

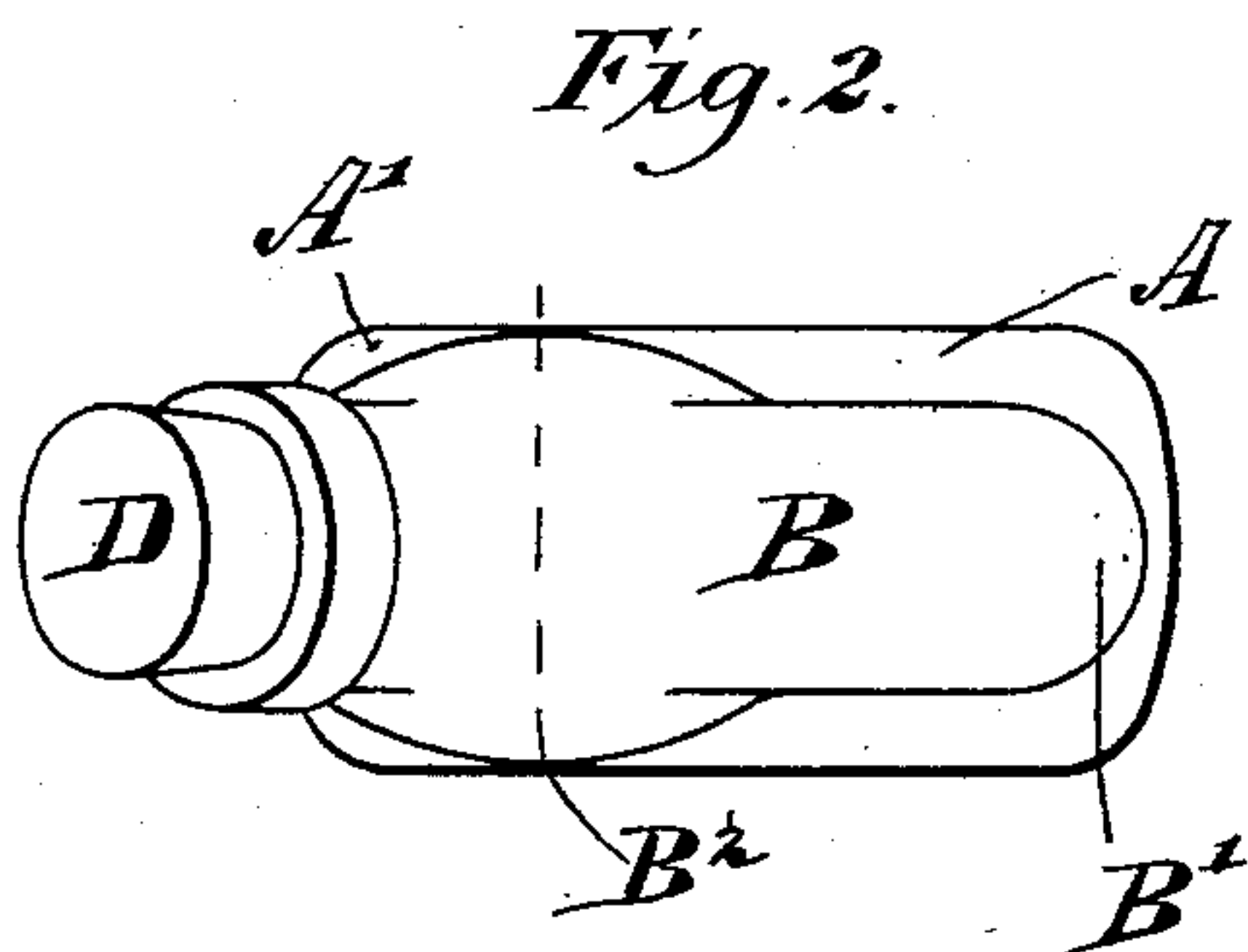
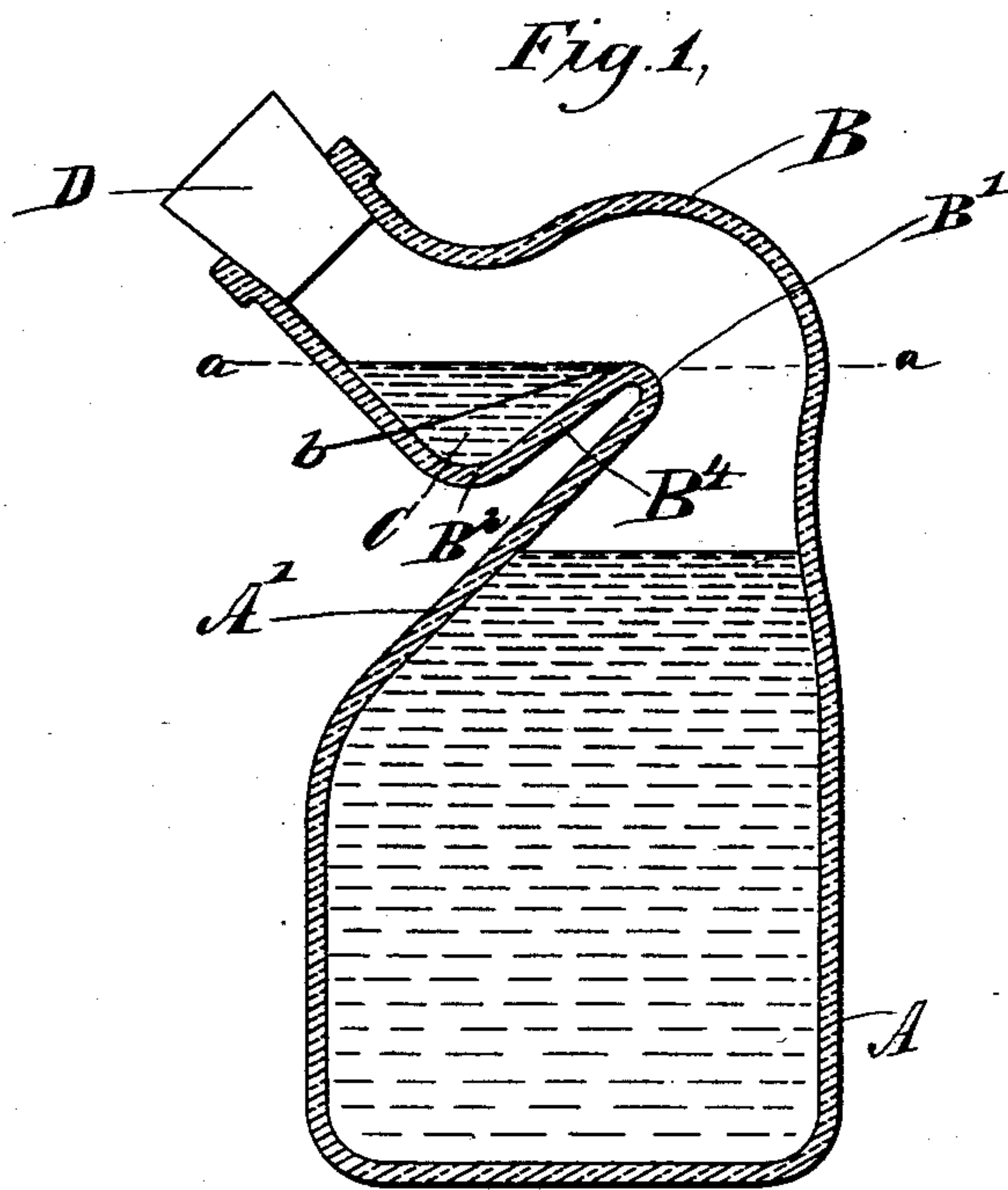
(No Model.)

2 Sheets—Sheet 1.

A. A. LAW.  
DOSE MEASURING BOTTLE.

No. 570,759.

Patented Nov. 3, 1896.



WITNESSES:

Edward Thorpe.  
John Lotka

INVENTOR

A. A. Law.

BY

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ATTORNEYS.

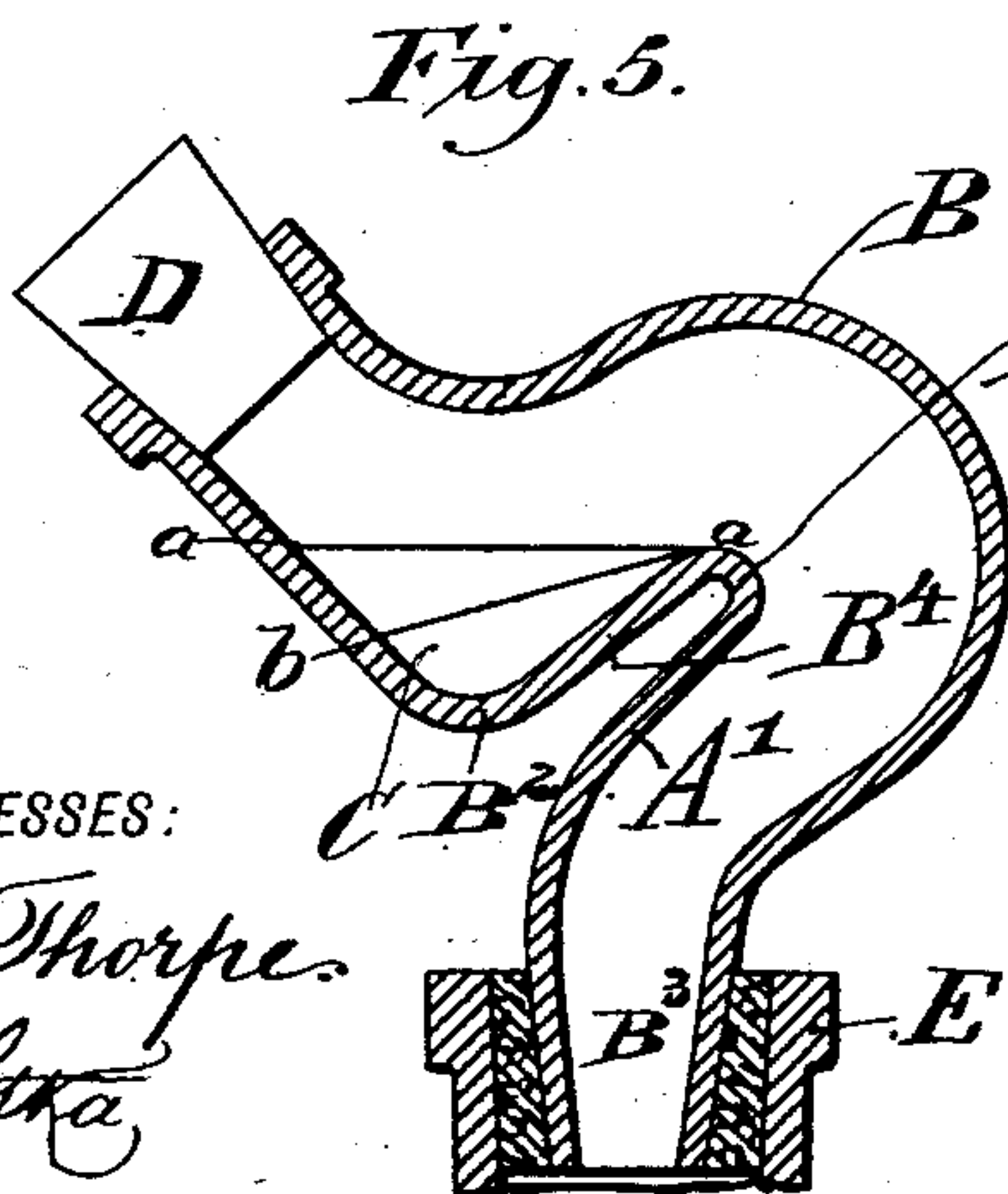
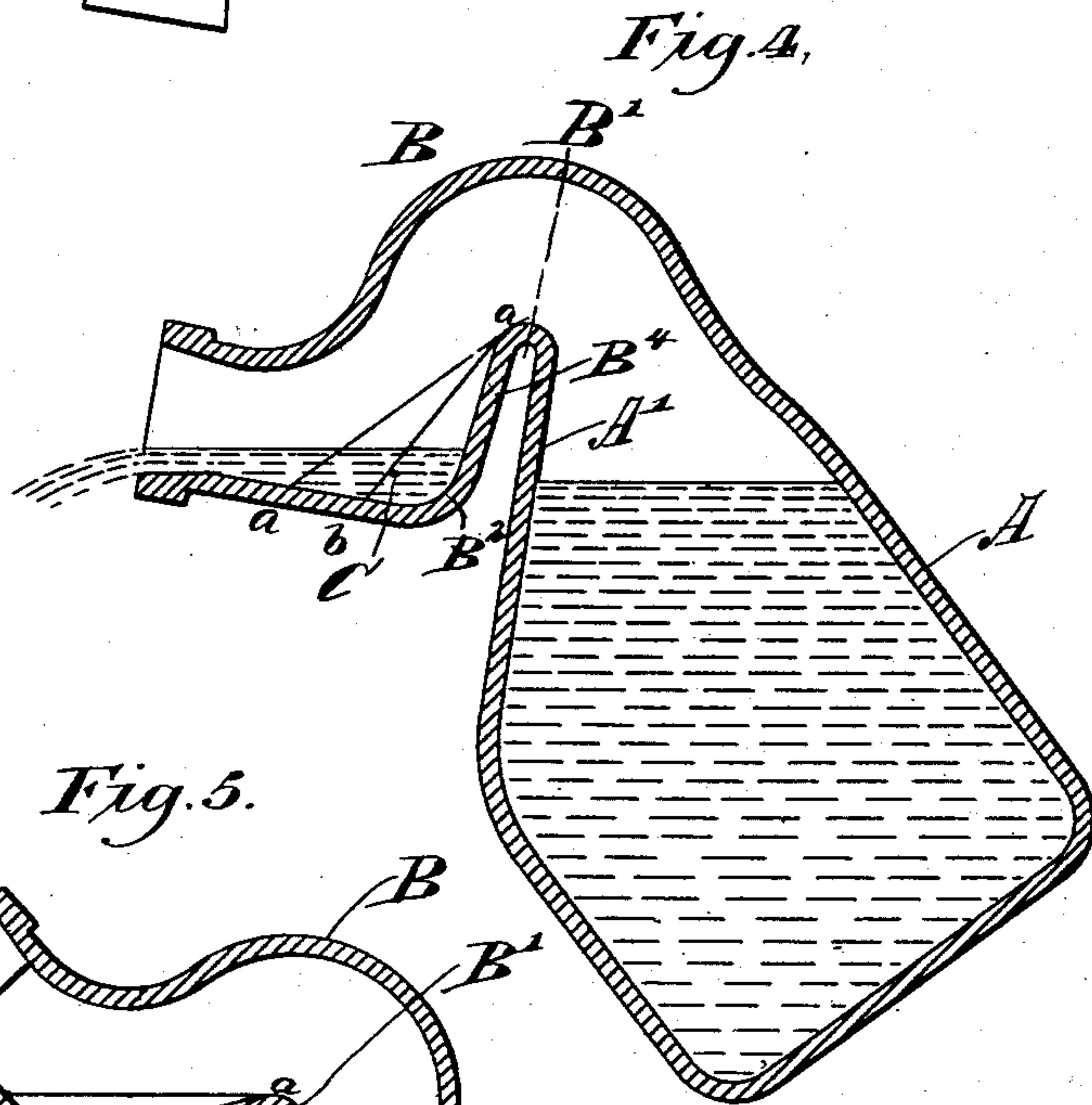
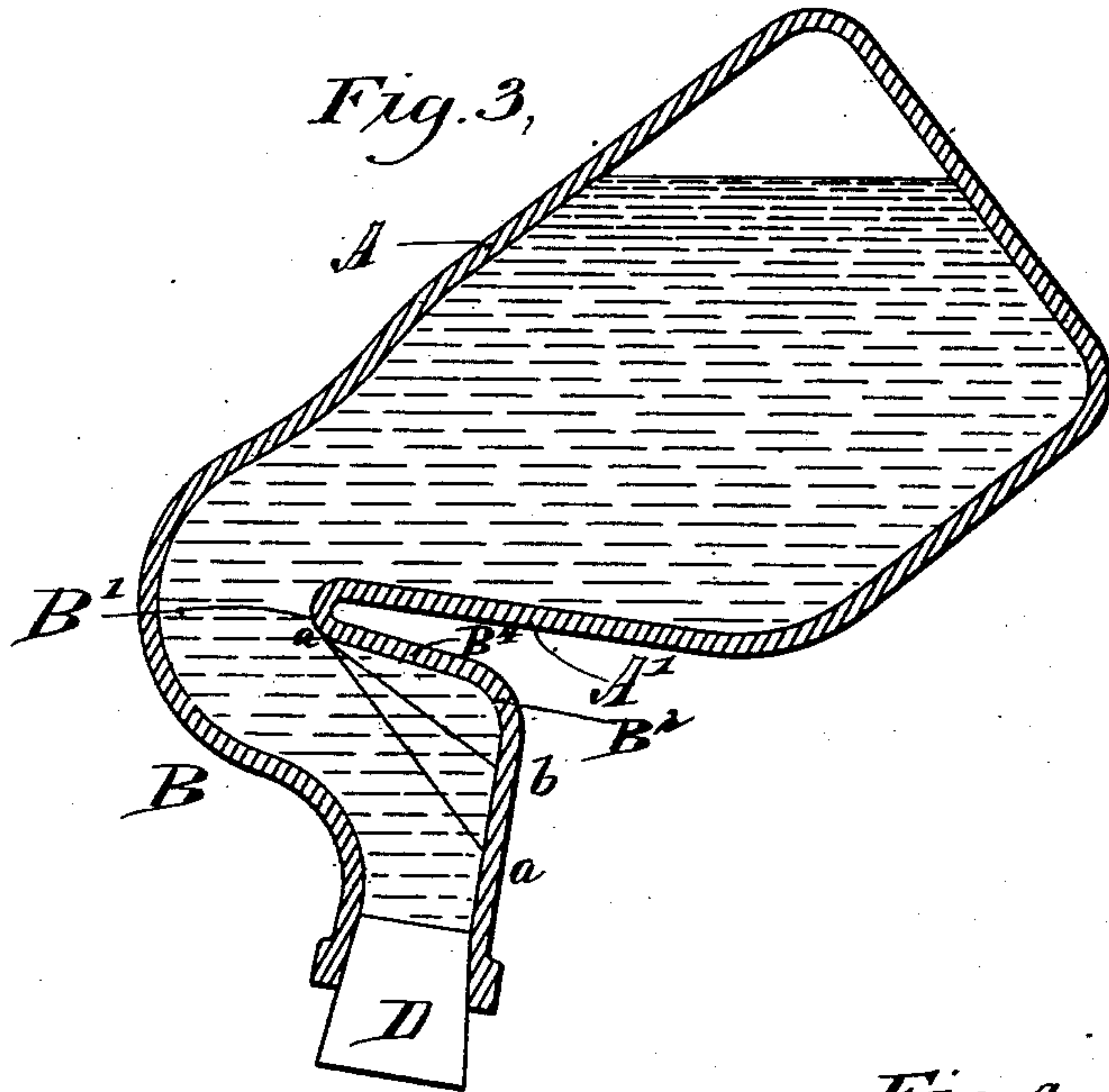
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# UNITED STATES PATENT OFFICE.

ALFRED A. LAW, OF NEW YORK, N. Y.

## DOSE-MEASURING BOTTLE.

SPECIFICATION forming part of Letters Patent No. 570,759, dated November 3, 1896.

Application filed June 11, 1896. Serial No. 595,176. (No model.)

*To all whom it may concern:*

Be it known that I, ALFRED A. LAW, of New York city, in the county and State of New York, have invented a new and Improved Dose-Measuring Bottle, of which the following is a full, clear, and exact description.

My invention relates to dose-measuring bottles, that is, to bottles in which provision is made for dividing off from the main body of the liquid contained therein a predetermined quantity or dose, said bottles being principally used for medicines or chemicals.

The object of my invention is to improve bottles of the above-indicated character in such a manner that the dose separated from the main body of the liquid may be left for a considerable time in the special pocket provided for its reception, and the improved bottle is so constructed that when in its normal upright position it may hold a dose in the pocket above referred to.

Another object of the invention is to provide an improved bottle neck or attachment whereby the advantages of my invention may be secured in connection with any ordinary bottle.

The invention consists in a particular novel construction of the neck, which, according to my invention, is made with two bends arranged in opposite directions, as will be fully stated hereinafter in the description and claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional elevation of a bottle constructed according to my invention, said view showing the dose in the pocket. Fig. 2 is a plan view of my improved bottle. Fig. 3 is a sectional elevation of the bottle in an inverted position, as when used for the purpose of separating the dose from the main body of the liquid. Fig. 4 is a similar view illustrating the action of pouring out the dose, and Fig. 5 is a sectional elevation showing the improved neck used as an attachment to an ordinary bottle.

In carrying out my invention I may give any desired shape to the body A of the bottle, but preferably I make said body with an inclined surface A' at one side. To the body is

connected the neck B, which is made with two bends, one at B' and the other at B<sup>2</sup>, said bends extending in opposite directions, that is, if the bend at B' is toward the left, as shown, the bend at B<sup>2</sup> will be to the right. By making these two bends I provide a pocket C, whose size is determined by a horizontal line passing through the body of the bend B' when the bottle is in an upright position.

The neck is made of sufficient length at its outlet to leave a suitable space between the end of the cork D and the top *aa* of the pocket C. Preferably the outlet of the neck is beveled on the inside, so as to afford a better hold for the stopper D. As will be seen by reference to Fig. 2, the portion of the neck which is connected to the body of the bottle is of reduced diameter as compared with the portion at the bend B<sup>2</sup>, which forms the pocket C. It will be understood, however, that any desired shape may be given to the pocket C.

The operation of my improved dose-measuring bottle is as follows: The bottle should not be filled higher than the first bend B' of the neck, and preferably the level of the liquid in the body of the bottle should be some distance below the said bend B'. To carry the liquid into the pocket C, the bottle is tipped or inverted, as shown in Fig. 3, and then placed upright again, as illustrated by Fig. 1. As the cork D in no case extends down to the level *aa* of the liquid in the pocket C, the amount of liquid retained in said pocket is not affected by the position of the stopper. To empty the pocket C, the cork is removed and the bottle tipped slightly, as shown in Fig. 4, it being obvious that the inclined wall A' forms a barrier which will effectively prevent the outflow of any liquid from the body of the bottle unless the latter is tipped very considerably. The bottle can be left standing with the dose remaining in the pocket C, as shown in Fig. 1, which is very convenient in certain cases, as more fully explained hereinafter.

In order to secure the advantages of my invention without necessitating the construction of special bottles, I provide an attachment such as shown in Fig. 5, which may be fitted on ordinary bottles of various sizes. Said attachment consists of a tubular neck whose construction from the bend B' upward



or outward is identical, or substantially so, with that of the neck shown in Fig. 1. The lower or inner end of the neck is formed with a tapering stem B<sup>3</sup>, adapted to fit into the mouth E of an ordinary bottle or, preferably, the stem B<sup>3</sup> is fitted into a cork according to the well-known manner of connecting glass tubes to bottles.

It will be readily observed that when the bottle is in its normal upright position the wall B<sup>4</sup> of the pocket C is inclined downwardly and outwardly, (*i. e.*, away from the body of the bottle,) and to this feature is due the peculiar function consisting in the retention of the dose within said pocket. This function I believe to be novel, and its advantages are numerous and important. The dose may be measured and taken in the dark or without requiring any especial attention on the part of the nurse or other person. The person using the bottle simply inverts it, then places it upright, removes the cork, and inclines the bottle slightly, and he is sure (although he may be unable to see the bottle) that an accurately-determined dose will be discharged and that the contents of the body of the bottle will not flow out with the dose. The operation can be performed quickly even in the dark. It is not necessary to at once pour out the dose after it has been separated from the body of the liquid, but the nurse or other person may stop to fetch some instrument or other article needed, and all this time the dose will remain in the pocket C. Furthermore, the bottle is particularly adapted for use in connection with a syringe, as the dose when measured out is retained in the pocket of the neck while the bottle is standing on the table or other support, and said dose, being readily accessible, can be easily drawn out into the syringe.

With many bottles a syringe can be introduced into the liquid only when the bottle is nearly full, and when the bottle is only half-full it becomes necessary to tip the bottle, which of course destroys all accuracy in the operation and renders the contents of the bottle liable to be spilled. The mouths of many bottles are so narrow that only the nozzle of the syringe can be inserted therein. With my improved construction it is sufficient to insert the nozzle into the mouth of the bottle or of the neck, and the position of the nozzle relatively to the liquid to be drawn out will always be the same whether the bottle is full or nearly empty.

Another advantage of my improved bottle-neck is that while the bottle is standing upright with the dose in the pocket C, as illustrated by Fig. 1, some other medicine or liquid may be dropped into said pocket by means of a drop-counter or other means without

mixing said added medicine with the original contents remaining in the body of the bottle.

I desire it to be understood that the advantages of my invention may be obtained with constructions differing widely in appearance, and I do not restrict myself to the exact construction shown in the drawings.

The line *a a*, which indicates the level of the liquid in the pocket C when a full dose is contained therein, may be marked in some way upon the bottle-neck B. If desired, an additional line, such as *a b*, may be marked on the neck to indicate the level at which the liquid will stand when the pocket C contains a half-dose. To retain only a half-dose in the pocket C, a full dose is delivered into said pocket in the manner hereinbefore described, and then the bottle is tipped backward, so that a part of the dose will return into the body of the bottle until the liquid stands at the level *a b*.

It will be obvious that additional lines may be provided to indicate one-third of a dose or any other fraction thereof.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A bottle having its neck provided between its mouth and its juncture with the bottle-body with a dose-measuring pocket, and an inlet connecting said pocket with the body of the bottle, said pocket being depressed below the level of said inlet, whereby the dose will be retained in said pocket when the bottle is in normal upright position, and the mouth being so arranged relatively to said pocket that the dose may be discharged from the pocket before the contents of the body are discharged into the pocket, substantially as shown and described.

2. A bottle having a neck provided with an inner bend extending downwardly toward the free end of the neck, and an outer bend extending upwardly toward the free end of the neck, said bends being at right angles to each other and at a considerable angle to the longitudinal axis of the bottle and forming a pocket for the retention of the liquid when the bottle is in upright position, substantially as described.

3. A bottle having the upper end wall inclined toward one side of the bottle, an opening at the apex of this incline to which the neck is connected and a neck which is bent downwardly, parallel to the incline, and then upwardly at right angles to the incline, substantially as described.

ALFRED A. LAW.

Witnesses:

JNO. M. RITTER,  
JOHN LOTKA.