C. HAMMER.

BOTTLE CAP OR CLOSURE.

APPLICATION FILED JAN. 29, 1908.

910,128. Patented Jan. 19, 1909.

Fig. 1.

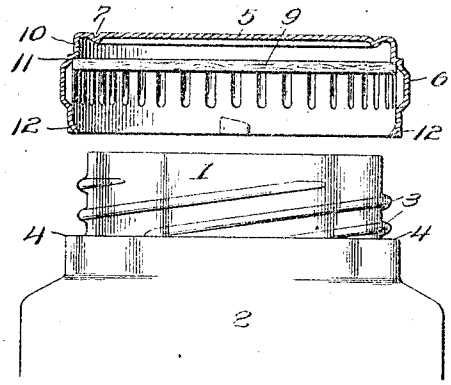


Fig. 2.

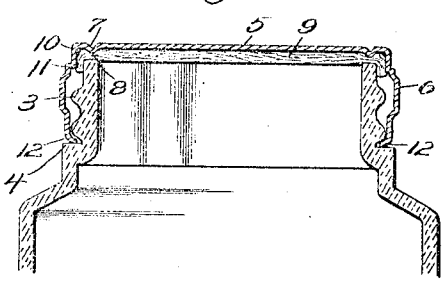


Fig. 3.

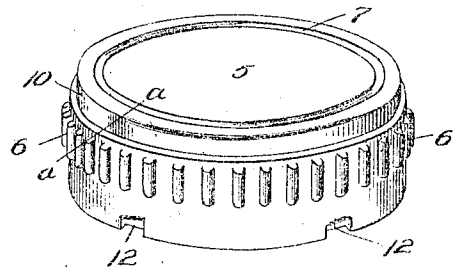


Fig. 4.

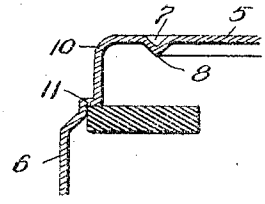
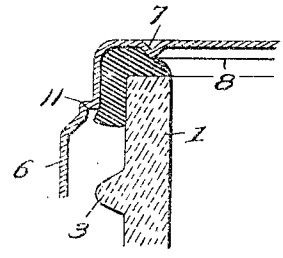


Fig. 5.



Witnesses:
James P. Dukamel.
J. W. Garner

Inventor,
Charles Hammer,
By Attorney Victor J. Evans

BEST AVAILABLE COPY

UNITED STATES PATENT OFFICE.

CHARLES HAMMER, OF NEW YORK, N. Y., ASSIGNOR TO AMERICAN METAL CAP COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

BOTTLE CAP OR CLOSURE.

No. 910,128. Specification of Letters Patent. Patented Jan. 19, 1909.

Application filed January 29, 1908. Serial No. 413,221.

To all whom it may concern:

Be it known that I, CHARLES HAMMER, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented new and useful Improvements in Bottle Caps or Closures, of which the following is a specification.

This invention relates to improvements in metal caps or closures employed for use on jars, bottles and other like vessels and also relates to improvements in the construction of such vessels and the said invention consists in the construction and arrangement of devices hereinafter described and claimed.

One object of my invention is to provide a cap with means to press the packing disk which is employed under the cap firmly on the mouth of the jar or bottle.

A further object is to provide a cap with means for bending the peripheral edge of the packing disk around the outer side of the mouth of the jar or bottle.

A further object is to provide the jar or bottle and the cap with coacting means to firmly seat the cap on the mouth of the jar or bottle.

In the accompanying drawings, Figure 1 is an elevation of the mouth portion of a vessel and a sectional view of one of my improved caps or closures about to be applied thereto. Fig. 2 is a sectional view showing the mouth portion of a vessel and one of my improved caps or closures in position thereon. Fig. 3 is a detail perspective view of the cap or closure. Fig. 4 is a detail sectional view showing a portion of the cap or closure and also a portion of a rubber packing ring or gasket. Fig. 5 is a similar view showing the closure applied to the mouth of a vessel and comprising the ring or gasket on and around the edge of the mouth of the vessel.

In accordance with this invention, the neck 1 of the jar, bottle or other vessel 2 is provided on its outer side with out-standing spirally disposed screw flanges 3 and also with an outwardly extending annular circumferential flange 4 which is parallel with the outer or top edge of the mouth of the vessel.

A closure or cap 5 is formed from a single piece of suitable sheet metal and is provided with a flange 6 to extend around the neck of the jar, bottle or other vessel and of sufficient depth to bear at its lower edge on the flange 4 so as to firmly seat the cap or closure on the mouth and around the neck of the jar or bottle. The said cap or closure is formed on its under side at a suitable distance from its periphery and at a point coincident with the edge of the bottle or jar mouth with an inwardly extending flange 7 which presents downwardly or inwardly converging sides which form a narrow edge 8 to bear on the upper side of the paper or other packing disk 9 and force the same firmly on the edge of the mouth of the jar or bottle and cause that portion of the packing disk which is directly under the said flange to bear so closely on the edge of the mouth of the jar or bottle as to prevent leakage. In the angle between the top or disk portion of the cap and the flange 6 thereof is a reëntrant inset 10 which forms an annular inwardly extending shoulder 11 which forms in effect a portion of the cap of reduced diameter as compared with the flange 6 thereof, said shoulder 11 or reduced portion of the cap serving to engage the packing disk 9 and to turn down the edge thereof around the mouth of the bottle and to compress the said down-turned edge portion of the said packing disk firmly between the mouth of the jar or bottle and the shouldered portion 11 of the cap, and thereby enhance the efficiency of the said disk 9 as a packing between the mouth of the jar or bottle and the inner side of the cap.

The flange portion 6 of the cap is provided with inwardly extending spurs 12 which coact with the screw flanges 3 of the jar or bottle to firmly secure the cap or closure in place around the mouth of the jar or bottle, as will be understood. These spurs are struck up from the flange portion of the cap or closure and are formed integral.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent is:—

1. A cap for a vessel having an externally screw-threaded neck comprising a disk portion and a flange depending therefrom to extend around the neck of the vessel at the mouth, said disk portion having an inner annular rib, and said flange having an inset portion of greater internal diameter than the external diameter of the mouth of the vessel, an outwardly extending annular circumferential shoulder at the lower edge of

said inset portion, and also having an outwardly extending portion below said shoulder to clear the screw threads of the vessel and having its lower edge provided with means to engage such screw threads, in combination with a packing element under such disk portion, such packing element being of greater diameter than the internal diameter of the inset portion of the flange and approximately equal in diameter to the internal diameter of the outwardly extending annular circumferential shoulder at the lower edge of such inset portion and initially engaged around its edge by such shoulder for the purpose set forth.

2. In combination with a vessel having a screw thread on the outer side of its neck and further provided with a shoulder below the screw thread extending around its neck and parallel with its mouth, a packing element of greater diameter than the mouth of the vessel and placed thereon and a cap comprising a disk portion and a flange depending therefrom to extend around the neck of the vessel at the mouth, said flange having an inset portion of greater internal diameter than the external diameter of the mouth of the vessel, an outwardly extending annular circumferential shoulder at the lower edge of said inset portion initially engaging the edge of the packing element and causing said edge of the packing element to be turned down around the neck of the vessel at the mouth and within the inset portion of the cap flange, said cap flange also having an outwardly extending portion below said shoulder clearing and spaced from the screw thread and having its lower edge provided with means to engage the screw thread.

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

CHARLES HAMMER.

Witnesses:
OLIVER E. DAVIS,
JOHN MONAGHAN.