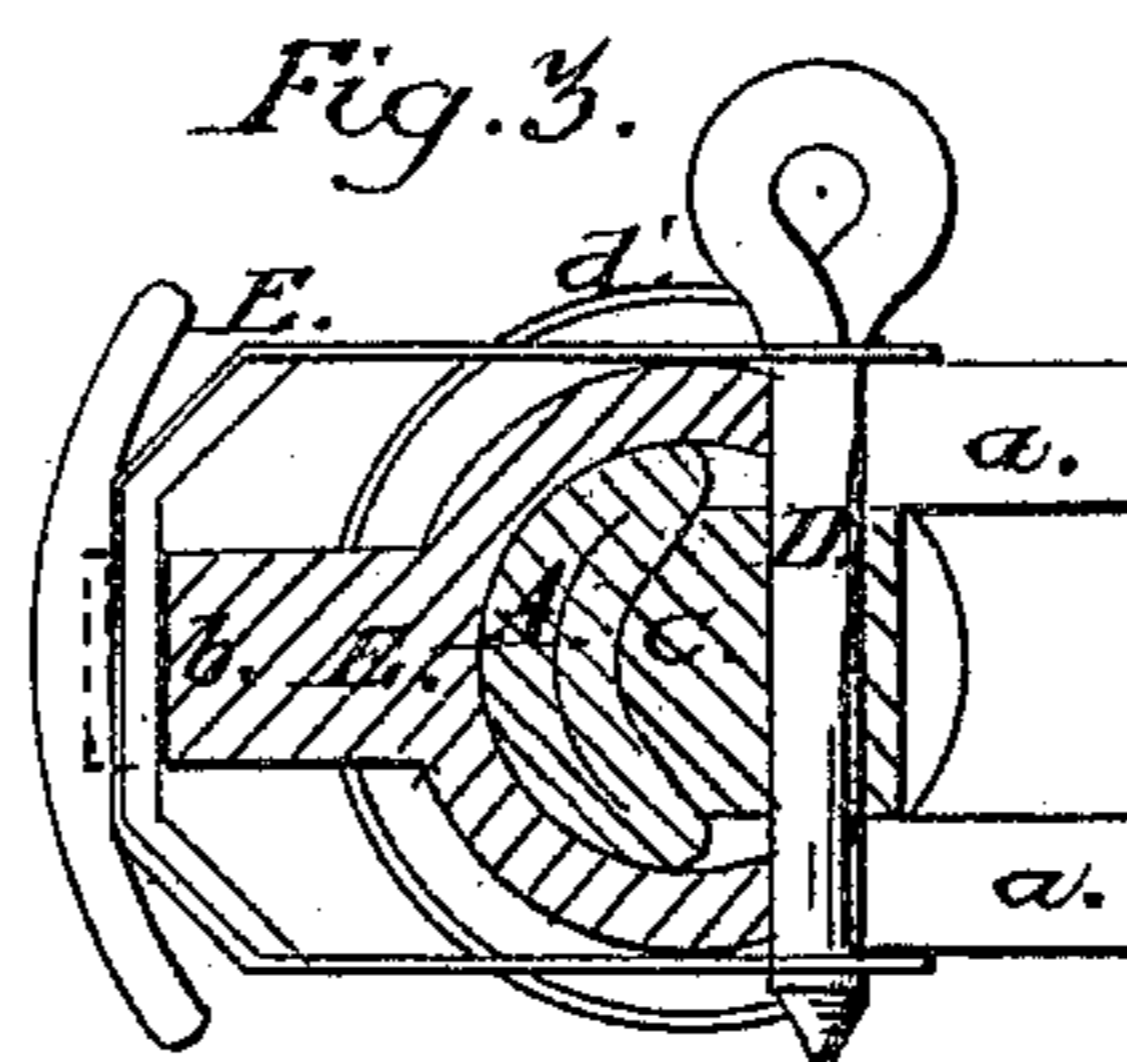
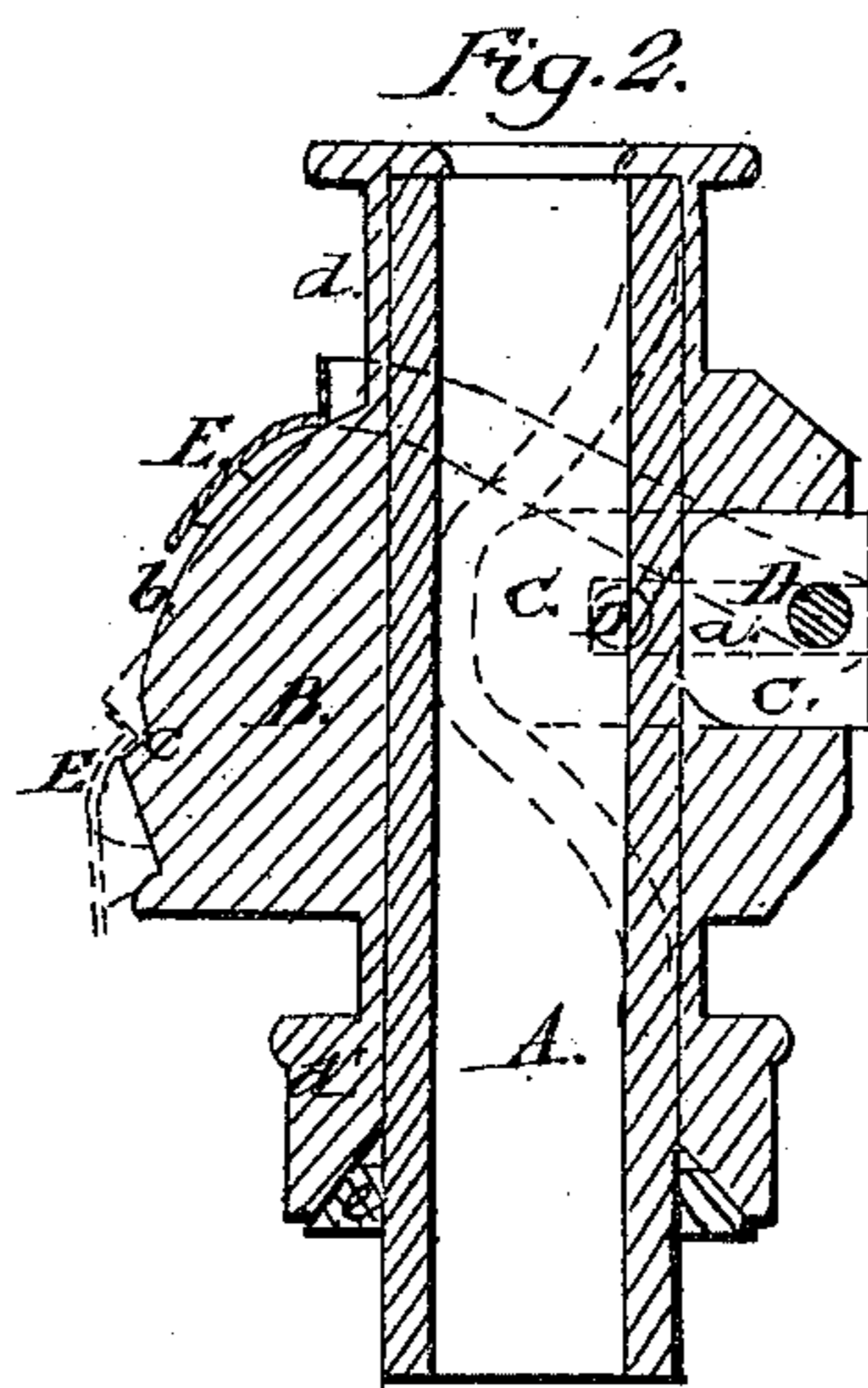
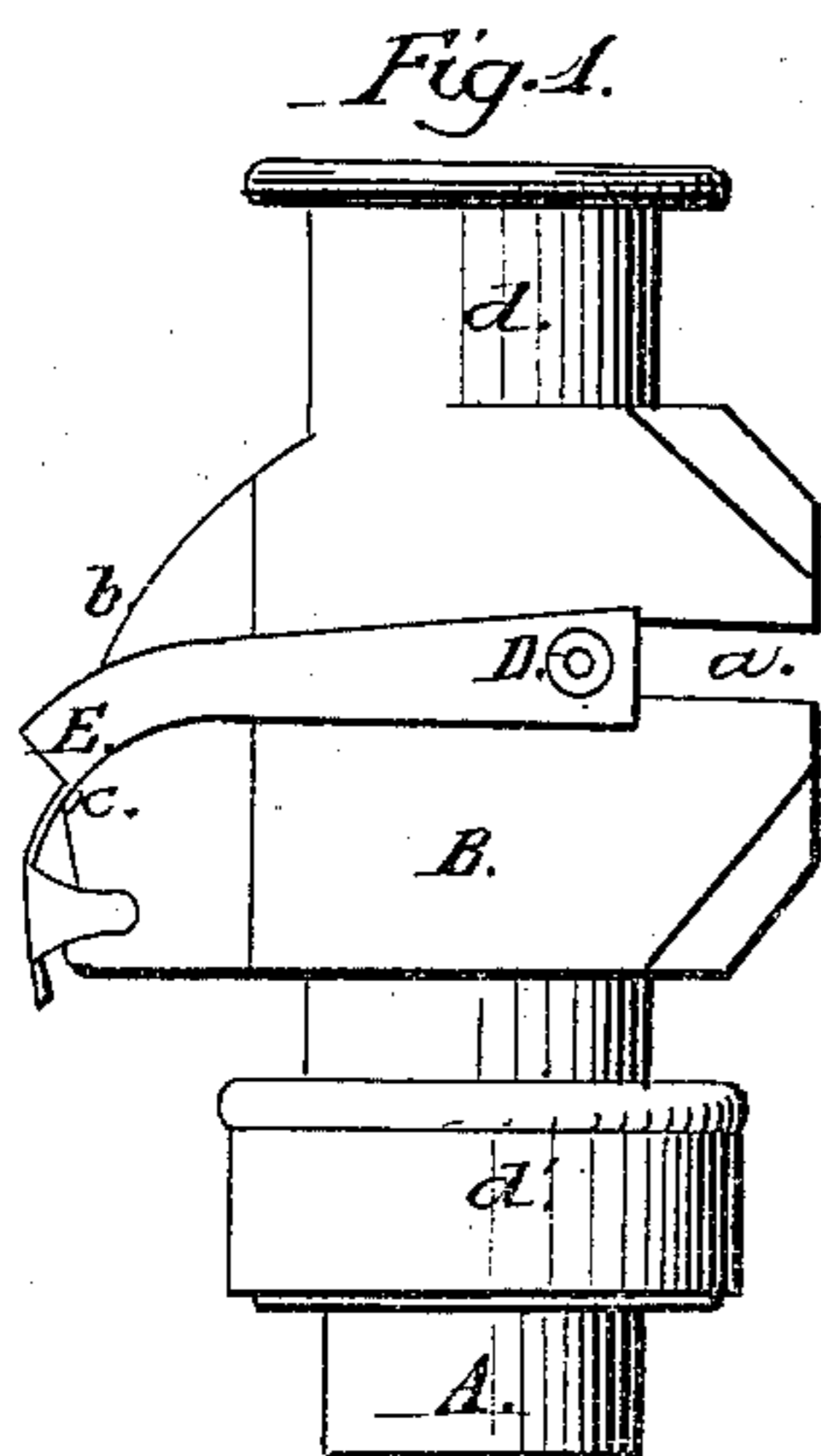


D. L. & R. Bollerman,

Faucet.

No. 86,498.

Patented Feb. 2, 1869.



Witnesses:
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A. Kinner.

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DOMINICUS L. BOLLERMANN AND RICHARD BOLLERMAN, OF NEW YORK, N. Y.

Letters Patent No. 86,498, dated February 2, 1869.

IMPROVEMENT IN FAUCETS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, DOMINICUS L. BOLLERMANN and RICHARD BOLLERMAN, both of the city, county, and State of New York, have invented a new and useful Improvement in Devices for Closing Bottles, Pipes, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents an exterior longitudinal view of our improved device as constructed to form a bottle-stopper, and

Figures 2 and 3, longitudinal and transverse sections of the same.

Similar letters of reference indicate corresponding parts.

Our improvement has reference to devices for closing bottles and pipes, or other vessels and conduits, in which the closing-action is effected by pressure applied to a flexible and elastic tube, in such manner as to compress or indent the same, so that its interior surfaces are brought in closing contact.

The invention, by a suitable construction of the ends of the device, is applicable either as a bottle-stopper, an intermediate stop to a pipe or conduit, or as a faucet, and may be used as a means for stopping the flow or egress of various liquids or fluids, including atmospheric air. It will suffice here, however, to describe the same as constructed to form a bottle-stopper.

Said invention consists in a certain combination, with a rubber or other like flexible and elastic tube, of a rigid surrounding outside socket or frame-piece, having a slot on one side, arranged to run in a transverse direction to the tube, and an inclined plane or surface on its opposite side, also provided with a squeezer or plunger, working in its slotted side, and a strap or clamp, connecting said plunger with the inclined surface on the opposite side of the socket or frame-piece, so that, on drawing the clamp over the incline, it forces in the plunger, to compress and close the tube, and, on releasing said clamp, or throwing it back, the elasticity of the tube causes the plunger to retire and the tube to be opened.

Referring to the accompanying drawing—

A represents a piece of rubber, or other suitable flexible and elastic tube.

Arranged around, or so as to fit the outside of said tube, is a rigid socket or frame-piece, B, formed with transverse slots, *a*, on its one side, and provided internally on said side with a squeezer or plunger, C, arranged to have a sliding action in a transverse direction to the tube on or against the outside of the latter, and formed of convex shape at its front end.

D is a pin, arranged to pass through the plunger and slots *a*, and serving to carry, in swinging connection with the plunger, a strap or clamp, E, that, at its free or opposite end, is made to lie on or lap over an inclined plane or covered surface, *b*, arranged on the opposite side of the socket or frame-piece to that on or within which the plunger lies.

From this description, it will be seen that, on swinging or drawing the strap or clamp E over the inclined plane *b*, from the base to the outer end of the latter, where it may be brought into lock with the notch *c*, the plunger C will be drawn inward, and caused to compress the tube A, so as to close it, as represented by red lines in fig. 2, and by black lines in fig. 3, and that on releasing said clamp from the notch *c*, or starting it back, the plunger will be thrown outward by the elasticity of the tube, and the latter be opened.

The slots *a* not only serve, by the travel they afford to the pin D, to admit of the strap or clamp playing over the incline *b*, but, in or during such motion of the strap, prevent lateral strain or twist on the plunger, that thus is left free to work in and out in a straight line, exempt from any binding action or excessive friction.

To adapt the device to a bottle-stopper, the socket or frame-piece B is shown extended at its ends, as at *d d'*, the lower of such ends, *d'*, having the tube A projecting through it, so as to enter the neck of the bottle, and being provided with a soft or elastic packing, *e*, on its under side, to form a close fit on or over the bottle-neck, to which the whole device may be clamped or fastened by any suitable means.

What is here claimed, and desired to be secured by Letters Patent, is—

1. The combination, with the flexible and elastic tube A, of the outside socket or frame-piece B, the squeezer or plunger C, and the swinging strap or clamp E, arranged to play on or over an inclined or convex surface, *b*, to the socket or frame-piece, substantially as specified.

2. The socket or frame B, constructed with guiding-slots *a* on its one side or face, and with an inclined or convex surface, *b*, on its opposite side, in combination with the sliding pin D, the plunger C, and the strap or clamp E, for operation relatively to the flexible and elastic tube A, essentially as herein set forth.

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Witnesses:

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