

(No Model.)

W. H. PAGE.
BOTTLE STOPPER.

No. 440,649.

Patented Nov. 18, 1890.

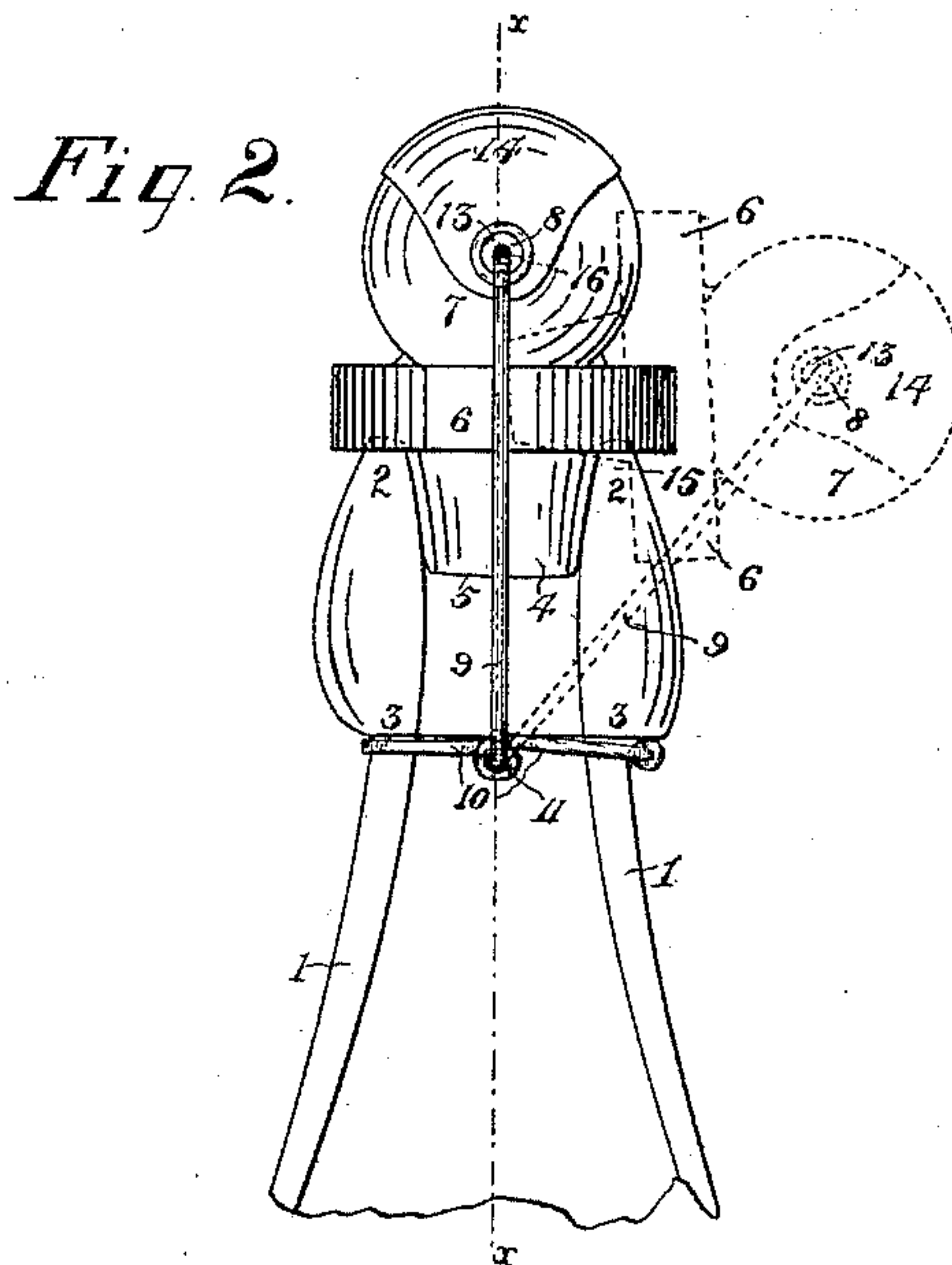
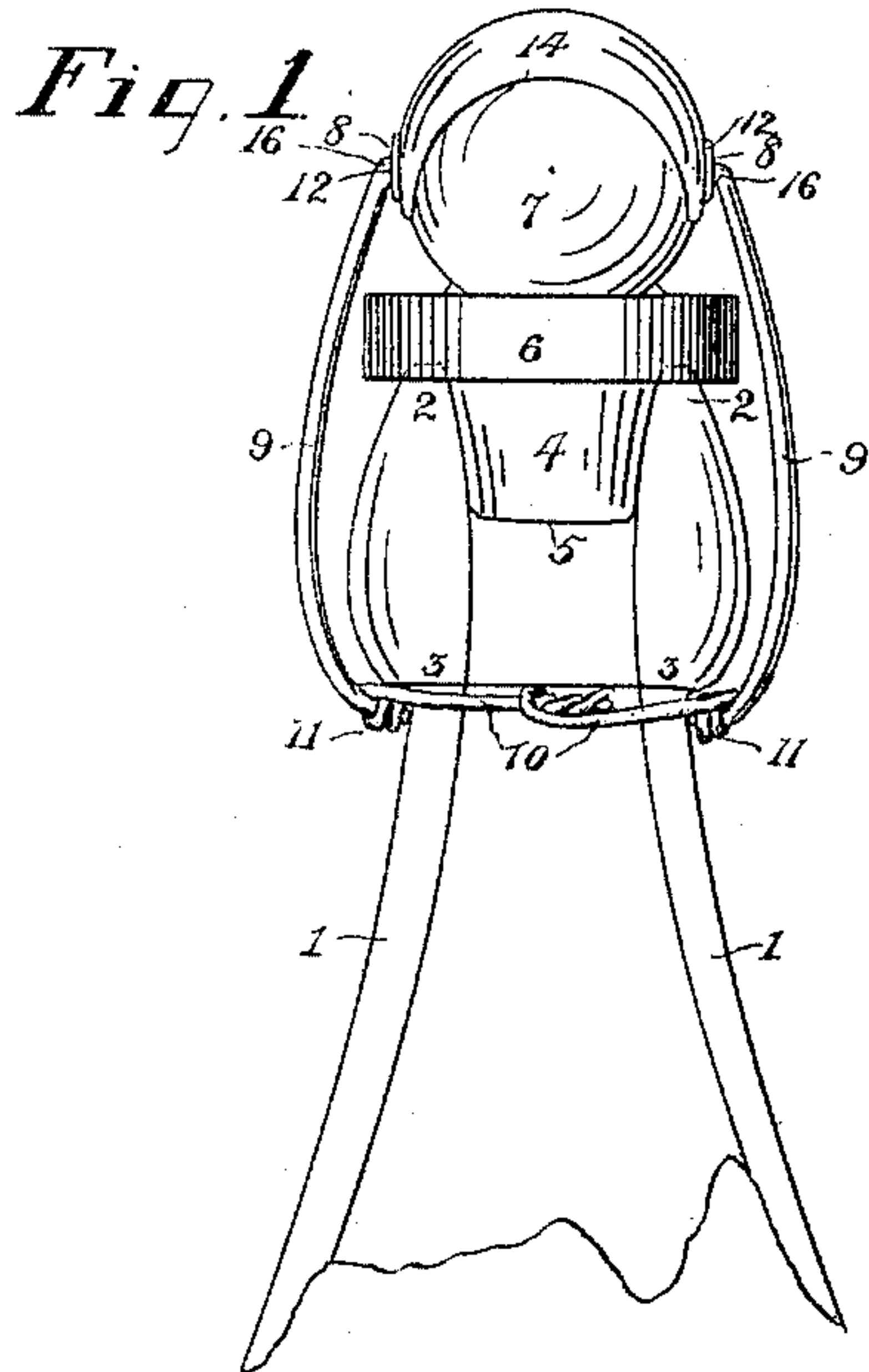


Fig. 3.

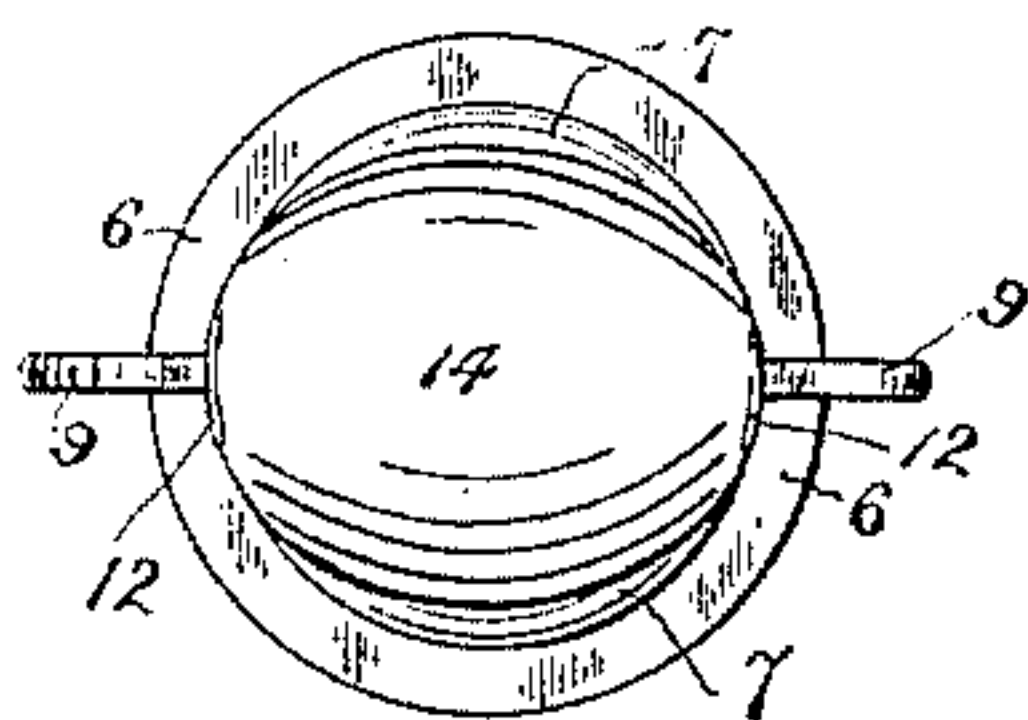
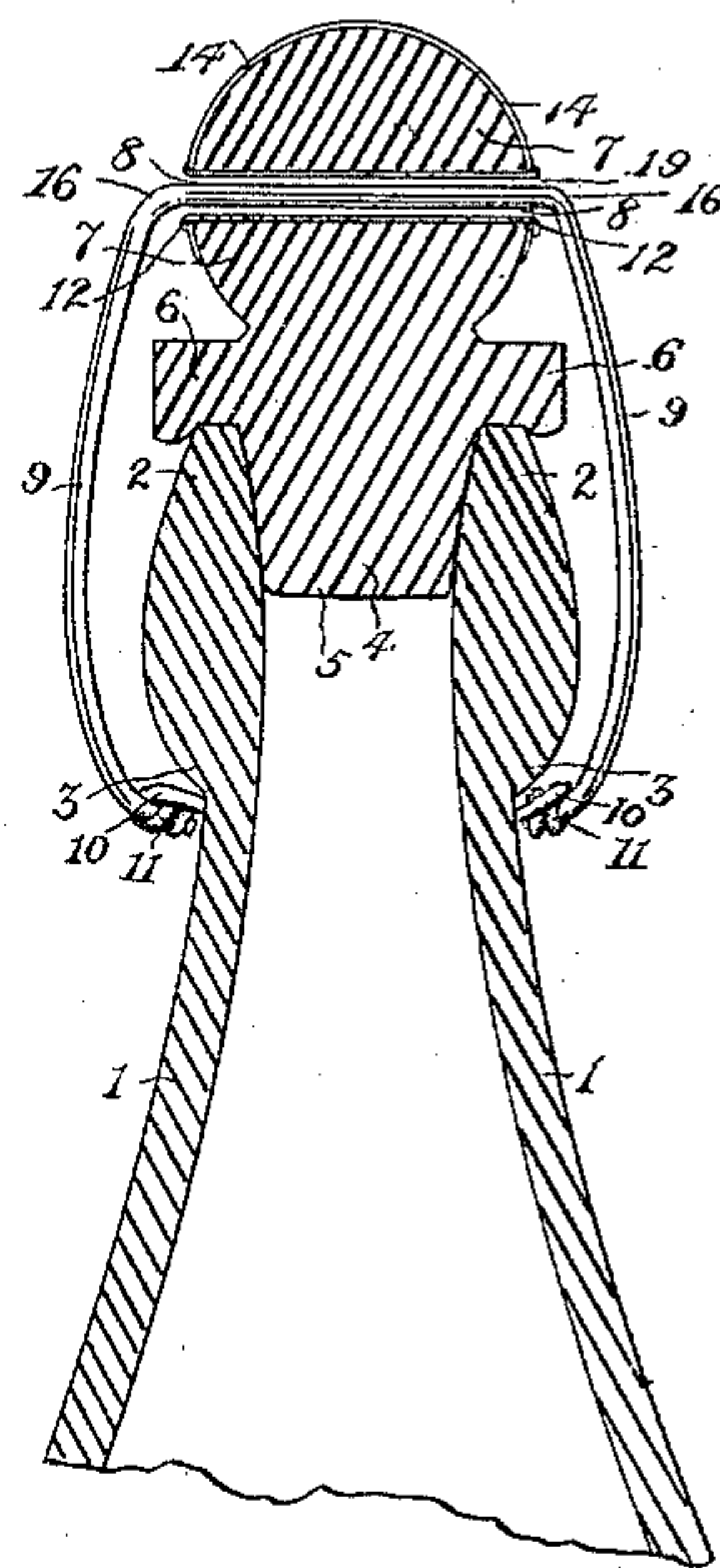


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM H. PAGE, OF BURLINGTON, NEW JERSEY.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 440,649, dated November 18, 1890.

Application filed August 30, 1890. Serial No. 363,568. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. PAGE, a citizen of the United States, residing at Burlington, in the county of Burlington and State of New Jersey, have invented certain new and useful Improvements in Bottle-Stoppers; and I do hereby declare the following to be a sufficiently full, clear, and exact description thereof as to enable others skilled in the art to make and use the said invention.

This invention relates to stoppers for bottles for holding effervescent beverages, and has for its object the tight sealing and convenient opening and closing of such bottles and the easy adaptation of the stopper to bottles having slight variations in size or imperfections in the shape of their lips.

To this end this invention consists in a special form of elastic stoppers provided with a bail securing it to the bottle, and provided with a bushing and plate protecting the stopper from wear or injury by the bail, as is fully hereinafter described, and shown in the accompanying drawings, in which—

Figure 1 shows a front elevation of a bottle-neck with this stopper applied; Fig. 2, a side elevation thereof; Fig. 3, a top view; Fig. 4, a vertical section in the plane indicated by the dotted line *xx* in Fig. 2.

Referring to the drawings, 1 represents a bottle-neck; 2, the lip thereof; 3, the shoulder under the lip.

4 is the stopper-plug, formed of vulcanized india-rubber of the form of an inverted truncated cone, with a convex lower surface 5 of such dimensions as to undergo compression radially as it enters the bottle-neck.

6 is a thick flange of rubber, formed integrally with the plug 4 and of such diameter as to cover the end or top of the bottle-lip.

7 is a ball of india-rubber, also formed integrally with the plug 4 above the flange 6, and centrally perforated at 8 in a horizontal direction. Through this perforation a bail 9 passes, by which it is secured to the bottle-neck by a neck-wire 10 embracing the pivotal lower ends 11 of the bail 9. The perforation

8 is lined or bushed with a metallic tube or bushing 12, in which the bail 9 turns freely. The bushing 12 fits, through an aperture 13, in the ends of a plate 14, fitting over the top of the ball, so as to bear on a considerable surface thereof. The ends of the bushing 12 are expanded or flanged outwardly on the ends of the plate, so that the bail-wire 9 does not come in contact with the india-rubber stopper and so that the strain exerted by the bail 9 is distributed over the ball 7 and full elastic effect of the entire stopper is made available in adapting the stopper to the bottle-lip.

The bail 9 is bent with an abrupt angle 16 at each end of the bushing 12, so as to prevent the stopper from sliding out of its proper central position on the bail when opened.

In opening the bottle the bail and stopper are pressed to one side, as shown in dotted lines in Fig. 2. In closing it the angle 15 between the plug 4 and flange 6 at one side rests in the bottle-lip and the stopper rocks upon it, so that the plug portion 4 enters the bottle-neck and closes it with the entire flange 6 resting in the lip, the plug 4 being compressed in the tapering part of the bottle-neck.

Having described my invention, what I claim is—

1. An improved bottle-stopper consisting of the plug 4, provided with a flange 8, and a perforated ball 7, said parts being elastic, in combination with a segmental spherical plate 14 and a bushing 12, constructed and adapted to fit upon a bail to force the stopper into a bottle-neck, substantially as set forth.

2. A bottle-stopper having a frusto-conical plug 4, with a convex lower end 5, a flange 6, and a perforated ball 7, constructed of elastic material, combined with a bushing 12 and a segmental spherical plate 14, closely embracing the ball, constructed and arranged to operate as set forth.

WM. H. PAGE.

Witnesses:

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