

(No Model.)

E. NORTON.

COMBINED FILLING AND POURING NOZZLE.

No. 354,571.

Patented Dec. 21, 1886.

Fig. 1.

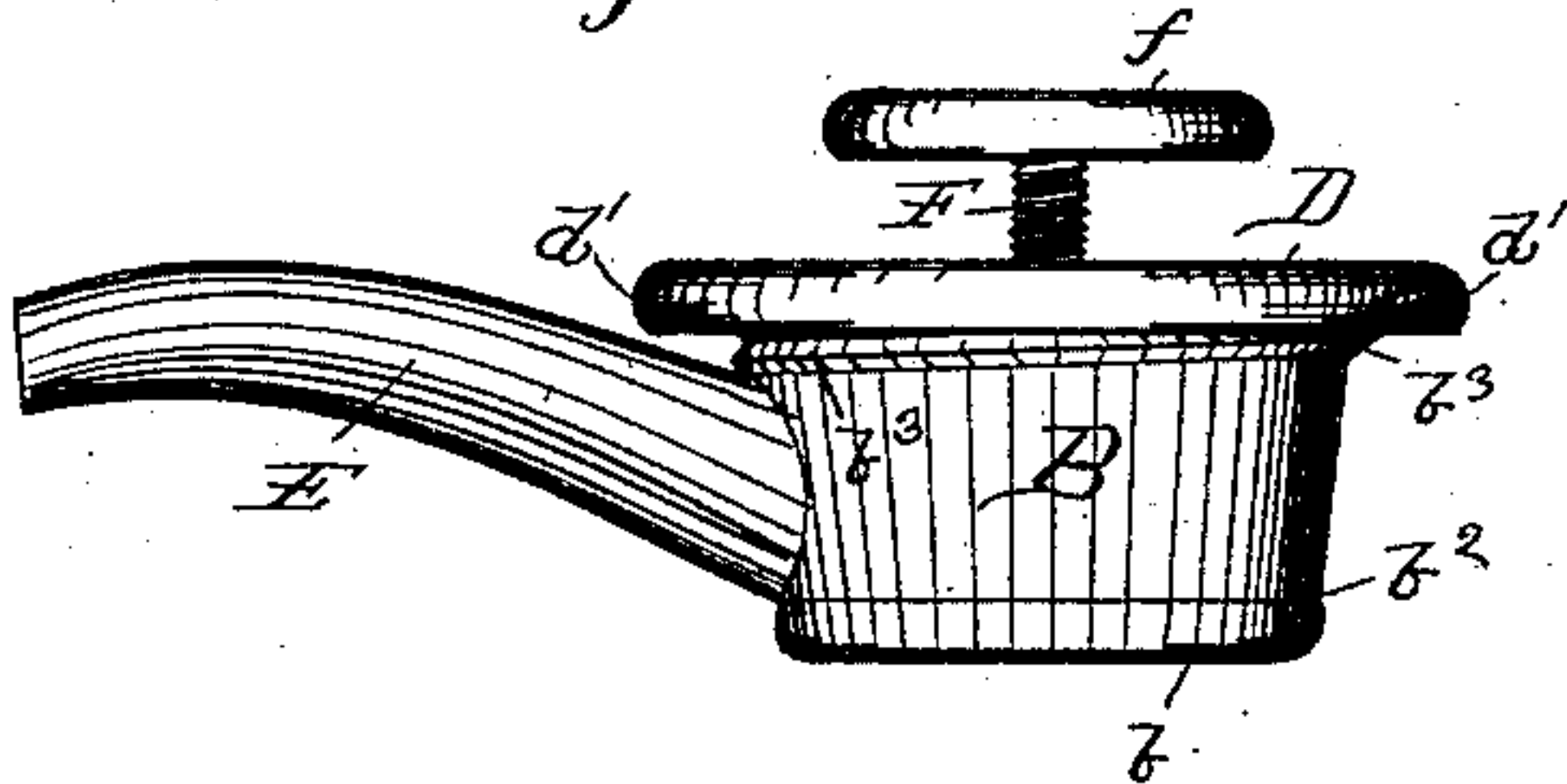
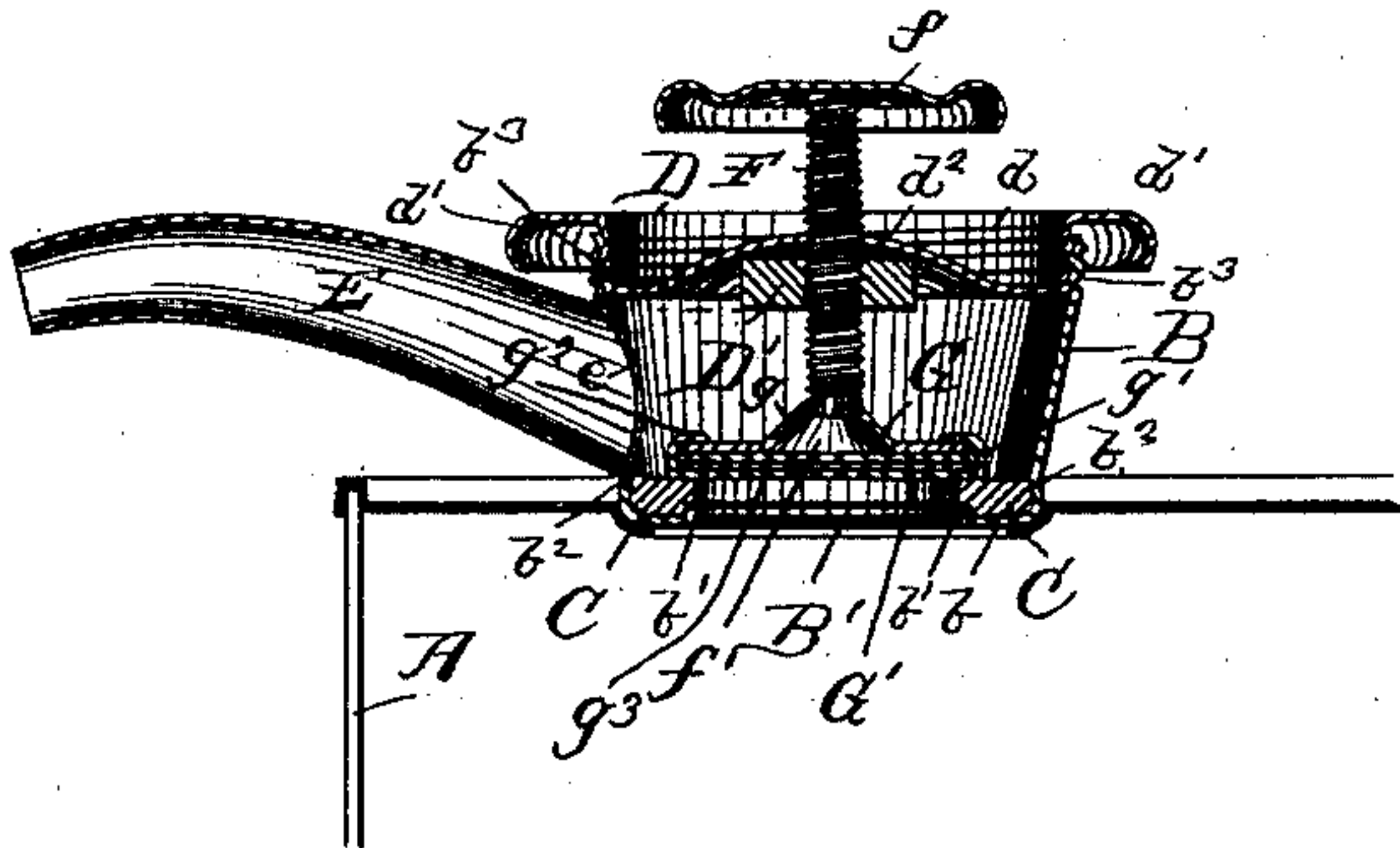


Fig. 2.



Witnesses:

Lew. C. Curtis

J. M. Munday

Inventor:

Edwin Norton.

By Munday, Evans & Alcock
his Attorneys:

UNITED STATES PATENT OFFICE.

EDWIN NORTON, OF CHICAGO, ILLINOIS, ASSIGNOR TO HIMSELF AND
OLIVER W. NORTON, OF SAME PLACE.

COMBINED FILLING AND POURING NOZZLE.

SPECIFICATION forming part of Letters Patent No. 354,571, dated December 21, 1886.

Application filed September 3, 1886. Serial No. 212,571. (No model.)

To all whom it may concern:

Be it known that I, EDWIN NORTON, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Combined Filling and Pouring Nozzles, of which the following is a specification.

The object of my invention is to provide an efficient and durable filling and pouring nozzle of a simple and cheap construction, and which, while it may be easily operated, will not be liable to injury in shipment of the can to which it is attached.

In my invention the funnel or cup which is secured to the head of the can or vessel, and to which the spout is attached, is made with a flat base or bottom having a large central opening, through which the can may be readily filled, and a vertical flange is turned up on said base or bottom rim to retain the packing or gasket of the valve-seat. The funnel or cup is made slightly inclined or flaring upward, so that the annular packing or gasket may be readily inserted, and then a slight shoulder or contraction is made in the walls of the cup or funnel near its base, thus securely fixing the gasket in place and squeezing it between the outer vertical wall of the cup and the inner vertical flange surrounding the filling-opening in the base of the cup or funnel. The upper edge or rim of the funnel is furnished with screw-threads, by which it is secured to a countersunk cap or cover, having screw-threads on its vertical wall. This cover is provided with an outer depending flange or roll, which projects downward over the screw-threads, and thus protects them from injury, and at the same time affords a projecting and enlarged hand-hold for screwing or unscrewing the cap from the funnel. The central portion of this cap is curved upward, and on its under side, in the recess or cavity thus formed, a threaded nut is secured. The valve-screw, which consists of an ordinary stove-bolt, passes through this nut. The valve consists of an upper plate having a central opening and conical recess conforming to the head of the screw, and a flat bottom plate having a vertical rim with a flange turned over the edge of the upper plate. To give the requisite stiffness and rigidity to the bottom

plate, one or more flat plates are inserted between the upper and bottom plates of the valve. The valve thus has a smooth and true rigid face, which fits against the annular packing of the valve-seat. 55

In the accompanying drawings, which form a part of this specification, and in which similar letters of reference indicate like parts, Figure 1 is a side elevation of a nozzle embodying my invention, and Fig. 2 is a central vertical section of the same. 60

In said drawings, A represents the can or vessel to which the nozzle is applied.

B is the cup or funnel of the nozzle, having a slightly-flaring wall or body, as shown in the drawings, and a flat base or bottom, *b*, furnished with a large central opening, *B'*. The inner edge of the bottom *b*, around said opening, is turned up or provided with a short vertical flange, *b'*. 65 70

C is the annular packing or gasket of the valve-seat, preferably a ring of linoleum, resting on the base-rim *b*, and confined at its inner and outer edges between the inner flange, *b'*, and the outer wall of the funnel or cup, which wall is slightly contracted or furnished with a slight inwardly-projecting annular shoulder, *b²*, after the gasket has been inserted, in order to secure it firmly in place. The rim or upper edge of the funnel is furnished with screw-threads *b³*, and the vertical rim or wall *d* of the countersunk cap or cover D is furnished with similar screw-threads, by which the cap is secured to the cup or funnel. The cup is furnished with an outwardly and downwardly projecting flange or roll, *d'*, which overhangs the screw-threads of the cap and funnel to protect the same from injury, and also to afford an enlarged and projecting hand-hold for screwing and unscrewing the cap. The central portion of the cup D is curved upwardly, forming a recess or cavity, *d²*, in which the threaded nut *D'* is secured, the same being preferably soldered to the under side of the cap. 80 85 90 95

E is the spout, soldered to the funnel B on the side thereof over an opening, *e*, therein, smaller in diameter than the filling-opening *B'* in the bottom.

F is the valve-screw, having a thumb-piece, *f*, soldered to its upper end after it is inserted through the nut *D'*, and having a flat-faced 100

conical head, f' , at its lower end. The upper plate, G , of the valve has a conical recess or socket, g , conforming to the head of the screw, and the lower plate, G' , of the valve is provided with a rim, g' , having an inturned flange, g^2 , overlapping the edge of the upper valve-plate, G , thus securing the two plates of the valve to the screw-head. One or more flat disks, g^3 , are inserted between the valve-plates G and G' to give rigidity to the valve.

To fill the can, the cap D is unscrewed from the funnel or cup B , thus bodily removing the valve and valve-screw, when the liquid may be poured in through the large opening B' , the cup B serving as a funnel. In pouring the liquid out of the can the valve is slightly raised from the valve-seat by screwing up the valve-screw, the large opening B' serving both as an exit for the liquid and to admit air to the can.

I claim—

1. The filling and pouring nozzle comprising the following parts or elements: the flaring cup or funnel B , having bottom rim, b , furnished with upturned flange b' , large central opening, B' , valve-seat packing or gasket C , exterior inturned shoulder, b^2 , screw-threaded upper rim, b^3 , spout E , countersunk cap or cover D , having screw-threaded vertical wall d , and outwardly and downwardly projecting flange or roll d' , overhanging said screw-threads, said cap having an upwardly-curved central portion forming a recess, d^2 , on its under side, threaded nut D' , valve-screw F , having thumb-piece f and head f' , upper valve-plate, G , having recess g , intermediate stiffening-disk, g^3 , and lower valve-plate, G' , having rim g' and inturned flange g^2 , overlapping said upper plate, G , substantially as specified.

2. The combination, in a filling and pouring nozzle, of cup or funnel B , having screw-

threaded upper rim, b^3 , with countersunk cap or cover D , having screw-threaded rim or wall d , and outwardly and downwardly projecting flange or roll d' , overhanging said screw-threads to protect the same and afford an enlarged and projecting hand-hold, substantially as specified.

3. The combination, in a filling and pouring nozzle, of a cup or funnel, B , having a flat bottom rim, b , furnished with an upturned flange, b' , surrounding the central opening, B' , with a valve-seat packing or gasket, C , said cup or funnel having an inwardly-projecting shoulder, b^2 , near its base to secure said gasket in place, substantially as specified.

4. In a filling and pouring nozzle, the combination, with a valve-screw, F , having head f' , of upper valve-plate, G , having recess or socket g , and lower valve-plate, G' , having rim g' and inturned flange g^2 , overlapping said plate G , substantially as specified.

5. In a filling and pouring nozzle, the combination, with a valve-screw, F , having head f' , of upper valve-plate, G , having recess or socket g , and lower valve-plate, G' , having rim g' and inturned flange g^2 , overlapping said plate G , and intermediate stiffening-disk, g^3 , substantially as specified.

6. The filling and pouring nozzle consisting of a cup or funnel, B , bottom rim, b , valve-seat packing C , spout E , countersunk cap D , having vertical rim d , and outwardly and downwardly projecting flange or roll d' , nut D' , valve-screw F , having thumb-piece f and head f' , and valve-plates G and G' , said plate G' having a flange overlapping said plate G , substantially as specified.

EDWIN NORTON.

Witnesses:

S. W. NORTON,
O. R. SWIFT.