

(No Model.)

H. P. P. GROW.
BOTTLE AND CLOSURE.

No. 596,588.

Patented Jan. 4, 1898.

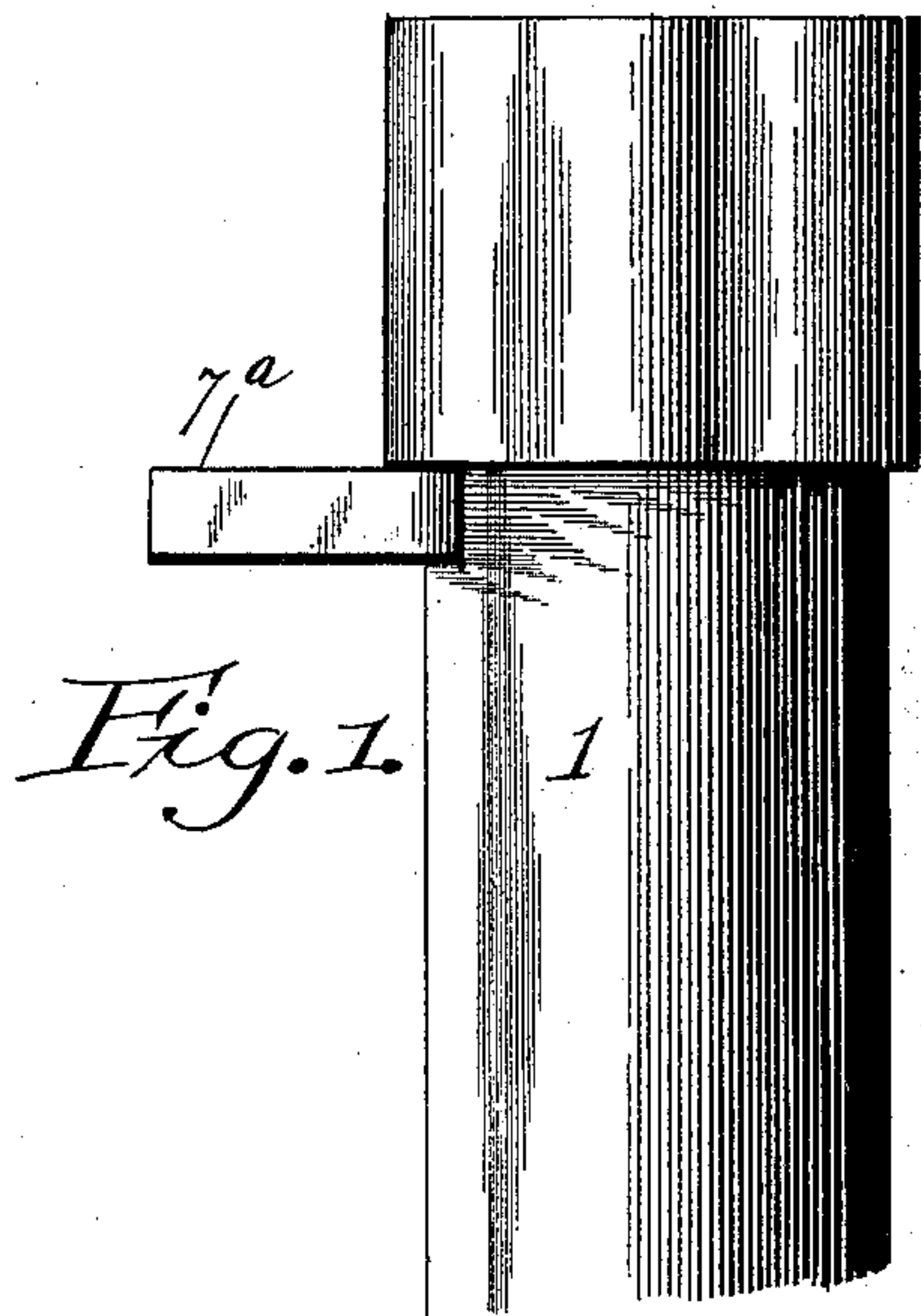


Fig. 1.

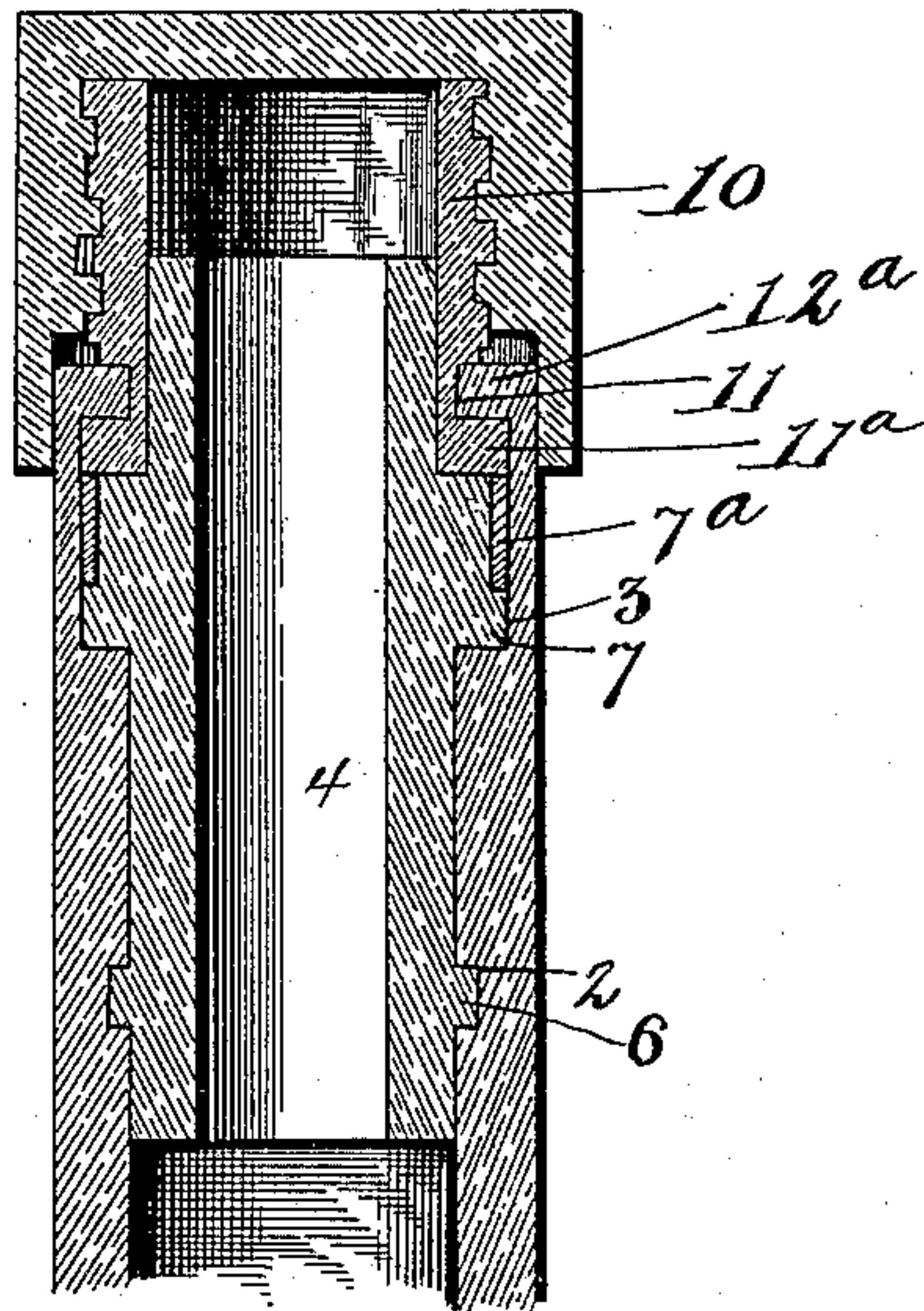


Fig. 2.

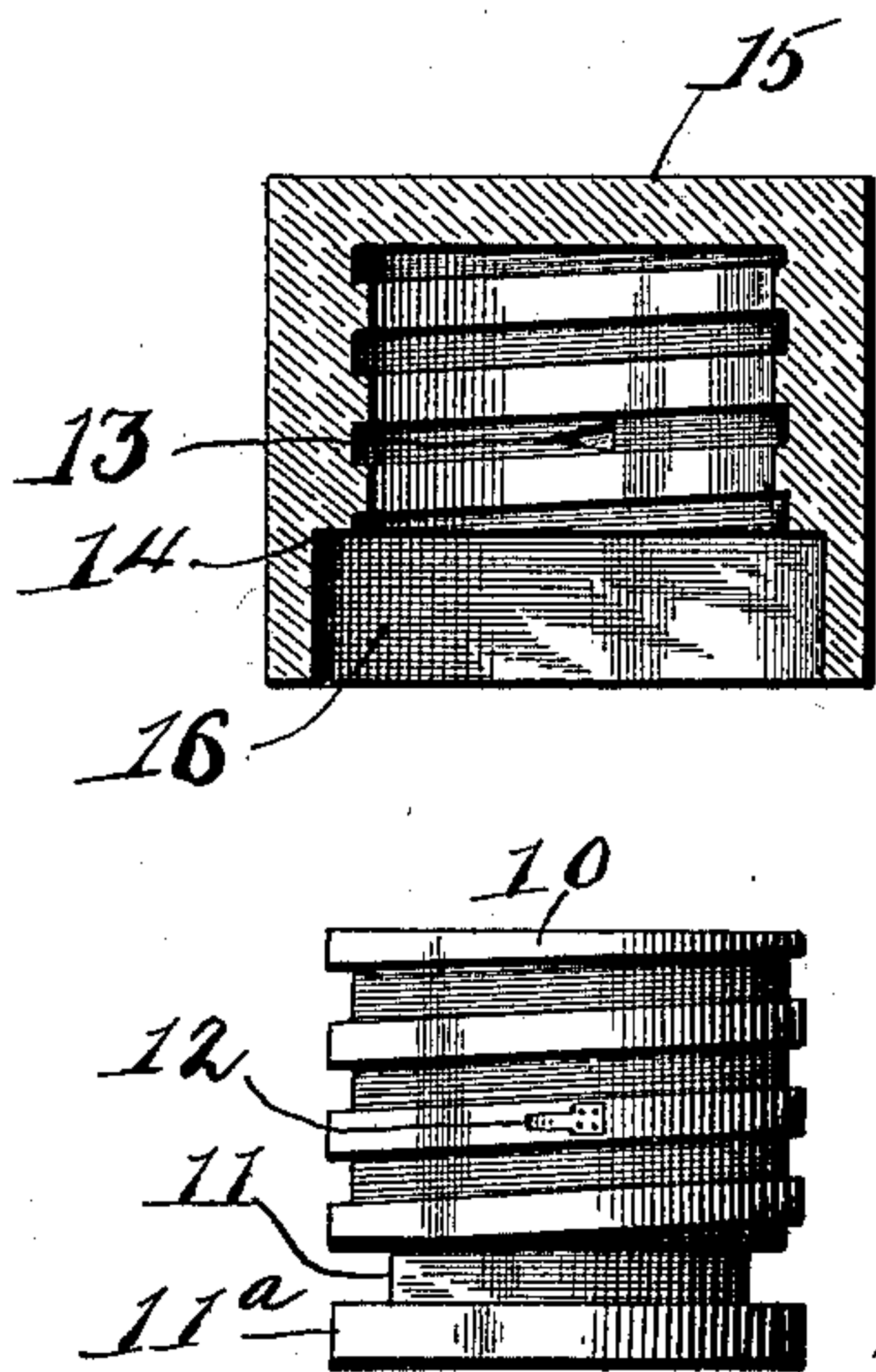


Fig. 3.

Fig. 4.

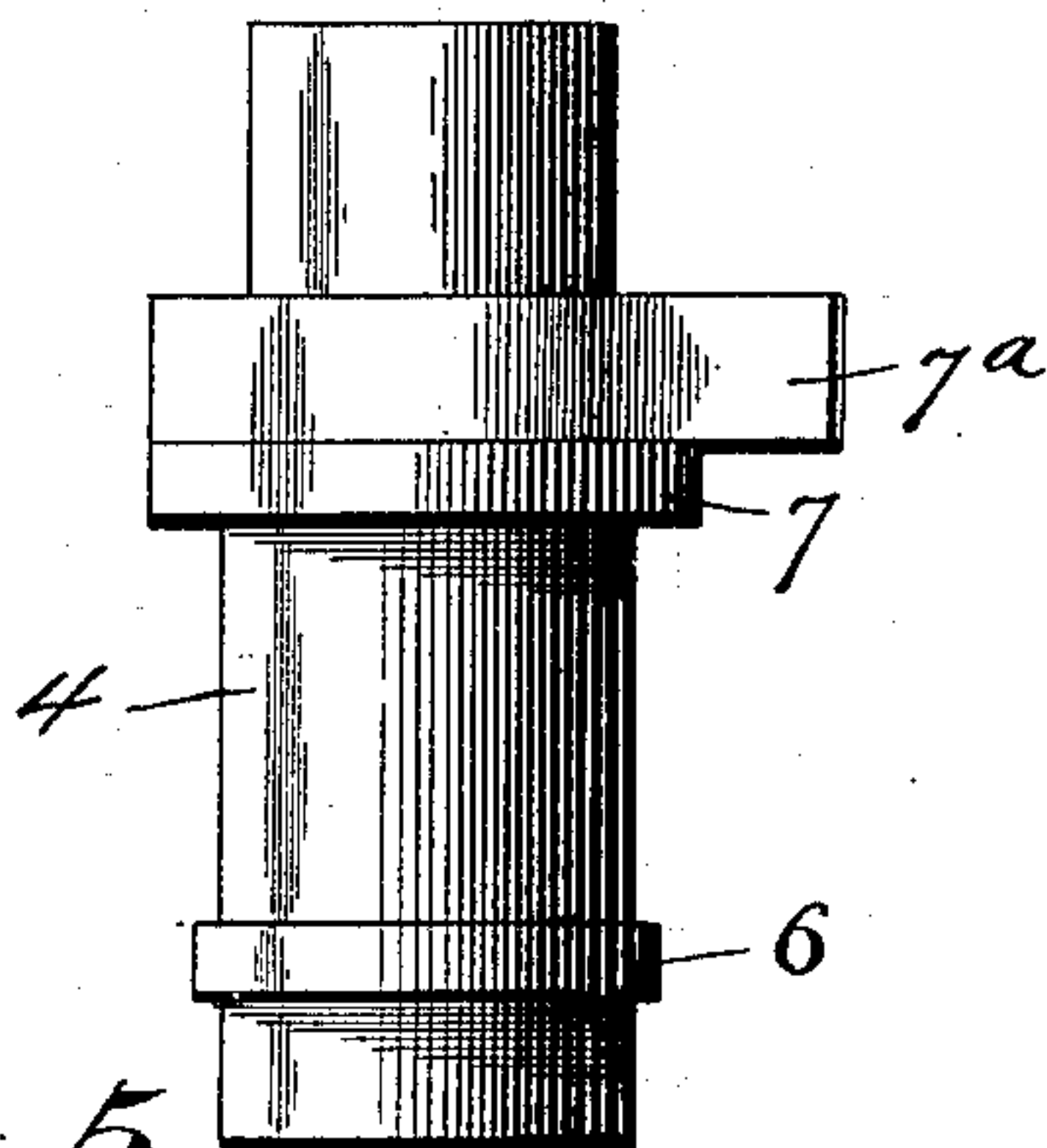


Fig. 5.

Witnesses:
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UNITED STATES PATENT OFFICE.

HARVEY P. P. GROW, OF FREDERICK, MARYLAND.

BOTTLE AND CLOSURE.

SPECIFICATION forming part of Letters Patent No. 596,588, dated January 4, 1898.

Application filed September 7, 1897. Serial No. 650,817. (No model.)

To all whom it may concern:

Be it known that I, HARVEY P. P. GROW, a citizen of the United States of America, residing at Frederick, in the county of Frederick and State of Maryland, have invented certain new and useful Improvements in Bottles and Closures, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to closures for vessels, and is adapted for use in bottles for liquids or solids and packing-boxes of varying kinds—such as coffee, tea, or spice receptacles—where the identity of the contained
15 goods is to be preserved against fraudulent sale or imitation and insuring to the consumer the proper grade and brand sought, it being well known that where boxes and cans are readily opened and closed inferior goods are
20 substituted with a loss to the consumer as well as the packer.

The object of this invention is to provide means which may be applied to bottles and receptacles, whereby access to the interior for
25 the purpose of removing the contents is effectually prevented except upon the fracture of the mouth or the neck, in which event the consumer will at once know whether the package has been opened.

30 A further object of the invention is to provide novel means for fracturing the neck and removing the cap, and, furthermore, in providing an opening from which the contents may be drawn, said opening being also provided with a stopper that the contents may
35 be protected.

With the above and other objects in view the invention consists in the novel details of construction and in the arrangement and
40 combination of parts to be hereinafter more fully described and specifically claimed, whereby an efficient and satisfactory closure is produced at comparatively small cost.

In describing the invention in detail reference will be had to the accompanying drawings forming part of this specification, wherein like characters of reference denote corresponding parts in the several views, in which—

50 Figure 1 is a view in elevation of a portion of a bottle-neck with my invention applied. Fig. 2 is a sectional view taken centrally of the bottle-neck with the parts assembled.

Fig. 3 is a view in elevation of the supplemental top and cap. Fig. 4 is a detail view of the core and neck-lining. Fig. 5 is a view
55 of the wrench.

In the drawings, 1 denotes the bottle-neck, provided with an annular groove 2 toward the bottom, and 3 is an annular channel near the top thereof. Arranged within the neck
60 is a core 4, preferably formed of metal and provided with a coating of enamel, said core being provided with a flange 6, fitting in the groove 2, and a flange 7, embedded in the upper groove. Above the flange 7 I provide
65 a metallic strap 7^a, having one end embedded in the core, said strap lying between the core and the bottle-neck when in position, with the free end of said strap protruding through a slot in the bottle-neck, the purpose of the
70 strap being to break the material at the reduced portion formed by the upper annular groove, and in order to accomplish the result I employ a lever 8, having a slotted portion to receive the end of the strap, and a bar
75 crossing the slotted portion, whereby the same is manipulated. The upper end of the core is reduced in diameter and is designed to receive a supplemental top 10, having screw-threads for attaching the cap, a groove 11 at
80 the bottom, and a bead 11^a, the latter lying in the channel 3, and the bead 12^a at the top of the neck fitting in the groove of the supplemental top.

The elements so far described—viz., the
85 core and supplemental top having the strap attached—are arranged in the mold when the receptacle is being cast, and the material flowing in will embrace the core and supplemental top, as shown. Spring-tongues 12 are
90 secured on the threaded portion of the supplemental top and engage in a notch 13 of the cap, whereby the said cap is held against retrograde movement when once closed.

The diameter of the interior of the cap 15
95 is reduced near the top, forming a shoulder 14, resting on the end of the bottle-neck, while the wall 16 of the large mouth or opening of the cap embraces the said neck in a manner to prevent tampering with the interior of the receptacle, as any effort to gain
100 access to the interior will result in damaging the package.

The construction, operation, and advan-

tages will, it is thought, be understood from the foregoing description, and it will be noted that changes in the proportions and other details of construction may be resorted to without departing from the spirit of the invention, it being understood that the invention as described may be employed with advantage on closures or vessels for use in packing and merchandising medicines, wines, pickles, preserves, coffee, tea, &c.

Having fully described my invention, what I claim as new and useful is—

1. In combination with the neck of a bottle a core molded therein, and a metallic strap having one end embedded in the core, surrounding the core and the other end projecting through a slot in the neck of the bottle, as and for the purpose described.

2. In combination with a bottle, a core formed in the neck thereof a strap lying between the core and the bottle, having one end embedded in the core and the other end pro-

jecting through a slot in the neck, a supplemental top secured over the upper end of the core, substantially as described.

3. In combination with the neck of a bottle, a core formed therein, a strap lying between the core and the bottle having one end embedded in the core and the other projecting through a slot in the bottle, a supplemental top secured on the upper end of the core, said supplemental top having a bead formed around the lower edge thereof lying in an annular groove formed in the neck of the bottle, and a cap threaded on the supplemental top, spring-tongues secured to the supplemental top and engaging the cap, as and for the purpose described.

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

HARVEY P. P. GROW.

Witnesses:

OLIVER F. YOUNG,
JOHN J. MURRAY.