(No Model.)

J. J. SANDS.

BOTTLE STOPPER.

No. 399,440. Patented Mar. 12, 1889.

Fig. 1.

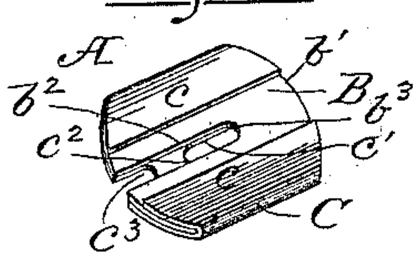


Fig. 2.

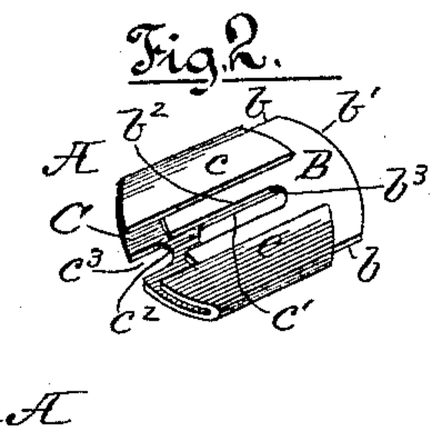
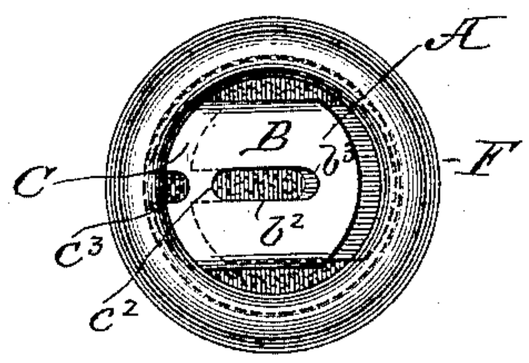


Fig. 3.



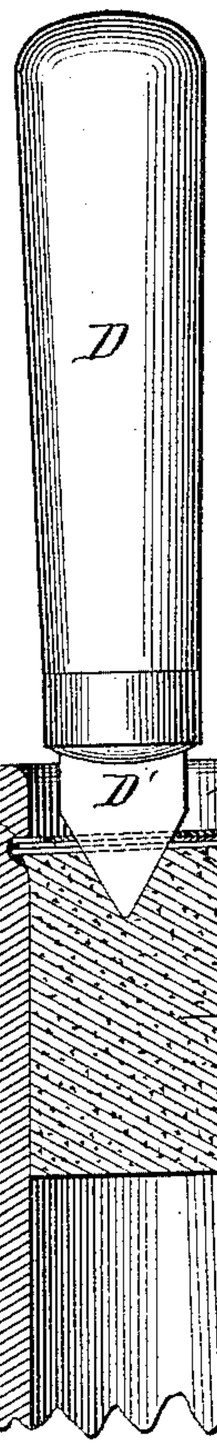


Fig. 4.

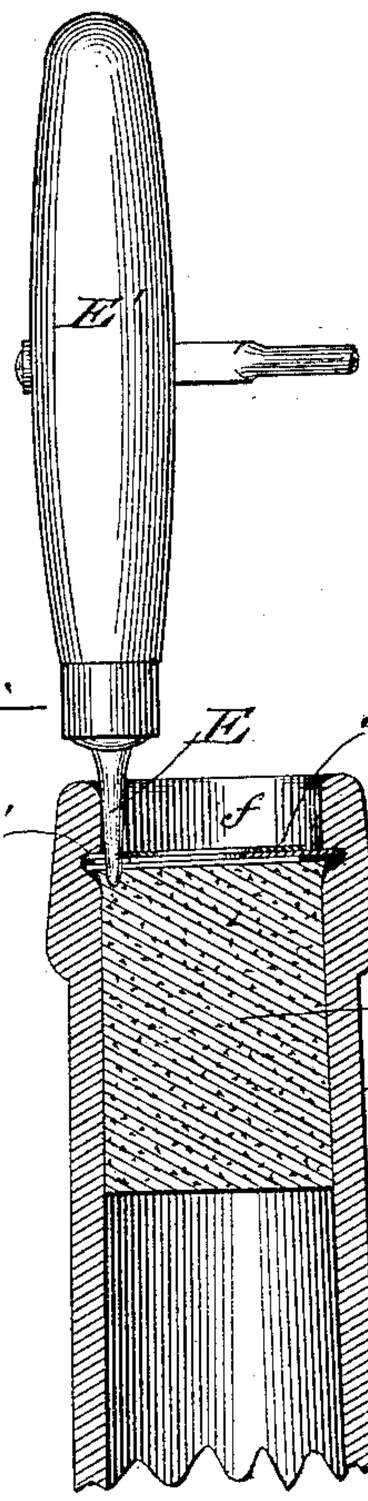


Fig. 5.

Witnesses
Wm. F. Hennings
Louis M. Whitehead.

Inventor
Josias J. Sands
by Dayton, Poole & Brown
Attorneys.

UNITED STATES PATENT OFFICE.

JOSIAS J. SANDS, OF MERTON, WISCONSIN.

BOTTLE-STOPPER.

SPECIFICATION forming part of Letters Patent No. 399,440, dated March 12, 1889.

Application filed December 18, 1888. Serial No. 294,005. (No model.)

To all whom it may concern:

Be it known that I, JOSIAS J. SANDS, of Merton, in the county of Waukesha and State of Wisconsin, 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 thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to devices for retaining corks or other stoppers in bottles or in the orifices of other vessels; and it consists, essentially, in a longitudinally expansible and contractible bar or holder composed of two parts adapted to move one upon the other, in combination with a bottle or other vessel provided with opposite shoulders in the neck or orifice for engagement with the ends of the stopper-holding bar.

In the accompanying drawings, Figure 1 is a perspective view of the two-part bar collapsed or shortened. Fig. 2 is a similar view of the holding-bar extended. Fig. 3 is a top view of a bottle-neck, showing a stopper therein and the holding-bar extended in place over the end of the stopper. Fig. 4 is a central vertical section of a bottle-neck, a cork therein, the holding-bar over the cork, and an implement for expanding the holding-bar into engagement with the shoulders within the bottle-neck. Fig. 5 is the same view of the bottle-neck, cork, and holding-bar, together with an implement for contracting the holding-bar, so as to release the latter from engagement with the shoulders in the bottle-neck preparatory to the withdrawal of the cork.

A represents the holding-bar or stopper-holder as an entirety. It is composed of two plates, B and C, the former being a flat piece of sheet metal having its lateral edges b b parallel with each other and its ends b' b' curved, particularly in the case of its adaptation for small orifices like those of bottle-necks, to conform with the curvature of the orifice to which it is to be applied. The plate C is also of sheet metal, having its lateral margins c c turned over the parallel edges b b of the part B, thus forming guides in which the part B may move lengthwise upon or within the overfolded plate C. The plate B is provided with a lengthwise slot, b^2, allowably, though not necessarily, open at one end, as shown. The plate C is also provided with a slot, c', which coincides laterally with the slot b^2 when the parts are placed together. These slots are so arranged that when the parts B and C are joined, as shown in Figs. 1, 2, and 3, the end b^3 of the slot b^2 and the end c^2 of the slot c' form ends of a hole passing through both plates; but the slot in each plate extends beyond the inner end of the slot of the other plate, so that an instrument inserted in the hole and made to press out against the ends b^3 and c^2 will force the plates endwise with respect to each other, and thus longitudinally extend the bar. Any suitable means for thus expanding the holding-bar may be employed—as, for example, a flat triangularly-pointed instrument like that shown in Fig. 4, which, when a cork is used, is thrust through the hole formed by the slots of the plates B and C, as above described, and as it enters its inclined sides wedge apart the bottoms of the slots and expand the bar.

To insert the device thus constructed, it is collapsed lengthwise, as shown in Fig. 1, and dropped into the bottle-neck or other orifice over the stopper which has been previously inserted therein to a point below the shoulders in said orifice. Then by means of the implement D, (shown in Fig. 4,) or by means of any other suitable expander, the holding-bar A is lengthened by causing the parts B and C to slide outwardly one upon the other, so as to engage the shoulders within the orifice. In this position and thus engaged it will resist the pressure from the interior upon the stopper and retain the latter in place.

F represents a bottle or any other vessel having an orifice, f, to be stopped, and f'' f'' represent opposite shoulders in the inner walls of the neck to engage with the stopper-holding bar described. Said opposite shoulders f'' f'' are preferably parts of an annular groove around the interior of the orifice, so that the shoulders are continuous with each other, and no care need be taken to insert the holding-bar A in any particular position to engage said shoulders.

The cork or stopper is shown at G.

To facilitate the removal of the holding-plate, I provide one of the parts, B or C, with

a hole, notch, or short open slot in one end thereof—as, for example, the slot c^3 in the part C. This slot is deep enough or so situated as to be visible when the part containing it is thrust beneath the shoulder of the orifice, and to contract the holder out of engagement with said shoulder any suitable pointed instrument—as, for example, a spur, E, on the end of a corkscrew-handle, E′—may be thrust into the hole or slot c^3, and by a prying movement against the side of the orifice or bottle-neck the part containing the slot will be slid back out of engagement with the adjacent shoulder, so that the holder may, as a whole, be easily removed.

I claim as my invention—

1. The combination, with a vessel having an orifice to be stopped, provided with opposite interior shoulders, of a stopper-holder composed of two interlocked parts which slide upon each other, whereby the holder may be expanded to engage the shoulders of the orifice and retracted to disengage them, substantially as described.

2. A stopper-holder composed of the connected sliding parts B and C and provided with centrally coincident slots which overlap each other at their ends, whereby the parts may be expanded by outward pressure on the ends of the slots to engage the shoulders of the orifice to which the holder is to be applied, substantially as described.

3. The connected and relatively sliding parts B and C, adapted to engage the shoulders of a bottle-neck or other vessel-orifice, one of said parts being provided with the hole or slot c^3 for the admission of a point for the contraction of the holder, substantially as described.

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

JOSIAS J. SANDS.

Witnesses:
M. E. DAYTON,
P. H. T. MASON.