

(No Model.)

L. KIRCHNER.
FUNNEL.

No. 477,011.

Patented June 14, 1892.

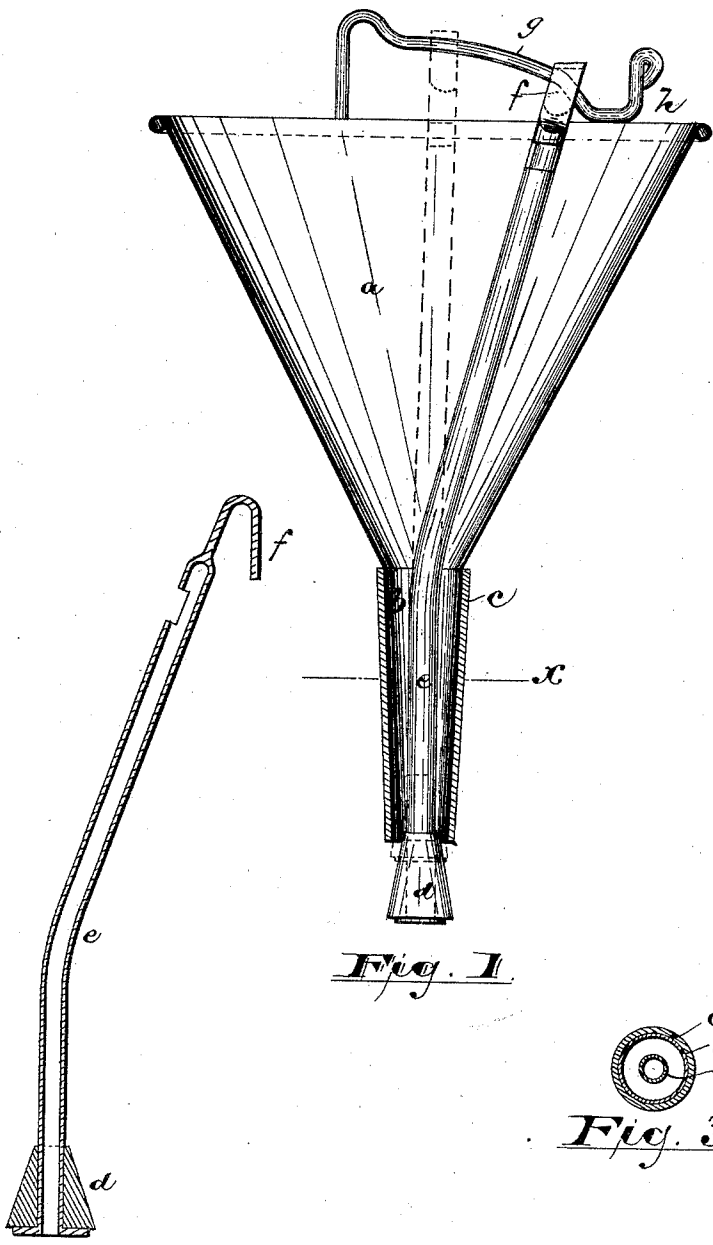


Fig. 1.

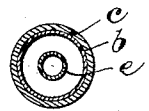


Fig. 3.

Fig. 2.

Witnesses

Inventor:

Oscar A. Michel.
John A. Westcott

Louis Kirchner.

By *Drake & Co.* Attys.

UNITED STATES PATENT OFFICE.

LOUIS KIRCHNER, OF POUGHKEEPSIE, NEW YORK.

FUNNEL.

SPECIFICATION forming part of Letters Patent No. 477,011, dated June 14, 1892.

Application filed February 6, 1892. Serial No. 420,578. (No model.)

To all whom it may concern:

Be it known that I, LOUIS KIRCHNER, a citizen of the United States, residing at Poughkeepsie, in the county of Dutchess and State of New York, have invented certain new and useful Improvements in Funnels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to prevent overflowing when filling bottles with liquid and to secure other advantages and results, some of which will be described in connection with the description of the working parts.

The invention consists in the improved funnel for filling bottles, &c., and in the arrangements and combinations of parts, substantially as will be hereinafter set forth, and finally embodied in the clauses of the claim.

Referring to the accompanying drawings, in which like letters indicate corresponding parts in each of the views, Figure 1 is a central vertical section of the improved funnel. Fig. 2 is a central longitudinal section of a valve and vent employed in connection with said funnel. Fig. 3 is a section on line *x*.

In said drawings, *a* indicates a suitable funnel, having on the outside of the throat *b* thereof a rubber cushion or packing *c*, adapted to form a tight joint with the mouth of the bottle, so that it will be impervious to the water. The small end of the funnel is provided with a valve *d*, adapted to open and close the same, the said valve being vented to allow an exit of air from the bottle so that the flow from the funnel will not be impeded. Said valve may be an inclined plug of rubber *d* or other suitable material properly seated on the end of the tubular rod *e*, which extends to the top of the funnel, where it is provided with a hooked hand piece or portion *f*. The said hooked portion engages an inclined bearing *g*, which may be a bent wire or rod soldered or secured to the upper edge of the funnel. By sliding the hooked extremity laterally up the inclined bearing the valve is brought into close relation to the throat of

the funnel to close the same, as will be understood.

In operating the invention in connection with the filling of a bottle the said funnel is inserted into the mouth of the bottle, the packing bearing on said bottle to form an impervious joint therewith. The valve may then be opened and the fluid poured into the funnel until the bottle is filled. Should a surplus of fluid be poured into the funnel more than would fill the bottle, it will remain in the funnel without leaking through the packed joint. The hooked finger-piece may then be forced up the incline and the valve thus brought into the valve-seat of the funnel, so that the liquid cannot escape. The funnel can then be transferred to the next bottle to be filled, the hooked end of the valve-rod forced down the incline, and the remaining liquid thus be allowed to escape into the second bottle. Thus none of the liquid will be lost or wasted. The upturned end *h* of the wire bearing serves as a stop to limit the movement of the hook and hold it in close relation to the incline. By this construction the mouth of the funnel is not obstructed by fixtures therein or thereover and the tube for venting the bottle serves alone as the means for operating the valve, all levers and the like being dispensed with. The vent-tube is bent, as shown in Fig. 2, hugs the flaring walls of the funnel, and is thus easily and conveniently turned pivotally to force the hook up the incline, as will be understood.

What I claim as new is—

1. The improved funnel herein described, combining therein the funnel-like body, a packing secured around the smaller end, a tube extending through the interior of the funnel and at the smaller end of the funnel provided with a valve and at the larger end with a hook, and an inclined bearing for the hooked end, all said parts being arranged and adapted to operate substantially as and for the purposes set forth.

2. The combination, with the funnel, of a vent-tube provided at its lower end with a valve to close the funnel and at its upper end with a hook to engage an incline on the edge of said funnel, substantially as set forth.

3. The combination, with the funnel having

at the edge thereof an incline *g* and stop *h*, of a vent-tube provided with a valve *d* and a bearing at its upper end to engage said incline.

- 5 4. In combination with the funnel having an incline *g* and stop *h*, a vent-tube bent, as indicated, and provided with a valve at one end and a bearing to engage the incline at the other, the said tube-bearing being adapted
10 to be forced up the incline to draw the valve

d into close relation to the funnel and the said bent tube to be turned pivotally by such movement, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 18th day of 15
January, 1892.

LOUIS KIRCHNER.

Witnesses:

HARRY C. HARRIS,
WM. H. KRIEGER.