

(No Model.)

J. A. DONAHUE.
BOTTLE STOPPER.

No. 581,105.

Patented Apr. 20, 1897.

Fig. 1

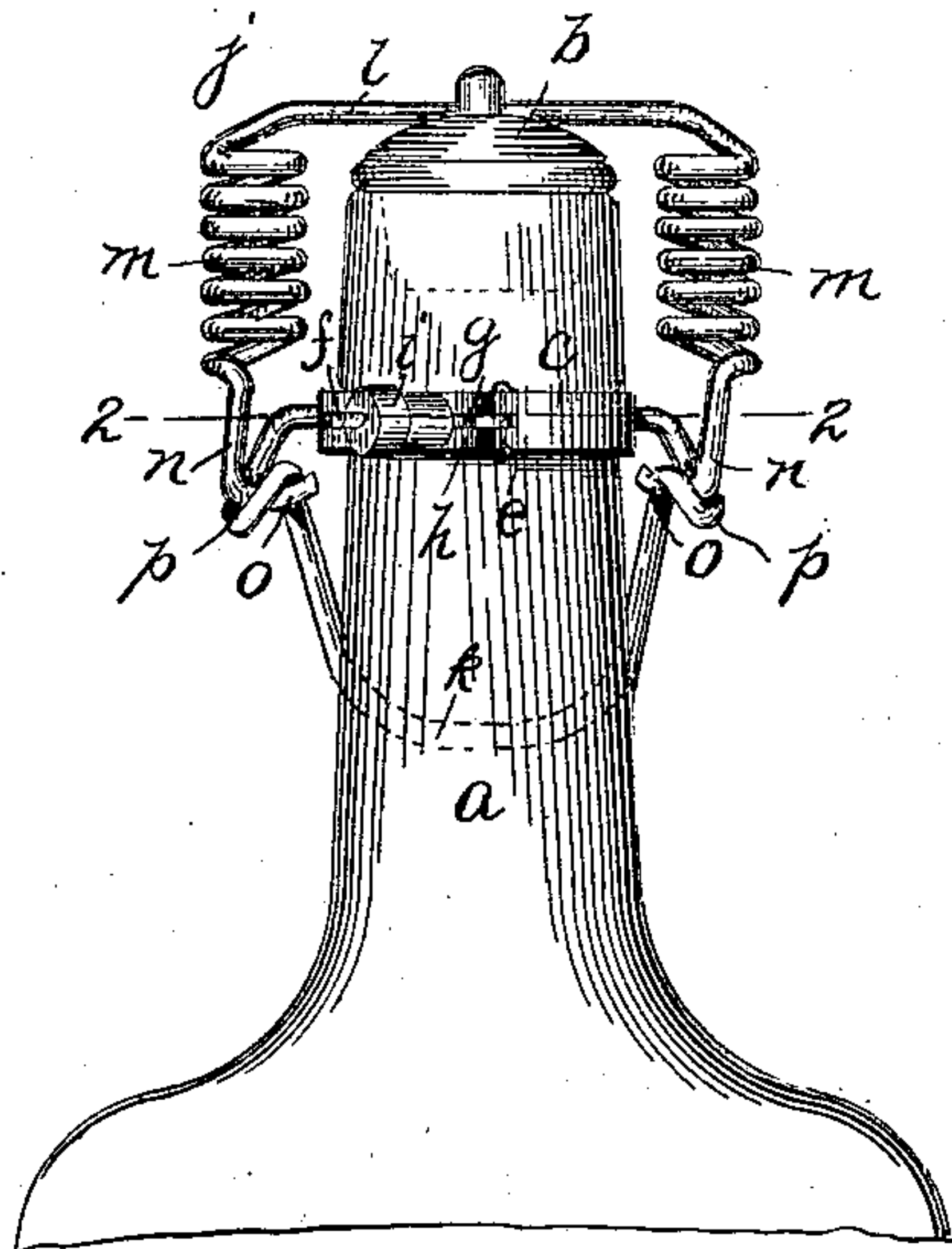
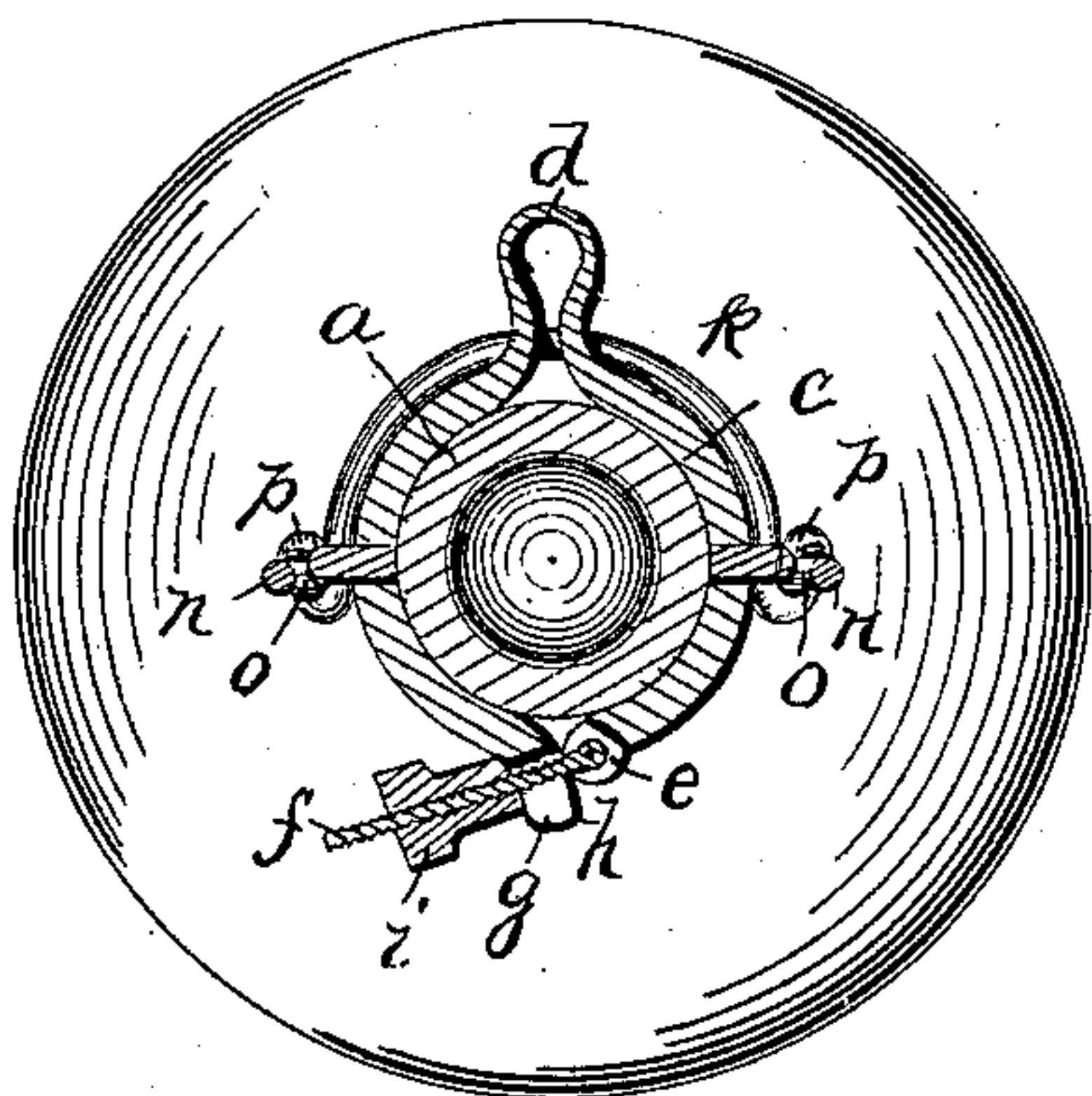


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

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BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 581,105, dated April 20, 1897.

Application filed August 6, 1896. Serial No. 601,887. (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 this invention is to provide a bottle-stopper simple, cheap, and durable in construction, composed of a minimum number of parts, and very quick and effective in operation.

A further object of the invention is to provide a stopper so constructed and arranged as to be easily adjusted to various-sized necks of bottles, jars, or the like.

A further object of the invention is to provide a stopper for bottles or jars with springs interposed between the stopper proper and the operating-lever for the purpose of securely holding the stopper in place against jolting and conjointly with devices comprising a spring-collar reduced in thickness in one portion fitting the stopper more easily to different shaped and sized necks.

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.

Referring to the accompanying drawings, Figure 1 is a front elevation of my invention. Fig. 2 is a cross-sectional view on the line 2 2, Fig. 1.

a indicates the neck of a bottle, and *b* the stopper, of any desired design, preferably made of rubber or some other flexible material.

c indicates a band or collar of spring metal, having a flat spring *d* within its circumference adapted to hold the collar *c* snugly against the necks of various-sized bottle-necks. In the end *e* of the said collar is pivoted the screw-threaded rod *f*, which is adapt-

ed to pass into the opening *g* of the end *h* of the collar *c*. A nut *i* is provided to screw into the threaded rod *f* for the purpose of clamping and securely holding the collar in the desired adjustment about the neck of the bottle.

j is a yoke movably secured or pivoted in the operating-lever *k*. This lever *k* is pivoted in the collar *c*, and is held as desired by this means. The yoke *j* loosely carries the stopper *b* about the center of the top or horizontal portion *l*. This yoke is made in one piece of spring-steel and coiled to form springs *m* within the length of the downwardly-extending or vertical legs *n*. These legs at their free ends are bent to form journals *o* to pivot in the loops *p* of the operating-lever *k*.

When a stopper is to be fastened to a bottle, the nut *i* is unscrewed or loosened, and the threaded rod *f* is turned out of the slot *g*. The collar *c*, carrying the lever *k*, the yoke *j*, and the stopper *b*, can then be pressed open against the tension of the flat spring *d* 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 springs *m*, formed in the legs *n* of the yoke *j*, 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 rim or flange on the neck of the bottle.

It is evident that slight changes might be made in forms, construction, and arrangements of the parts of my invention, and I do not wish to limit myself to the exact construction herein shown and described, but consider myself entitled to all such changes that fall within the spirit and scope thereof.

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

1. A bottle-stopper comprising a collar, a reduced portion forming a spring within the circumference of said collar, an operating-lever pivoted to said collar, a spring-controlled yoke carrying a stopper and pivotally secured to said lever for the purpose set forth.

2. A bottle-stopper-securing device comprising the spring-collar having reduced thickness at one portion, arranged around

the neck of the bottle, and carrying spring-
legs and yoke; also the lever for closing and
withdrawing the stopper, an adjusting and
tightening device for securing the parts to
5 varying-sized necks of bottles, the whole com-
bined and arranged to operate substantially
as described.

3. A collar for securing bottle-stoppers to
the necks of bottles provided with a reduced

spring portion and an adjusting device sub- 10
stantially as described.

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

JAMES A. DONAHUE.

Witnesses:

T. M. KILLIAN,

JOS. E. WISEMAN.