

(No Model.)

A. GERSDORFF.
FUNNEL.

No. 491,421.

Patented Feb. 7, 1893.

Fig. 1.

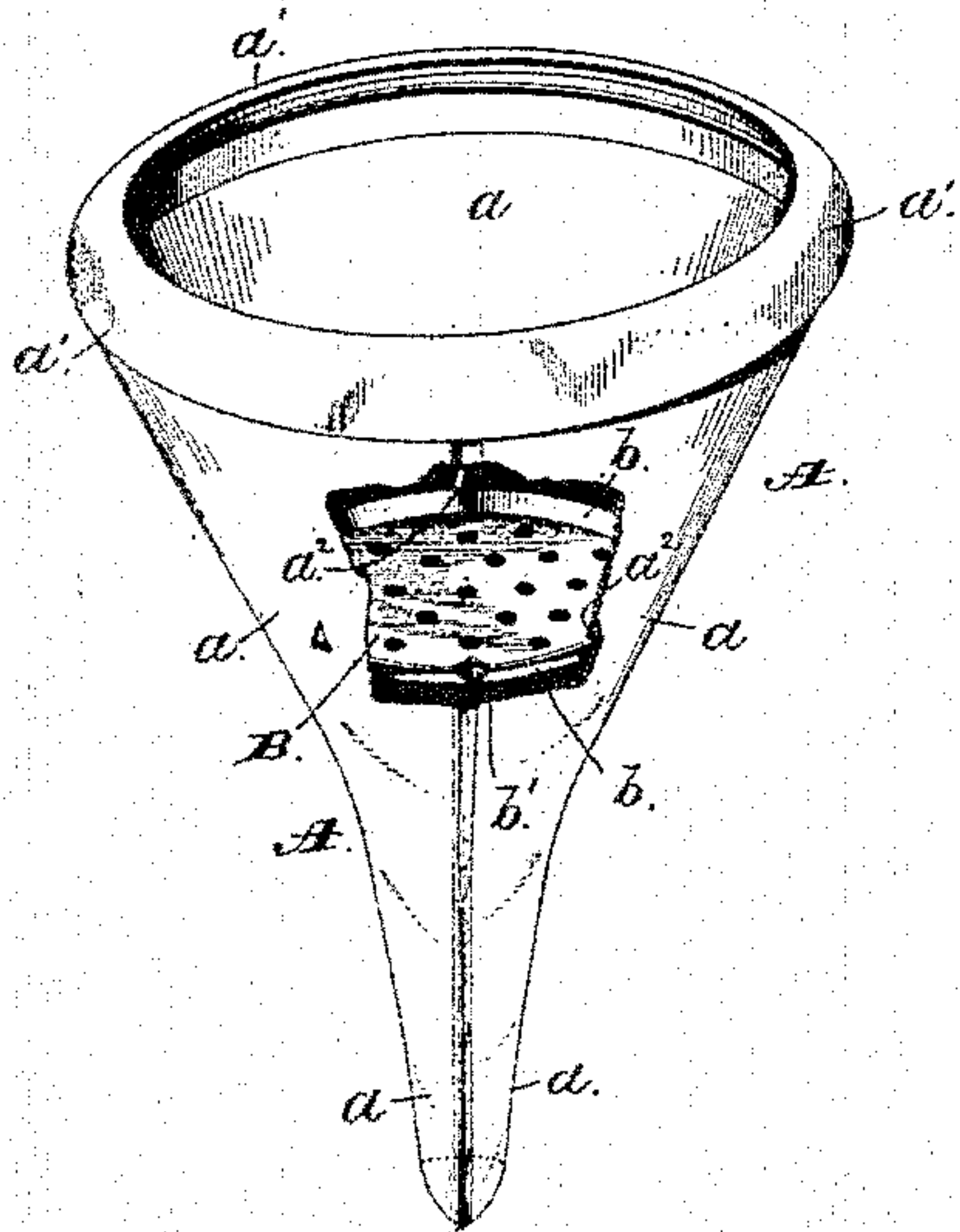


Fig. 2.

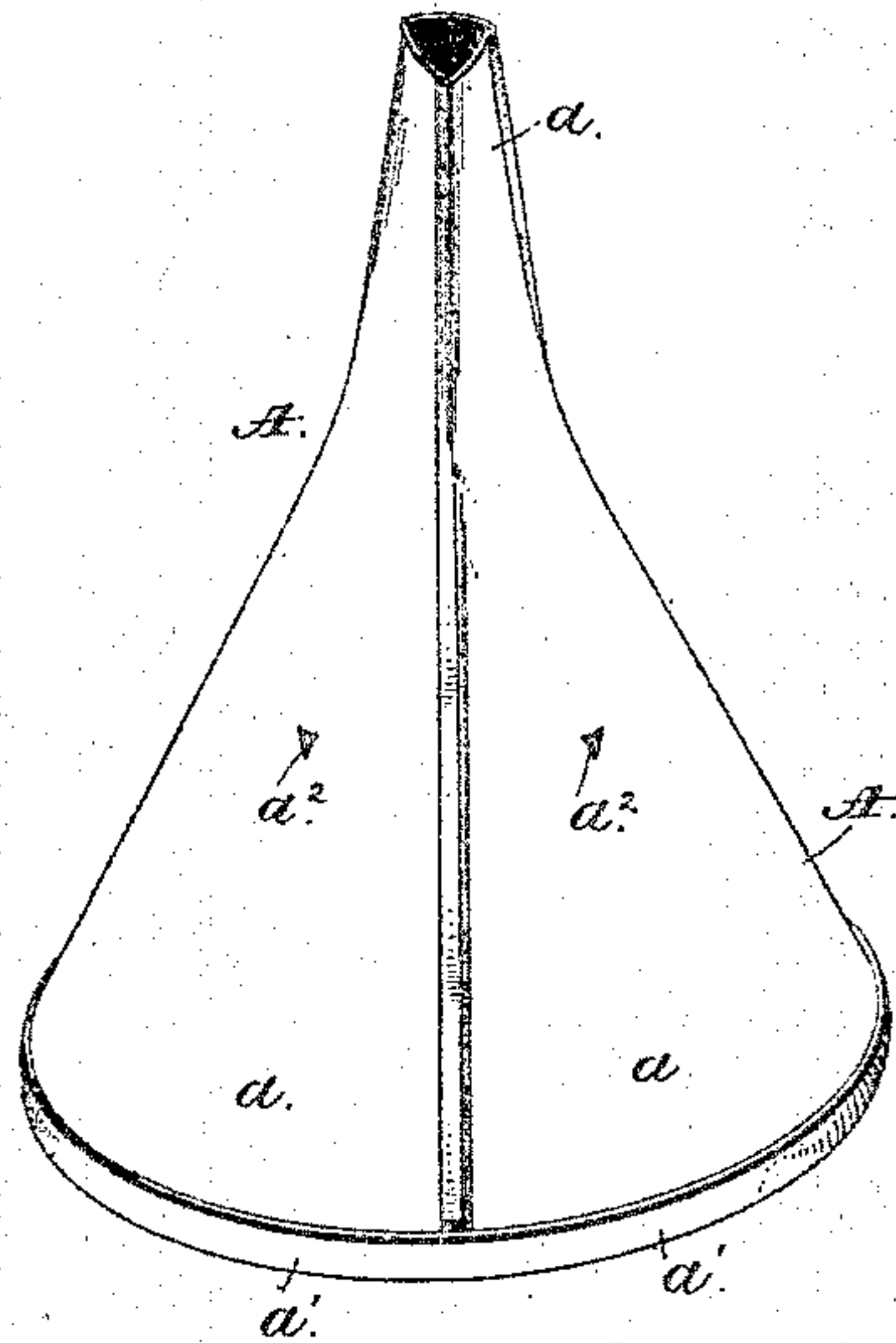


Fig. 3.

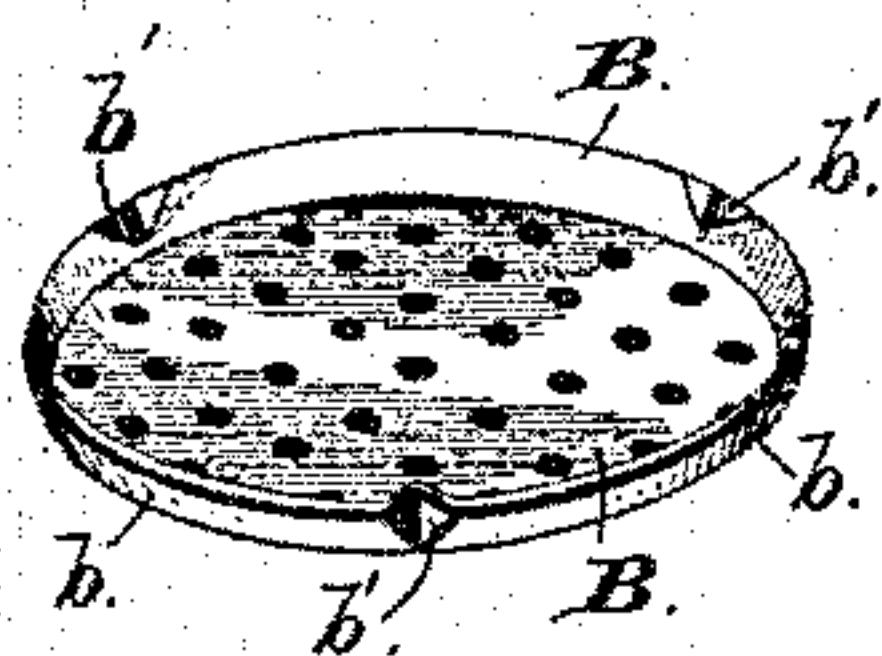


Fig. 5.

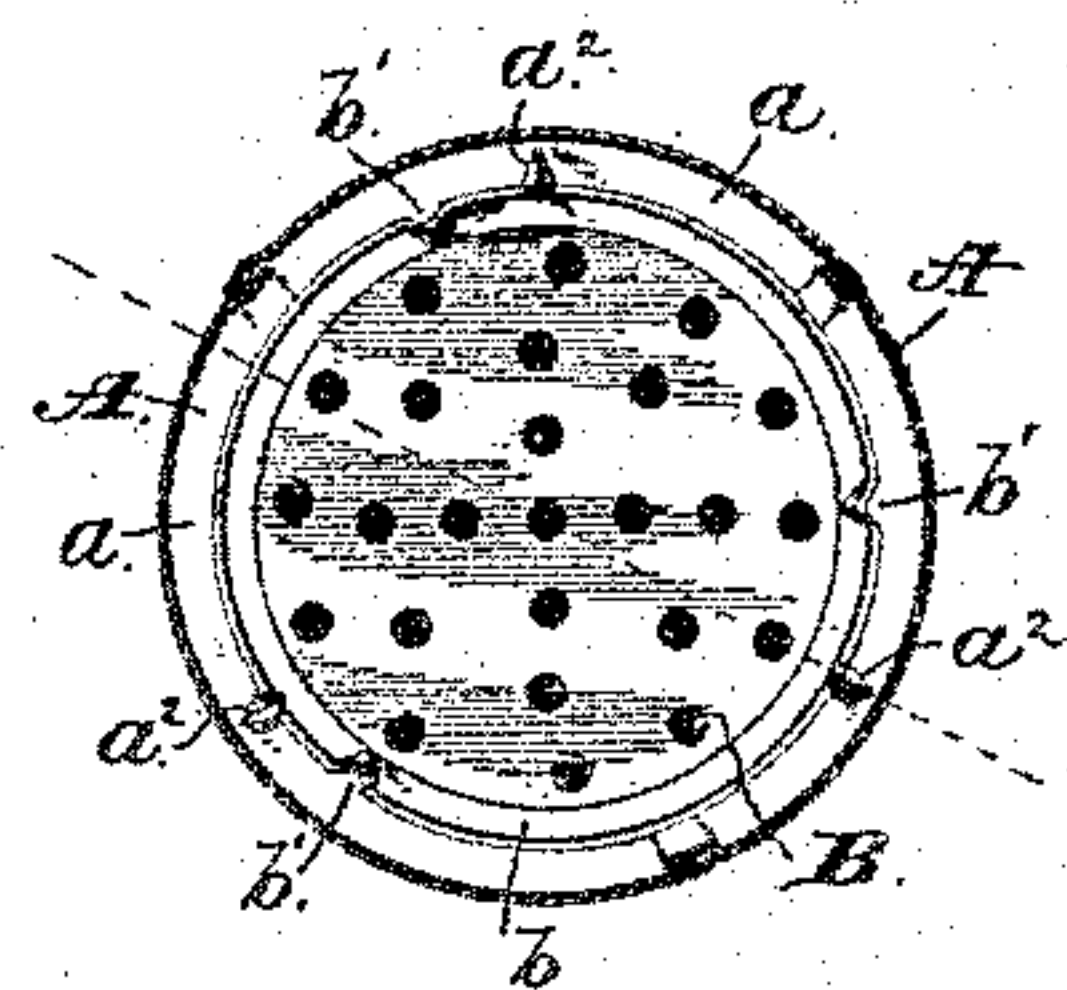


Fig. 4.

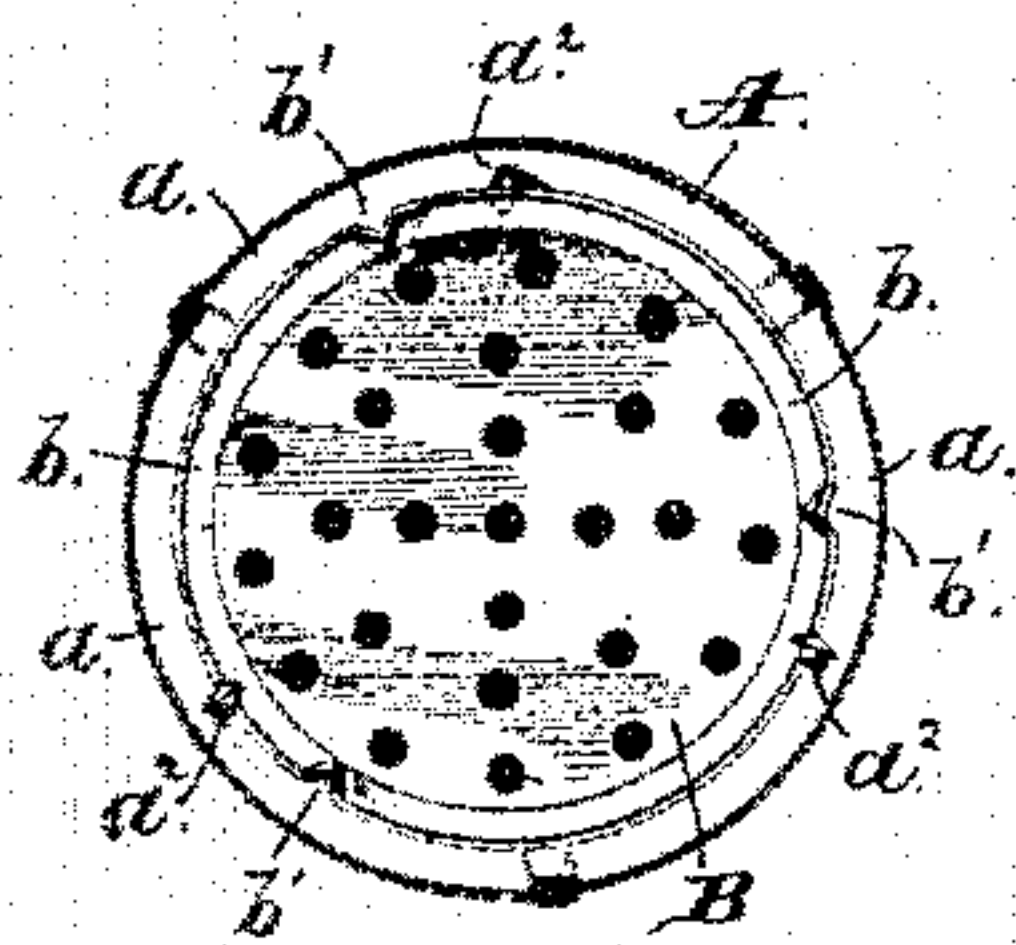
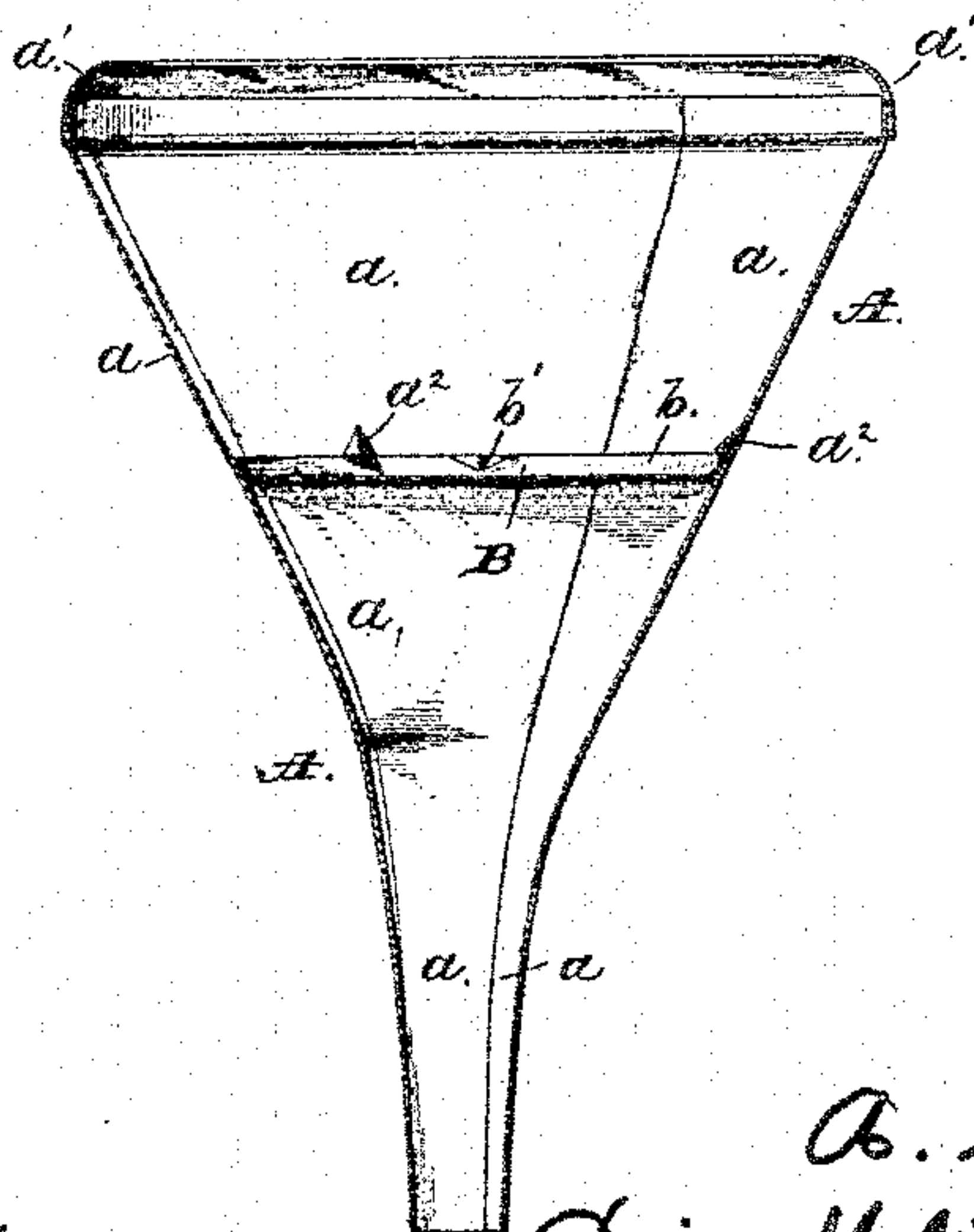


Fig. 6.



Witnesses:

Jas. C. Hutchinson.
Henry C. Hazard

Inventor.

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UNITED STATES PATENT OFFICE.

AUGUSTUS GERSDORFF, OF WASHINGTON, DISTRICT OF COLUMBIA.

FUNNEL.

SPECIFICATION forming part of Letters Patent No. 491,421, dated February 7, 1893.

Application filed March 19, 1888. Serial No. 267,645. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTUS GERSDORFF, of Washington, in the District of Columbia, have invented certain new and useful Improvements in Funnels; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved funnel, from the upper end, a portion of the side being broken away to show the strainer; Fig. 2 is a like view of the same from the lower end. Fig. 3 is a perspective view of the strainer separated from the funnel. Fig. 4 is a horizontal section of the funnel at the point where the strainer is located and shows the latter in position for engagement with the locking lugs; Fig. 5 is a like view of the same after said strainer is so engaged, and, Fig. 6 is a central longitudinal section of the funnel.

Letters of like name and kind refer to like parts in each of the figures.

My invention is an improvement upon a funnel for which Letters Patent No. 357,476 were issued to me upon the 8th day of February, 1887, and it consists, principally, in the construction of the funnel, substantially as and for the purpose hereinafter specified.

In the construction of funnels it has heretofore been customary to form the body and nozzle separately and then join them together, but such construction has proved defective in consequence of the frequent separation of said parts.

My funnel A is formed from two or more—preferably three—sections α and α which are united upon longitudinal lines so that each section extends from the upper end to the lower end of the funnel and constitutes a part of the body and a part of the nozzle of the same, as shown. The joints or seams are all lengthwise of the funnel, and in the direction of the greatest strain—transversely—said funnel presents only solid metal which is strengthened by its curved form and by said seams, and is capable of resisting successfully a much greater force than would ever be exerted by any proper use.

In the practical use of funnels, it frequently happens that the funnel is placed in a vessel having a mouth of larger diameter than the

cross sectional area of the nozzle of the funnel, so that the nozzle depends wholly within the mouth of the vessel and the lower portion of the body of the funnel rests upon the vessel, in which event the funnel prevents the free escape of air displaced in the vessel by pouring a liquid therein.

One of the aims of my present invention is to improve the funnel to avoid the foregoing objection, which is accomplished by providing the nozzle with one or more flattened longitudinal faces to form the vent or vents, and extending the vent or vents into the body of the funnel for a suitable distance and above the joint or line between the body and nozzle of the funnel, whereby air can freely escape through the vent on the outside of the funnel if it is placed on a vessel so that its body is in contact with the mouth of said vessel.

As hereinbefore stated, the funnel is made wholly of longitudinal sections which extend from the top of the body of the funnel to the lower end of the nozzle. The parts of the sections which form the body of the funnel are each made segmental in cross section, and the lower parts of said sections which form the nozzle are flattened. The sections are united together along their side edges through the body of the funnel by bending the same to form flanges and by interlocking and soldering the flanges together, thus forming the longitudinal seams; but in the nozzle, the sections are united by soldering instead of interlocking the flanges, thus forming smooth seams in the nozzle. The segmental portions at the upper ends of the sections form the body of the funnel which body is circular in cross section; and the flattened lower portions of said sections form the nozzle which is triangular in cross section, as shown in the drawings.

A funnel constructed as contemplated by my invention can be readily and easily cleaned, as the absence of the joint between the body and nozzle of the funnel provides a smooth surface on the interior of the funnel, which facilitates the cleaning of the funnel.

The upper end of the funnel has an upward and inward curve and is formed by means of a solid ring α' of sheet metal which is given the necessary shape by dies and has such size as to enable its lower edge to pass over and

engage with the upper edges of the sections a and a , where it is secured in place by solder and operates to thoroughly strengthen said parts and prevent their separation at such point.

Within the body of the funnel is a strainer B which is constructed from sheet metal and its central portion perforated, and around its edge is provided with a flange b that extends upward and outward at substantially the same angle as the adjacent sides of the funnel. Said strainer bears fairly upon the converging sides of said funnel and is thereby prevented from passing below a certain point and is locked in such position by means of two or more lugs a^2 and a^2 which project inward from the sides of the funnel and engage with the upper edge of the flange b . The lugs a^2 and a^2 have downwardly and inwardly inclining faces and the strainer B is placed in position by inserting one edge beneath the lug or lugs at one side of the funnel and then pressing the opposite side of said strainer downward until its flange has sprung inward sufficiently to enable it to pass the lug or lugs at such point.

In order that the strainer may be removed from the funnel, when desired, its flange b is provided with notches b' and b' which correspond in size and number to the like features of the lugs a^2 and a^2 , and have such relative arrangement that by a partial rotation of said strainer, said notches may be caused to coincide with said lugs and thus release said strainer. The same result will be secured however, if but one notch is provided, as by causing such notch to coincide with one of the lugs, the side of the strainer in which said notch is located will be released and can be raised so as to withdraw the opposite side from engagement with its locking lugs.

No claim is herein made to the combination of the funnel having the lugs arranged interiorly within the body thereof, and the strainer provided with the spring flange which is thus adapted to pass downward beneath the lugs and to be held or locked in place by the same, as said devices form the subject matter of a separate application filed by me on the 23d day of June, 1890, Serial No. 356,435.

Having thus described my invention what I claim is—

1. As a new article of manufacture, a funnel made of longitudinal sections united together by longitudinal seams and each section forming a part of the body and nozzle of the funnel, the nozzle having flattened sides which form air vents that extend longitudinally of the nozzle, into the body, and above the line where said nozzle joins the body, substantially as described.

2. As a new article of manufacture, a funnel made of longitudinal sections united together by longitudinal seams and each section forming a part of the body and nozzle of the funnel, the nozzle having flattened sides which form air vents that extend longitudinally of the nozzle, into the body, above the line where the nozzle joins the body, the seams of the body being formed by interlocking and soldering flanges and the seams in the nozzle being soldered together, whereby the inner surface of the body and nozzle is made smooth, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of March, 1888.

AUGUSTUS GERSDORFF.

Witnesses:

JAS. E. HUTCHINSON,
GEO. S. PRINDLE.