

No. 897,148.

PATENTED AUG. 25, 1908.

J. B. RAMIREZ.
AUTOMATIC FONT INK WELL, MUCILAGE BOTTLE, &c.
APPLICATION FILED SEPT. 19, 1905.

Fig. 1.

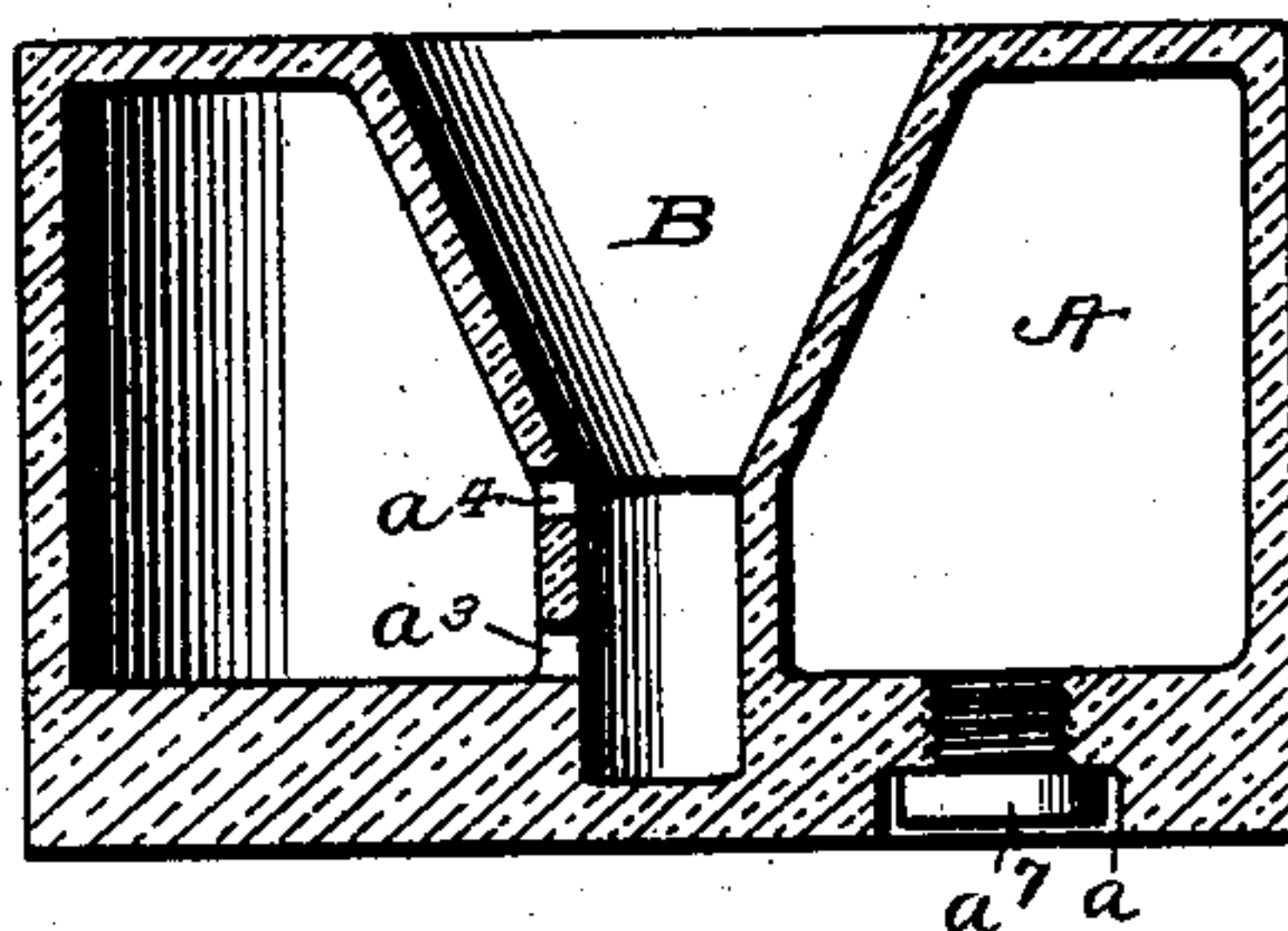


Fig. 2.

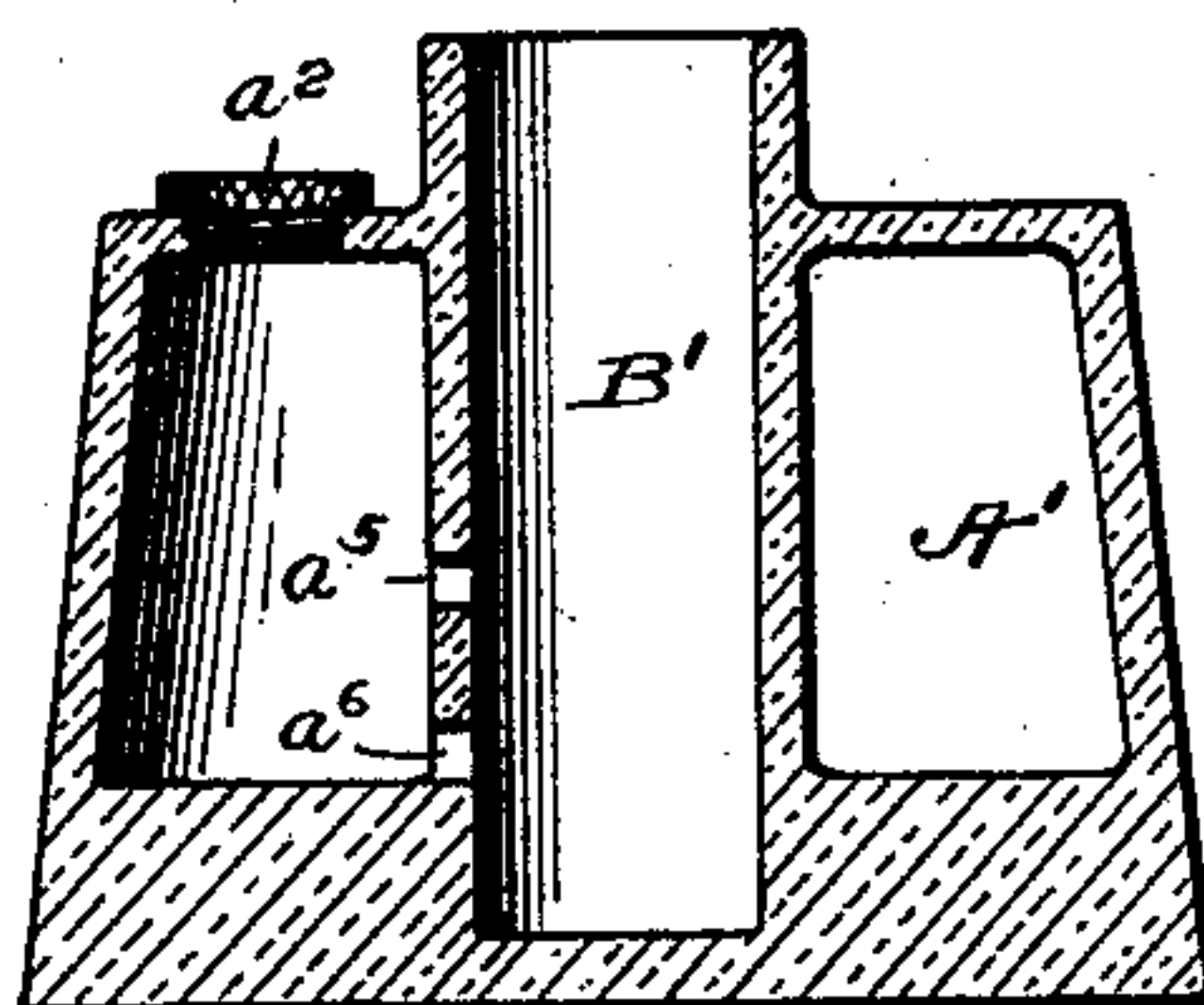


Fig. 3.

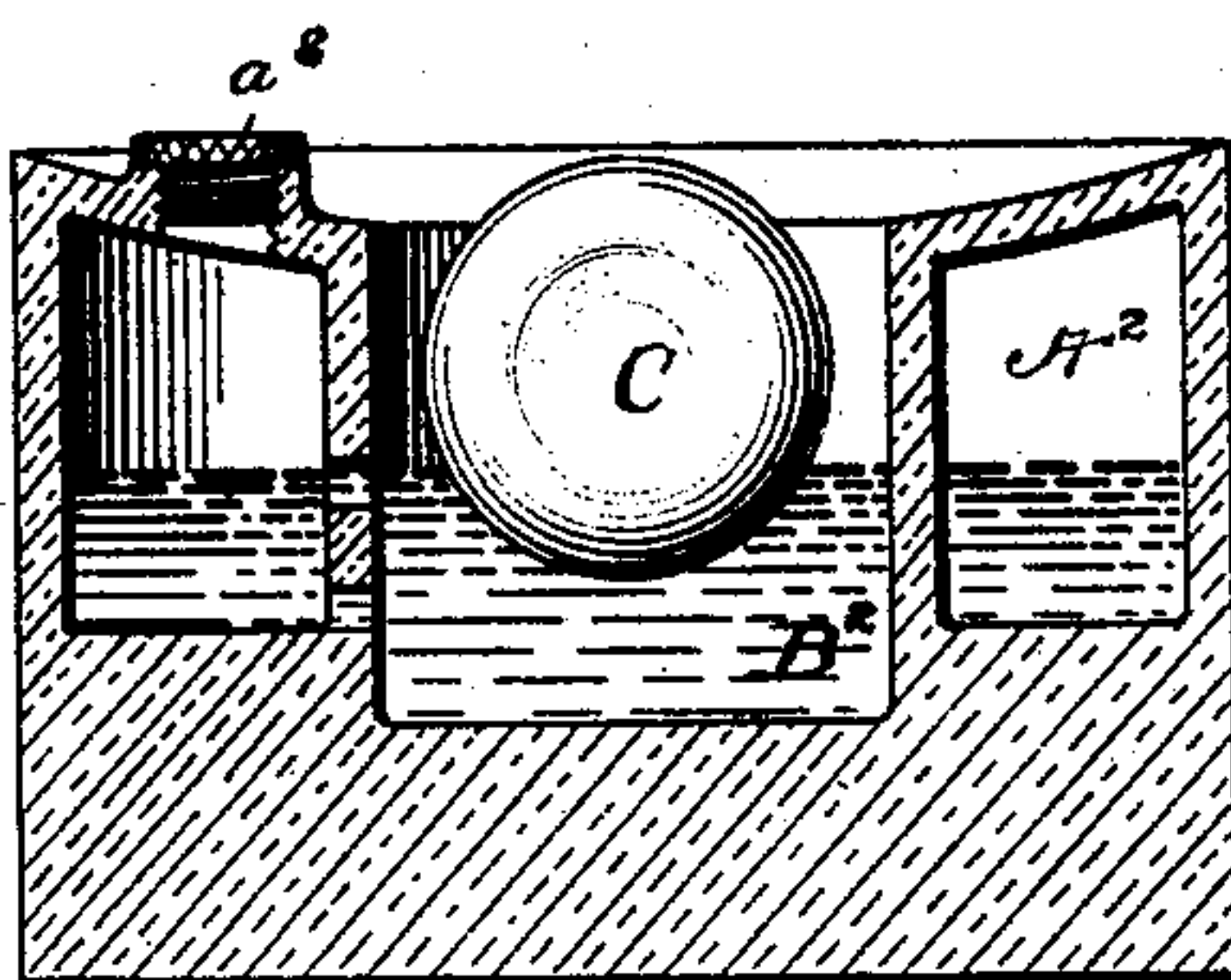
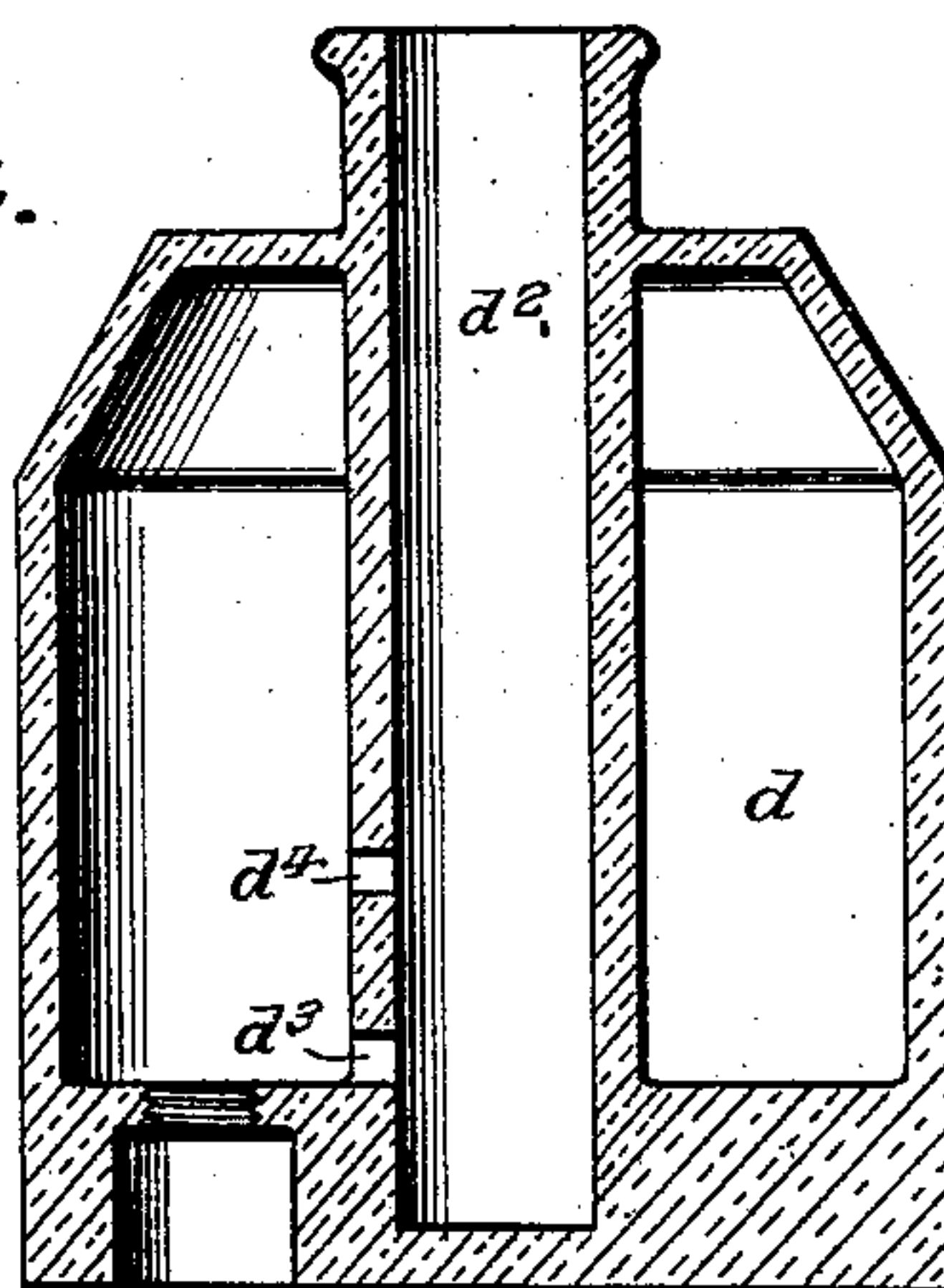


Fig. 4.



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AUTOMATIC-FONT INK-WELL, MUCILAGE-BOTTLE, &c.

No. 897,148.

Specification of Letters Patent.

Patented Aug. 25, 1908.

Application filed September 19, 1905. Serial No. 279,107.

To all whom it may concern:

Be it known that I, JUAN B. RAMIREZ, a citizen of the United States, residing at Warren Point, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Automatic-Font Ink-Wells, Mucilage-Bottles, &c.; and I do hereby 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.

The object of my invention is to provide ink-wells or stands, mucilage-bottles, moistener-cups, bottles, etc., with a peculiar construction of automatic font; and which devices shall be supremely simple in construction, inexpensive of manufacture, and exceedingly efficient and satisfactory in operation.

In contra-distinction to the ordinary devices in use, which feed, as it were, from the inside outward, that is, feed from an inner reservoir outward to a dip-well formed at the side of the device, my device feeds, as it were, from the outside inward, that is, it feeds from an outer reservoir to an inner dip-well inclosed by the outer reservoir; and this I regard as one of the eminently novel and unique features of my invention.

Another object of my invention is so to construct the ink-wells and mucilage-bottles, particularly, so that a constant uniform depth and volume of liquid in the dip-well thereof are afforded, so that the pen or brush will take up only the necessary, desired, and proper amount of liquid, thus preventing waste.

With these objects in view, the invention consists in the novel construction, combination, and arrangement of parts of a device characterized by my invention as fully hereinafter described in the specification, summed up in the claim and illustrated in the drawings.

In the accompanying drawings, I illustrate embodiments of my invention, it being understood that the invention is susceptible of a multiplicity of embodiments besides the few shown; and in these drawings: Figure 1 is a view in central, vertical section through an ink-well or stand embodying my invention; Fig. 2 is a like view of a mucilage-bottle embodying my invention; Fig. 3 is a like view of a moistener-cup embodying my invention;

and Fig. 4 is a like view of a bottle embodying my invention.

Referring to the drawings, my device is desirably made in but one piece and of any desired exterior conformation, as round, square, etc., being varied to suit the requirements of the different uses for which it may be desired or designed; and it embodies generally, two parts in one body—an outer, normally entirely closed supply reservoir A, having a filling aperture *a* suitably located and closed, for instance, by a removable screw plug *a*⁷; and an inner dip-well, funnel, or partition B, inclosed by the reservoir A, and preferably having the level of its bottom beneath the level of the bottom of the supply-reservoir A (as clearly shown in the drawings), the two wells communicating by a feed opening *a*³ through the division wall and desirably located toward or at the bottom of the supply-reservoir A, and by an air vent *a*⁴ located preferably a short distance above the feed opening *a*³. The shape of the inner well B, while desirably cylindrical, can be changed or altered, and the inner well may be narrower or broader in one or more places, if desired.

The lower portion of inner dip-well B, or that portion below the level of the bottom of outer reservoir A, forms a pocket, as it were, the reservoir A, being closed, the ink therein is protected against deterioration by entrance of dirt and impurities in the atmosphere, and otherwise; but the inner well B being open to the atmosphere, accumulates therein dirt and other impurities, which naturally settle down in said pocket, and do not enter into, and contaminate the ink in, the outer reservoir A. The dirt and other impurities can readily be removed from the pocket, from time to time. As said, the great body of ink (being that in the outer reservoir A) remains always uncontaminated, and thus the value of the device is enhanced.

In use, a removable plug (not shown) fitting the well B is first placed therein, (assuming the outer reservoir A to be empty and it being desired to fill the device with liquid), thus closing communication through openings *a*³ and *a*⁴; the screw cap *a*⁷ is then removed and liquid poured through the filling-opening *a* until the outer reservoir A is entirely filled; the screw-cap *a*⁷ is then reinserted in the filling opening *a*, and the aforesaid plug removed from the well B, whereupon

the ink or other liquid, enters the well B from the reservoir A until the ink has filled the bottom of the well B up to the top of air vent a^4 . The reservoir A is, as it will be seen, normally closed against atmospheric pressure. As the well B is open at the top, pressure of the atmosphere has direct action upon the contained liquid. In use, as the liquid in well B is consumed by dips of a pen or brush thereinto, the level of the liquid is lowered below air vent a^4 , allowing inrush of air, through air-vent a^4 , to the closed supply-reservoir A, the air thereby exerting pressure upon the liquid within the reservoir A forcing it into inner well B through the feeding-orifice a^3 , until the liquid reaches the air-vent a^4 , thereby acting as a valve and cutting off passage of air through the air-vent to the outer supply-reservoir A, the passage of the liquid through the feeding orifice a^3 , being also simultaneously stopped, to be renewed again when the level of the liquid in the inner well B gets below the air vent a^4 , when the same operation is repeated, and so on continuously. The operation of the device is therefore, entirely automatic, continuous, and perfect.

Figs. 1 and 2 show my invention embodied in an ink-well and a mucilage-bottle, respectively. Being constructed in one piece it possesses the maximum of simplicity and is consequently capable of manufacture at an insignificant figure; and thus it has great and unquestioned advantage and merit over other devices of a like nature constructed of a number of parts, and being thereby complicated and costly. The inner well B^1 may be made small enough to contain but a limited quantity of liquid, thus minimizing evaporation and chemical oxidation, and preventing waste; and by placing the feeding orifice a^6 and the air-vent a^5 very low down in the division wall, only a small and the necessary amount of liquid will ever enter the well B^1 , thus allowing the pen or brush to gather only a predetermined quantity of liquid, obviating the great trouble experienced in many devices of a like nature, of the pen or brush taking up too much or too little liquid.

Fig. 3 shows my invention embodied in a moistener-cup, containing a float-ball C, made of any suitable material. This embodiment of my invention also possesses decided merit over other devices in common use, inasmuch as no cover over the well B^3 is required, neither is there necessary any axle to hold the ball. In moistener-cups as generally constructed the level of the liquid therein, by use or evaporation, is continually changing, so that the float rises and falls according to the quantity of the water in the well. In my device, the outer or outside

supply reservoir A^2 automatically and continuously feeds to the inner, inclosed well B^2 , so that the liquid is maintained at a certain, constant level. My moistener-cup or device can also be more readily cleaned than other like devices, inasmuch as the float, being unattached to any axle or the like, can be removed and replaced at will.

Fig. 4 illustrates my invention as embodied in a bottle, non-refillable in its nature. In this embodiment, the filling opening is desirably at the bottom of the bottle, so that, to fill the same, it is reversed and filled at the bottom. After filling, it may be suitably sealed with a proper preparation, to prevent tampering. Advantageously, the walls of the inner well are made of thin glass. It will be seen that it would be difficult to refill the bottle by the delivery neck d^2 , on account of the small feeding orifice d^3 and air vent d^4 , and by using air pressure or force, the thin glass of which the walls of the inner well are made would break. Thus, the device constitutes a non-refillable bottle. By regulating the size of the air-vent, the bottle will pour only certain and measured quantities.

As stated above, I do not confine the application of my invention to the uses herein specifically mentioned, as it is obvious that it is capable of service in a variety of connections, and all minor changes in the details of construction come strictly within the scope and purview of my invention.

Having thus fully described my invention, what I claim as new and desire to secure by Letters-Patent is:

In a device of the character described, a body-portion, a relatively thick integral base-portion having a flat exterior supporting-surface, a depression formed centrally of the interior of said base-portion, integral walls extending vertically from said base-portion and adjacent to said depression whereby to separate the body-portion into an outer and inner compartment, an integral top-portion connecting said vertically-extending walls and the exterior walls of the body-portion, a relatively small opening arranged in the compartment dividing wall at a substantial distance above the interior surface of the base-portion to serve as an air-vent, and a second relatively small opening arranged in the same wall as the before-mentioned opening and adjacent to the interior surface of said base-portion.

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

JUAN B. RAMIREZ.

Witnesses:

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PATRICK J. P. GYNAY.