(No Model.)

B. & C. FONTAN.

BOTTLE CAP.

No. 592,700. Patented Oct. 26, 1897.

Fig 1

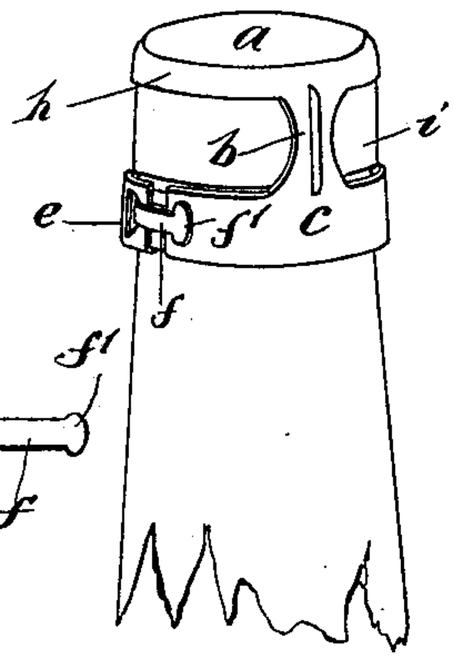


Fig. 2.

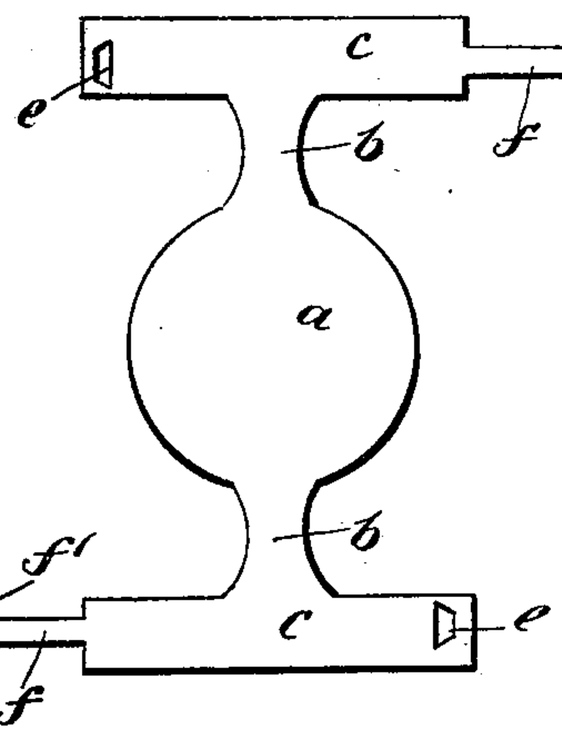


Fig. 3.

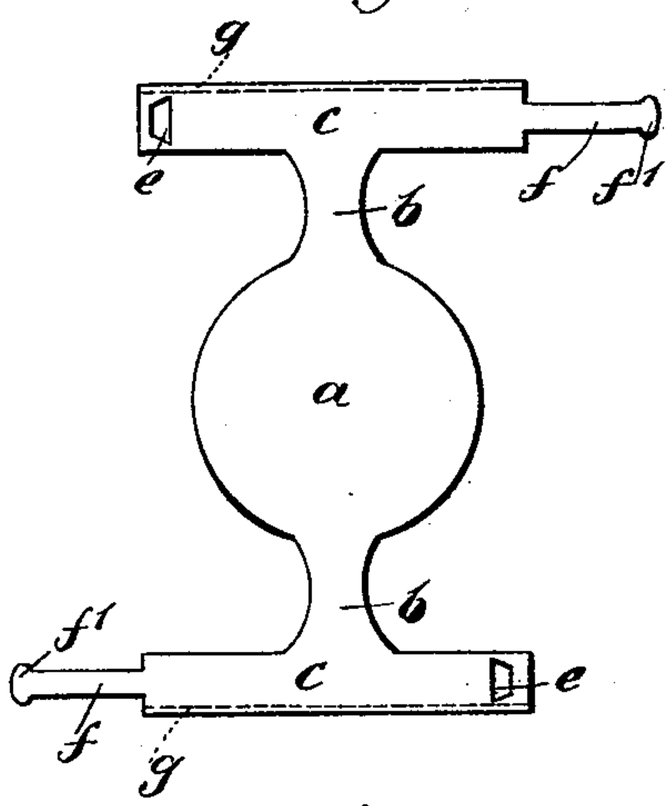


Fig. 4.

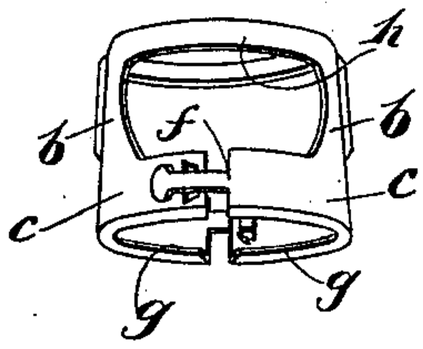


Fig. 5.

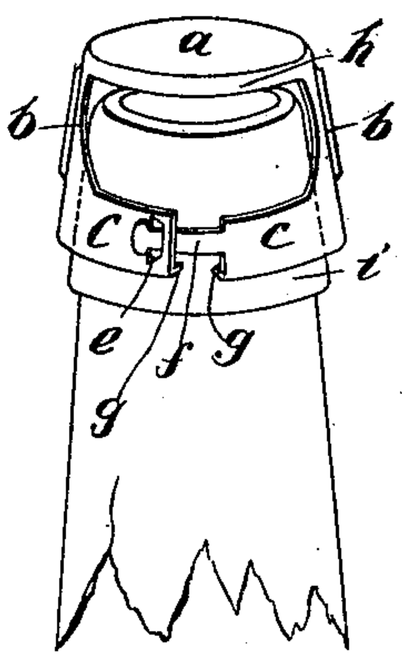


Fig. 6.

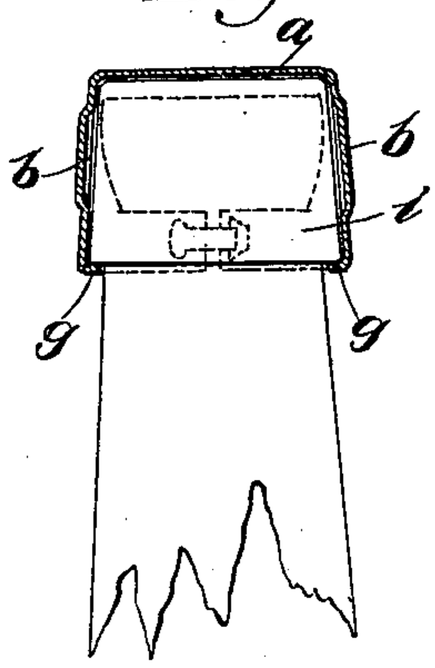
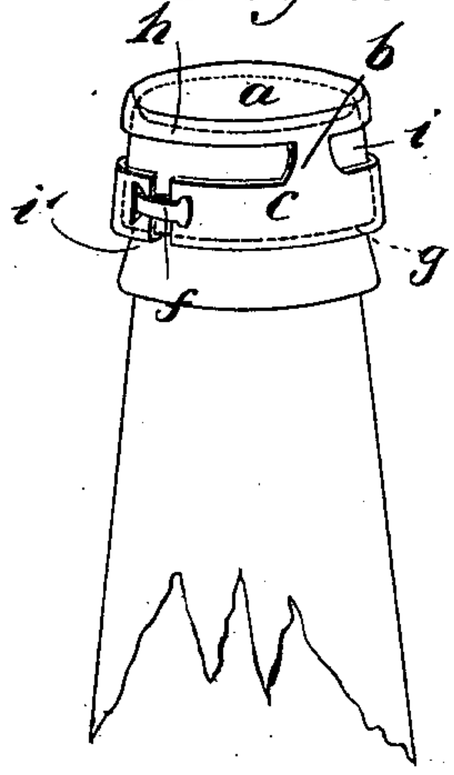


Fig. 7.



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UNITED STATES PATENT OFFICE.

BERNARDO FONTAN AND CÁRLOS FONTAN, OF BUENOS AYRES, ARGENTINA.

BOTTLE-CAP.

SPECIFICATION forming part of Letters Patent No. 592,700, dated October 26, 1897.

Application filed May 15, 1897. Serial No. 636,646. (No model.) Patented in Argentine Republic July 3, 1896, No. 1,812.

To all whom it may concern:

Be it known that we, BERNARDO FONTAN and CÁRLOS FONTAN, of Buenos Ayres, in the Argentine Republic, have invented a new and Improved Bottle-Cap, (for which we have obtained a patent in the Argentine Republic, dated July 3, 1896, No. 1,812,) of which the following is a full, clear, and exact description.

The object of this invention is to provide a superior cap for bottles, which cap may be placed over the mouth of the bottle and be held in engagement therewith by bearing against the usual shoulder on the neck of the bottle.

The invention consists in such features of construction as will be described hereinafter and defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of our invention in use. Fig. 2 is a plan view of the blank from which our invention is produced. Fig. 3 is a similar view of the blank in the second stage of the operation of forming the cap. Fig. 4 is a perspective view of the cap complete and ready for use. Fig. 5 is a view of the cap in the position which it assumes immediately before it is secured to the bottle. Fig. 6 is a sectional view showing the cap in secured position on the bottle, the neck of which has a single shoulder near the mouth; and Fig. 7 is a view showing the cap applied to a bottle which is provided with two annular shoulders, the difference being merely in the size of the cap and in the manner in which it is applied to the neck of the bottle.

In constructing our invention we stamp from a sheet-metal plate a blank having a circular central portion *a*, with oppositely-running arms *b*, the outer ends of which have bands *c* disposed at right angles thereto. Each band *c* has in one end a trapezoidal opening *e* and at the opposite end a tongue *f* with a head *f'*. The openings *e* and tongues *f* are located oppositely with reference to each other on the respective bands *c*. The blank in Fig. 2 having been produced it is next necessary to strike a flange *g* from the outer edge of each band *c* before the blank has been bent. The blank should now be bent so that the central plate *a* will engage the top of the neck of the bottle and cover the mouth thereof, and also to form annular flanges *h* around the sides of the plate *a*, which flanges extend downward to more effectively close the mouth of the bottle. Both the flanges *g* and *h* are curved to have a semicircular form, so that they may engage with the lower and upper shoulders, respectively, of the enlargement *i*.

Before the cap is applied to the bottle the parts are in the position shown in Fig. 4. When it is desired to apply the cap, the tongues *f* are run through the openings *e* in each band *c*, and owing to the peculiar shape of the openings *e* and the heads at one of the tongues the tongues and eyes cannot be readily disengaged. The cap should now be slipped down over the bottle, as shown in Fig. 5, and when the flanges *h* engage the shoulder of the enlargement *i* the bands *c* should be pressed together to cause them to tightly clasp the enlargement, whereupon the bands may be secured in this position by bending the tongues *f* backward toward their respective bands *c*. This will hold the cap firmly in place, and the cap can only be removed by bending the bands to their first position and removing the cap by a reversal of the operation which placed it in position.

In Figs. 1, 5, and 6 we have shown a bottle the enlargement *i* of the neck of which has only one shoulder, which is at the lower extremity of the enlargement. It is clear that the invention is equally well adapted to a bottle the enlargement *i* of which has two shoulders, one at the lower extremity of the enlargement and the other at an intermediate point and being formed by a groove *i'* running around the enlargement. In using the invention in connection with such bottles as are illustrated in Fig. 7 the length of the arms *b* may be much less than in the other form.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A bottle-cap having a top plate, arms at opposite sides of the top plate and projecting downward therefrom to lie alongside the bottle-neck, a band carried by the lower end of each arm, said bands being capable of em-

bracing the bottle-neck, and each band having a flange running inward from its lower edge to engage a shoulder on the bottle-neck, and connecting devices for the contiguous ends of the bands, substantially as described.

2. A bottle-cap having a top plate with an annular side flange to completely inclose the mouth of the bottle, two arms located on opposite sides of the top plate and projecting downwardly therefrom, a separate band carried by each arm, said bands being adapted to embrace the neck of the bottle, and each band having a tongue at one end and an opening in the other end, said opening and tongues being oppositely located with reference to each other on their respective bands and arranged for engagement with each other, substantially as described.

3. A bottle-cap having two bands capable of embracing the neck of the bottle, each of said bands having at one end a trapezoidal opening, and each band having at the opposite end a tongue with a head at its outer end, the tongues being respectively capable of entering the openings to connect the bands with each other, substantially as described.

4. In a bottle-cap, comprising two members, and a connecting device for said members, said device consisting of a tongue carried by one member and having a head at its free end, and the other member having a trapezoidal opening formed therein and capable of receiving the tongue, substantially as described

5. A bottle-cap having a top plate with downwardly-extending flanges adapted to completely inclose the neck of the bottle, two arms oppositely located and projecting downward from the top plate, a band carried at the lower portion of each arm, the bands being adapted to embrace the bottle-neck, and each band having at its lower edge an inwardly-extending flange capable of engaging a shoulder on the neck of the bottle, and each band also having at one end a headed tongue and at the opposite end a trapezoidal opening, said tongues and openings forming connecting devices for the contiguous ends of the bands, substantially as described.

6. A blank for forming bottle-caps, having a central circular plate, diametrically opposed arms projected from said plate, and a band extending from the end of each arm, said bands having a tongue at one end and an opening in the other end, the said tongues and openings being diagonally opposite, substantially as described.

7. A blank for forming bottle-caps, said blank having a central plate *a*, oppositely-projecting arms *b*, bands *c* respectively carried at the ends of the arms, and headed tongues *f* respectively carried by one end of the bands and respectively adapted to enter trapezoidal openings *e* in the other end of the bands, substantially as described.

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Witnesses:
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