

J. I. Beaumont,

Funnel.

N^o 79,799.

Patented July 7, 1868.

Fig. 1.

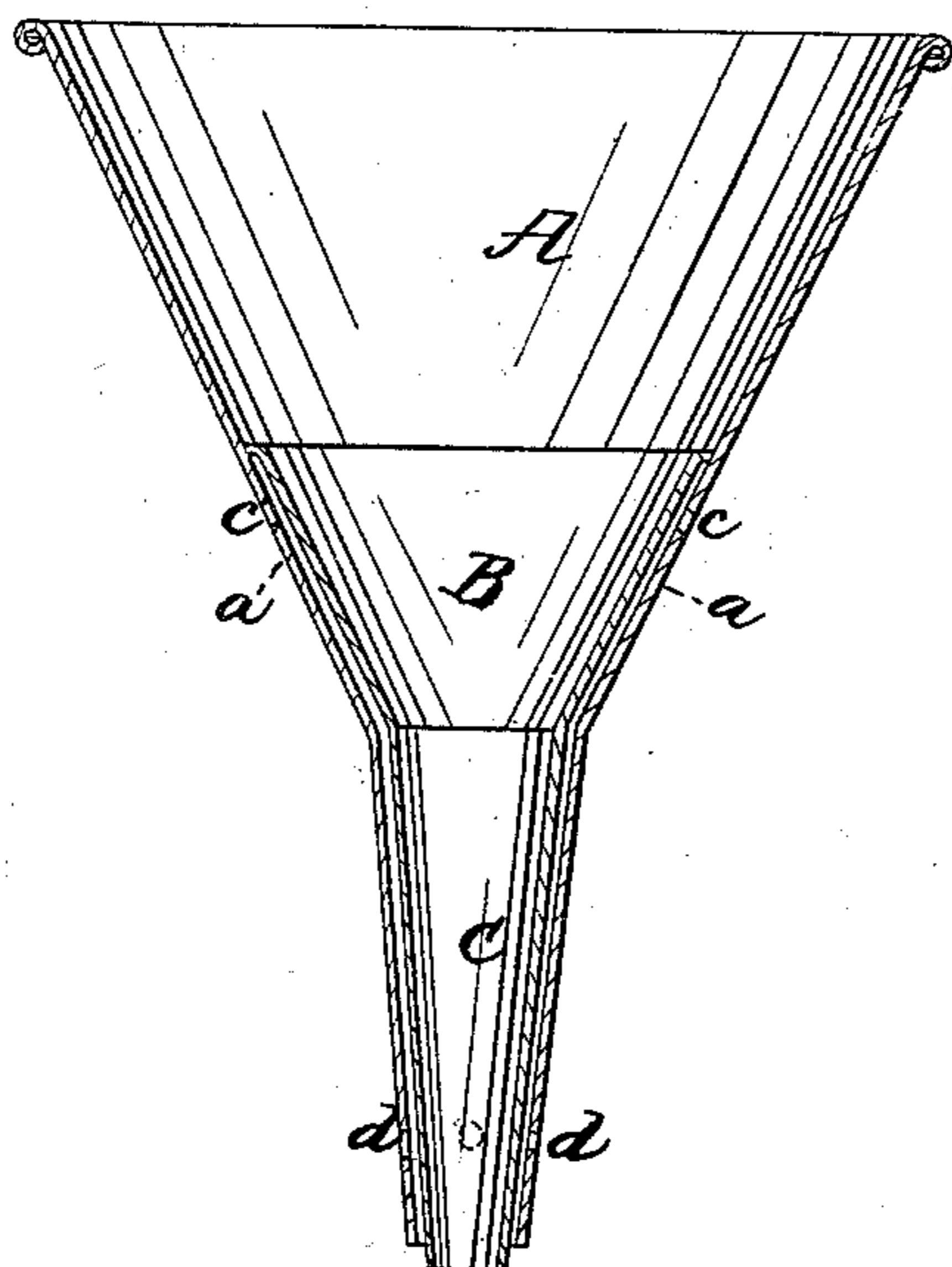


Fig. 3.

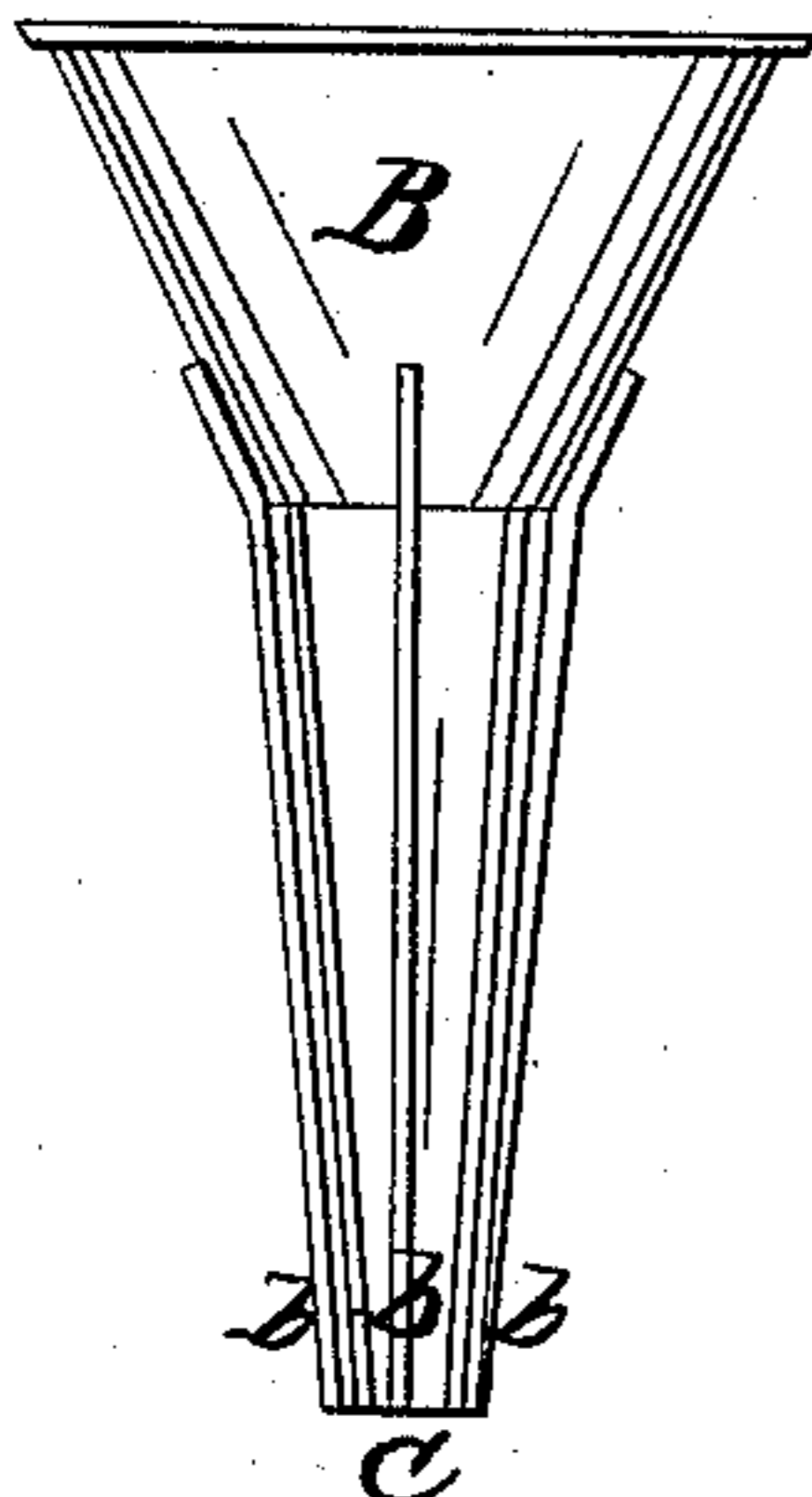
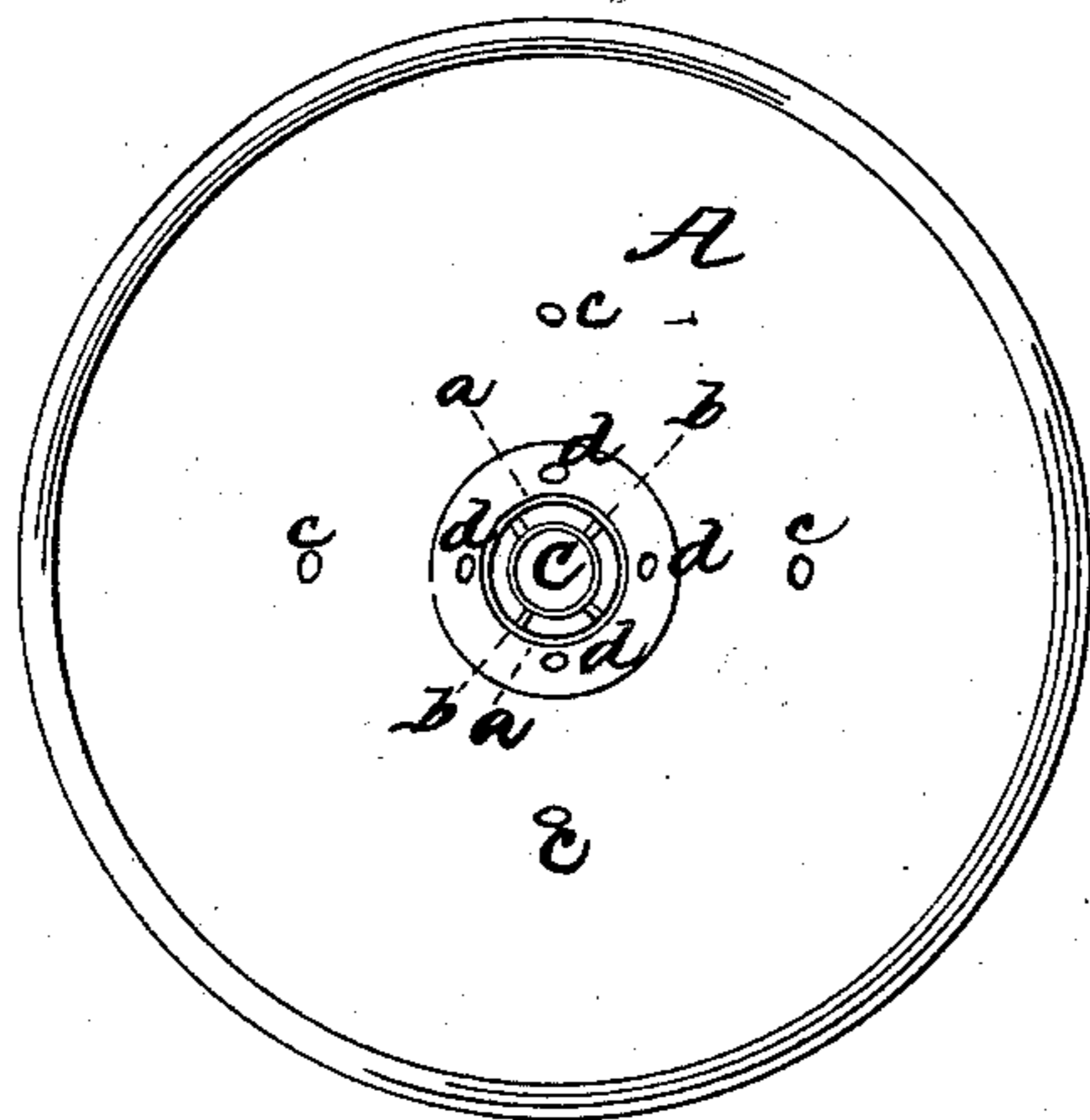


Fig. 2.



Witnesses.
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JOSEPH I. BEAUMONT, OF ST. PAUL, MINNESOTA.

Letters Patent No. 79,799, dated July 7, 1868.

IMPROVEMENT IN AIR-ESCAPE FUNNELS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JOSEPH I. BEAUMONT, of St. Paul, in the county of Ramsey, in the State of Minnesota, have invented a new and improved Mode of Giving Vent to the Escape of Air from barrels, kegs, jugs, cans, demijohns, and other vessels of like character, while being filled with fluids poured through a funnel, by means of a funnel of a peculiar construction, as hereinafter described; and I do hereby declare that the following is a full and exact description of the funnel above mentioned, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in providing a funnel of a new and improved construction, containing within itself an air-chamber, through which the confined air, from the vessel into which fluids are being poured through the funnel, may freely escape while the vessel is filling with the fluid, thereby obviating the great inconvenience, trouble, annoyance, and loss of time very frequently experienced in the use of a common funnel, occasioned by want of the vent which my invention perfectly supplies.

To enable others skilled in the art of manufacturing such articles to make and use my invention, I will proceed to describe its construction and operation.

I construct a plain, simple funnel, such as is in common use, of any desired size and material, with four, more or less, small openings or round holes in the sides of the body of the funnel, at any desirable distance from each other, and at a height above the neck of the funnel, which is, as near as may be, one-third ($\frac{1}{3}$) of the distance from the upper end of the neck to the upper edge of the body of the funnel, as shown at Figure 1, A and B, in the accompanying drawings. These openings or holes, when the funnel is completed, permit the free escape of air from the air-chamber of the funnel.

I also make four, more or less, small openings or round holes in the neck of this funnel, at any desirable distance from each other, and as near as may be, say from one-quarter ($\frac{1}{4}$) to three-quarters ($\frac{3}{4}$) of an inch above the lower end of the neck, as shown at *d*, Figures 1 and 2, in the accompanying drawings.

There may also be other openings in the neck of the said funnel, situated above the said openings *d*, so as to permit and allow the ventilation to proceed with full effect and operation in case the said lower openings *d* shall become closed by means of the fluid in the vessel being filled by the use of said funnel, and thus there may be such graduating openings at other points along and upon the said neck of the said funnel, and thus and thereby carry on ventilation of such vessel in case the lower holes become closed by the material being poured in the vessel to be filled. The said additional or extra openings may be made in said funnel-neck in the same manner and by the same means as the said openings *d* are made. The said openings may be constructed at any desired distance apart from each other, either along the length of the said neck of the funnel or upon the circumference thereof, as the case may require, taking care so to construct and arrange the same as that entire and complete ventilation may go on until the entire cask or vessel be filled with the fluid or liquid desired to be put in the same, notwithstanding the lower and next lower of the said openings *d* may become closed up by the filling or rising of material being poured into such vessel for the purpose of filling the same, as herein set forth.

These openings or holes, when the funnel is completed, permit the free entrance of air, escaping from the vessel being filled, into the air-chamber of the funnel.

Having now the outer portion complete, I will proceed to construct and apply the air-chamber or vent, which I do by constructing a little or inner funnel, B, similar in construction to the large and outer one above described, except in that it has no openings or holes in its sides, either of its body or neck, and having no wire running around its upper edge, as has the large outer funnel, and as is commonly the case with ordinary funnels, to give a finish and add strength to the upper edge. This little and inner funnel I construct with four upright wires, or more, if required by the size of the funnel, and the said wires are each made fast to the outer side of the inner funnel, (soldered fast if the funnel is of tin,) and at any desirable distance from each other, and extending up from the lower end of its neck, to a point on the outer sides of the body, as near as may be,

three-quarters ($\frac{3}{4}$) of an inch or more above the neck of the funnel, as shown at B and C of Figure 3, in the accompanying drawing, or as may be desired.

This little and inner funnel I construct of such a size that with its aforesaid wires attached it shall correctly fit into the large and outer funnel, so that the lower end of the neck of the little and inner funnel shall project below the lower end of the neck of the outer one, as near as may be, one-quarter ($\frac{1}{4}$) to three-eighths ($\frac{3}{8}$) of an inch or more, and the upper edge of its body shall fit to the body of the outer funnel one-eighth ($\frac{1}{8}$) to one-quarter ($\frac{1}{4}$) of an inch or more above the aforesaid small openings or round holes in the body of the outer funnel, and there be tightly secured, or soldered if the material be tin, or, if the funnel is of some other material, brazed, or otherwise properly made tight.

The funnel is now complete, substantially as shown in the accompanying drawings.

The air-chamber between the inner and outer funnel is arranged and preserved by the said wires *d*, as described and shown at *a*, fig. 1, and the escaping air from the vessel (into which fluids are poured through the funnel) will pass into the air-chamber *a*, fig. 1, between the wires *d*, and through the said small holes *d*, figs. 1 and 2, at or near or above the lower end of the neck of the outer funnel, as the case may be, and thence through the air-chamber *a*, and thence out of the said small holes *e*, figs. 1 and 2, in sides of the body of the outer funnel.

It makes a most perfect vent for any vessel which requires the use of a funnel in filling.

By constructing a funnel substantially as shown in and by the accompanying drawings, it will appear that no dust or flies, in case of the use of molasses for filling of a suitable vessel, or other matter or other material can enter said air-chamber *a*, and thus and thereby fill or obstruct the same, so as to prevent the escape of the air from such vessel through and by the means of the said openings hereinbefore described and set forth. The said inner funnel B must always be constructed substantially as shown at fig. 3 of the accompanying drawings, which is also in all cases put upon the inner side of the said outer funnel A, substantially as shown at fig. 1 of said drawings, and, being thus constructed and arranged, the said inner funnel may be removed from the said outer one for the purpose of repairs, or for the purpose of cleansing the said air-chamber *a*, or the respective inner and outer funnels A and B, after which the same may be put together again ready for use, substantially as shown at said fig. 1, and, therefore, the drip of the funnel will not obstruct said air-chamber, or soil the outer part of the said outer funnel A; also graduating the process of ventilation as the said vessel is being filled in the manner aforesaid.

The funnel is simple, and not very expensive in construction. It is compact, and not liable to get out of order.

I claim the combination of the inner funnel B, having thereon the wire rods *b*, with the outer funnel A, containing the apertures *c* and *d*, the whole being constructed and arranged in the manner and for the purposes substantially as herein described and set forth.

JOSEPH I. BEAUMONT.

Witnesses:

F. D. HALL,
HARVEY OFFICER.