

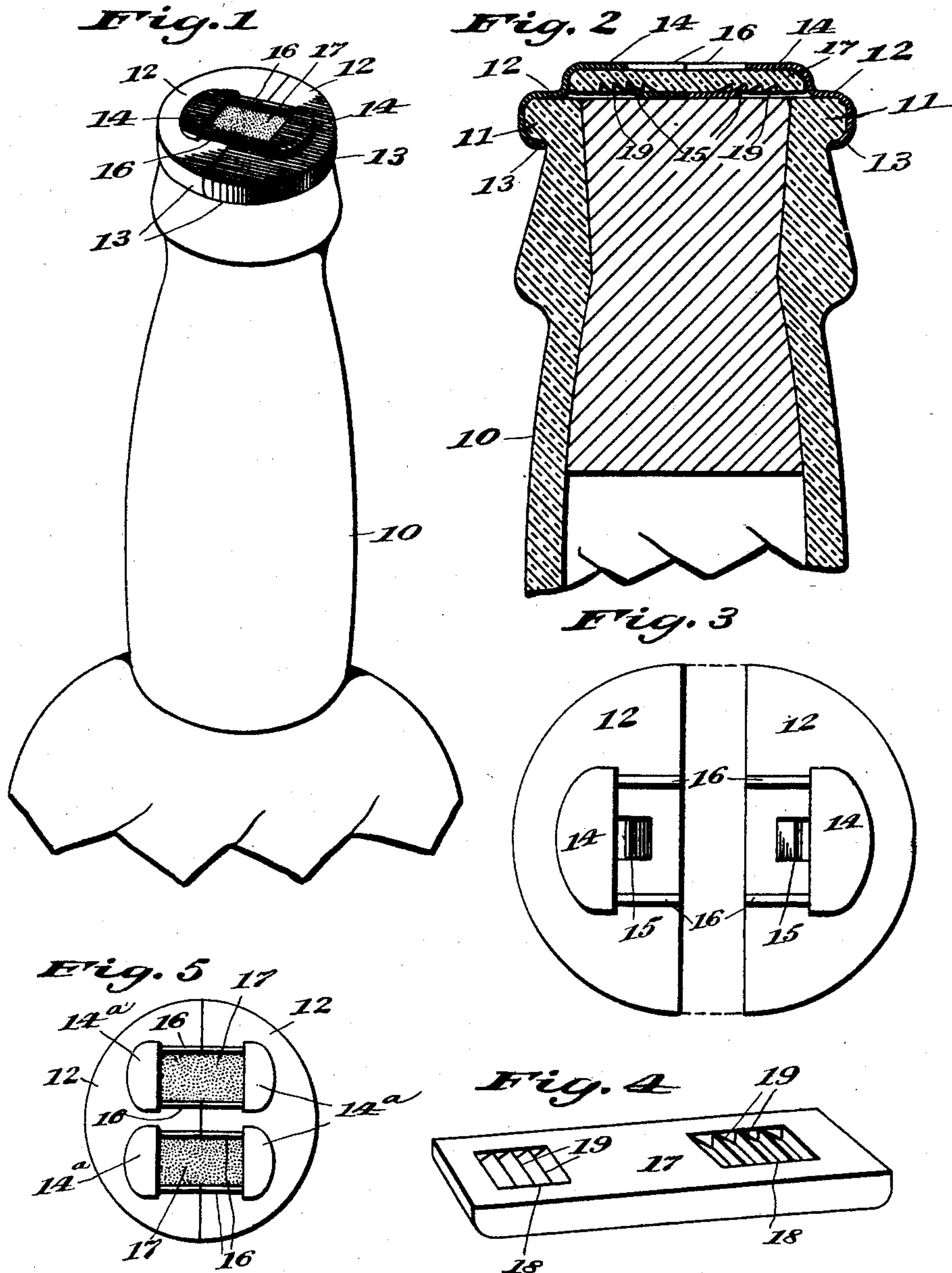
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F. T. ROBINSON.

COMBINED METALLIC AND FRANGIBLE CAP FOR BOTTLES.

APPLICATION FILED JAN. 28, 1907.



Witnesses

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UNITED STATES PATENT OFFICE.

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COMBINED METALLIC AND FRANGIBLE CAP FOR BOTTLES.

No. 866,813.

Specification of Letters Patent.

Patented Sept. 24, 1907.

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To all whom it may concern:

Be it known that I, FRANK T. ROBINSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Combined Metallic and Frangible Caps for Bottles, of which the following is a specification.

This invention relates to improvements in a closure for bottles and the like, of that class in which a portion of the device which binds the other parts thereof together is made of frangible material, and while the invention is more particularly designed to be used on bottles and is so shown in the accompanying drawing, yet it is applicable for use on jars, cans, and other vessels, and it consists in certain peculiarities of the construction, novel arrangement, and operation of the parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The principal object of the invention is to provide simple and efficient means for the closure of bottles and analogous vessels and for more securely retaining the corks or stoppers in bottles or other vessels, which may be readily applied to the mouth of the bottle or vessel without the use of an instrument, and easily detached or removed therefrom.

In order to enable others skilled in the art to which my invention pertains, to make and use the same, I will now proceed to describe it, referring to the accompanying drawing, in which—

Figure 1 is a perspective view of a portion of a bottle, showing a cap embodying one form of my invention applied thereto. Fig. 2 is a greatly enlarged vertical sectional view through the cap and neck of the bottle. Fig. 3 is an enlarged plan view of the semi-circular members of the cap, showing them spaced apart. Fig. 4 is an inverted perspective view of the frangible portion of the cap; and Fig. 5 is a plan view, showing a modification in the construction of the cap, illustrating its members or parts in their operative or engageable positions.

Like numerals of reference, refer to corresponding parts throughout the different views of the drawing.

The neck 10 of a bottle is herein shown as having one of my improved caps applied thereto and, as usual, is provided at its mouth or free end with an externally projecting annular bead 11 for engagement with the two semi-circular members 12 of the cap, each of which has its outer edge downturned and bent inwardly as at 13 to overlap and underlie or engage the bead 11 on the neck of the bottle. As shown, the members 12 are counterparts of one another, and each is formed at a suitable distance from its periphery and about the middle thereof with a struck-up portion 14 curved on its outer edge, but with a straight inner or free edge, which portions form raised sockets on the upper surfaces of the

members 12, as will be clearly understood by reference to the drawing.

Each of the members 12 is formed or provided near its inner or straight edge, but between said edge and the outer portion of the struck-up part 14 or socket, with an upwardly and outwardly inclined spring 15, which are preferably produced integrally with the members 12 by being cut out of the same and their free portions bent upwardly, as shown in Figs. 2 and 3 of the drawing, yet which may be otherwise formed or located on said members. As shown clearly in Fig. 3, the springs 15 are located about midway of the length of the portions 14 and are alined with respect to one another, yet are upwardly inclined in opposite directions. On each side of each of the springs 15, each of the members 12 is provided with a transversely extending rib 16, which projects some distance above the upper surfaces of the members 12, so as to guard or protect the frangible piece or link 17, which is used to connect or lock the members 12 together and which is preferably made of porcelain, but may be formed of any other suitable frangible material. This link or frangible piece 17 is formed on its lower surface near each of its ends with a recess 18, having therein a series of transverse serrations or teeth 19, which are inwardly and downwardly beveled on one of their surfaces and are adapted to engage the springs 15 of the members 12 when it is desired to secure the cap in place on the mouth of the bottle or vessel.

In Fig. 5 of the drawing I have shown a modification in the construction of the cap, which consists in providing the members 12, which are preferably made of sheet metal as in the above-described construction, with a plurality of struck-up portions 14^a to receive the ends of a plurality of frangible links 17, which links are formed as shown in Fig. 4 and above described, and are adapted to engage springs located between the transverse ribs with which the members 12 are provided, as in the first above-described construction. With the exception that a plurality of locking links and means to receive and engage the same are employed, instead of a single locking link, the modified form shown in Fig. 5 is of the same construction and operation as that illustrated in the other figures of the drawing and first above explained.

From the foregoing and by reference to the drawing it will be seen and readily understood that my improved cap affords a very simple, cheap and efficient means for closing bottles, jars and the like, which can be readily applied thereto manually, or without the use of an instrument, by simply placing the members 12 on the mouth of the bottle, with the meeting edges of said members slightly separated, when the locking link 17, or links 17 as the case may be, can be placed with its or their ends in or adjacent to the open ends of

the sockets 14, when by forcing the members 12 towards each other so that their straight edges will meet or be approximated, it is apparent that the beveled or ratchet-like teeth 19 of the link or links will engage
 5 the springs 15, thus holding the members 12 firmly and securely together, and as the outer edges of said members are downturned and bent inwardly, it is evident that they will engage the bead around the mouth of the bottle, thus firmly holding the cap in
 10 position thereon. To remove the cap from the bottle or vessel, it will be necessary to break the frangible link 17, which may be done by a slight tap or stroke given the same. As the ribs 16 are located on each side of the link or links 17 and project above the same, it is
 15 apparent that they will be protected thereby and accidental breakage thereof prevented.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters-Patent, is—

- 20 1. A cap for bottles and the like, comprising two members each having its outer edge turned down and bent inwardly and provided on its upper surface with a socket, a spring on each of said members, and a connecting link having near each of its ends on its lower surface means to engage said springs.
- 25 2. A cap for bottles and the like, comprising two partly circular members each having its outer edge downturned

and bent inwardly and provided on its upper surface with a socket, a spring on each of said members, and a connecting link having near each of its ends in its lower surface
 30 a recess provided with serrations or teeth to engage said springs.

3. A cap for bottles and the like, comprising two partly circular members each having its outer edge downturned and bent inwardly and provided on its upper surface with
 35 a socket, a spring on each of said members, an upwardly extending transverse rib on each side of each of said springs, and a connecting link having near each of its ends on its lower surface means to engage said springs.

4. A cap for bottles and the like, comprising two members each having its outer edge downturned and bent inwardly and provided on its upper surface with a socket, a spring on each of said members, an upwardly extending transverse rib on each side of each of said springs, and a
 40 connecting link having near each of its ends on its lower surface a series of beveled serrations or teeth to engage said springs.

5. A cap for bottles and the like, comprising two members each having its outer edge downturned and bent inwardly and provided on its upper surface with a plu-
 45 rality of sockets, a plurality of springs on each of said members, and a plurality of connecting links having near each of their ends on their lower surfaces means to engage said springs.

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