A. E. HUTCHINSON.

PIPETTE ATTACHMENT.

APPLICATION FILED JAN. 22, 1907. RENEWED SEPT. 16, 1908.

917,442. Patented Apr. 6, 1909.

Fig. 1.

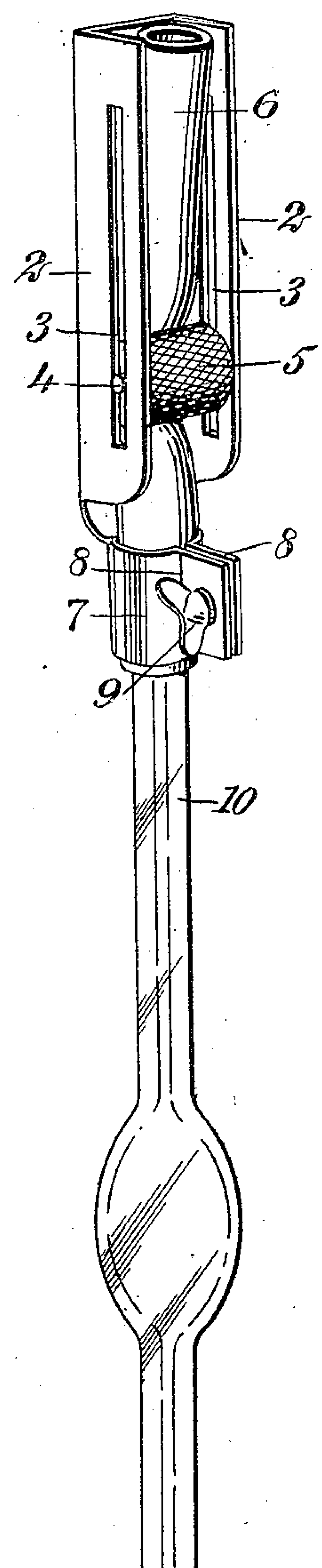


Fig. 2.

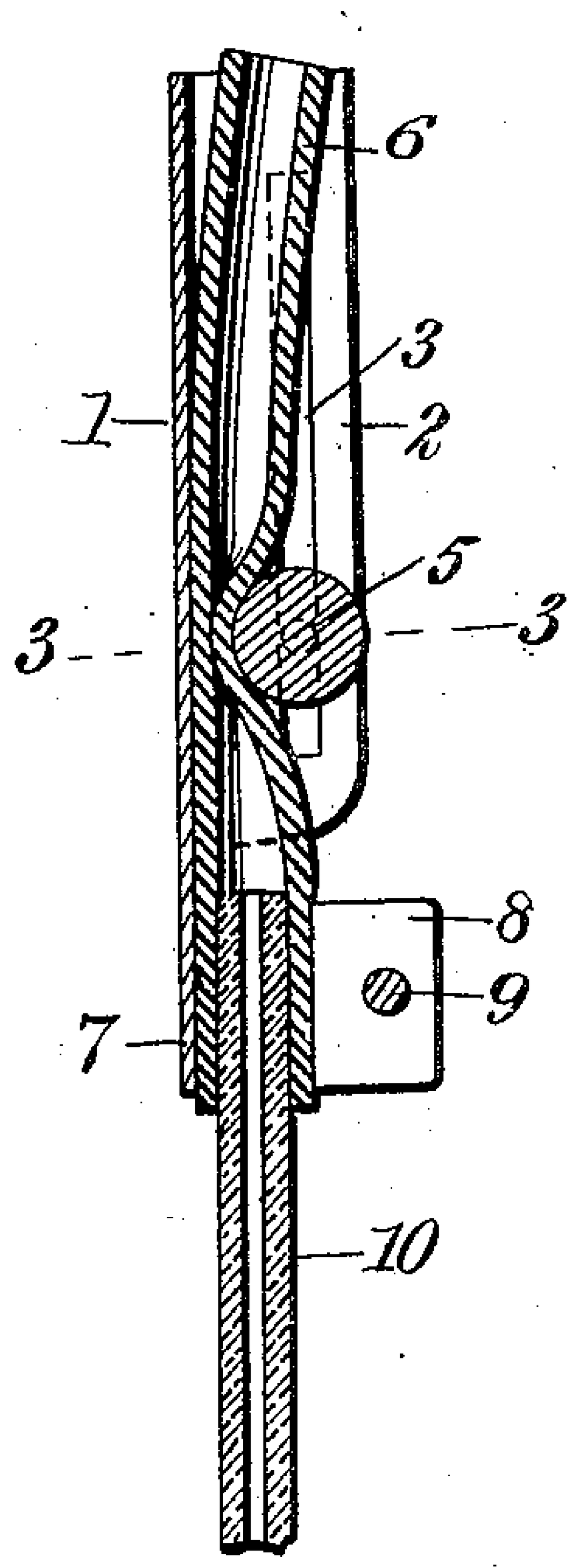
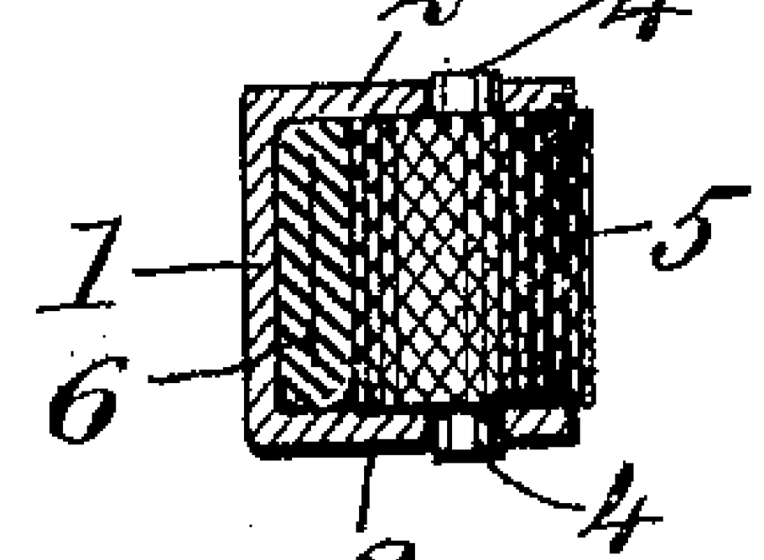


Fig. 3.



WITNESSES

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PIPETTE ATTACHMENT.

No. 917,442. Specification of Letters Patent. Patented April 6, 1909.

Application filed January 22, 1907, Serial No. 353,436. Renewed September 16, 1908. Serial No. 453,344.

To all whom it may concern:

Be it known that I, ALBERT EDWARD HUTCHINSON, a citizen of the United States, and a resident of Victor, in the county of Teller and State of Colorado, have invented a new and Improved Pipette Attachment, of which the following is a full, clear, and exact description.

This invention is directed to improvements in pipette attachments, embodying a construction easily operable to draw into the pipette when applied thereto, any required quantity of liquid and eject the same when desired.

The operation of the attachment is such that the admission of the liquid to the pipette can be gaged with minuteness, making the invention particularly desirable in cases where precision is required.

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 figures.

Figure 1 is a perspective view of one embodiment of my invention with a pipette applied thereto; Fig. 2 is a longitudinal, central, vertical section of the attachment to the upper portion of a pipette, and Fig. 3 is a cross section on the line 3—3 of Fig. 2 showing the roller in full.

The invention comprises a trough-like body composed of a base 1 with flanges 2 at each side thereof, said body being preferably constructed of sheet metal as illustrated. The flanges 2 are provided with alining, longitudinal slots 3 positioned a suitable distance from the base 1 and form bearings for trunnions 4 projecting from the ends of a roller 5, said roller preferably being knurled on its circumference and of such length as to neatly fit between the flanges. Placed between the base 1 of the trough-like body and the roller 5 is a rubber or other flexible tube 6, the lower end of which passes through a split clamp 7, preferably formed as an integral part of said body, and provided with parallel meeting portions 8 through which a thumb-nut 9, threaded into one of them, is passed. The clamp 7, under the action of the thumb-nut 9, binds the lower end of the tube about the upper end of a pipette 10 placed therein, as illustrated in Fig. 2.

The diameter of the roller 5 is such that it will flatten the tube and press the inner walls thereof close together on rolling over it, as shown in Fig. 3. It is obvious from this construction that on placing the pipette in a liquid and grasping the trough-shaped body and roller, respectively, between the thumb and fore-finger and moving the roller upwardly, the suction caused by this action will carry the liquid within the pipette. As the movement of the roller may be carried on very slowly, the quantity of liquid sucked into the pipette may be gaged with precision. On moving the roller 5 in the reverse direction, the liquid in the pipette is ejected.

Although I have described the construction and nature of the invention in detail, it is obvious that the same may be variously modified; and I consider that I am entitled to such modifications as fall within the scope of the appended claims.

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

1. A pipette attachment comprising a body, a flexible tube seated on said body, an expansible clamp formed at one end of said body for detachably clamping the tube to the pipette, and a device longitudinally movable over said tube acting to flatten it against said body, for the purpose described.

2. A pipette attachment comprising a trough-like body composed of a base and side flanges rigidly connected together, a flexible tube within said body, and a device longitudinally movable over said tube, in guideways provided in said flanges, acting to flatten the tube against said base.

3. A pipette attachment comprising a trough-like body composed of a base with side flanges, the latter being provided with longitudinal slots, a flexible tube within said body, and a roller having trunnions projecting into said slots movable over said tube and acting to flatten it against said body.

4. A pipette attachment comprising a trough-like body made of sheet metal and composed of a base having flanges at each side thereof, said flanges being provided with longitudinal slots, a flexible tube arranged adjacent to said base, and a knurled roller having trunnions projecting into said slots acting when moved over said tube, to flatten it against said base.

5. A pipette attachment comprising a trough-like body having a split clamp formed as an integral part at one end thereof,

a flexible tube within said body passing through said clamp for receiving one end of a pipette, means for drawing the clamp together to bind the tube about the pipette, and a device longitudinally movable over said tube acting to flatten it against said body, for the purpose described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERT EDWARD HUTCHINSON.

Witnesses:

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B. F. ZIMMERMAN.