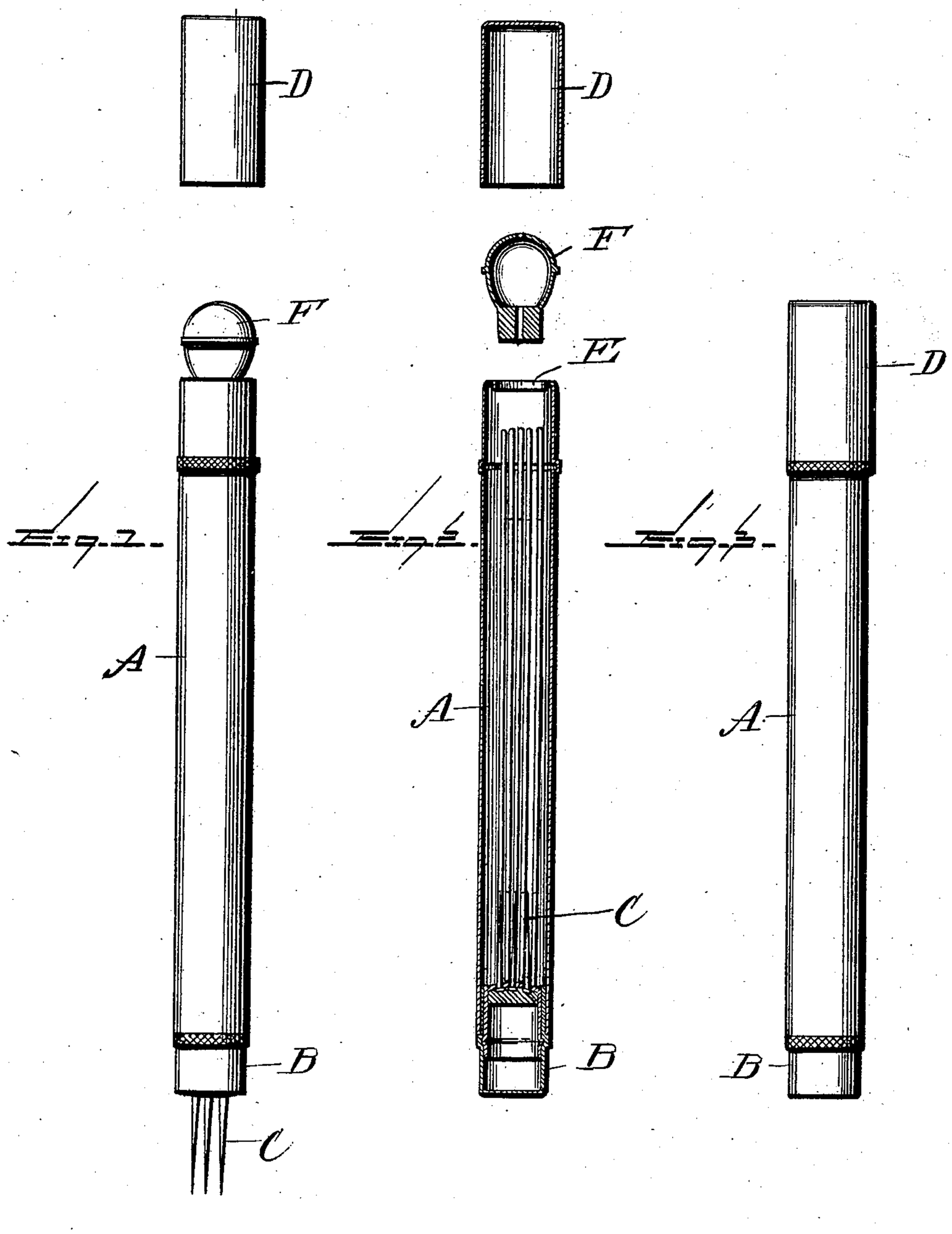
No. 710,234. Patented Sept. 30, 1902.

# H. M. ALEXANDER.

## VACCINE CONTAINER.

(Application filed May 22, 1902.)

(No Model.)




WITNESSES:
Wm. F. Dayce.
F. M. Benjamin

INVENTOR
Hamill M. Alexander
BY J. S. Barker
His Attorney

# UNITED STATES PATENT OFFICE.

HAMILL M. ALEXANDER, OF MARIETTA, PENNSYLVANIA.

## VACCINE-CONTAINER.

SPECIFICATION forming part of Letters Patent No. 710,234, dated September 30, 1902.

Application filed May 22, 1902. Serial No. 108,507. (No model.)

*To all whom it may concern:*

Be it known that I, HAMILL M. ALEXANDER, a citizen of the United States, residing at Marietta, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Vaccinators and Vaccine-Containers, of which the following is a specification.

My invention has for its object to produce a convenient surgical instrument to be used in the operation of vaccination and which may be easily carried, is adapted to carry all the necessary implements and the virus to be used in this operation, and may be easily, quickly, thoroughly, and repeatedly sterilized without impairing its efficiency.

In the accompanying drawings I have illustrated the preferred form of instrument embodying my improvements.

Figure 1 is an elevation of the complete instrument ready for use, the cap being represented as separated from the case or body. Fig. 2 is a longitudinal section, the scarifier being inverted from the position represented in Fig. 1 and the cap and bulb being removed. Fig. 3 is an elevation of the complete instrument in closed position for being carried.

As seen from an examination of Fig. 3, the complete instrument is about the size of and very much resembles a pocket fountain-pen. The parts of the case are preferably formed of metal in order that they may be readily, thoroughly, and repeatedly sterilized by immersing them in hot water or by passing them through a flame. The main portion of the case consists of a barrel or tubular body A, preferably open at both ends. Into one end of the case A fits a removable and reversible plug or head B, in which are fitted suitable scarifying means, a group of three needles C being preferably used for this purpose. When the plug or head is inserted into the case in the manner indicated in Figs. 2 and 3, the needles C are protected and housed, so that the instrument may be readily carried in the surgeon's case, or even in the pocket. When the head is reversed and inserted in the case as represented in Fig. 1, the body or barrel of the case serves as the handle for the scarifier.

The end of the case opposite that which receives the head B is adapted to receive a cap D. This end of the case is also adapted to hold a rubber bulb F, such as is commonly employed to expel the lymph from the capillary tubes in which it is placed for distribution. The edge of the open end of the case is inturned, as indicated at E, Fig. 2, so as to form a shoulder or bead, which is arranged to engage with the constricted or neck portion of the bulb. By thus forming the open end of the tube I insure the bulb being securely held without danger of cutting the rubber by any sharp edge of the tube, and the shoulder or bead E provides a support for a bulb of a size which will permit the cap B slipping over the bulb without coming into engagement with it.

The body or barrel portion A of the case serves as a convenient holder and carrier for the tubes in which the lymph is contained and also for vaccine-points.

I prefer that the barrel of the case, the cap D, and the head B should be formed of the metal aluminium, as this is non-corrosive, attractive in appearance, and may be easily sterilized, as has been already pointed out.

The advantages incident to an instrument such as I have described are at once apparent. All of the apparatus employed in vaccination are contained in a single case, which may be easily carried and is of convenient shape, and which serves not only as the container for the several articles necessary to be used, but also as the scarifier. The arrangement for holding the lymph-expelling bulb is of great practical advantage, as the bulb is always at hand when needed and is held in position to be readily grasped and used.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A hollow case adapted to receive vaccine-containing capillary tubes, having one end open and provided with an inturned bead-like edge, in combination with a bulb, F, fitted into the said open end of the case, substantially as set forth.

2. A hollow case adapted to receive vaccine matter open at both ends, a reversible plug fitted into one end of the case, scarifying-needles carried by the said plug, a bulb fitted into the other end of the case, and a cap arranged to fit over the said bulb, substantially as set forth.

HAMILL M. ALEXANDER.

Witnesses:
R. CARROLL ENGLE,
MAGGIE O'BRIEN.