

No. 616,042.

Patented Dec. 13, 1898.

R. WALSH.
VACCINE CARRIER AND CASE.

(Application filed July 11, 1898.)

(No Model.)

Fig. 1.

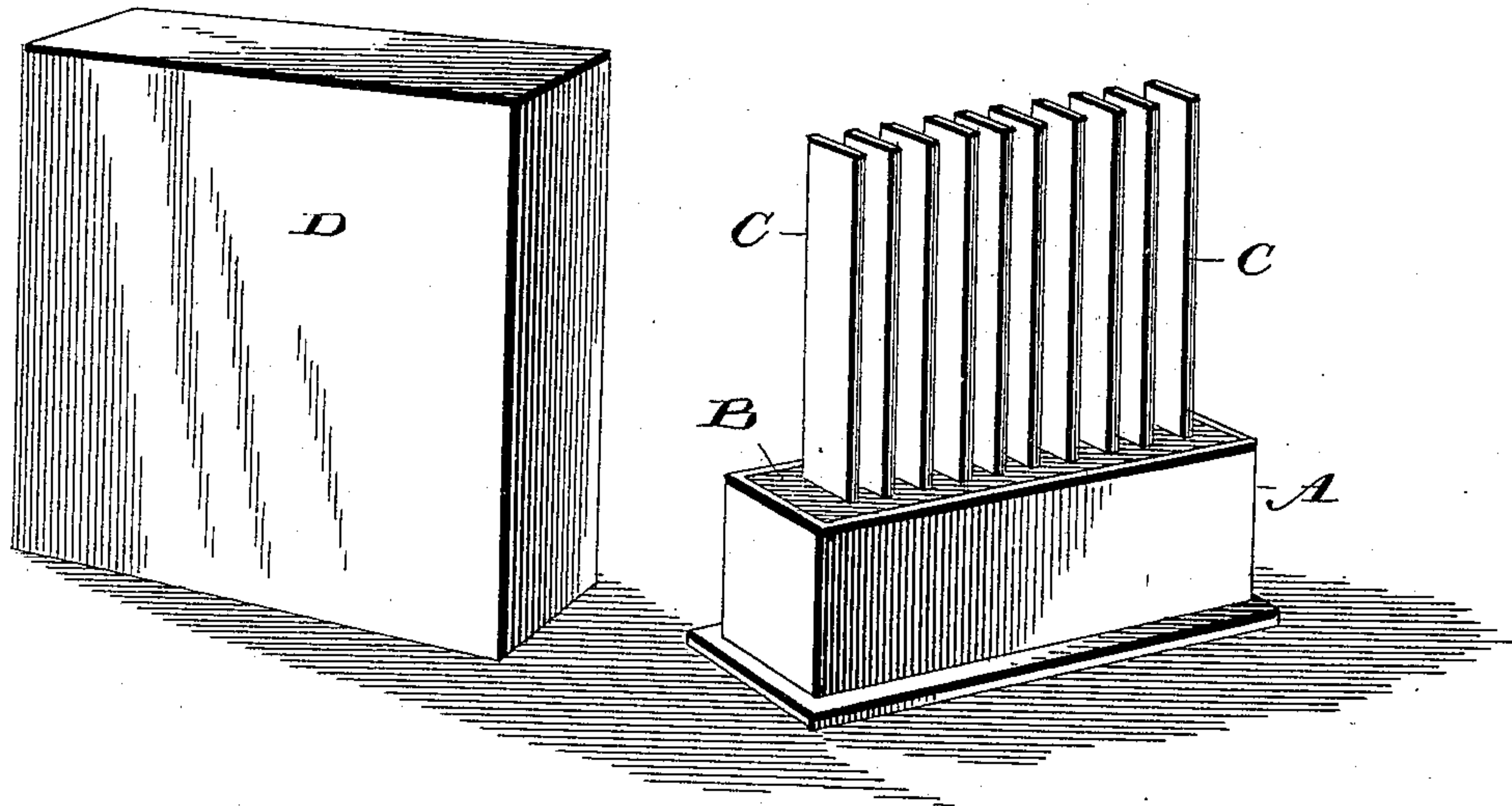


Fig. 2.

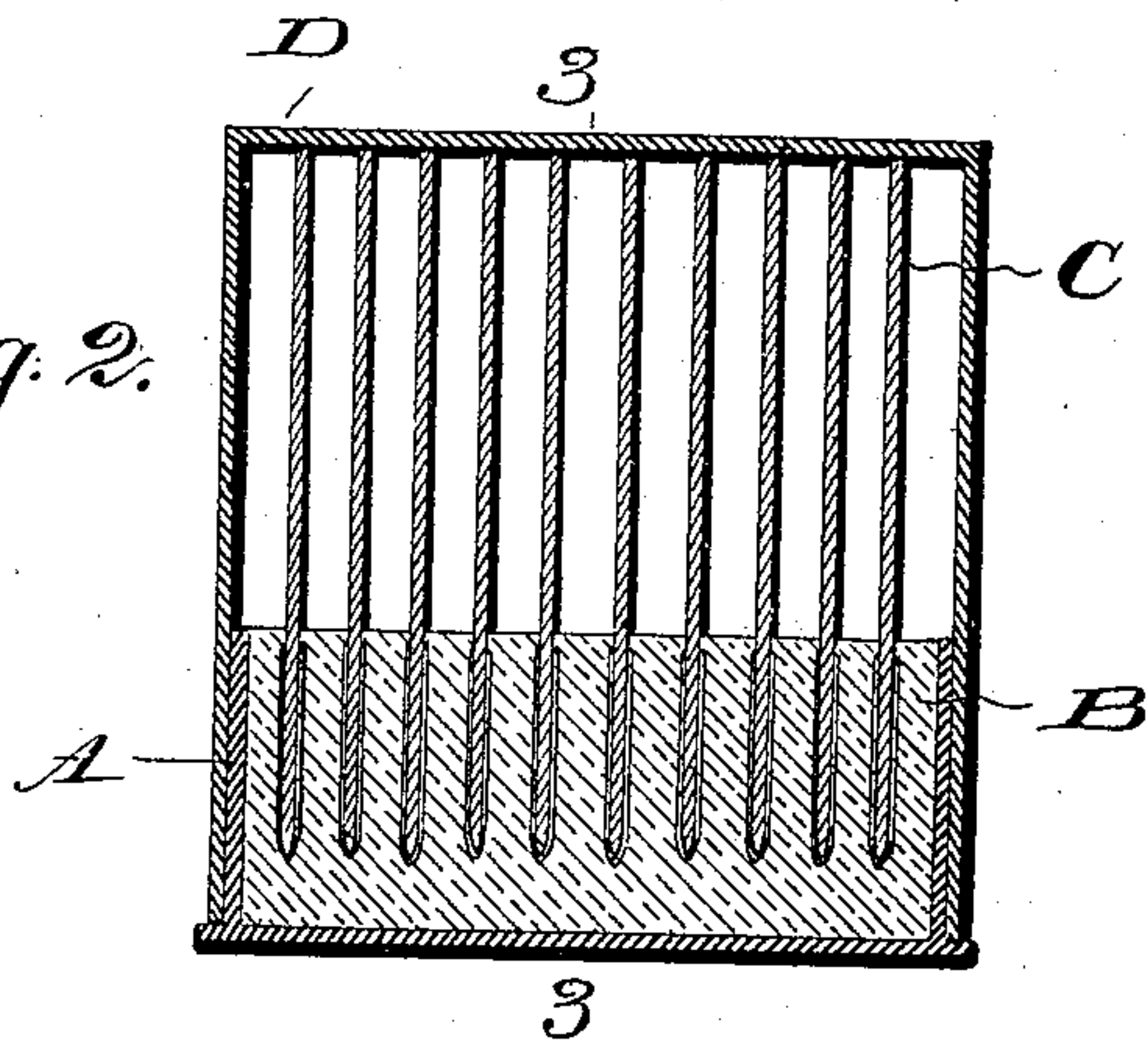


Fig. 3.

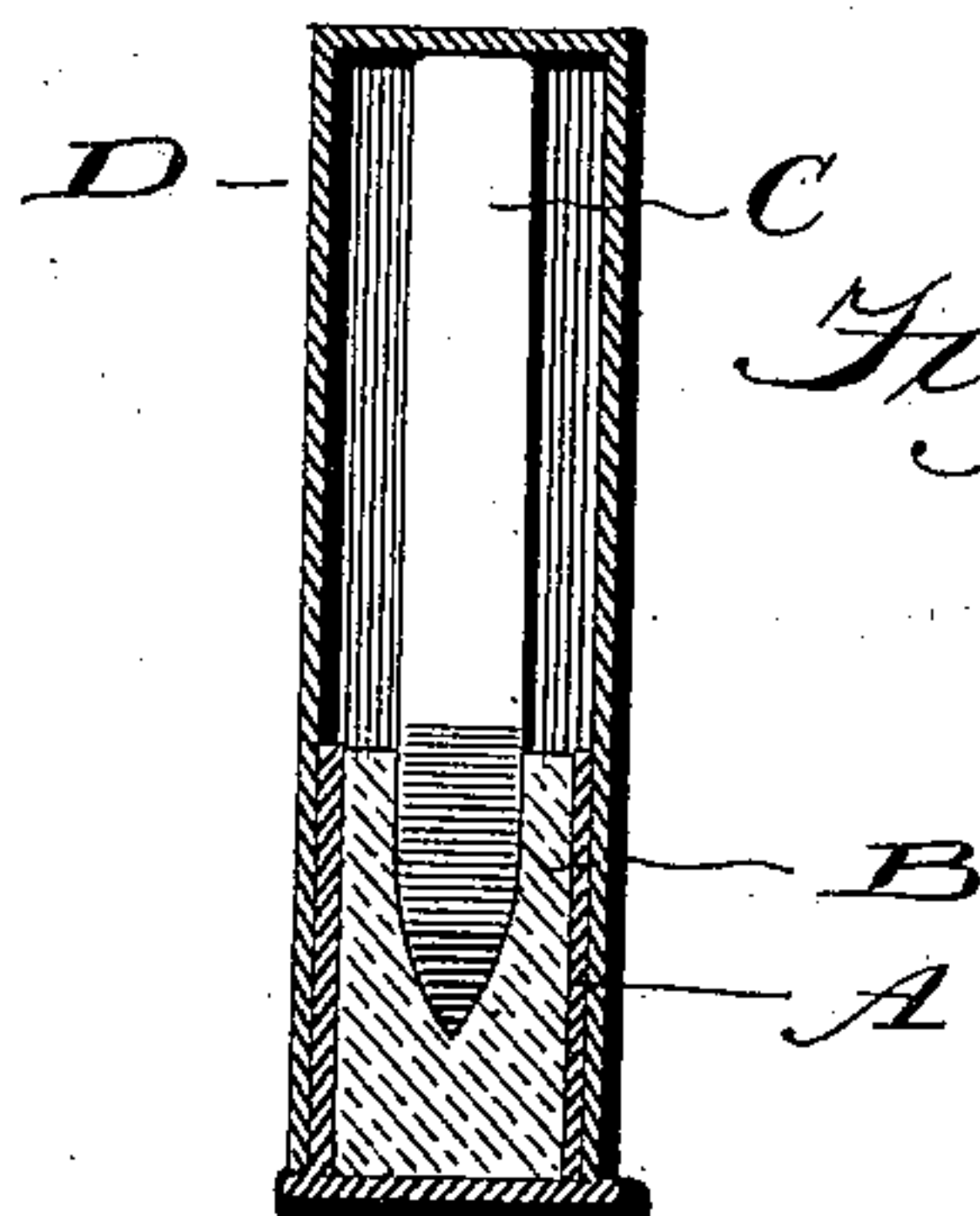
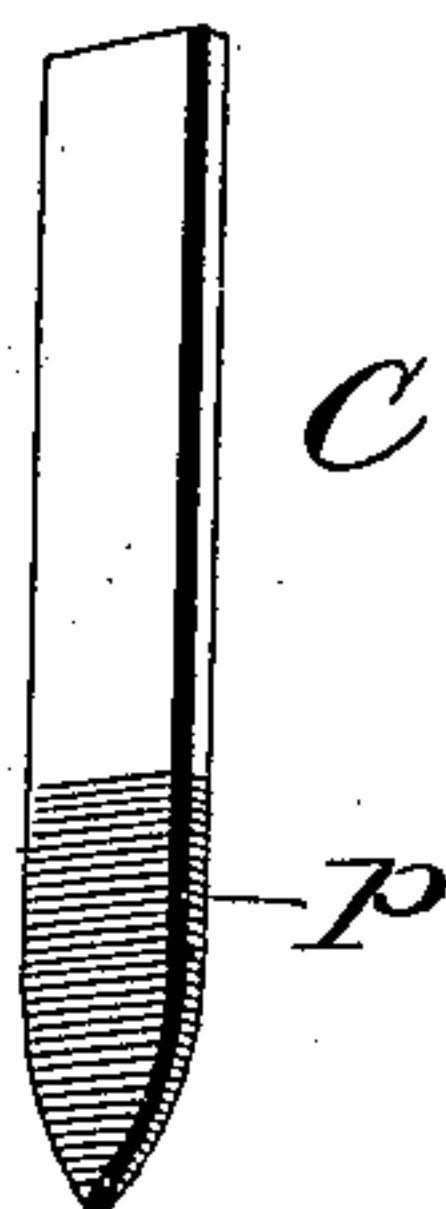


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

RALPH WALSH, OF WASHINGTON, DISTRICT OF COLUMBIA.

VACCINE-CARRIER AND CASE.

SPECIFICATION forming part of Letters Patent No. 616,042, dated December 13, 1898.

Application filed July 11, 1898. Serial No. 685,701. (No model.)

To all whom it may concern:

Be it known that I, RALPH WALSH, of the city of Washington, in the District of Columbia, have invented certain new and useful
5 Improvements in Vaccine-Carriers and Cases or Receptacles for the Same, of which the following is a specification.

My improvements have relation to carriers for glycerinized vaccine-lymph and to cases
10 or receptacles for said carriers, my object being to protect, as far as possible, the lymph from absorption and from the injurious effects of the atmosphere.

I will first describe the improvements by
15 reference to the drawings accompanying and forming part of this specification and will then point out the same more specifically in the claims.

In said drawings, Figure 1 is a perspective
20 view of the case or receptacle charged with the vaccine-carriers and having the cover removed. Fig. 2 is a vertical cross-section of the case together with its cover. Fig. 3 is a section on line 3 3, Fig. 2. Fig. 4 is a view
25 of one of the carriers.

A is the body of the box, made of paper, wood, or other suitable material. It contains a base-block B, made of a material which is non-absorbent and which is also non-destructive of glycerinized vaccine-lymph. For this
30 purpose various materials—such as hard rubber, glass, wax, or stearin—may be used; but I much prefer paraffin in its solid form or paraffin-wax as best suited on the whole for
35 my purpose. In this block are formed pockets for the reception of the vaccine-points, which pockets conform in shape to the pointed ends of the carriers, and can be of a width to receive each one point or two or more points
40 side by side, as desired. In the drawings they are shown as designed each to receive one point or carrier C. The pockets can readily be formed in the solid block of paraffin by pressing into the same, while held in a suitable
45 form, (which may be the body A of the box or case itself,) plungers held in a follower and having the shape and dimensions which it is desired to impart to the pockets.

The glycerinized vaccine-lymph can be
50 placed on the points of the carriers C before they are inserted in the pockets, or the pockets can be partially filled with the lymph, so

that the points will receive their charge of lymph at the time they are inserted in the pockets. In this way I protect the points and
55 expose a minimum surface of lymph to the action of the air. Even this minimum exposure can be prevented by sealing the upper ends of the pockets after the insertion therein of the points with paraffin or like material
60 which is a non-absorbent of glycerinized lymph. In case the base-block is made of paraffin the sealing can be readily effected by applying a heated instrument to the top of the block. In this way the point is effec-
65 tually sealed from the air into its pocket in a substance which is a non-absorbent of glycerinized lymph and is non-destructive of the same.

The carriers are usually made of ivory, 70 although they can be made of bone or other material. They have sharpened points for scarifying, and upon the pointed end is deposited the charge of glycerinized vaccine-lymph.

I may coat or saturate the carrier in whole
75 or in part with a material, such as paraffin, which is non-absorbent and non-destructive of the glycerinized vaccine-lymph. It will be sufficient for the purpose I have in view
80 to thus treat only that portion of the carrier on which the charge of lymph is deposited, although, if desired, it can thus be treated for a greater portion of its length than that just specified, or, indeed, for its whole length.
85 The coating or saturation of the point with paraffin can be effected in any suitable way and by the application of the paraffin in any suitable manner—as, for example, the point can be pressed into solid paraffin, which will
90 enter and fill its surface pores and will furnish an adequate surface coating, or the point can be dipped into a paraffin-bath and the surplus paraffin wiped off from it after its removal from the bath. The saturation of
95 the point will be more or less thorough, according to the length of time it is permitted to remain in the bath. It will be sufficient, however, to allow it to remain therein only long enough to fill the surface pores with par-
100 affin. The sealing operation, however, I have found by experience to be effective to prevent the lymph from being absorbed by and carried up through the body of the carrier above

the sealing-point even if the point of the carrier be untreated.

When carriers thus prepared are sealed into their pockets in the base-block B, the lymph
5 is effectually protected from deterioration and is held in its original condition away from contact with the air and without danger of being absorbed and taken up by capillary action into the carrier itself. After the carriers are
10 thus placed in the body of the box with their points sealed into the pockets in the base-block the tight-fitting cover D is applied and is pressed down until its head or top brings up and bears upon the upper ends of the car-
15 riers, which latter will thus be held firmly in place. The cover may bear upon the upper ends of the carriers either directly and immediately or mediately—as, for example, through the medium of a layer of raw cotton
20 or the like interposed between the head of the cover and the tops of the carriers.

Having described my improvements and the best way now known to me of carrying the same into practical effect, what I claim
25 herein as new, and desire to secure by Letters Patent, is—

1. A vaccine-carrier case having a base of a material which is non-absorbent and non-destructive of glycerinized vaccine-lymph provided with pockets into which are individu- 30 ally sealed the charged points of glycerinized vaccine-lymph carriers, substantially as and for the purposes hereinbefore set forth.

2. A box for vaccine-lymph carriers, having a paraffin base provided with pockets conforming in shape to the points of the carriers and adapted to receive and hold the said points when vaccine-charged, substantially as and for the purposes hereinbefore set forth. 35

3. A vaccine-carrier case having a paraffin 40 base provided with pockets into which are sealed individual carriers having their points charged with glycerinized vaccine-lymph, substantially as and for the purposes hereinbefore set forth. 45

In testimony whereof I have hereunto set my hand this 8th day of July, 1898.

RALPH WALSH.

Witnesses:

EWELL A. DICK,
E. HUME TALBERT.