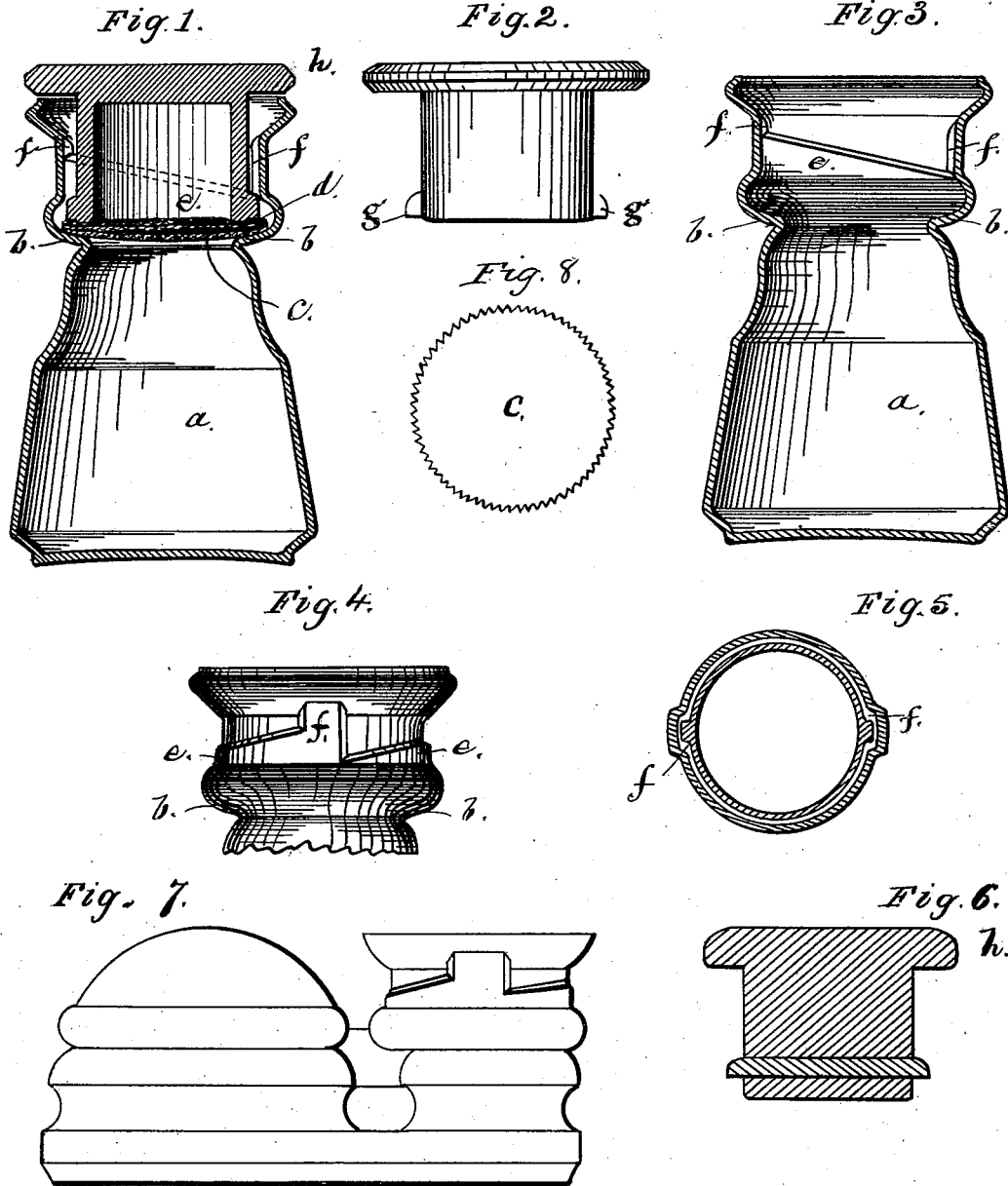


J. H. PARKER.  
BOTTLES AND STOPPERS.

No. 190,358.

Patented May 1, 1877.



Witnesses.  
H. R. Edelin  
Permitted

Inventor.  
James H. Parker  
per. John J. Keister  
his Atty.

# UNITED STATES PATENT OFFICE.

JAMES H. PARKER, OF NEWARK, NEW JERSEY.

## IMPROVEMENT IN BOTTLES AND STOPPERS.

Specification forming part of Letters Patent No. **190,358**, dated May 1, 1877; application filed February 23, 1877.

*To all whom it may concern:*

Be it known that I, JAMES H. PARKER, of the city of Newark, in the county of Essex and State of New Jersey, have invented a new and Improved Bottle and Stopper, the use of which dispenses with the cork; and I do hereby declare that the following is a full and exact description of the said invention.

My invention relates to all classes of bottles or jars which are now used for inks, mucilage, spirits or liquids of any kind, also for minerals, powders, or any dry substances, for fruits, pickles, preserves, preserved meats, &c.; and it consists in a new device for a stopper, in combination with the bottle, for the purposes as will hereinafter be fully set forth.

It is well known that in the usual method of corking bottles manufacturers sustain no small loss from unavoidable breakage in forcing the cork into the neck of the bottle, and from the difficulty in drawing a cork without leaving particles of the same in the bottle. My invention obviates both difficulties.

In the drawings, which form a part of this specification, Figure 1 represents a vertical section of a bottle and of a stopper applied thereto, both illustrating my improved construction, and Fig. 2 the glass stopper, detached; Fig. 3, a vertical section of a bottle without the stopper; Fig. 4, an elevation of the neck of the bottle, showing the vertical portion of the grooves or recesses leading into the spiral portions of the same; Fig. 5, a horizontal section through the neck and stopper; Fig. 6, a modification of the stopper; Fig. 7, an illustration of a bottle adapted for mucilage, ink, &c., but embodying my invention; and Fig. 8, a plan of a packing sheet or disk.

The body *a* of the bottle may be of any ordinary or other shape, adapted for the purpose to which it may be applied, or as fashion or good taste may demand. The neck is made with a base, *bb*, formed substantially as shown, so as to present on its face or circumference a continuous ledge or shoulder, upon which may rest a water-proof packing, *c*, made in the shape of a disk, and upon this packing, if need be, may be placed other packing-pieces *d d* of appropriate textile, or other material, to aid in making a tight fit of the stopper, when the

latter is inserted and fastened to its desired position.

Above the base *bb* are spiral recesses *ee*, each of which terminates in one of the vertical grooves or recesses *ff*. There are, preferably, but two spiral recesses, located opposite each other, and each running about half way around the neck of the bottle.

The vertical slots or recesses *ff* are for the purpose of allowing the nibs *gg* of the glass stopper (as shown in Fig. 2) to enter such slots (as shown in Fig. 5) in order to reach the spiral recesses *ee*, after which the stopper, being turned to the right, becomes fastened by the friction caused by the nibs coming in contact with and bearing upon the walls or edges of the recesses; and if the water-proof packing be previously in place in the neck of the bottle, this turning to place of the stopper compresses it firmly upon its bearing or seat.

It will be observed that the loose packing-pieces *d d* are not in any way attached to the stopper; that I do not employ ring-packing inserted in an annular groove made for that purpose in the stopper; that the lower end of the stopper, when in place, does not reach quite down to the shoulder *b*, but leaves room between such lower end and shoulder to permit the disks to lie there, and to be closely compressed between them in lines parallel with the axis of the stopper and bottle; so that the tightening of the joint is not by lateral expansion, but by direct squeezing and compression, while the whole opening of the neck is also covered by the water-proof or other disk or disks employed. This construction also allows of the ready insertion of disks of any desired thickness or number, and the substitution of others whenever needed, giving the widest possible range for securing a satisfactory tight joint under any varying conditions.

The stopper has a flange, *h*, surmounting its cylindrical part, and this flange, when the stopper is in place in the bottle-neck, reaches nearly down to the top of the bottle, and permits the placing, if desired, of an annular supplemental packing between such flange and the bottle-top. My construction thus affords three efficient means for making an air-tight

vessel, viz: the water-proof sheet or disk, the supplemental disk or disks, and the annular packing beneath the stopper-flange.

Fig. 6 represents a wooden stopper, the nibs being formed of one or more plugs of wood inserted transversely therein.

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

1. In combination with a bottle or jar provided in its throat or neck with the spiral recesses *ee*, connecting with the vertical grooves *ff*, and having a shoulder, *b*, the loose packing disk or disks applied to rest upon such shoulder and to cover the opening in the neck, substantially as shown and described.

2. The stopper for glass and other bottles, made as described—that is, with a cylindrical body, having two nibs, *g g*, which jointly serve

not only to hold the stopper in place within the bottle-neck, but also, when turned, operate to fasten the stopper to a tightened position by compressing a loose sheet or disk packing between the lower end of the stopper and a shoulder in the bottle-neck.

3. In combination, the bottle, having in its neck the vertical and spiral recesses and the base or shoulder, as described, the stopper provided with projecting nibs, and a water-proof or other disk or sheet packing applied, as shown, to cover the mouth of the neck below the stopper, the combination being and operating as and for the purpose set forth.

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Witnesses:

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