(No Model.)

A. B. PRATT.

FUNNEL.

No. 281,727. Patented July 24, 1883.

Fig. 1.

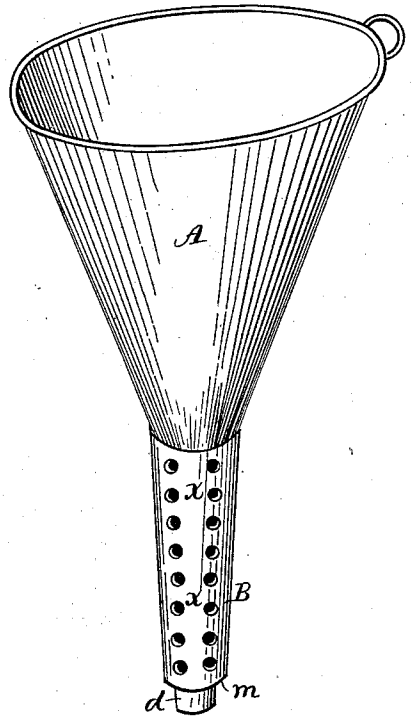
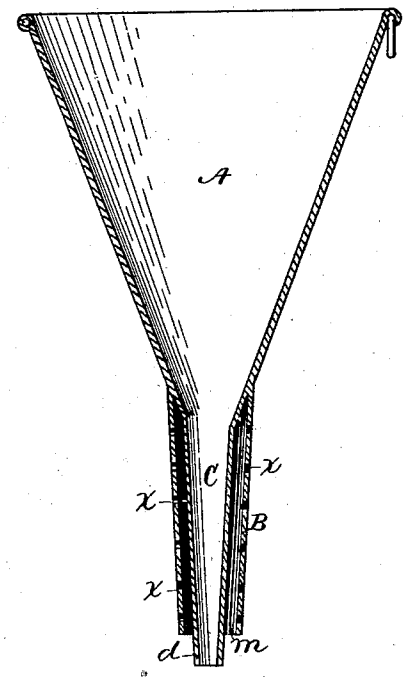


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

AARON B. PRATT, OF CAMBRIDGE, MASSACHUSETTS.

FUNNEL.

SPECIFICATION forming part of Letters Patent No. 281,727, dated July 24, 1883.

Application filed January 19, 1883. (No model.)

To all whom it may concern:

Be it known that I, AARON B. PRATT, of Cambridge, in the county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Funnels, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an isometrical perspective view of a tunnel embodying my improvement, and Fig. 2 a vertical transverse section of the same.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to that class of tunnels which are provided with vents; and it consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a more effective device of this character is produced than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation, its extreme simplicity rendering an elaborate description unnecessary.

In the drawings, A represents the body of the tunnel, and B the sleeve. The body may be composed of tin or any suitable material and is of the ordinary construction. The sleeve is secured at its upper end to the lower part of the body A, and is foraminous or provided with a series of perforations, *x*, the sleeve being arranged in such a manner as to leave a space, *m*, on all sides between it and the nozzle C, which is preferably slightly longer than the sleeve, as shown at *d*.

In the use of my improvement the nozzle and its sleeve are placed in the neck of the bottle or aperture in the vessel to be filled, and as the filling takes place the air passes out of the same through the space *m* and perforations *x*.

In many ventilating-tunnels the ventilating-tube is so constructed and arranged that the fluid is liable to rise and cover its lower end, thereby preventing ventilation, an objection which my improvement is designed to obviate, for, when the fluid attains a height above the lower end of the sleeve, the air passes out of the vessel being filled through the perforations *x*, in a manner which will be readily understood without an explicit description.

The sleeve being arranged equidistant from the nozzle on all sides, also serves to keep the tunnel in proper position while in use.

By having the end *d* of the nozzle project below the sleeve, the tunnel may be used in filling smaller vessels, and steadied by resting the lower end of the sleeve on the top of the vessel being filled.

Having thus explained my invention, what I claim is—

A tunnel having the body A, nozzle C, and sleeve B, the sleeve being slightly shorter than the nozzle, and provided with a series of perforations, *x*, nearly its entire length, which open into the annular air-space *m* between the sleeve and nozzle, so that when the lower perforations are covered the air will escape through those above the level of the fluid, substantially as set forth and described.

AARON B. PRATT.

Witnesses:
L. J. WHITE,
C. A. SHAW.