

No. 885,571.

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A. L. BERNARDIN.

BOTTLE TOP.

APPLICATION FILED MAR. 28, 1906.

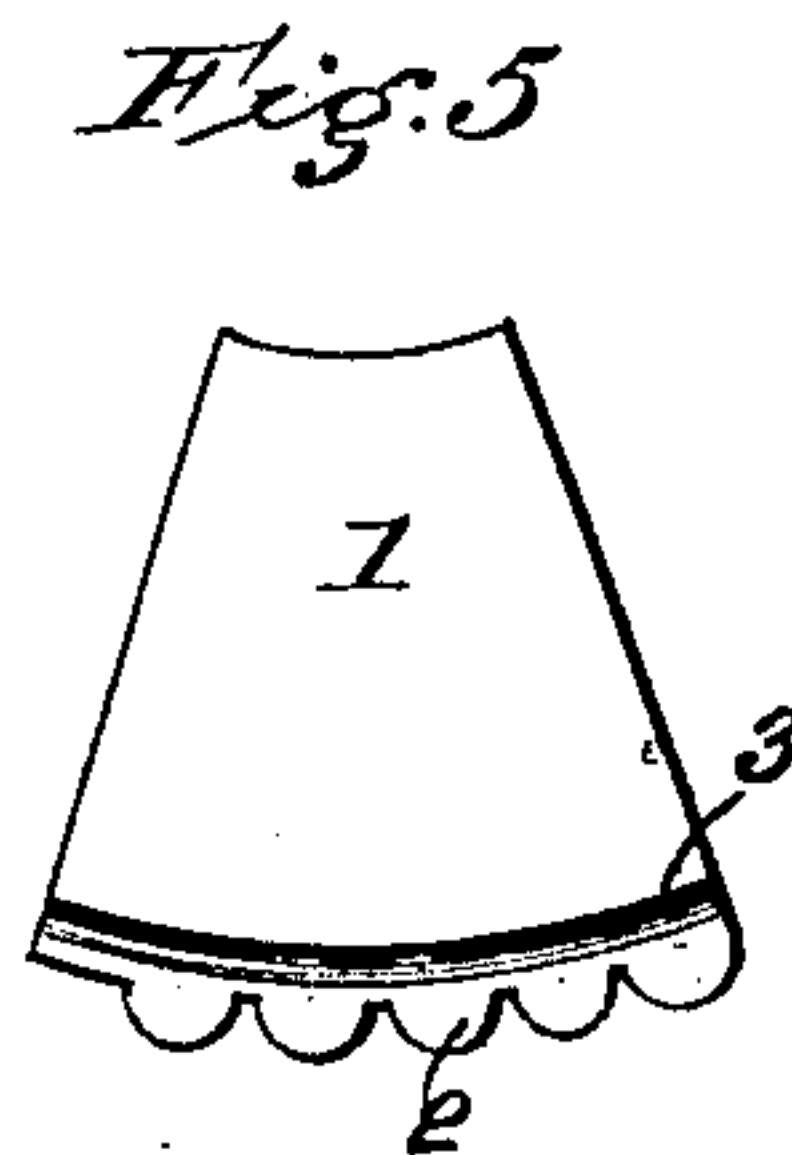
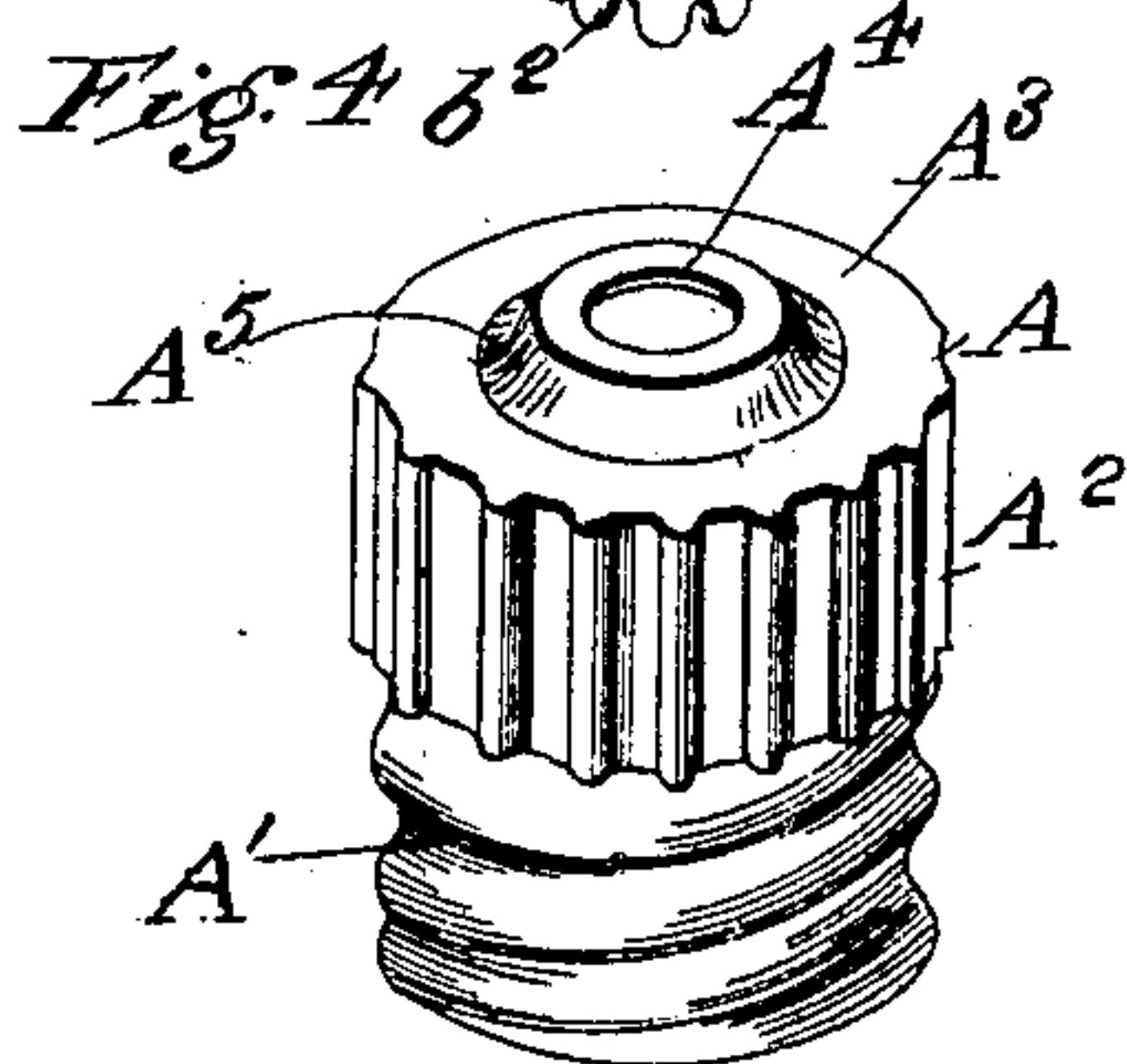
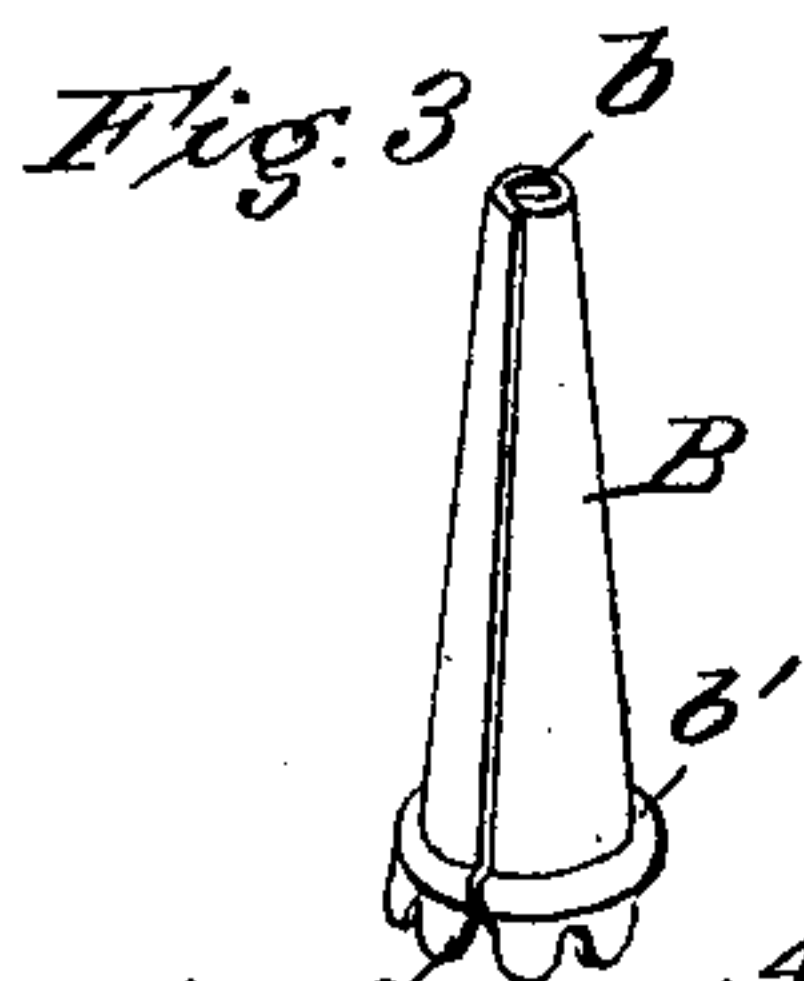
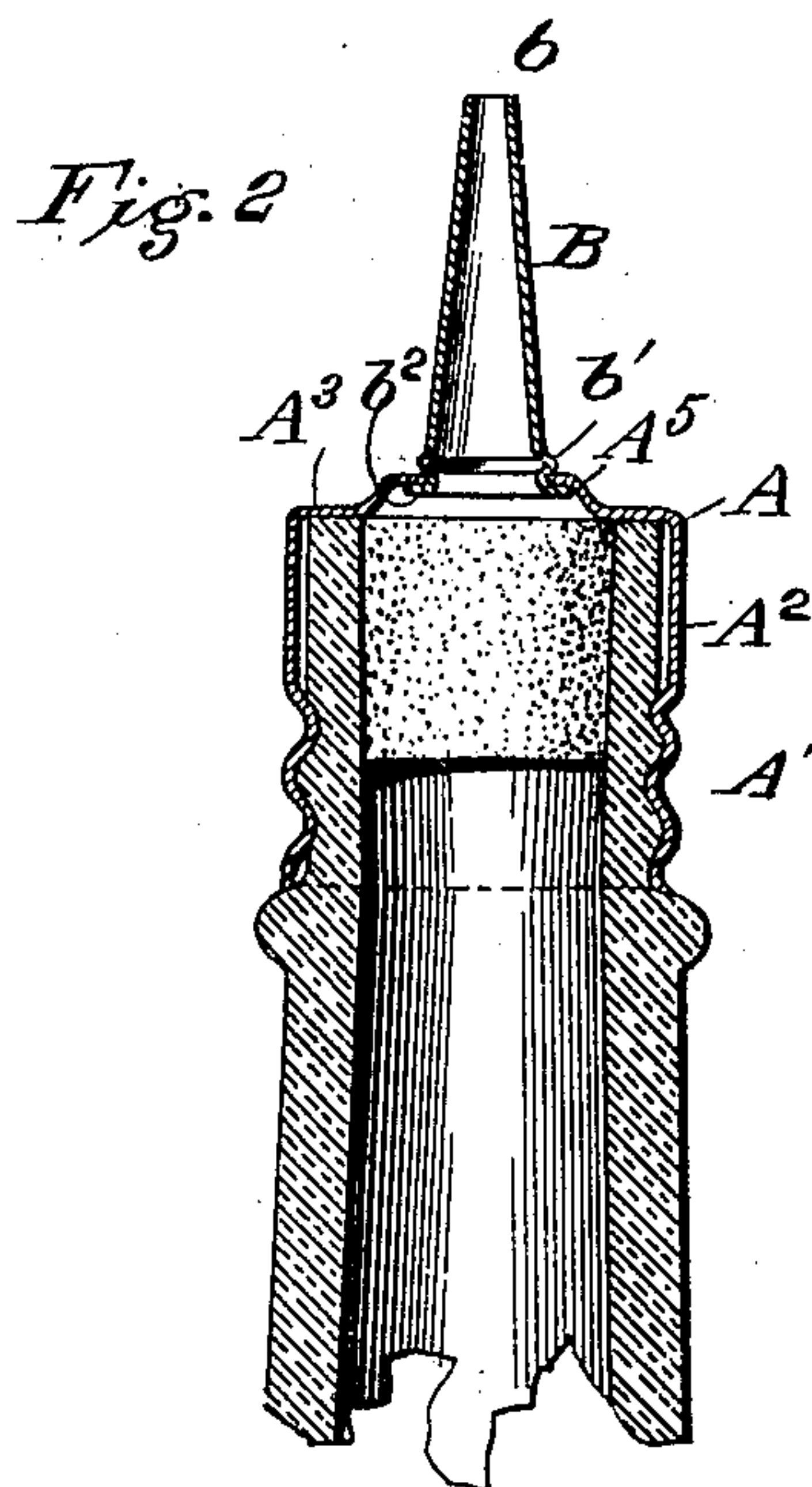
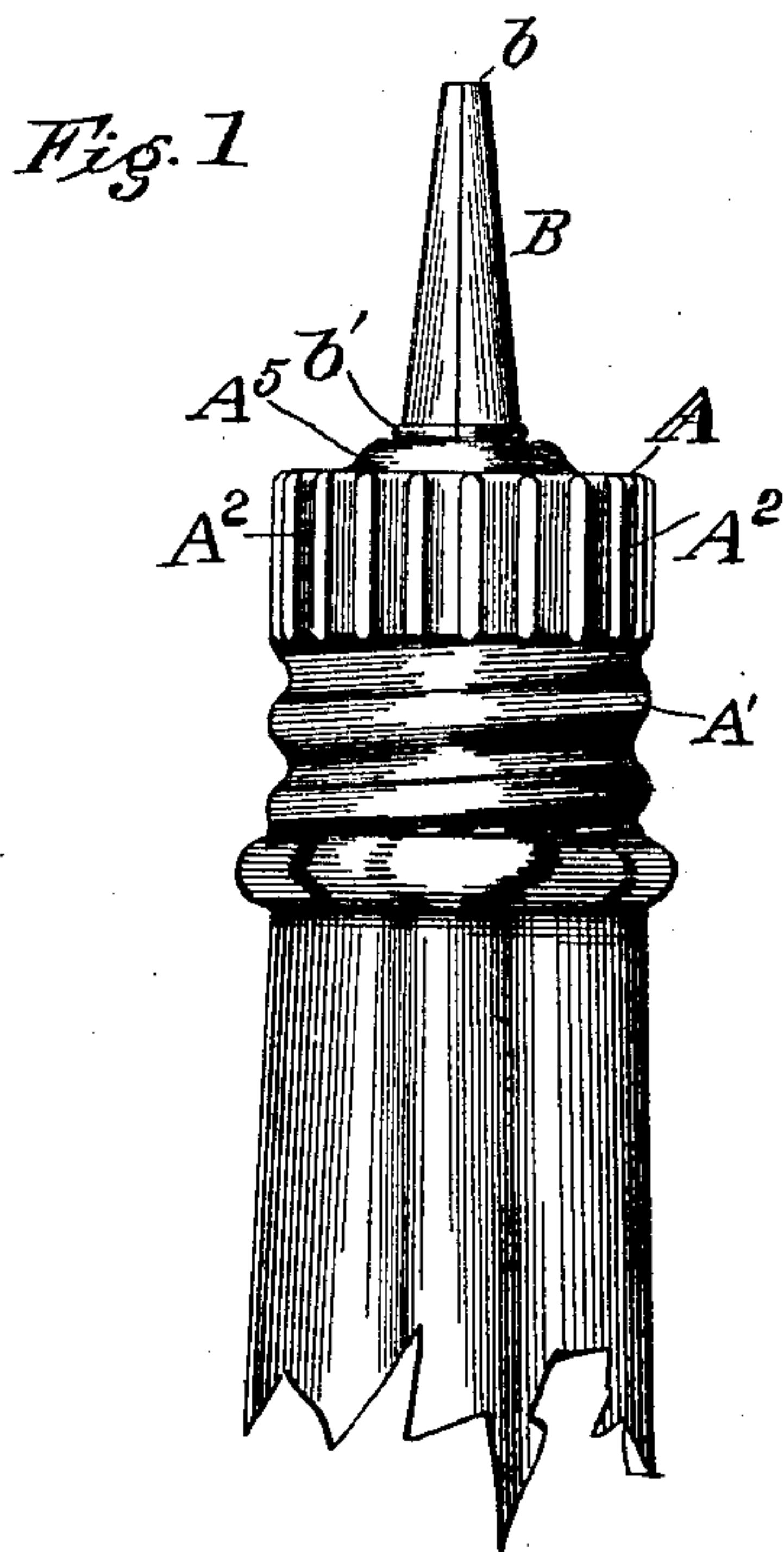
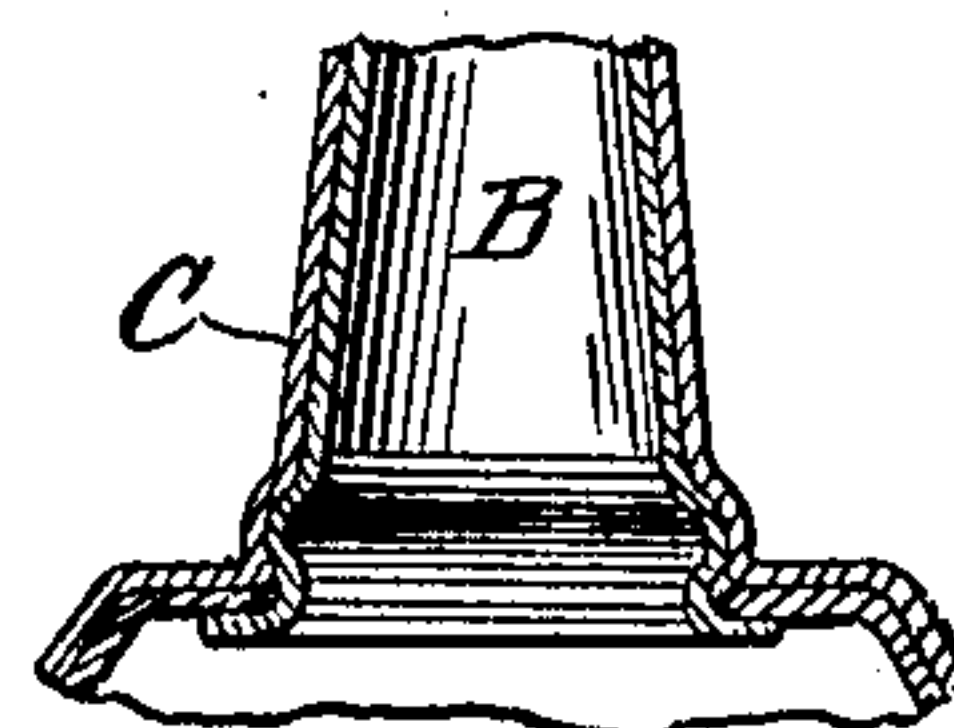


Fig. 6.



WITNESSES

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ALFRED L. BERNARDIN, OF EVANSVILLE, INDIANA.

BOTTLE-TOP.

No. 885,571.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed March 28, 1906. Serial No. 308,459.

To all whom it may concern:

Be it known that I, ALFRED L. BERNARDIN, a citizen of the United States, and a resident of Evansville, in the county of Vanderburg and State of Indiana, have made certain new and useful Improvements in Bottle-Tops, of which the following is a specification.

My invention is an improvement in bottle tops and particularly in tops designed especially for use on bottles containing sauces, such as catsup, pepper vinegar, Worcestershire sauce and the like; and the invention consists in certain novel constructions and combinations of parts as will be hereinafter described and claimed.

In the drawing—Figure 1 is a side elevation of my invention applied to a bottle neck. Fig. 2 is a vertical longitudinal section thereof. Fig. 3 is a detail perspective view of the discharge tube or spout. Fig. 4 is a detail perspective view of the body portion of the cap, and Fig. 5 is a detail side view of the blank from which the spout is formed. Fig. 6 is a detail sectional view somewhat enlarged.

In carrying out my invention I seek to provide a bottle top of hard metal having the body A and the spout B of hard metal, such for instance as sheet steel coated with tin and I make these parts separate and connect them together in the manner presently described. By making the parts A and B separate I am able to make the body portion readily from this hard sheet metal, the initial cost of which is small and which when applied to the bottle and in applying it to and removing it from the bottle has the desired strength and rigidity to resist any stripping of the thread and crushing action caused by the pressure of the fingers in applying and removing the top. By making the top of hard metal I am also able to form therein the threads A' to screw on the bottle neck and the longitudinal ribs or corrugations A² above the said threads A' to facilitate the screwing of the top on and off the bottle neck.

In the top plate A³ of the body portion A, I form an opening A⁴ preferably in the upwardly swelled crown-like portion A⁵ of the top plate A³ as will be understood from Figs. 2 and 4 in order to provide the flat seat below and immediately surrounding the opening A⁴ with which to engage the base flange or flanges upon the spout B presently de-

scribed. The opening A⁴ is preferably formed at the center of the top plate A³ and the top presents in side view a symmetrical appearance when the spout is applied to the body portion A as shown in Figs. 1 and 2 of the drawing.

The spout or discharge tube B preferably tapers toward its upper end *b* and is provided near its base or lower end with an outwardly projecting annular bead *b'*, which in the application of the tube abuts the top plate A³ surrounding the opening A⁴ and limits the downward movement of the spout B within the said opening A⁴.

Below the bead *b'* the spout is provided with an extension which in practice is flanged along the inner side of the top plate surrounding the opening A⁴ and coöperates with the bead *b'* in effecting a secure connection between the spout and the body portion A as best shown in Fig. 2. This extension of the spout below the bead *b'* is preferably in the form of a series of lips or tongues *b²* to facilitate the flanging of the extension below the top plate and along the flat bearing surface provided in the crown A⁵ of the body portion and to enable the lower extension of the spout to be flanged or pressed smoothly out and up against the flat bearing surface as shown in Fig. 2. I thus secure the spout firmly in connection with the body portion A and the parts being of hard metal as before described, have sufficient strength and the connection thereof is sufficiently strong to adapt the top to receive the sudden blow necessary to shake off the surplus metal after the connected parts A and B have been immersed in molten tin, which serves not only to give the desired bright finish to the top but also operates as a solder-like coating C see Fig. 6 to complete the connection of the parts A and B, seal the joint between the two and also seal the joint between the lapped edges of the blank from which the spout B is formed, as will be described.

In practice I find it desirable to make the spout B from a blank 1, shown in Fig. 5, cut of the desired form and having its lower edges corrugated to provide the lips or tongues and provided above the said lips or tongues with the rib or bead 3, the plate being tapered from its corrugated edge toward its opposite edge and adapted to be bent from the flat form shown in Fig. 5 to the tapered tubular form shown in Fig. 3, wherein its side edges will overlap and the ends of the

head 3 will also coincide and overlap to form the bead *b'* to abut the top plate of the body A.

By my invention it will be noticed I provide a screw cap for bottles which has a hard metal body portion and a separate discharge tube and I also secure the said separate discharge tube in connection with the body portion by flanging the lower end of the nozzle or discharge tube along the inner side of the top plate of the body portion.

Another important feature of my invention is the provision, in connection with the body portion of the top, of the tube or spout having an annular bead to engage above the body portion and an extension below said bead, which extension is flanged into locking engagement with the body portion.

I claim—

1. The improvement in bottle tops herein described consisting of a body portion of hard metal having a threaded portion at its lower end, a longitudinally ribbed portion above the said threaded portion and having a top plate provided with an upwardly projecting central portion or crown having a central opening and a flat bearing surface on its inner side surrounding said opening, and a discharge tube having near its lower end an annular bead to abut the said top plate and below the said bead a series of lips or tongues projecting through the opening in the top plate and bent along the flat inner bearing surface within the body portion and surrounding the opening in its top plate all substantially as and for the purpose set forth.

2. A bottle top of hard metal having a central opening in its top plate and a discharge tube having near its base an outwardly projecting annular bead to abut the top plate

surrounding the central opening and provided below said bead with a series of lips or tongues bent outwardly beneath the top plate and cooperating with the annular bead in securing the tube, and a coating operating as a solder to complete the connection of the tube and cap, substantially as set forth.

3. A bottle top having a top plate provided with a discharge opening and a cylindrical side threaded near its free end and provided adjacent to its top plate with a series of longitudinal ribs to facilitate the application and removal of the top, and a separate discharge tube fitted to the top plate in communication with the discharge opening therein, substantially as described.

4. A bottle top comprising a body portion having its top plate provided with an opening, and a discharge tube composed of a plate of metal and corrugated along one edge and beaded from side to side above the said edge and bent to cause its side edges to overlap thereby to produce a tube, the said discharge tube being fitted to the top plate of the body portion with its bead abutting the upper side thereof and its lips or tongues bent or flanged along the inner side of the top plate, substantially as and for the purpose set forth.

5. A discharge tube for bottle tops bent from a plate of metal corrugated along its base edge, beaded transversely above said corrugations and tapering above the said transverse bead, substantially as and for the purposes set forth.

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Witnesses:

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