

No. 865,572.

PATENTED SEPT. 10, 1907.

W. DAWSON.
FUNNEL.

APPLICATION FILED MAR. 1, 1906.

FIG. 1.

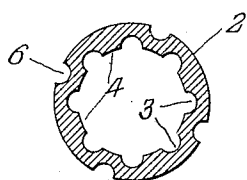
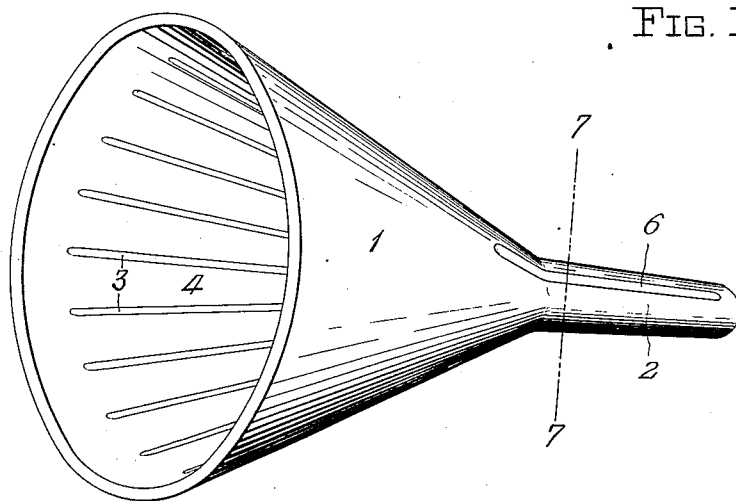


FIG. 3.

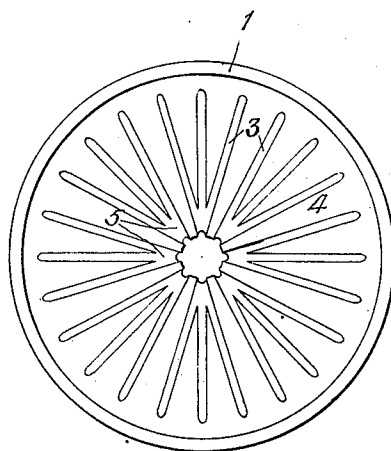


FIG. 2.

WITNESSES

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FUNNEL.

No. 865,572.

Specification of Letters Patent.

Patented Sept. 10, 1907.

Application filed March 1, 1906. Serial No. 303,626.

To all whom it may concern:

Be it known that I, WALLACE DAWSON, of the city of Montreal, in the Province of Quebec and Dominion of Canada, have invented certain new and useful Improvements in Funnels, of which the following is a full, clear, and exact description.

My invention relates to funnels, and is particularly adapted to that class of funnels used in filtering heavy liquids.

10 In the process of filtration it is customary to roll a strip of porous paper into conical form and insert it in the bowl of a funnel and to filter the liquid through said paper. In using a funnel with a plain or smooth surface, the paper fits snugly against the bowl and the liquid escapes only at the neck of the funnel. When a ribbed bowl is used, better results are produced at first but as the paper becomes saturated, it gradually clings to the surface of the bowl, filling the valleys and preventing the escape of the liquid except at the neck of the funnel. A great deal of time is often thus consumed in filtering a small quantity of liquid.

20 The object of my invention is to provide a funnel having means whereby the liquid can escape freely, at all times, from the sides, into the neck of the funnel, underneath the filtering paper.

25 The device consists essentially of a funnel having a bowl provided with a plurality of groups of narrow grooves or channels, the grooves of each group uniting into a single groove which continues into the neck of the funnel. The grooves are separated by comparatively wide plain surfaces, upon which the filtering material rests, bridging over said grooves without filling them and thus allowing the liquid to escape freely into the neck of the funnel.

30 In the drawings which illustrate my invention:— Figure 1 is a perspective view of the funnel. Fig. 2 is a plan view showing the interior of the funnel. Fig. 3 is a cross section of the neck on the line 7—7 of Fig. 1.

40 Referring to the parts, 1 represents the conical bowl of the funnel, and 2 the hollow neck. A plurality of narrow grooves or channels 3 are formed on the inner surface of the bowl, and converge towards the neck, as shown. The plain surfaces 4, between the grooves, are comparatively wide in order that the filtering material will have a large bearing surface and will not tend to fill the grooves to prevent the flow of liquid.

As the circumference of the bowl decreases very rapidly towards the neck, two or three consecutive grooves are converged at a point near the neck, as shown at 5, and continued as a single channel, while the plain surfaces 4, between said consecutive grooves, are converged to a point. This arrangement allows for the bearing surfaces on each side of the converged channel being continued into the neck without too great a reduction of width.

The grooves 3 are continued into the neck of the funnel, as shown. The neck is also provided with vertical exterior grooves 6 to allow for the escape of air from a jar or other receptacle.

The advantages of this invention will be obvious. As the filtering paper rests on the bearing surfaces provided, thus bridging over the grooves, the liquid is filtered at all points and escapes freely from all sides into the neck of the funnel.

Having thus described my invention so that the same may be readily understood by those skilled in the art to which it appertains, what I claim and desire to secure by Letters Patent, is:—

1. A funnel comprising a conical bowl converging into a neck or tube, the inner surface of said bowl being plain and provided with groups of narrow channels, each of said groups comprising two or more channels converging at the neck of the funnel into a single channel, substantially as described.

2. A funnel comprising a bowl converging into a neck or tube, said bowl being provided on its inner surface with a plurality of groups of narrow channels formed below the surface of the bowl, each of said groups comprising two or more channels converging at the neck of the funnel into a single channel, substantially as described.

3. A funnel comprising a bowl converging into a neck or tube, the inner surface of said bowl being plain and provided with groups of narrow grooves or channels, each of said groups comprising two or more consecutive channels converging at the neck of the funnel into a single channel.

4. A funnel comprising a conical bowl converging into a neck or tube, said bowl being provided on its inner surface with a plurality of narrow channels formed below the surface of the bowl, said channels being arranged in groups consisting of two or more channels converging at the neck of the funnel into a single channel extending into said neck.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

WALLACE DAWSON.

Witnesses:

C. W. TAYLOR,

W. G. ARMSTRONG.