

No. 850,613.

PATENTED APR. 16, 1907.

F. H. BILLS.
CLOSURE FOR BOTTLES.
APPLICATION FILED NOV. 9, 1906.

Fig. 1.

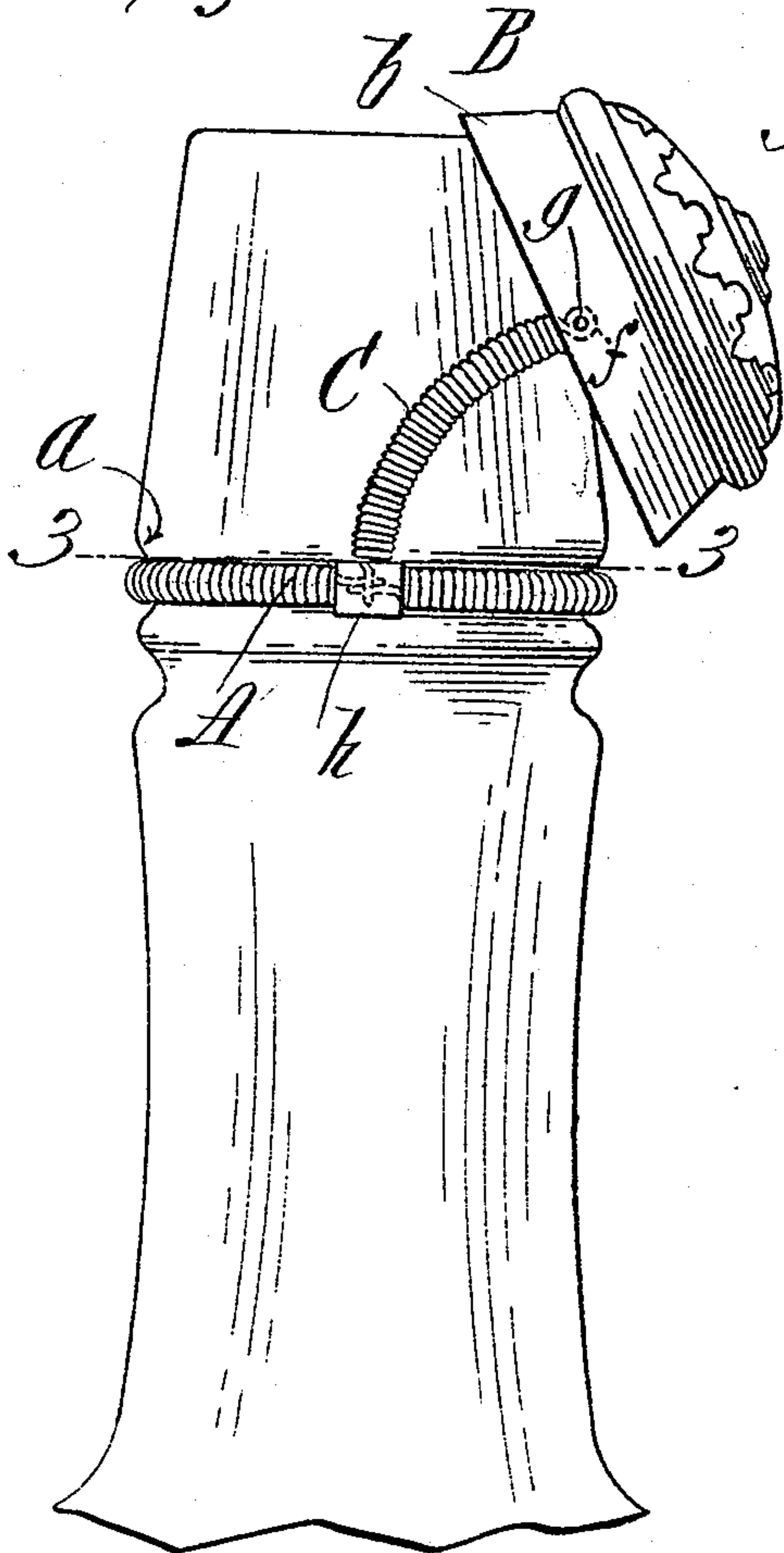


Fig. 2.

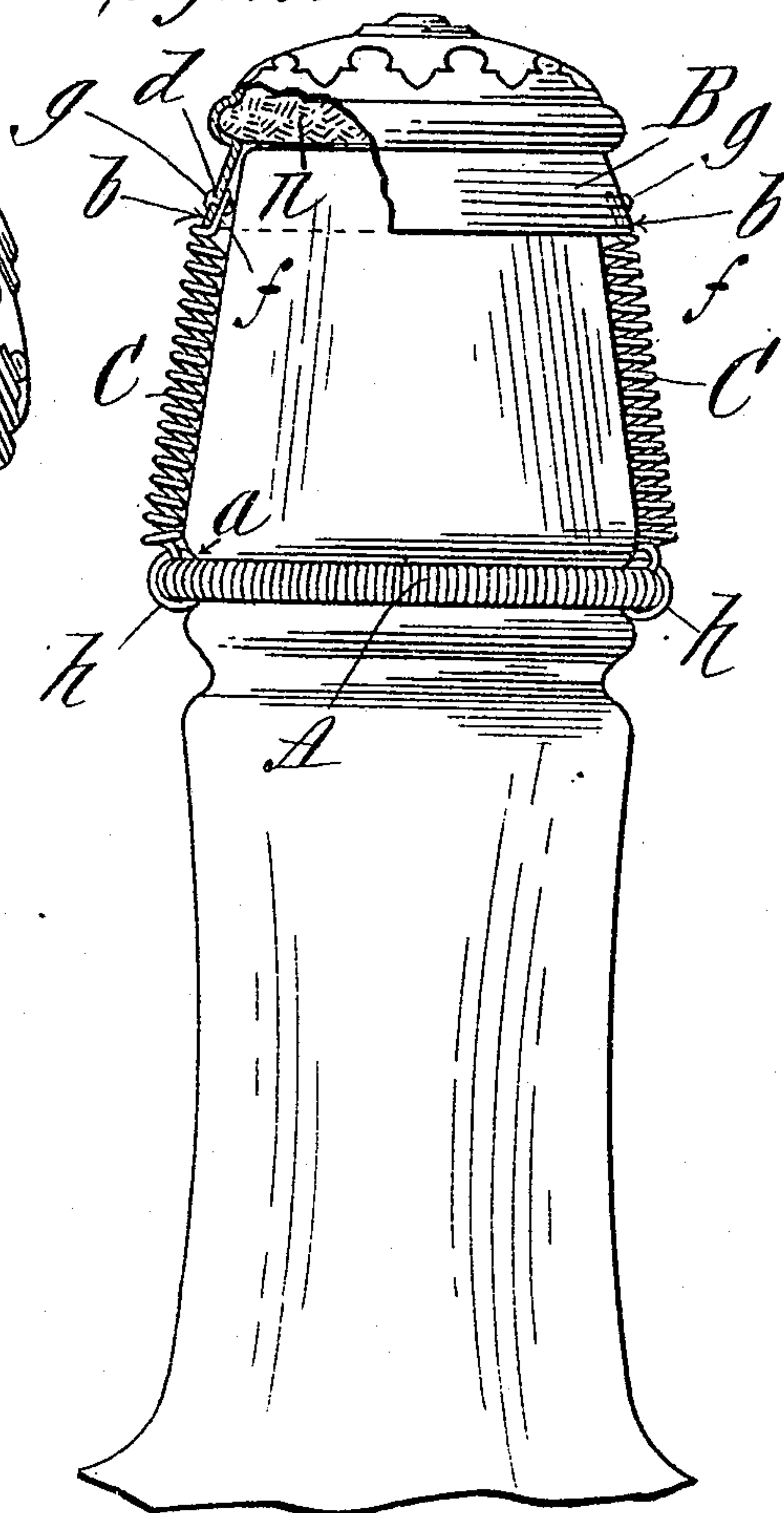


Fig. 3.

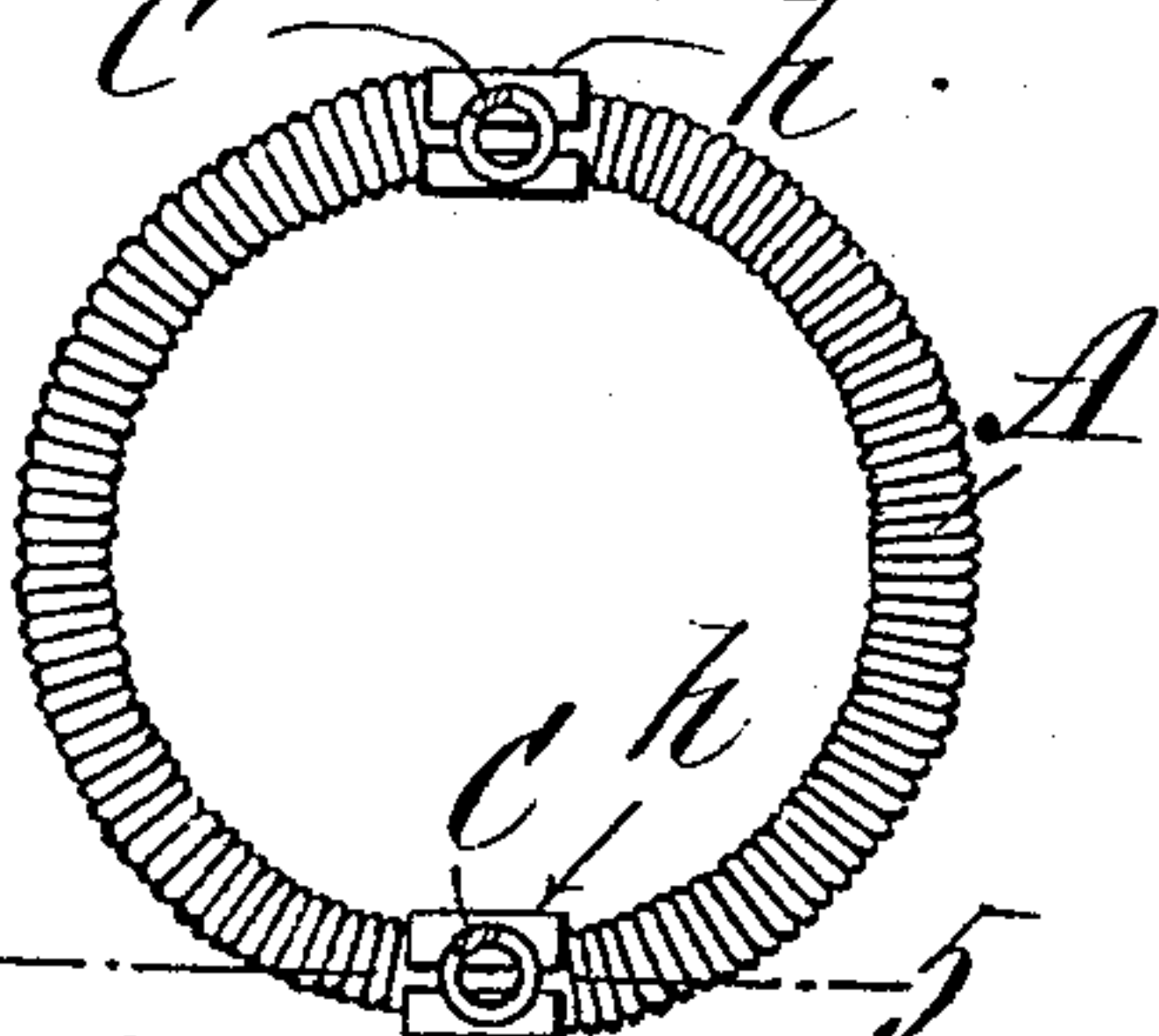
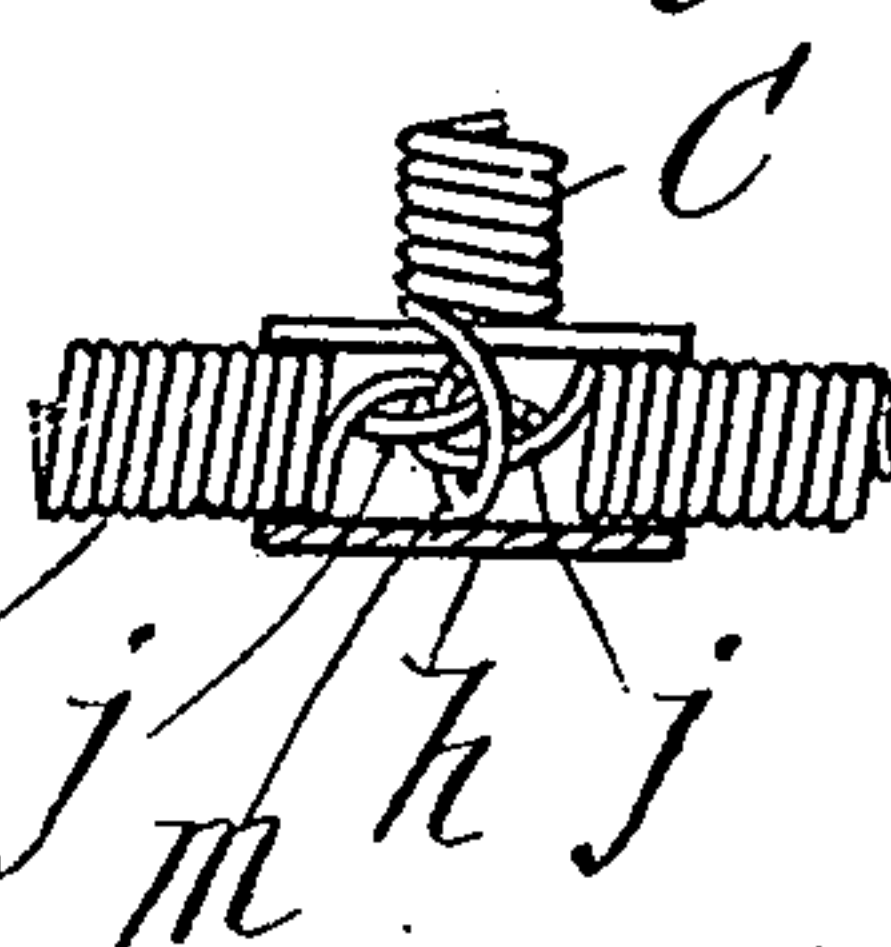


Fig. 4.



Fig. 5.



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UNITED STATES PATENT OFFICE

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CLOSURE FOR BOTTLES.

No. 850,613.

Specification of Letters Patent.

Patented April 16, 1907.

Application filed November 9, 1906. Serial No. 342,743.

To all whom it may concern:

Be it known that I, FRANK H. BILLS, a citizen of the United States of America, and a resident of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Closures for Bottles, of which the following is a full, clear, and exact description.

10 This invention relates to improvements in closures for the mouths of bottles, and more particularly liquor-bottles or "bar-bottles," from which portions of the contents are to be poured out at frequent intervals.

15 The objects are to provide a bar-bottle closure which may be conveniently and very quickly manipulated to open the bottle-mouth, and again as quickly and easily made to close such mouth; to provide a closure 20 which is effective to exclude insects, dust, and dirt from the bottle and which will preserve the bottle-mouth entirely cleanly; to provide a closure which is applicable on various bottles having a considerable range of 25 variability in dimension and proportion, and as is a matter of primary importance to provide a bar-bottle closure which by reason of its structural features may be made sightly, whereby it is acceptable and desirable, which 30 would not be the case were the device unattractive in appearance even though mechanically efficient.

The invention is hereinafter particularly described in conjunction with the accompanying drawings and is defined in the 35 claims.

In the drawings, Figures 1 and 2 are side views of the bottle-closure as seen at right angles to each other in place on the mouth 40 portion of the bottle, the device being shown open in the one view and closed in the other, and in Fig. 2 a portion of the closing-cap is shown in vertical section. Fig. 3 is a plan view of the portion of the present device detached from the bottle and as seen below the 45 plane indicated by line 3 3, Fig. 1. Fig. 4 is a perspective view of the detail part, to be hereinafter referred to, and Fig. 5 is a view on a larger scale as seen along the plane indicated by the line 5 5, Fig. 3.

50 This improved bottle-mouth closure consists of an elastic band A, constituted by a helical spring for entirely constrictively encircling the portion of the bottle below the 55 mouth and under the shoulder *a* thereof, a dome-shaped hollow metallic cap B, and op-

positely-located arms C C, consisting of lengths of helical springs, which by their lower ends are connected to opposite portions of said elastic band and by their upper 60 ends are connected with the opposite edge-wise portions of said hollow dome-shaped cap.

The hollow thin metal dome-shaped cap is made with a downwardly-flaring annular 65 wall *b*, having opposite side perforations *d* near its lower circular edge, so that when the cap is in place, closing the bottle-mouth, it outwardly overhangs and is separated from the side surface of the bottle at its portion 70 just below the mouth.

The side arms C C have their upper extremities formed with eye-coils *ff* in parallel planes and disposed within the opposite lower edge portions of said downwardly- 75 flaring cap at the places of said perforations *d*, spaces for their occupancy being provided between the inner surface of the cap portion *b* and the periphery of the bottle-mouth portion, and rivets *g* are passed through said 80 eye-coils of the opposite arms and through said perforations in the cap side walls, and are headed at their opposite ends.

The connections of the helical spring side arms C C with the constrictive encircling 85 band A, also constituted by a helical spring or springs, may be made in any suitable manner, and at the junction-points at opposite sides of the device, between the lower ends of the arms C C and the constrictive en- 90 circling band A, ferrules *h h* are provided, as shown, for both reinforcing and strengthening the joints or connections and for concealing them.

The encircling band A may be a single 95 spring with its ends joined or it may be constituted by two lengths of helical springs, having their ends formed with eye-coils *j j*, Fig. 5, which are connected or interlocked with the lower end eye-coils *m*, with which 100 the side arms C C are formed.

When the dome-shaped cap is in place to close the bottle-mouth, the helically-coiled side arms C C are slightly stretched, operating by their reaction to hold the layer of cork 105 *n* or other compressible material provided in the dome-shaped shell or cap considerably above the lower edge of the latter closely against the mouth end of the bottle.

The lower annular edge portion of the cap 110 standing outwardly beyond and separated from the side of the bottle-mouth portion

renders it easy for a bartender or other person to force the cap to the open position (shown in Fig. 1) by a pressure with the thumb against the lower edge of the cap at a portion
 5 a quarter-way around from the location of the side arm in an upward and transverse direction. In this mode of manipulation, which is much more convenient and easily practised, the inner portion of the dome-
 10 shaped cap-shell is guided relatively to, and need never be entirely disengaged from, the mouth end of the bottle, and a reversely-applied force is as conveniently effected for restoring the cap to its closed position.

15 I claim—

1. A closure for a bottle having a shoulder below the mouth portion, consisting of an elastic band comprising a helical spring adapted to entirely, and constrictively, en-
 20 circle the mouth of the bottle below the shoulder thereof, a hollow dome-shaped cap, and oppositely-located arms, consisting of lengths of helical springs which by their lower ends are connected with opposite por-
 25 tions of said elastic band, and by their other ends are connected with the opposite edge-wise portions of said hollow dome-shaped cap.

2. A closure for a bottle having a shoulder
 30 below the mouth portion, consisting of an elastic band comprising a helically-coiled wire spring adapted to entirely, and constrictively, encircle the mouth portion of the bottle below the shoulder thereof, a hollow
 35 dome-shaped cap, oppositely-located arms, consisting of lengths of helical springs, by

their lower ends connected with opposite portions of said wire coiled elastic band, and by their upper ends connected with the opposite edgewise portions of said hollow dome-
 40 shaped cap, and metallic ferrules encircling the portions of the wire-coiled elastic band at the opposite places of connection therewith of said oppositely-located helically-coiled spring-arms.

3. A closure for a bottle having a shoulder below the mouth portion, consisting of an elastic band comprising a helical spring adapted to entirely, and constrictively, en-
 50 circle the mouth portion of the bottle below the shoulder thereof, a hollow thin metal dome-shaped cap having a downwardly-flaring annular wall having opposite side perforations near its lower edge, oppositely-located arms, consisting of lengths of helically-
 55 coiled wire springs which by their lower ends are connected with opposite portions of said elastic neck-encircling band and which have their upper extremities formed with eye-coils, in parallel planes and disposed within
 60 the opposite lower edge portions of said downwardly-flaring cap, at the places of said perforations, and rivets passed through said eye-coils of said arms, and said perforations in the cap and headed at their opposite ends.

Signed by me at Springfield, Massachusetts, in presence of two subscribing witnesses.

FRANK H. BILLS.

Witnesses:

G. R. DRISCOLL,
 WM. S. BELLOWS.