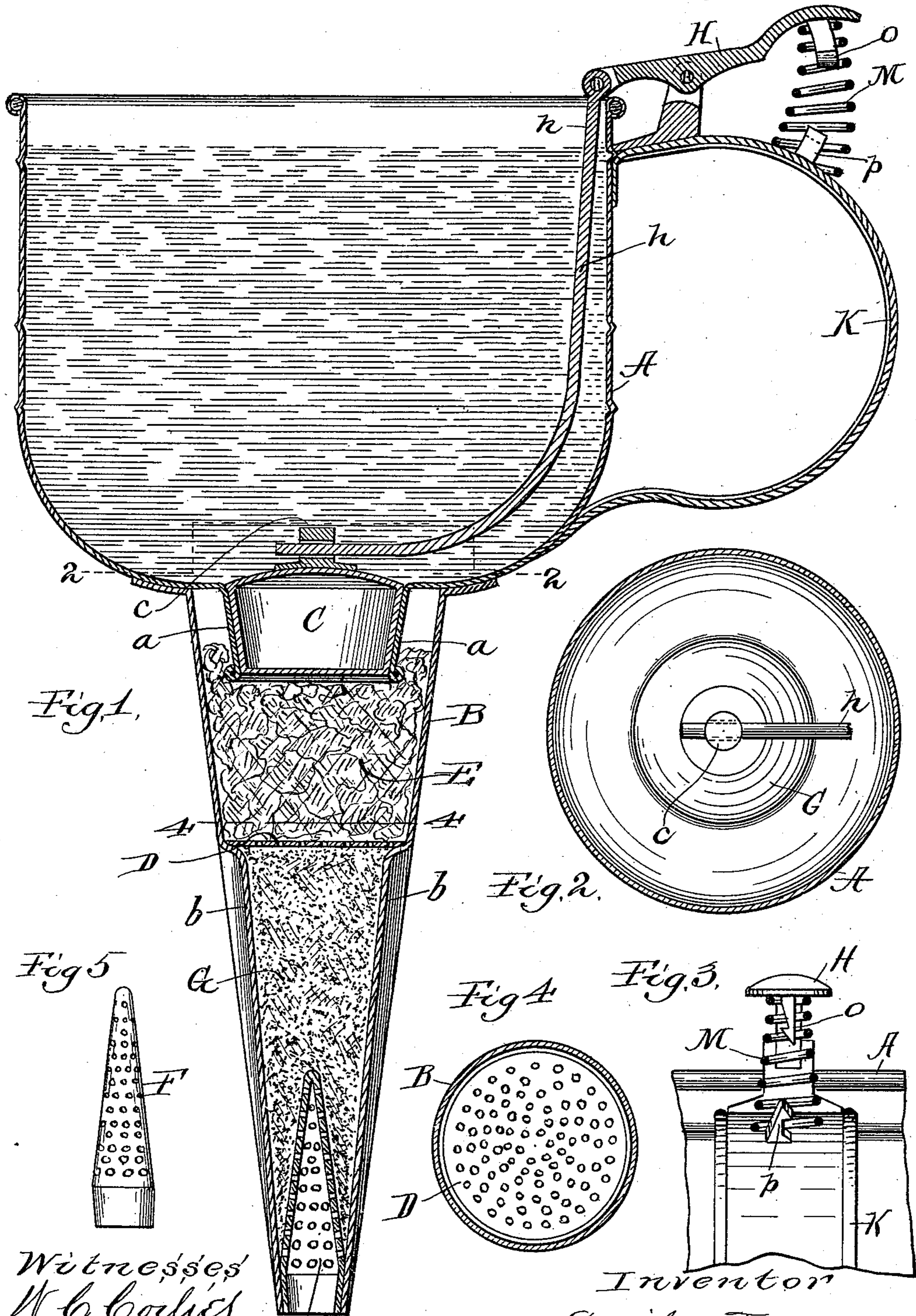


(No Model.)

A. FARMER.  
FILTER FUNNEL.

No. 538,369.

Patented Apr. 30, 1895.



Witnesses  
W. C. Corlies  
Jno. A. Christianson

Inventor  
Arcidas Farmer  
By Louis A. Gilman  
Attorney

# UNITED STATES PATENT OFFICE.

ARCIDAS FARMER, OF CHICAGO, ILLINOIS.

## FILTER-FUNNEL.

SPECIFICATION forming part of Letters Patent No. 538,369, dated April 30, 1895.

Application filed February 16, 1895. Serial No. 538,699. (No model.)

*To all whom it may concern:*

Be it known that I, ARCIDAS FARMER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Filter-Funnels; and I do 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 the letters of reference marked thereon, which form a part of this specification.

My invention relates to that class of funnels used in distilleries, liquor stores, &c., particularly for drawing liquor from a cask and placing it in a decanter and has for its object the provision of means for properly filtering the liquor as it passes through the funnel.

The invention consists of a filter or sponge, charcoal, and screens of gauze or perforated metal introduced into the tube of the funnel.

It consists further of special means for manipulating the valve.

In the drawings, Figure 1 is a vertical central section of the funnel. Fig. 2 is a plan section on the line 2 2 of Fig. 1. Fig. 3 is a detail of the valve controlling mechanism. Fig. 4 is a plan section on the line 4 4 of Fig. 1; and Fig. 5 is an elevation of one of the screens used in the funnel tube.

The bowl, A, of the funnel is preferably of spun copper and terminates at the bottom in a short downwardly projecting neck, *a*, which is slightly tapering.

The tube B, of the funnel is tapering in form and its lower portion is longitudinally fluted as indicated at *b*, in the manner common in funnels for the purpose of allowing suitable air vents at its sides. The upper end of the tube is of greater diameter than the neck, *a*, and is permanently secured to the bottom of the bowl A, preferably by the use of solder. A plug valve, C, is adapted to fit within the neck, *a*, which serves as its seat. By the use of this tapering form of valve and seat it is not necessary to have any additional guide to secure the true seating of the valve, and consequently I secure a much

larger and freer passage from the bowl to the tube than is found in funnels of this kind ordinarily in use. A screen D, of perforated metal is placed transversely across the tube B, the upper end of the internal ribs *b*, serving to support it. A second screen F, of perforated or reticulated material conical in form is located within the lower end of the tube B, its base being securely attached to the inner surface of the tube, at or adjacent to its mouth. By using the conical form of screen a much greater area is secured than would be attained if the strainer were flat. The space between the two screens D, and F, is filled with a filtering material G, such as charcoal, and the space above the screen D, is filled with a sponge, E, which may be conveniently inserted and removed through the neck *a*.

The valve, C, is controlled by a thumb latch, H, pivotally attached to the top of the handle K, of the bowl A, and connected to the valve by means of a bent rod *h*, whose lower end fits loosely within an apertured boss, *c*, on the top of the valve C. A spiral spring M, is interposed between the outer end of the thumb latch H, and the top of the handle K, so as to throw up the latch and thereby hold the valve C, normally to its seat. A catch is provided for holding the outer end of the latch H, down, and the valve C, open and consists of the two members *o*, *p*, attached respectively to the under side of the latch H, and the upper surface of the handle K, and being adapted to automatically engage each other when the latch is depressed. These catches are preferably located within the spring M, and have their ends beveled for sliding contact. The spring M, holds the two catches firmly in alignment and they are disengaged by lateral pressure upon the latch H.

I am aware that it is not new to use a funnel of this general form and having a plug valve in the bottom of its bowl which is controlled by a thumb latch secured to the handle, and such funnels have also been used for filtering purposes by placing a piece of felt, usually the crown of a hat, within the bowl and the valve has been held open by tying the latch down with a piece of string. This

practice is objectionable because the felt is apt to be dirty and the method of holding the valve open is very awkward.

I claim as my invention—

5 1. The combination in a funnel, having a bowl A, and tube B, of a valve for closing the passage from the bowl to the tube, a transverse screen D, within the tube, a screen F, at the lower end of the tube, filter-  
10 ing material between the two screens and a sponge between the screen D, and the valve, all substantially as described.

2. The combination in a funnel of the bowl, A, the tube B, the valve C, for closing the  
15 passage between the bowl and the tube, a

spring latch for controlling the valve, locking catches for holding the valve open, a transverse screen D, within the tube, a conical screen F, set in the mouth of the tube, filtering material as charcoal interposed be- 20  
tween the screens D, and F, and a sponge E, above the screen D, substantially as described and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ARCIDAS FARMER.

Witnesses:

SPENCER WARD,

JNO. A. CHRISTIANSON.