T. S. BRINKERHOFF.

VACCINATING INSTRUMENT.

No. 193,076. Patented July 17, 1877.

Fig. 1.

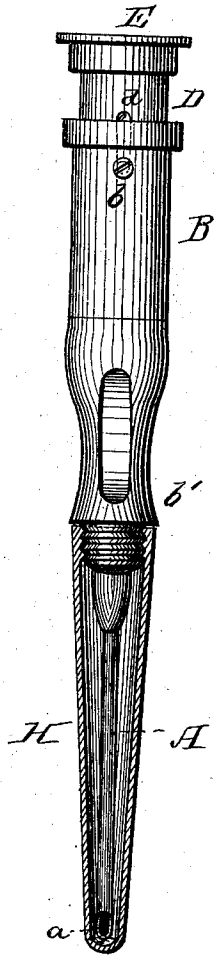
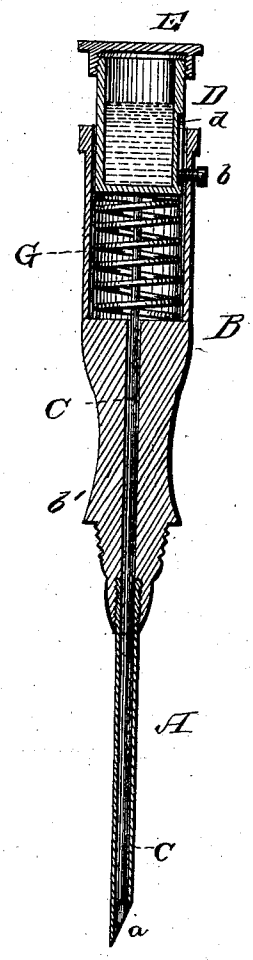


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

TRUMAN S. BRINKERHOFF, OF AUBURN, NEW YORK.

IMPROVEMENT IN VACCINATING-INSTRUMENTS.

Specification forming part of Letters Patent No. **193,076**, dated July 17, 1877; application filed June 23, 1877.

To all whom it may concern:

Be it known that I, TRUMAN S. BRINKERHOFF, of Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Vaccinating-Instruments; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a vaccinating-instrument, as will be hereinafter more fully set forth and claimed.

In the annexed drawings, which fully illustrate my invention, Figure 1 is a front elevation with cap H and section, and Fig. 2 is a central vertical section with cap H removed.

This instrument, which I denominate a "vaccinator," consists of three main parts—viz., a hollow lancet, A, a handle, B, and a plunger, C.

The lancet A is simply a small hollow steel tube with a beveled point, *a*, and is firmly attached to the handle B. This handle is also hollow, and of any suitable dimensions, and contains within it the plunger C, which passes also through the hollow lancet A.

The handle B is contracted or flattened, as shown at *b'*, near its attachment with the lancet, for the purpose of readily holding the instrument between the forefinger and middle finger.

The plunger C, penetrating both the handle and the lancet, is for the purpose of projecting matter from the beveled point *a* of the lancet. The upper portion of the plunger C is formed with, or attached to, a short hollow tube, D, provided with a cap, E, for the reception and conveyance of vaccine virus. The plunger is held in relation to the other parts of the instrument by means of a coiled spring, G, and small screw *b*. The coiled spring G is placed inside of the handle B, as shown, and the screw *b* is passed through the handle, near the upper extremity, and enters a small groove, *d*, in the side of the receptacle D.

The instrument is also provided with a cap, H, for the protection of the lancet, which cap is attached to the handle by screw-threads or other suitable coupling.

In using the instrument a small quantity of vaccine matter is placed in the hollow place at the point of the lancet. The lancet is then made to penetrate obliquely between the skin, making a valvular puncture, and while there the matter is projected within the wound by pressure with the thumb on the plunger.

The advantages of this instrument are, that it makes a small wound, and, consequently, causes but little pain, and is quite or nearly bloodless, and the almost instantaneous and perfect introduction of the matter within the wound, thereby avoiding the many difficulties that are encountered in the ordinary modes of operation. Further, it carries within the chamber in the plunger the matter to be used, furnishing three essential conditions for its preservation—viz., exclusion from light, air, and moisture.

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

The sliding receptacle D, having the plunger attached thereto, in combination with the hollow lancet and spring, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

TRUMAN S. BRINKERHOFF.

Witnesses:

HORACE T. COOK,

GEORGE HOLLEY.