

No. 618,923.

Patented Feb. 7, 1899.

J. W. WALLACE.
LIGATURE RECEPTACLE.

(Application filed Feb. 2, 1898.)

(No Model.)

Fig. 1.

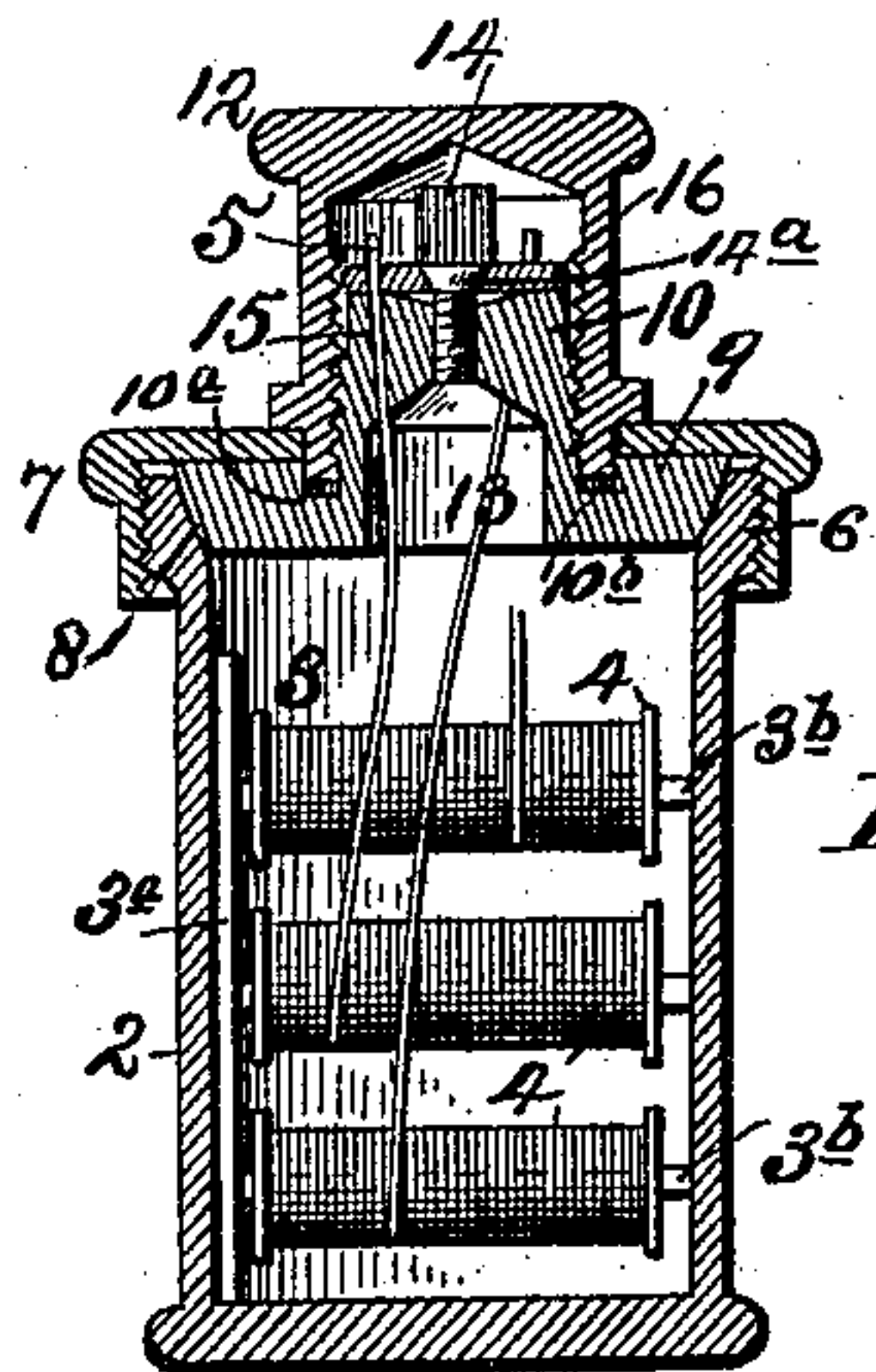
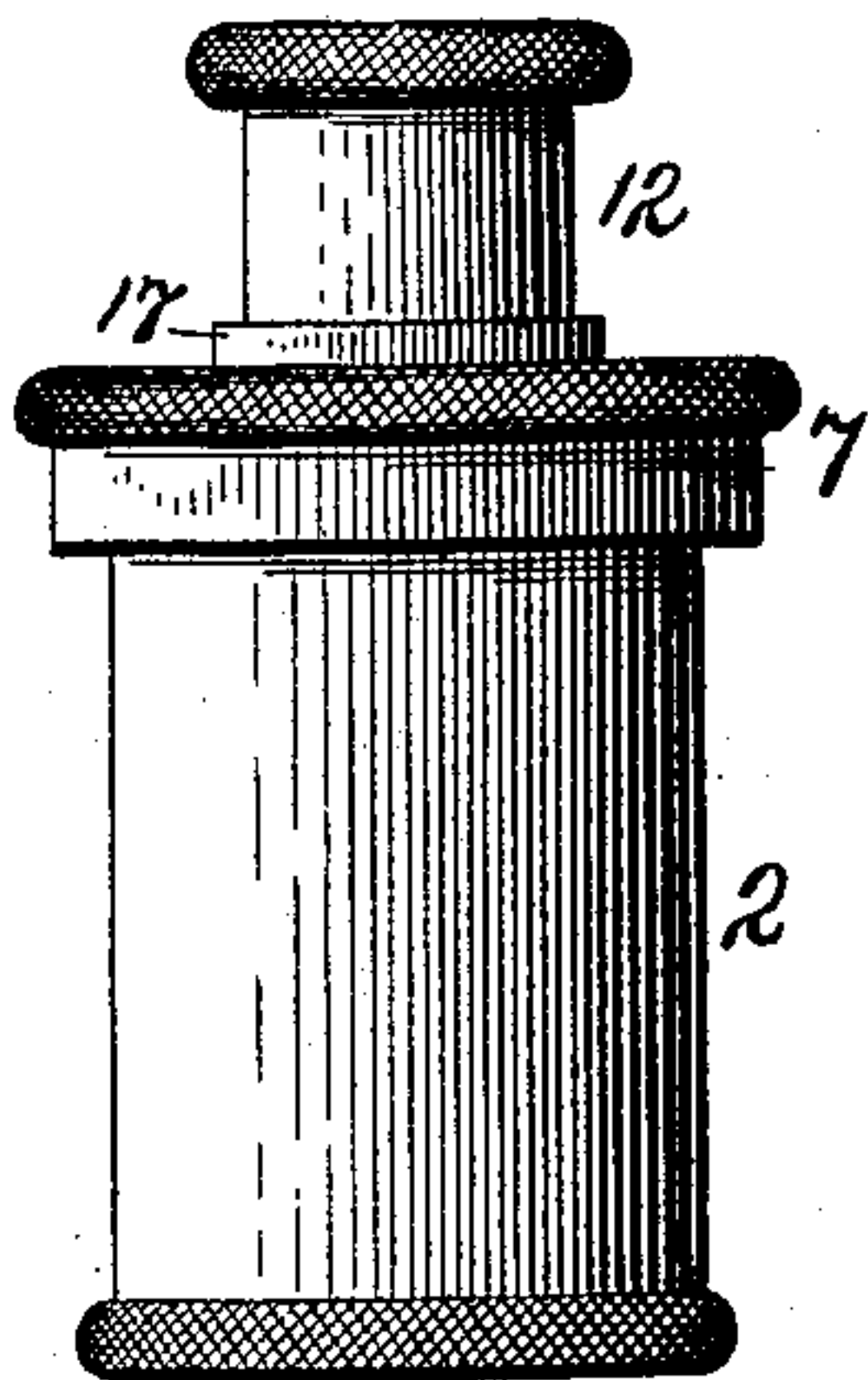


Fig. 2.

Fig. 3.

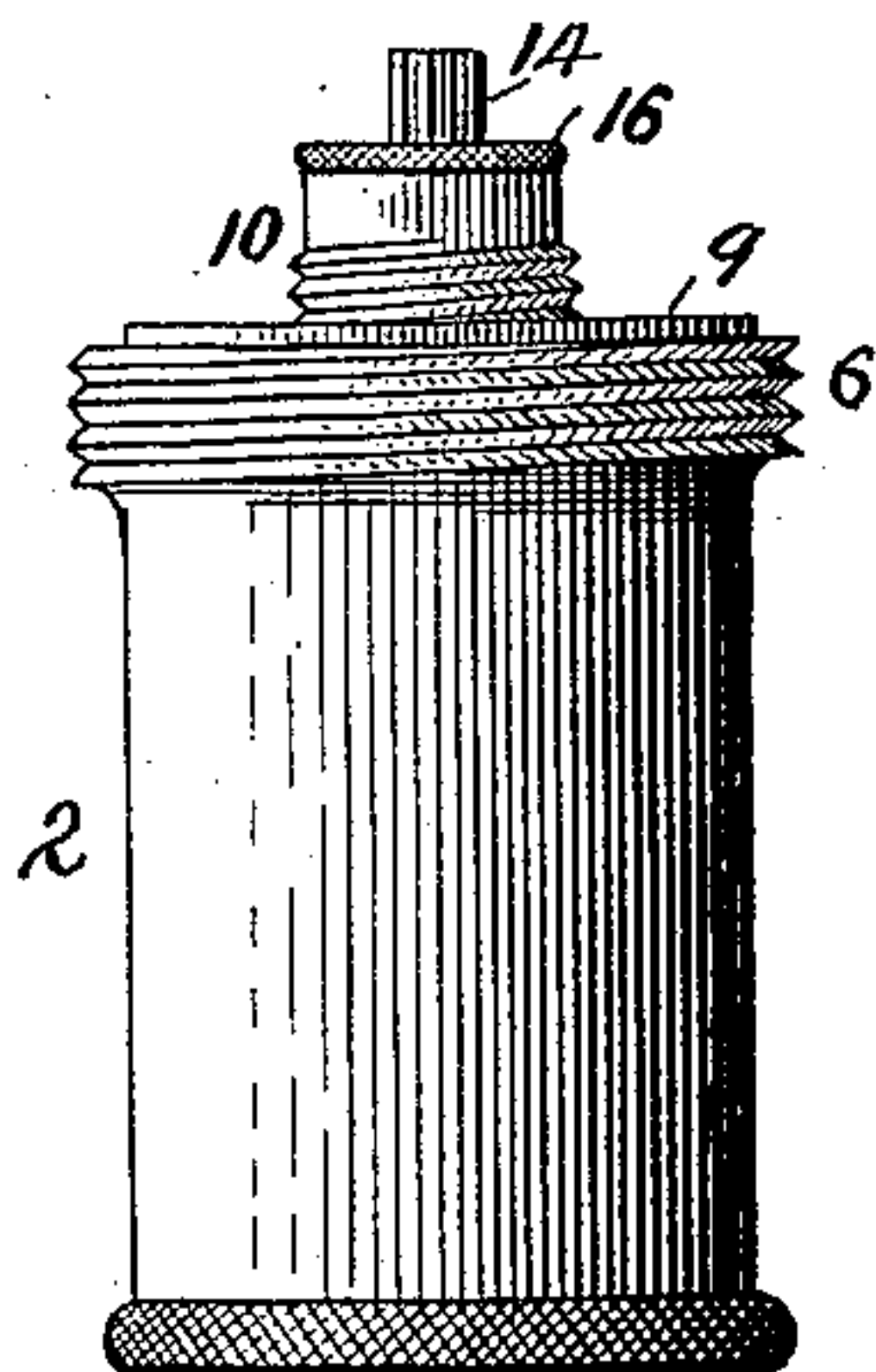
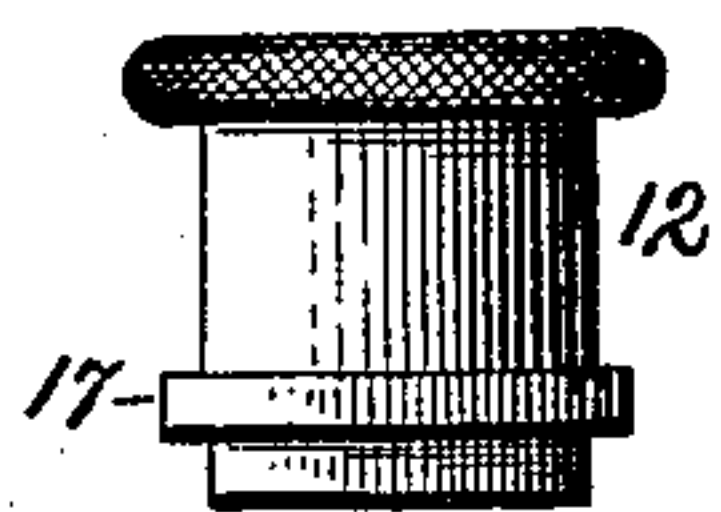


Fig. 4.

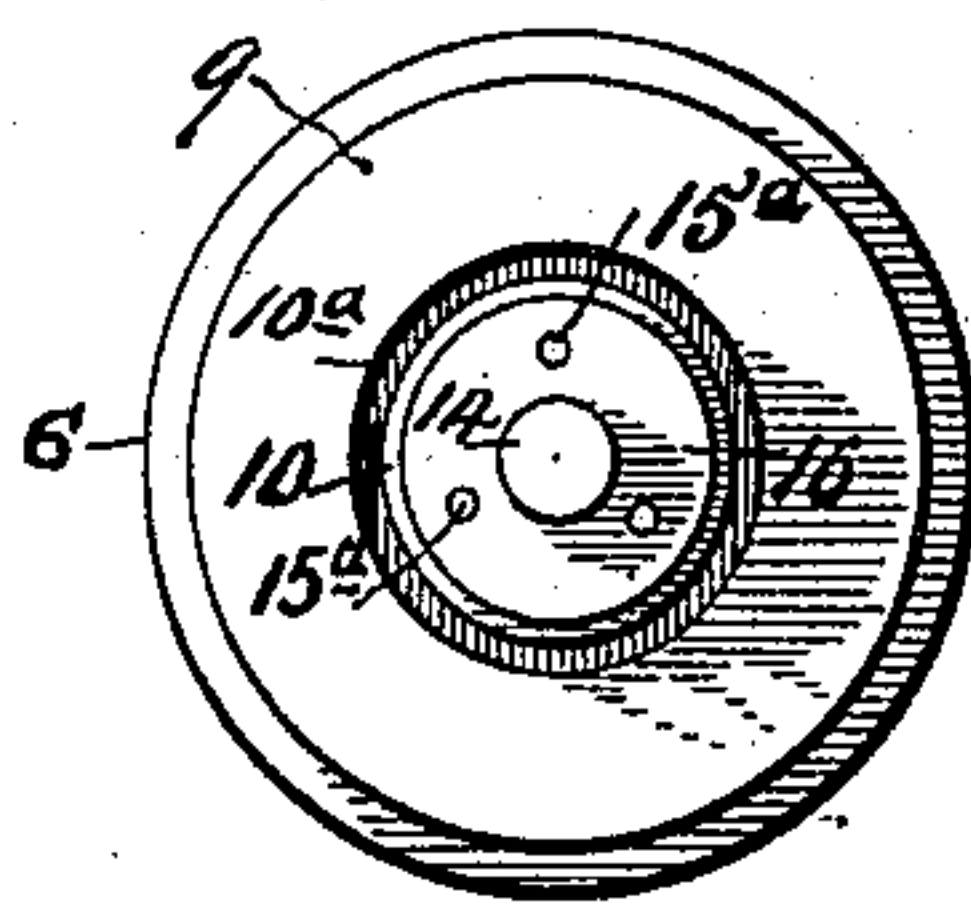
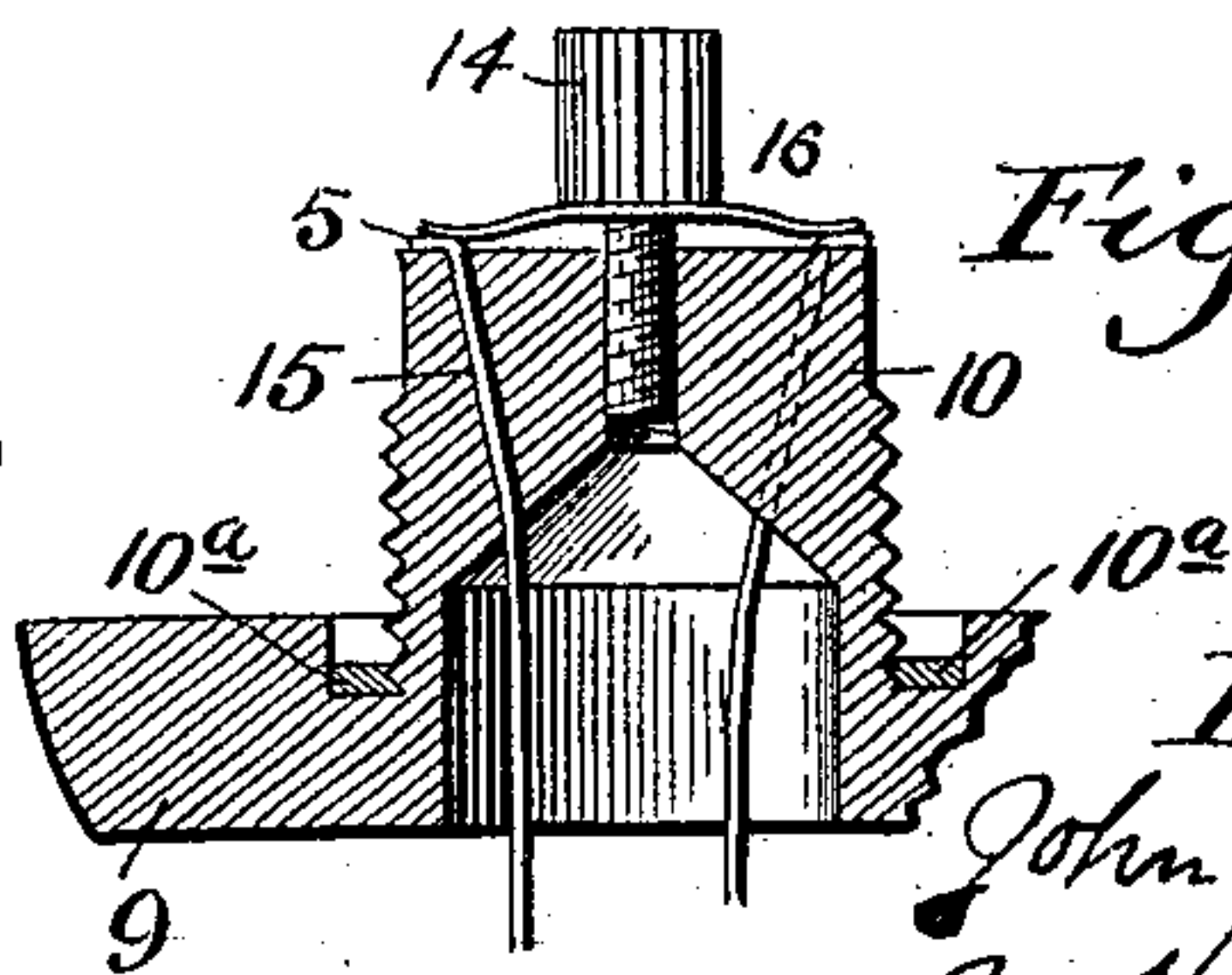


Fig. 5.



Witnesses:

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LIGATURE-RECEPTACLE.

SPECIFICATION forming part of Letters Patent No. 618,923, dated February 7, 1899.

Application filed February 2, 1898. Serial No. 668,820. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. WALLACE, a citizen of the United States, and a resident of New York, in the borough of Brooklyn and State of New York, have invented certain new and useful Improvements in Sterilizers and Seals, of which the following is a specification.

My invention consists of a sterilizer and seal for surgical ligatures or catgut, the sterilizer and seal being of such construction and adapted for such a method of use that the surgeon, physician, manufacturer, or dealer may sterilize primarily or repeatedly re-sterilize the contained ligatures and such that the surgeon or physician may use the entire contents of the sterilizer with confidence and safety to the patient, whether much or little be used at any single operation, and may renew the supply at any time.

In the accompanying drawings, to which reference is made and which form a part of this specification, Figure 1 is an enlarged side elevation of the sterilizer and seal closed. Fig. 2 is a sectional elevation of the same. Fig. 3 is an enlarged side elevation with the top or cap removed. Fig. 4 is a plan view of the sterilizer without the cap, and Fig. 5 shows a modification of the clamp.

In the drawings, 2 represents the body of the sterilizer and seal, made of glass, porcelain, hard india-rubber, or non-corrosive metal, preferably made of brass, plated inside and out with silver or other non-corrosive metal. Inside of the body 2 is placed a support 3 for one or more holders or spools 4 for ligatures 5. The said support 3 comprises in this instance a standard 3^a and horizontal arms 3^b of glass. The spools 4 are preferably of glass. The arms 3^b span the diameter of the body 2 and by resting against the side or wall of the body opposite to the support 3^a sustain said support, and the wall also acts to retain the spools upon the said arms 3^b.

The upper end of the body 2 is provided upon the outside with a seat or bearing 6, screw-threaded by preference to retain an annular cover or cap 7, while on the inside it is formed with another seat 8 to receive a plug 9, which seat is preferably converging and slightly concaved, the edges of the plug 9 being made tapering and convex, as shown in

Fig. 2, so that the joint will be light and close-fitting, no matter whether the plug 9 be exactly level or not.

The plug 9 is formed with a boss 10, externally screw-threaded to receive a small cap 12, and the said boss is by preference chambered out, as shown at 13, and centrally tapped to receive the screw 14. The boss 10 is also formed with one or more orifices 15, (three, as here shown, according to the number of spools and ligatures the sterilizer is designed to receive,) and through these orifices the ends of the ligatures are threaded, as shown clearly in Fig. 2.

The ends of the ligatures which project or reach out beyond the end of the boss are held by a clamp 16 held by the screw 14. This clamp may be of various forms. In Figs. 2, 3, and 4 the clamp is an annular plate formed with orifices 15^a, which coincide with the orifices 15 in the boss 10. By slightly loosening the screw 14 and grasping the protruding end of a ligature the same may be drawn out to any desired length and cut off for use. The act of turning down the screw 14 will first tend to turn the plate 16 around axially, which will cause the orifices in the plate to close or nip the protruding ends of the ligatures laterally against the relating stationary orifices in the boss and thus hold them from falling back into the sterilizer, and at the same time the plate or clamp when screwed down tight will crush or flatten out the protruding ends of the ligatures and seal the orifices. In order to increase the lateral turning of the plate, I prefer to countersink its central aperture and to form the screw 14 with a correspondingly-tapering plug 14^a, as shown in Fig. 2.

In the form of clamp shown in Fig. 5 the same is of springy material and dish-shaped, so that the edges will bear down upon the protruding ends of the ligatures and nip them against the end of the boss 10, and by slightly loosening the screw will allow the ligatures to be drawn out from the sterilizer, or they may be drawn out without loosening the screw.

The cap 9 is channeled around the boss 10, as shown at 10^a, so as to receive a washer 10^b, against which the end of the cap 12 closes when screwed home, and a flange 17 is formed on the cap 12 to close over the central opening in the cover 6, as shown in Fig. 2.

When the sterilizer is first supplied with ligatures, it is also supplied with a proper quantity of alcohol, and the ligatures are then sterilized by boiling in water. The screwing
5 of the cover 6 down upon the body of the sterilizer levels the cap 9 and seals in air and liquid tight. The cap 12 need only be removed when any of the ligature is to be used and returned after used, and after each use of
10 a quantity of the ligature the sterilizer may be placed in water and boiled for resterilizing its remaining contents.

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

1. A sterilizer and seal for surgeons' ligatures the same consisting of a main body formed with an outer seat 6 and an inner seat, combined with a cap 7, plug 9 and cap 12,
20 the plug 9 being formed with a boss 10 to receive the cap 12 and formed with one or more orifices, substantially as described.

2. In a sterilizer and seal for surgeons' ligatures the plug 9 formed with a boss having one
25 or more orifices in combination with a clamp

for holding the ends of the ligatures substantially as described.

3. In a sterilizer and seal for surgeons' ligatures, a plug 9 formed with one or more orifices and tapped to receive a screw in combination with a plate held by said screw and
30 formed with orifices to correspond with the orifices in the boss substantially as described.

4. In a sterilizer and seal for surgeons' ligatures, the plug 9 formed with a boss having
35 one or more orifices in combination with a cap 12 and a packing-groove formed around the boss in the plug 9 substantially as described.

5. A sterilizer and seal for surgeons' ligatures, the same consisting of a body 2 formed
40 with an outer seat 6 and an inner seat 8 in combination with an annular cover 7 and inner plug 9 formed with a boss having one or more orifices, a screw 14 a clamp held by said screw and a cap 12 for said boss, substantially
45 as described.

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Witnesses:

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