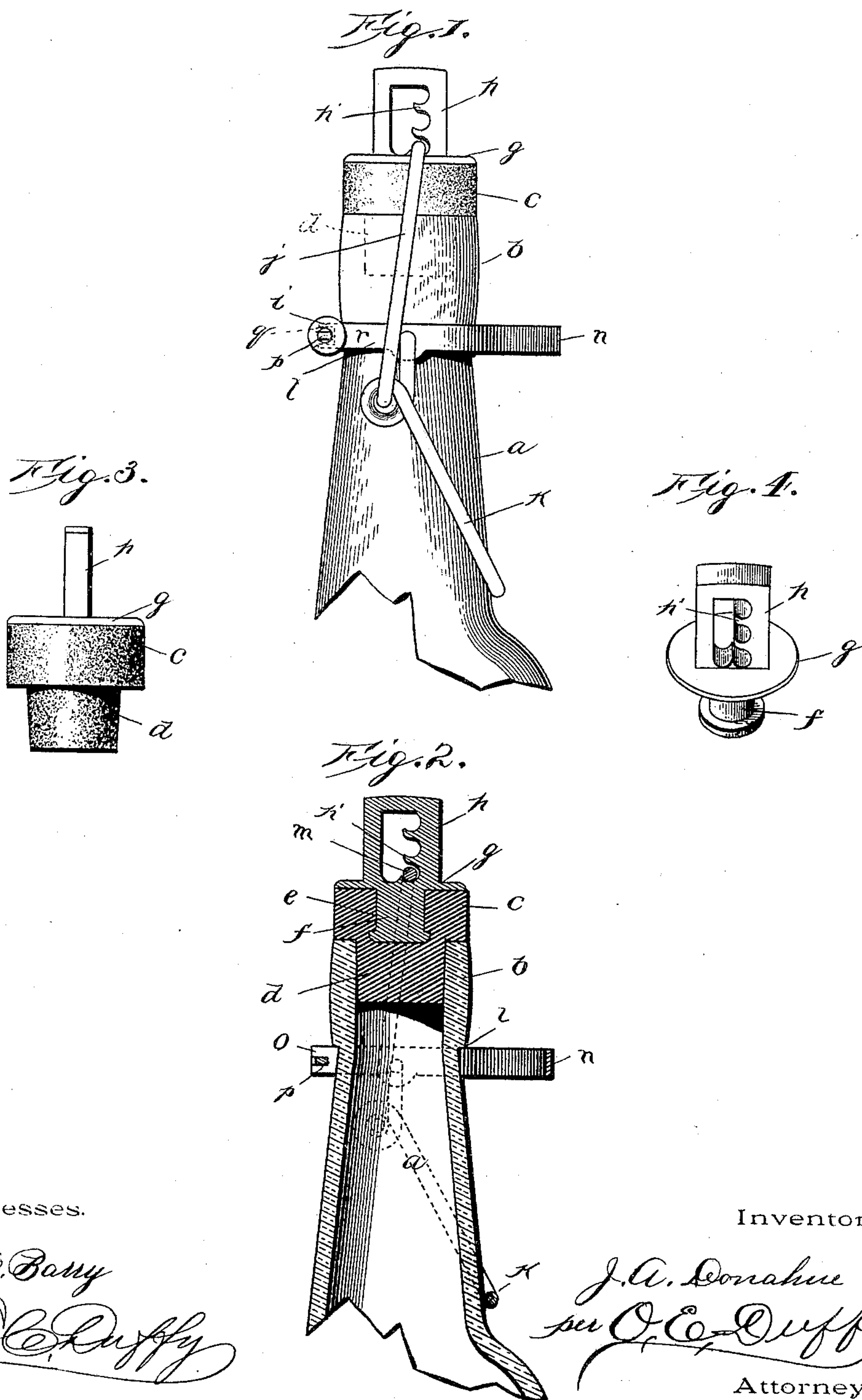


(No Model.)

J. A. DONAHUE.
BOTTLE STOPPER.

No. 599,226.

Patented Feb. 15, 1898.



Witnesses.

F. C. Barry

Becky

Inventor.

J. A. Donahue
per O. C. Duff
Attorney.

Attorney.

UNITED STATES PATENT OFFICE.

JAMES A. DONAHUE, OF LOS ANGELES, CALIFORNIA.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 599,226, dated February 15, 1898.

Application filed October 30, 1897. Serial No. 656,891. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. DONAHUE, of Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Bottle-Stoppers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention relates to certain new and useful improvements in bottle-stoppers.

The object of the invention is to provide a bottle-stopper simple, cheap, and durable of construction, quick and effective of operation, and composed of a minimum number of parts.

A further object of the invention is to provide a stopper which will fit any bottle, both as regards the circumference of the neck of the bottle and also the height of the bulge of the bottle-mouth.

A further object of the invention is to provide a stopper having a ratchet bar or yoke which will allow of greater or less pressure on the stopper by the operating-lever.

The invention consists in certain novel features of construction and in combinations of parts more fully described hereinafter and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of the improved bottle-stopper in operative position. Fig. 2 is a vertical central section. Fig. 3 is a detail view of the stopper proper. Fig. 4 is a detail perspective view of the metal button and ratcheted yoke.

Referring by letter to the accompanying drawings, *a* is the neck of a bottle, and *b* the bulge at its mouth.

c is the stopper proper, composed of rubber or other flexible material, having the reduced portion *d*, adapted to enter the mouth of the bottle, and an aperture *e* in the top of the stopper for the reception of the shank *f* of the button *g*. From the top of this button *g* upwardly extends a ratchet-yoke *h*, which is provided with teeth *h'* to receive and hold the yoke *j* in the desired adjustment to attain

the required strain and pressure on the stopper *c*. The yoke *j* passes through the ratchet-yoke *h* and is movably secured or pivoted at each end in the operating-lever *k*. This lever *k* is pivoted in the collar *l* and is held as desired by this means. The yoke *j* loosely carries the stopper *c* about the center of the top of the horizontal portion *m* by means of the ratchet-yoke *h*.

l indicates a band or collar of spring metal, having a flat spring *n* within its circumference adapted to hold the collar *l* snugly to necks of different-sized bottles. In the end *o* of the said collar is pivoted the screw-threaded rod *p*, which is adapted to pass into the opening *q* of the end *r* of the collar *l*. A nut *i* is provided to screw onto the threaded rod *p* for the purpose of clamping and securely holding the collar in the desired adjustment about the neck of the bottle.

When a stopper is to be fastened to a bottle, the nut *i* is unscrewed or loosened, and the threaded rod *q* is turned out of the slot in the end *r* of the collar *l*, the collar *l* carrying the lever *k* and the yoke *j*, and the stopper *c* can then be pressed open against the tension of the flat spring *n* and passed over the neck of the bottle and securely adjusted under the rim or flange of the neck of the bottle by means of said spring-collar and threaded rod and nut. The ratchet-yoke *h* and the teeth *h'* allow the stopper to be adjusted in the mouth of a bottle and securely hold it in position regardless of the length or thickness of the bulge or flange *b* on the neck of the bottle.

When the bulge or flange of the neck of a bottle is short, the yoke *j* is placed in one of the upper teeth *h'* of the ratchet-yoke *h*, so that when the operating-lever *k* is pressed down the stopper will be forced tightly into the mouth of the bottle.

It will be readily seen from the foregoing description that the stopper can easily and quickly be adjusted to any-sized bottle-neck and can be made to fit as tightly as desired regardless of the height of the bulge or flange of the bottle-mouth.

It is evident that various slight changes might be made in the forms, construction, and arrangement of the parts described with-

out departing from the spirit and scope of my invention. Hence I do not wish to limit myself to the exact construction herein described, but consider myself entitled to all such changes as fall within the spirit of my invention.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

10 1. A bottle-stopper comprising the flexible stopper, a button carried thereby, a ratchet-yoke extending from said button having teeth to regulate the pressure on the stopper substantially as described.

15 2. A bottle-stopper comprising the flexible stopper, a button having a shank inserted in said stopper, a ratchet-yoke extending upwardly from said button, and teeth on said

ratchet-yoke for adjusting purposes as set forth.

20 3. A bottle-stopper comprising the flexible stopper, an aperture in said stopper, a button having a shank adapted to fit in said aperture, a ratchet-yoke extending upwardly from said button and teeth on said yoke to engage the operating mechanism and adjust the stopper substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JAMES A. DONAHUE.

Witnesses:

J. E. WISEMAN,
BEN WHITE.