

No. 682,293.

Patented Sept. 10, 1901.

J. F. TAFT.
NON-REFILLABLE BOTTLE.

(Application filed Feb. 27, 1901.)

(No Model.)

FIG. 1.

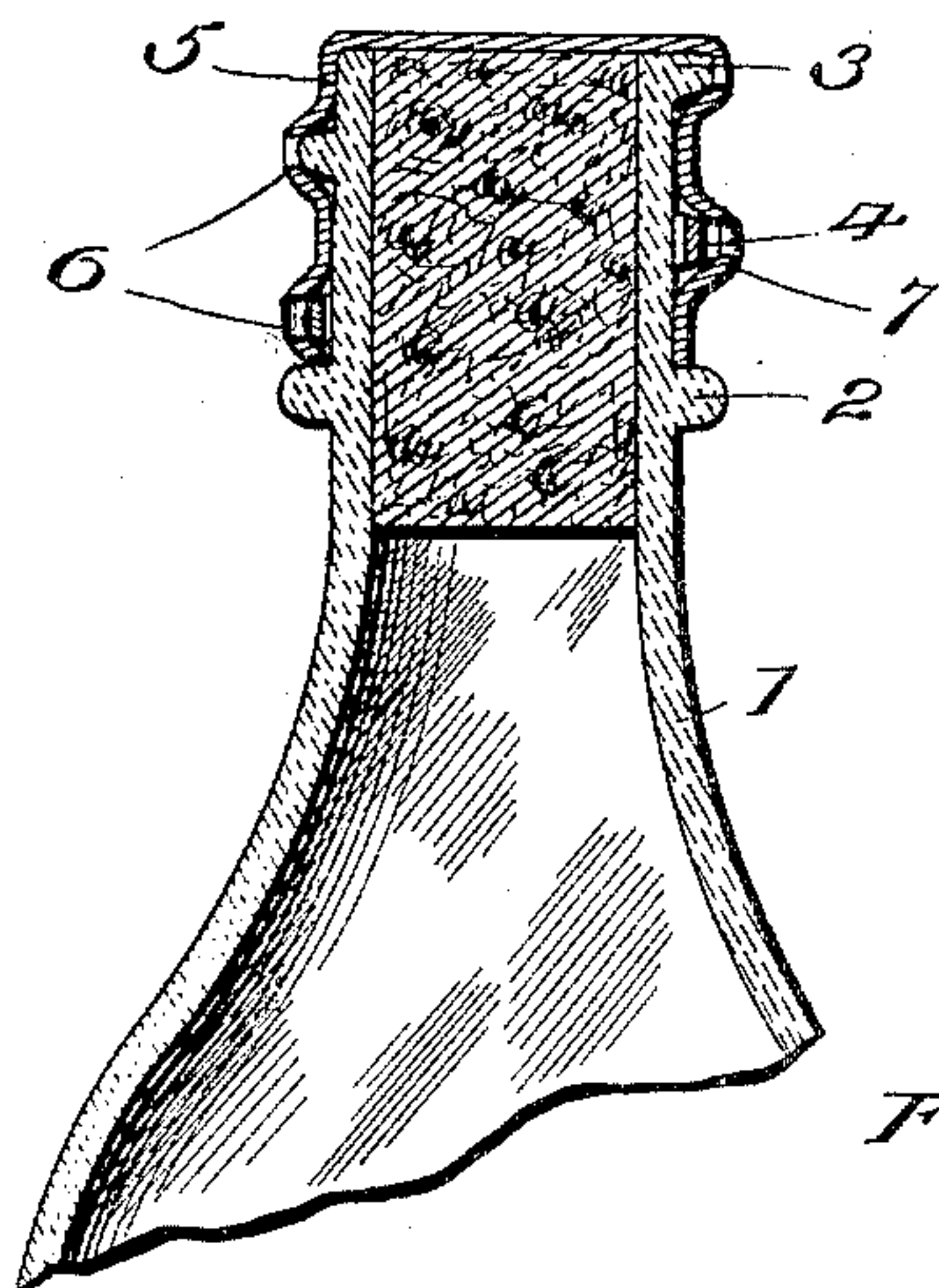


FIG. 5.

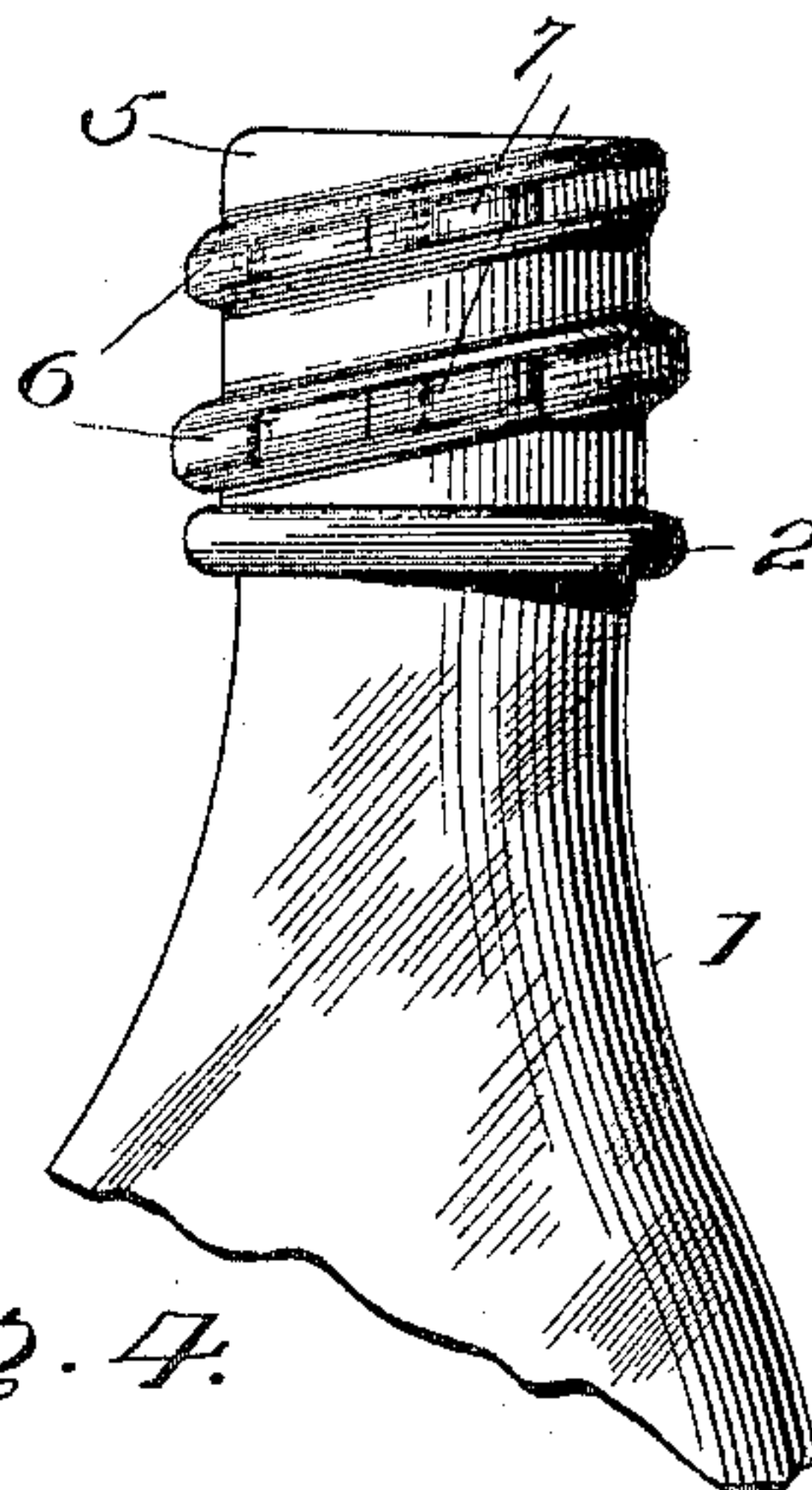


FIG. 4.

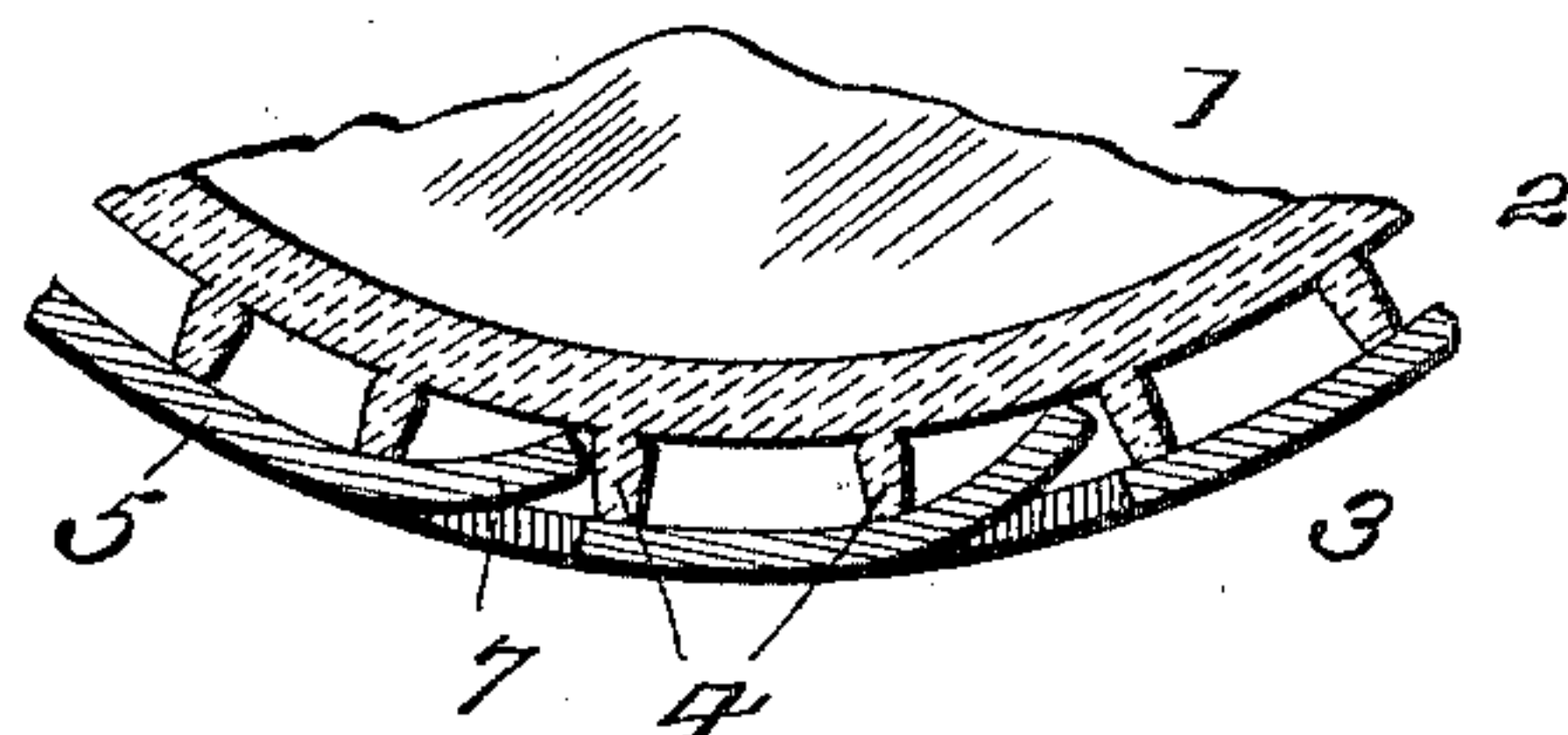


FIG. 2.

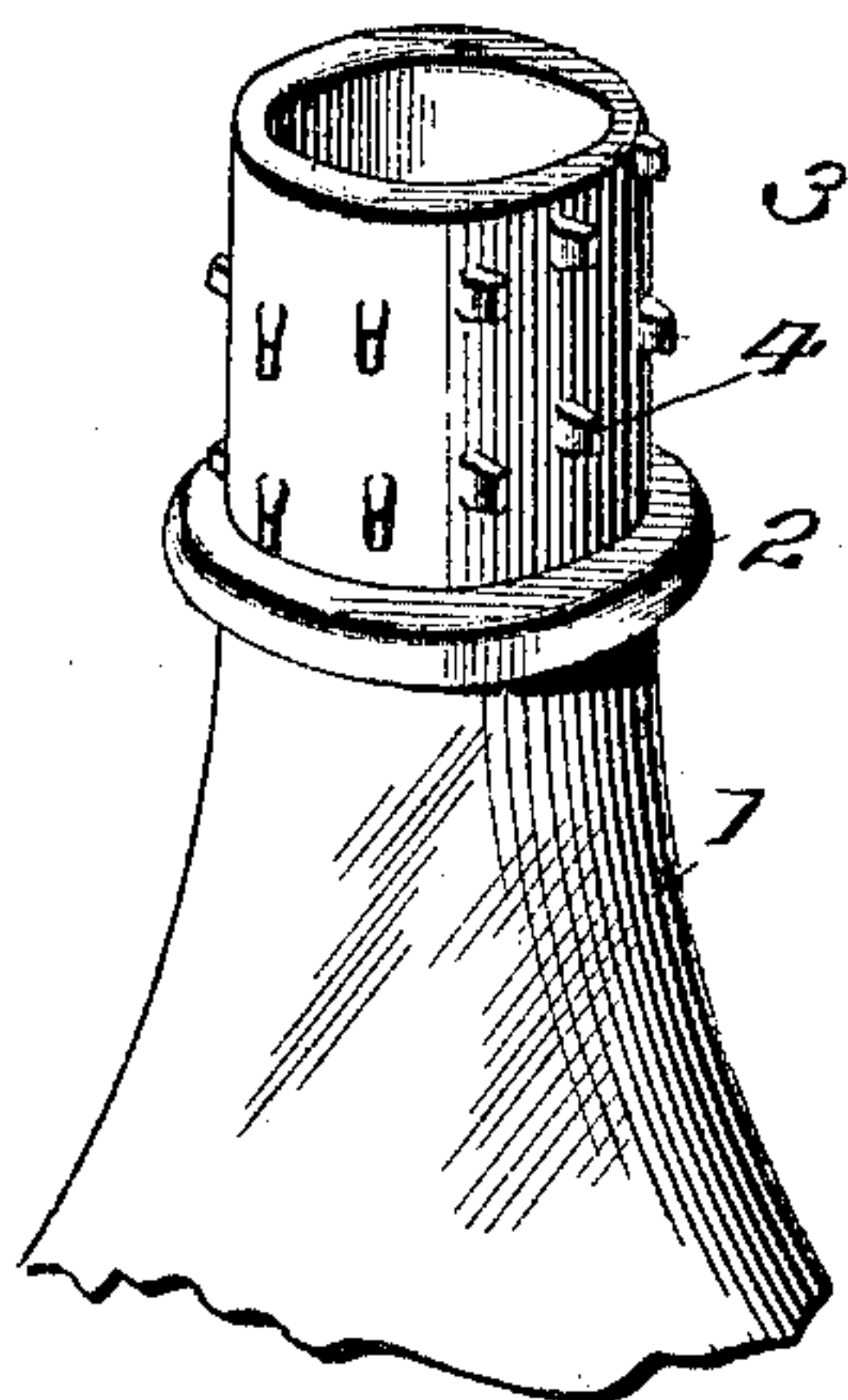
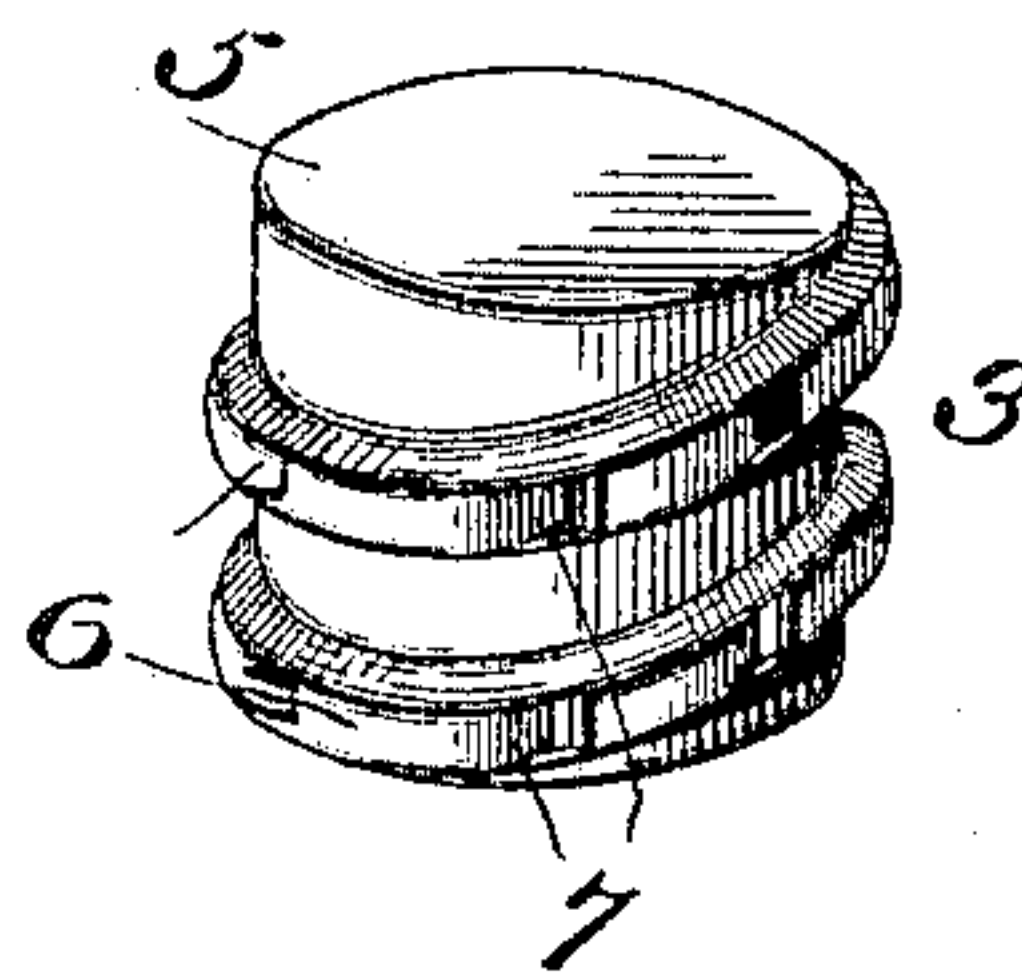


FIG. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

JEROME F. TAFT, OF UXBRIDGE, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO EDWARD J. PREST, OF SAME PLACE.

NON-REFILLABLE BOTTLE.

SPECIFICATION forming part of Letters Patent No. 682,293, dated September 10, 1901.

Application filed February 27, 1901. Serial No. 49,062. (No model.)

To all whom it may concern:

Be it known that I, JEROME F. TAFT, a citizen of the United States, residing at Uxbridge, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Non-Refillable Bottles; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The purpose of this invention is to devise a simple and novel means for preventing the further use of a bottle or kindred receptacle for liquids without detection, thereby insuring to the observing customer the particular brand of goods called for.

The invention is of the character to mutilate the bottle when breaking the seal in such a manner as to apprise one at a glance of the fact that the bottle has been opened.

The invention consists of a screw-thread connection between the bottle or receptacle and the closing-cap and means for stripping said thread when removing the cap or breaking the seal.

The invention also consists of a screw-thread formed of a series of spaced cogs or lugs arranged in spiral form on the neck of the bottle and a stripping device applied to the cap to remove the said cogs in succession as the cap is unscrewed.

The invention further consists of a cutter in line with the thread of the cap and forming an integral part thereof and adapted to yield, so as to ride over the cogs when screwing the cap home, but which will engage with and remove the cogs when unscrewing the cap.

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction of the means for effecting the result reference is to be had to the following description and drawings hereto attached.

While the essential and characteristic features of the invention are necessarily susceptible of modification, still the preferred embodiment of the invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical central section of the upper portion of a bottle or like receptacle, showing the application of the invention. Fig. 2 is a perspective view of the neck portion of the bottle with the cap removed. Fig. 3 is a detail view of the cap. Fig. 4 is a horizontal section. Fig. 5 is a side view.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The bottle 1 has its neck portion provided with an outer flange 2 and a thread 3, the latter being formed of a series of cogs or lugs spaced apart and arranged in spiral form. The bottle may be of any form or size and the term is used in a general sense to designate vessels or packages specially designed for containing liquids and provided with an outlet of neck form. The cogs or lugs 4 are integrally formed with the neck of the bottle and are of a size to securely hold the cap 5 in place and yet admit of their removal when breaking the seal of the bottle by unscrewing the cap therefrom. The bottle being constructed of glass in the usual manner and the cogs 4 being a part thereof are adapted to be easily removed or stripped from the neck of the bottle in the manner presently to be explained. The cogs are spaced apart to facilitate their stripping from the neck of the bottle when removing the cap. The flange 2 acts as a stop and prevents the insertion of an instrument between the neck of the bottle and the lower end of the cap. The cap 5 fits snugly over the upper end of the neck of the bottle and makes screw-thread connection therewith, being provided with a thread 6 to match the thread 3 of the bottle. The cap is provided with a thread-stripping device for removing the thread 3 from the bottle, and this thread-stripper consists of one or more cutters 7 in line with the thread 6, so as to engage with the thread 3 and strip the same when unscrewing or removing the cap from the bottle. The thread-stripping device is adapted to yield, so as to ride over the cogs 4 when placing the cap in position and to engage with said cogs to break them from the body of the

bottle when removing the cap. The thread-stripping device is resilient and may be provided in any convenient way, and, as shown, it is integral with the metal or material from which the cap is formed and is pressed therefrom in the shape of a tongue or spring-tube. In order that the cutter may perform the work effectively, it is essential that the cap be constructed of stout and strong material.

It is preferred to provide a number of cutters, so that in the event of one failing to operate or becoming disabled the work will be accomplished by one or more of those remaining, thereby insuring the attainment of the object of the invention, which is to completely strip or remove the thread from the neck of the bottle, whereby detection is facilitated. After the bottle is filled it may be corked in the usual manner, and the cap 5 is placed in position by screwing it upon the neck after the fashion of placing a screw-cap of ordinary construction in position. As the cap is screwed upon the neck of the bottle the spring-cutters 7 move outward at their free ends and ride over the cogs 4, and when it is required to open the bottle the cap is detached by a reverse movement, and when unscrewing the cap the cutters engage with the cogs 4 and break or otherwise strip them from the bottle, thereby apprising one of the fact that the bottle has been tampered with or opened and should be regarded with suspicion if the thread 3 is absent or removed. It may be observed that the thread 3, being of frangible material and being composed of spaced elements, such as the cogs 4, can be removed readily when unscrewing the cap, since the cogs are detached one at a time and in successive order.

Having thus described the invention, what is claimed as new is—

1. In combination, a bottle having a thread, a cap having a corresponding thread matching the thread of the bottle and adapted to screw thereon, and a thread-stripping device applied to said cap for removing the thread from the bottle when unscrewing the cap therefrom, substantially as set forth.

2. In combination, a bottle provided with a thread composed of spaced elements or cogs, and a cap having a matching-thread and provided with a thread-stripping device for removing the thread from the bottle when unscrewing the cap therefrom, substantially as specified.

3. In combination with a bottle provided with a thread composed of spaced elements or cogs, a cap having a matching-thread, and a spring thread-stripping device applied to the cap to ride upon the cogs of the thread of the bottle when screwing the cap thereon and to engage with said cogs and strip them from the bottle when unscrewing the cap therefrom, substantially as set forth.

4. In combination with a bottle provided with a thread capable of removal, a cap having a matching-thread, and a spring-cutter pressed from the body of the cap and adapted to strip the thread from the bottle when unscrewing the cap therefrom, substantially as set forth.

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

JEROME F. TAFT. [L. S.]

Witnesses:

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CHARLES E. COOK.