*

Be it known that I, ALEXANDER L. CAPRINI, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Can-Closures, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to can-closures; and its primary object is to provide a can with a closure of novel construction adapted to be quickly opened by means of any convenient tool or punching device.

A further object of the invention is to provide a can-closure so constructed that when the same is opened to permit the contents of the can to be poured therefrom a convenient pouring-spout is ready for use, said spout forming a part of or an attachment to the closure proper.

The invention comprises an internally-threaded cap or socket having an integral diaphragm, the under surface of which is formed with an annular cut or indentation in alinement with the threaded walls of the cap to weaken the diaphragm to adapt the same to be readily disconnected from the remainder of the cap or socket by any suitable implement, preferably of a dull or blunt form.

The invention also includes, in combination with the cap or socket, a suitably-shaped pouring-spout detachably secured to the cap, and a plug or stopper adapted to be removably fitted within said spout, and also adapted to be employed as the means for detaching the weakened diaphragm of the cap.

The construction of the improvement will be fully described hereinafter, in connection with the accompanying drawings, which form a part of this specification, and its novel features will be particularly pointed out in the appended claim.

In the drawings, Figure 1 is a vertical section of the upper end of a can with my improved closure applied thereto. Fig. 2 is a central vertical section of the pouring-spout of the device. Fig. 3 is a top plan view of the spout. Fig. 4 is a transverse section of a gasket or packing interposed between the spout and cap. Fig. 5 is a sectional view of the plug or stopper. Fig. 6 is a view in perspective of the packing-gasket. Fig. 7 is a detail sectional view of the cap or closure-socket, and Fig. 8 is a bottom plan view of the cap.

The reference-numeral 1 designates a can of sheet metal, the top 2 of which is formed with a circular opening 3. The metal surrounding this opening 3 is bent downwardly to provide an annular countersunk flange 4, upon which rests the flange or base portion 5 of a hollow cap 6. The inner surface of the cap is screw-threaded for the attachment thereto of the pouring-spout, and the lower end of the opening in the cap or socket 6 is closed by a diaphragm 7, partially severed from the flange or base of the cap by an annular cut or indentation 8. The diaphragm is thus connected to the cap by a very thin section of metal only, adapting it to be readily severed from the cap by the slight punching blow of a suitable implement, preferably of a blunt form, as hereinafter explained. The flange 5 of the cap is soldered to the top of the can, as shown in Fig. 1.

The spout consists of a funnel-shaped body portion 11, having a pouring-lip 12 and with an externally-threaded tubular lower terminal 9 and an intermediate flange 10, the threaded terminal adapted to engage the threaded cap 6.

To prevent leakage, I interpose a yielding gasket 13 between the flange 10 of the spout and the upper end of the closure-cap. It is necessary to provide a removable stopper adapted to fit within the spout, and for this purpose I preferably employ a stopper of the form shown in the drawings, comprising a plug 14 and a handle 15, an annular stop-flange 16 surrounding the upper end of the stopper to limit its inward movement. This form of stopper not only serves the purpose of a removable closure to the spout, but it is also well adapted for use as a punch or implement to sever the diaphragm. Cans will usually be shipped with the weakened portion 7 intact and with the spout and its plug and gasket shipped separately, and before the spout is applied the weakened portion 7 is driven inwardly by the plug 14 15, as before stated. The spout is then screwed into position in the cap and the plug inserted in its mouth, as shown in Fig. 1.

It will be observed that the severable and weakened diaphragm is formed integral with the cap or socket and that the device as a whole provides a secure closure for cans during transportation or storage, while the plug 14 15 forms a convenient removable stopper for the can when in use.

Having fully described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

The combination with a can having an opening in its top surrounded by an annular countersunk flange, of a closure comprising a flanged cap or socket internally threaded, and having an integral diaphragm partly severed from the body of the cap by an annular weakening cut or indentation in alinement with the vertical walls of the cap, a spout having an externally-threaded lower end to fit the socket, a funnel-shaped body portion, and a removable plug or stopper fitting within the spout and adapted to be employed as a means for detaching the weakened diaphragm from the cap prior to the insertion of the threaded spout.

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

ALEXANDER L. CAPRINI.

Witnesses:

EUGENE INGOLD,

PAUL PAGONNESS.