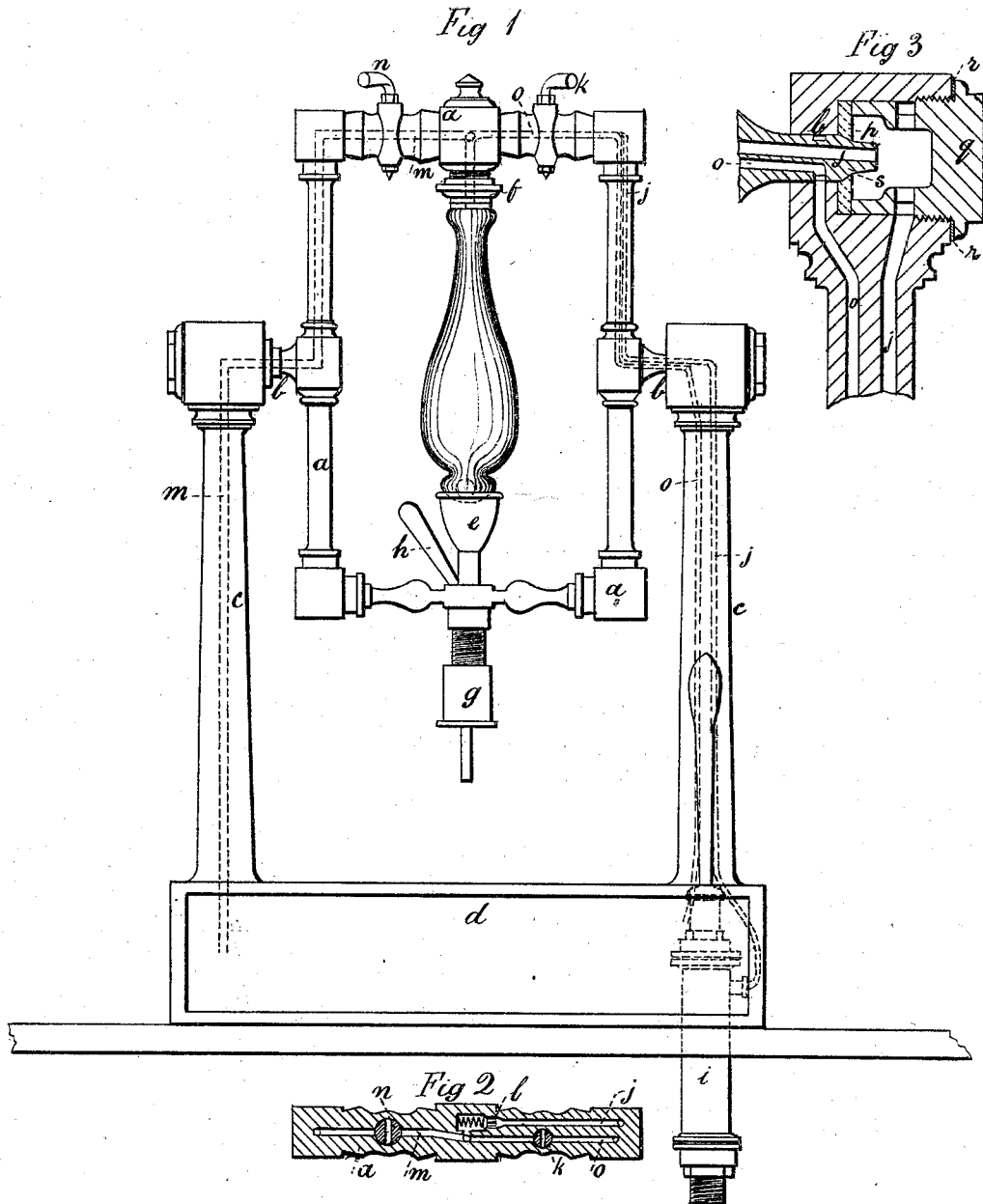


J. EDWARDS.

APPARATUS FOR FILLING BOTTLES, &c. WITH AERATED LIQUIDS.

No. 172,101.

Patented Jan. 11, 1876.



Witnesses

W.A. Barlow.
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UNITED STATES PATENT OFFICE.

JOHN EDWARDS, OF HULL, ASSIGNOR TO HENRY THORNTON WILLIAMSON
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IMPROVEMENT IN APPARATUS FOR FILLING BOTTLES, &c., WITH AERATED LIQUIDS.

Specification forming part of Letters Patent No. **172,101**, dated January 11, 1876; application filed
April 19, 1875.

To all whom it may concern:

Be it known that I, JOHN EDWARDS, of Hull, in the county of York, England, professor of music, have invented Improvements in Apparatus for Filling Bottles and Vessels with Aerated Liquids, of which the following is a specification:

The object of the said invention is to produce a simple and efficient machine for filling bottles or vessels with aerated beverages, such machines being adapted for use with bottles or vessels in which an internal stopper is used, as described and illustrated in the specification of an invention for which I have applied for a United States patent simultaneously with this.

The machine or apparatus is illustrated by the elevation 1 and plan 2 on the accompanying sheet of drawings.

a, frame-work, supported by the bearings *b* on the standards *c*; *d*, base-plate; *e*, rest for bottom of bottle, such rest pressing the bottle by means of a spring up to the mouth-piece *f*; *g*, screwed cap for adjusting *e* to suit various sizes of bottles; *h*, screw for securing *e* in position. A way or ways is or are led through each of the standards *c* and frame-work *a*—one for the passage of aerated liquid, one for sirup, and one for air.

On the bottle being fixed in position, sirup is admitted from the pump *i* through the way *j*, around the tap *k*, past the check-valve *l* to the bottle. The aerated liquid is then admitted through the way *m* by turning the tap *n*, air being let out as desired by the way *o* through the tap *k*.

A weighted valve may be used instead of *k*, and the air-passage may find exit without passing down the standard *c*.

The check-valve *l* prevents aerated liquid finding its way into the sirup-pump. When the bottle has been charged the frame-work *a* is caused to make a semi-revolution on its bearings *b*. The neck of the bottle thereby pointing downward, the internal stopper falls into place, and is kept there by the pressure of the gases.

To keep the bearings *b* tight, and at the same time allow of easy movement of the frame *a*, I construct such bearings as shown in the sectional view, Fig. 3.

b, bearing, fitted with the india-rubber washer *p*; *q*, cap, kept tight by the washer *r*. The rubber *p* is forced tight against the conical nozzle *s* by the pressure of the gases or liquid, thus preventing escape of such gases or liquid without impeding the motion of the bearings.

Having now described and illustrated my invention, I would have it understood I do not claim filling bottles or vessels with aerated liquids by machinery; nor do I claim retaining the bottle in position by the rest *e*; nor do I claim the use of a sirup-pump; but

What I do claim is—

1. In combination with the standards *c c*, having suitable inlet and exit tubes, the bottle-frame *a*, provided with corresponding inlet and exit tubes, and supported by journals near the middle thereof, substantially as and for the purpose specified.

2. The bearings *b*, constructed substantially as described and illustrated, for the purposes set forth.

JOHN EDWARDS.

Witnesses:

W. A. BARLOW,
D. REID.