

No. 671,322.

Patented Apr. 2, 1901.

J. B. J. LAYTON.

FUNNEL.

(Application filed Aug. 23, 1900.)

(No Model.)

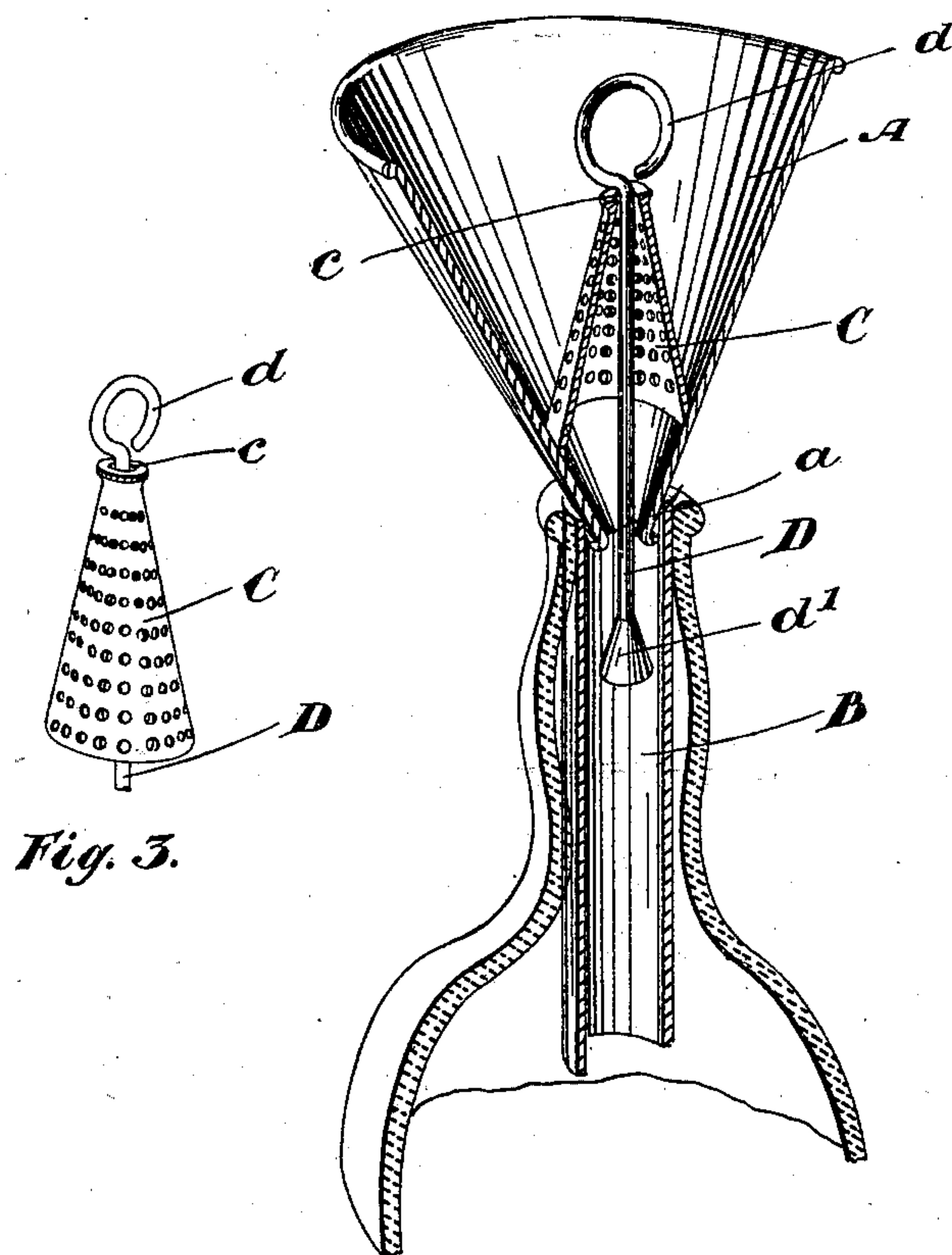


Fig. 3.

Fig. 1.

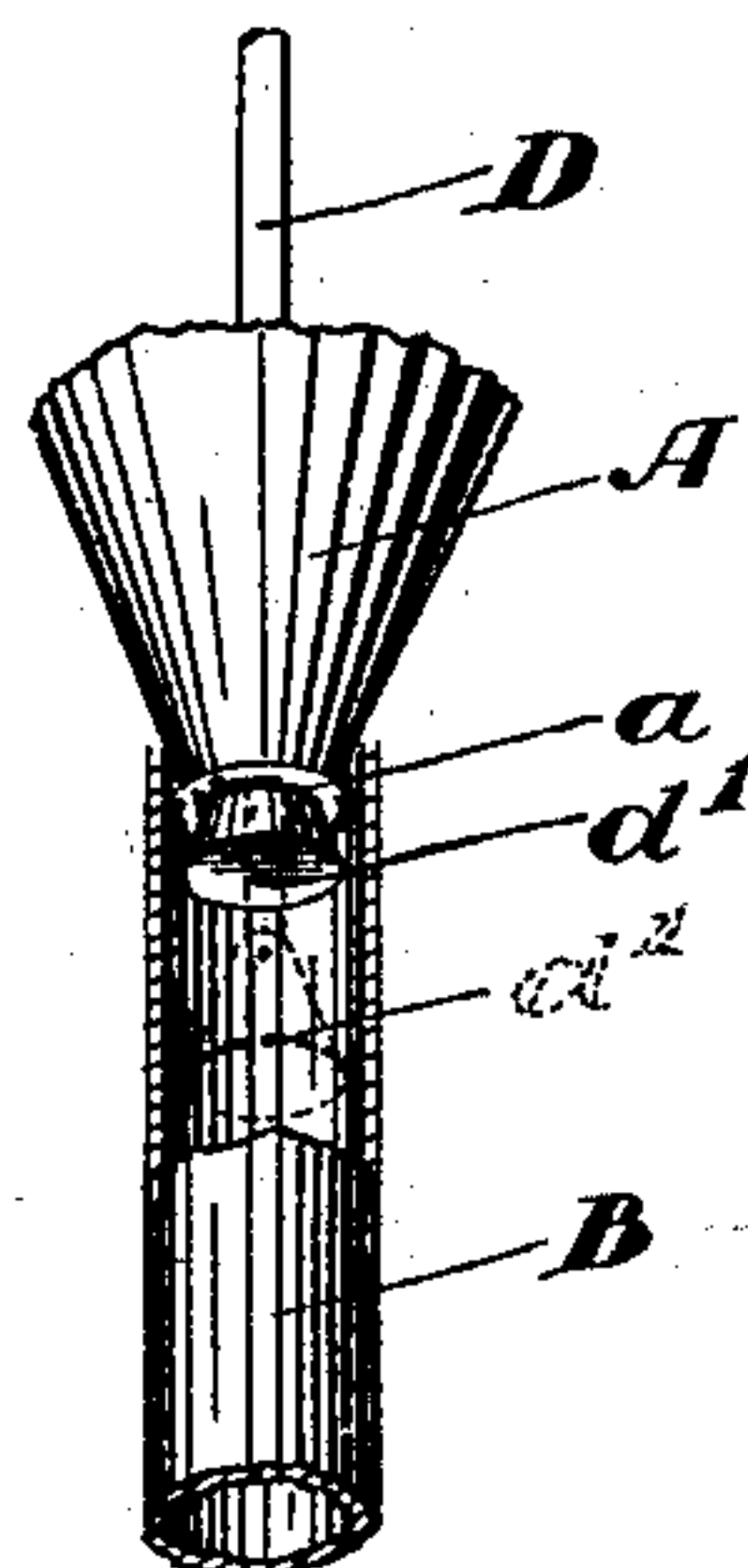


Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE.

JOHN BOCKETT JARMAN LAYTON, OF LACHINE, CANADA, ASSIGNOR TO
ANDREW PETER JOHNSON, OF SAME PLACE.

FUNNEL.

SPECIFICATION forming part of Letters Patent No. 671,322, dated April 2, 1901.

Application filed August 23, 1900. Serial No. 27,840. (No model.)

To all whom it may concern:

Be it known that I, JOHN BOCKETT JARMAN LAYTON, a subject of the Queen of Great Britain, residing at the town of Lachine, in the county of Jacques-Cartier, in the Province of Quebec, Canada, have invented a new and useful Funnel, of which the following is a specification.

My invention relates to improvements in funnels; and the object of the invention is to design a funnel which shall not allow an overflow from the neck of the bottle and at the same time, by closing a valve, carry in the funnel such liquid as may be left after the bottle is filled; and it consists, essentially, of a funnel provided with an elongated substantially cylindrical stem and having inside the funnel portion a conical screen, up through the center of which extends a rod with a ring on its upper end, such rod having on the lower end a suitable valve intended to close the opening into the funnel proper from the stem, the various parts being constructed and arranged in detail as hereinafter more particularly described.

Figure 1 represents a sectional view of my funnel. Fig. 2 is a perspective detail of the valve. Fig. 3 is a perspective detail of the screen.

A is the funnel.

B is the stem, which can be made any suitable size and is intended, as usual in funnels, to be placed down the inside of the neck of the bottle.

C is a conical screen made of any suitable material, but preferably tin or copper, the same as the funnel. The screen C is placed with its base downward toward the bottom of the funnel portion A. At the upper end of the screen C is an orifice *c*. The rod D, which has a ring on its upper end, is designed to drop through the orifice *c* and at its lower end carries an ordinary valve *d'*, which is intended when the rod is raised, by means of inserting the finger in the ring *d*, to close the orifice *a*, where the funnel proper, A, empties into the stem B.

It will now be seen that when the stem B is inserted into the bottle the funnel portion A rests against the top of the neck of the bottle. On pouring the liquid into the funnel A the bottle immediately begins to fill and

the screen C prevents grounds, &c., from entering the bottle. While continuing to pour there is no necessity to trouble about whether the bottle is filled or not, as it is very simple to find that out by the quantity of liquid in the funnel A. On taking the funnel out of the bottle by means of inserting a finger in the ring *d* the orifice *a* is closed by the valve *d'*, and what is left of the liquid in the funnel is carried with it to the next bottle to be filled. It will also be found on pulling up the rod D that the usual room is left for the insertion of the cork and a small air-space below it. This is caused by the arrangement of my device in directing the course of the water down the sides of the stem. A considerable space is thus allowed below the valve *d'* for air, which through the action of the water has probably been compressed slightly above atmospheric pressure. It will thus be seen that when the funnel is carried away from the bottle the liquid which in an ordinary funnel would have filled this space is carried away in the funnel portion A, or, as a matter of fact, it has never reached the stem portion, and thus when the funnel portion is taken away much less liquid is in the bottle. By actual experiment it has been proved that this air beneath the valve *d'* displaces actually the amount of liquid which would have filled the neck of the bottle to the brim.

What I claim as my invention is—

The combination of the funnel and stem thereof, having a conical perforated diaphragm, with an opening at its upper end and supported against the sides of and near the bottom of the funnel, of a rod carrying at its lower end a cone-shaped valve designed to abut the edges of the valve-seat when closed, and when open designed to direct the liquid down the walls of the stem, and create thereby a pressure of air higher than atmospheric, and a suitable finger ring or handle, at the upper end of the said rod, as and for the purpose specified.

Signed at Montreal, Canada, this 14th day of August, 1900.

JOHN BOCKETT JARMAN LAYTON.

Witnesses:

EDWARD P. FETHERSTONHAUGH,
FRANK C. HALL.