

No. 633,454.

Patented Sept. 19, 1899.

R. M. HIGGINS.

CASE FOR VACCINATION APPLIANCES.

(Application filed Apr. 18, 1898.)

(No Model.)

Fig. I.

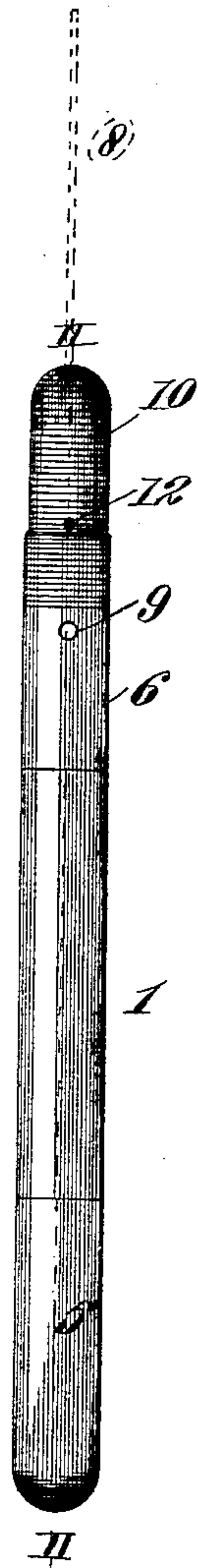
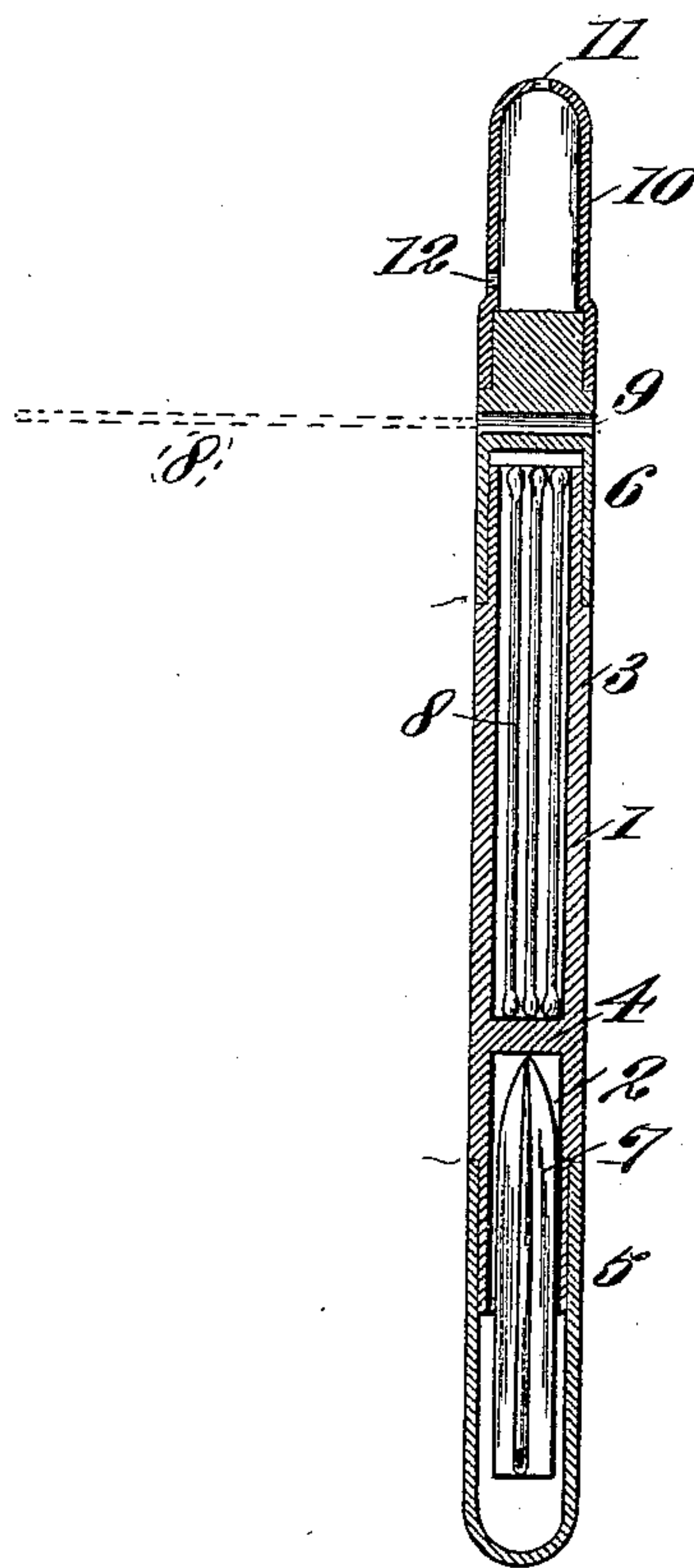


Fig. II.



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UNITED STATES PATENT OFFICE.

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CASE FOR VACCINATION APPLIANCES.

SPECIFICATION forming part of Letters Patent No. 633,454, dated September 19, 1899.

Application filed April 18, 1898. Serial No. 677,973. (No model.)

To all whom it may concern:

Be it known that I, RICHARD M. HIGGINS, a citizen of the United States, residing at Webster Groves, in the county of St. Louis and State of Missouri, have invented a certain new and useful Improvement in Cases for Vaccination Appliances, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a case for use in holding implements used in vaccination operations and vaccine-tubes, and it further relates to details of construction of such case that permit of efficient and convenient preparing and handling of the vaccine-tubes from which the vaccine matter is ejected on the insertion of the tubes into a bulb of peculiar construction applied to the case.

Heretofore the common practice of ejecting vaccine matter from tubes has been by placing one end of the tube in the mouth after breaking the ends of the tube, and then by blowing through the tube the liquid vaccine matter is forced out of the tube onto the scarified flesh of the person being vaccinated. This method is, however, quite objectionable, owing to the liability of pathogenic bacteria being conveyed from the mouth of the operator onto the scarified flesh and the consequent danger of infection. This objectionable feature I obviate by combining an ejector with my improved case.

My invention consists in features of novelty hereinafter fully described, and pointed out in the claim.

Figure I is an exterior view of my improved case. Fig. II is a longitudinal sectional view taken on the line II II, Fig. I.

1 designates the central portion of the case, provided with pockets 2 and 3, separated by a transverse partition 4.

5 and 6 are caps applied to the ends of the portion 1 to inclose the pockets 2 and 3.

The pocket 2 is designed to contain scarifying-points 7, (see Fig. II,) such as needles or ivory points, used for breaking the skin previous to applying the vaccine matter. The pocket 3 is designed to receive glass tubes 8, that contain the liquid vaccine matter and

are closed at their ends to retain the fluid therein.

In the wall of the cap 6 is an aperture 9 of a size sufficient to receive the ends of the tubes 8 for the purpose of breaking the ends from the main body of the tubes 8 to allow the ejection of the liquid vaccine therefrom. Such aperture might, however, be formed in any other suitable position in the case.

10 is a flexible bulb, preferably of rubber, that is fitted on the cap 6. In the end of the bulb 10 is an aperture 11, and in the side of the bulb is an aperture 12.

In the use of the case and appliance herein described for the operation of vaccination a scarifying-point 7 is removed from the case on the withdrawal of the cap 5, and the skin being scarified by the use of a needle or other scarifying-point one of the tubes 8 is removed from the case, and by placing first one end and then the other end of the tube in the aperture 9, as shown by dotted lines in Fig. II, and then drawing the tube to one side the ends of the tubes are broken off, (the tubes being of frangible material,) thus exposing the interior of the tube, so that the vaccine fluid may be ejected. The tube is then placed in the bulb 10 by inserting one end through the aperture 11, (see dotted lines, Fig. I,) in which action the air escapes from the bulb through the aperture 12, and consequently no force of air is exerted against the liquid in the tube on its insertion into the bulb and the liquid expelled prematurely. To eject the liquid vaccine from the tube onto the scarified skin of the patient, the finger or thumb of the operator is placed over the aperture 12 and the bulb 10 is compressed, thus forcing the air within the bulb into the tube 8 and driving the liquid from the tube onto the scarified skin.

The device is capable of use with vaccine containing tubes of all sizes, whether such tubes contain only sufficient vaccine fluid for one operation or sufficient for two operations or any greater number.

This device forms an efficient and convenient contrivance for the purpose for which it is designed and one in which all the appliances may be kept within compact form and

in the use of which the operation of vaccination can be readily and satisfactorily performed.

I claim as my invention—

- 5 A case for vaccination appliances having pockets therein, a transverse partition separating said pockets, caps inclosing said pockets, one of said caps being provided with an

aperture therein, and a flexible bulb provided with an end aperture and a side aperture, all substantially as described and for the purpose set forth.

RICHARD M. HIGGINS.

In presence of—

E. S. KNIGHT,

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