J. FIRMENICH.

DERMOPATHIC INSTRUMENT.

No. 34,677. Patented Mar. 18, 1862.

Fig. 3.

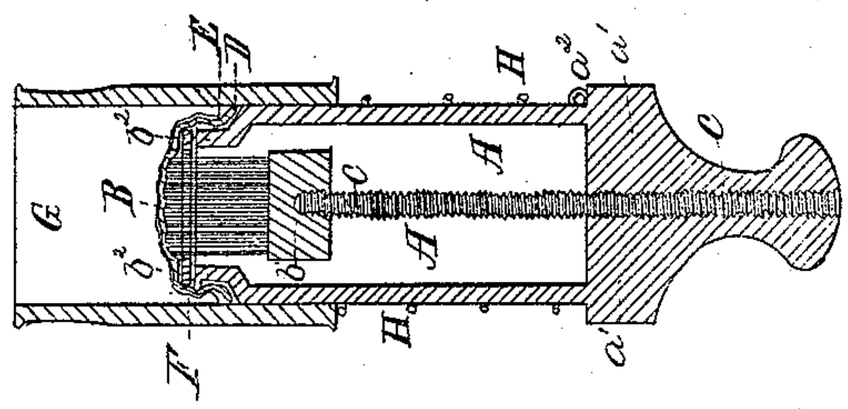


Fig 2

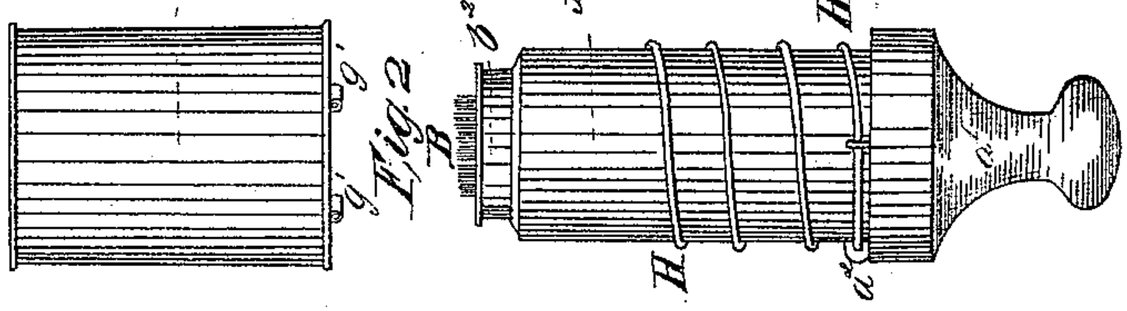
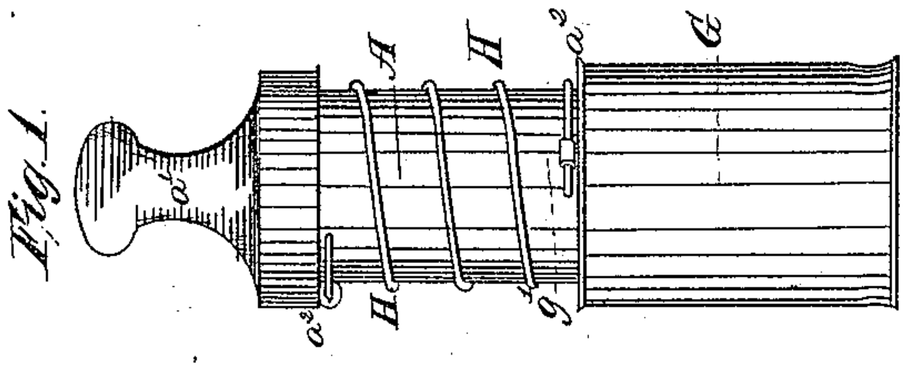


Fig. 1.



Witnesses.

E. B. Forbush

B. H. Mealy.

Inventor.

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UNITED STATES PATENT OFFICE.

JOSEPH FIRMENICH, OF BUFFALO, NEW YORK.

DERMOPATHIC INSTRUMENT.

Specification of Letters Patent No. 34,677, dated March 18, 1862.

To all whom it may concern:

Be it known that I, JOSEPH FIRMENICH, of the city of Buffalo and State of New York, have invented a new and Improved Dermopathic Instrument for the Treatment of Diseases by Acting upon the Skin; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, in which—

Figure I is an elevation of my improved instrument—its cap being downward and in position to operate upon the patient. Fig. II is an elevation—the cap being removed and placed above, in order to show more clearly the neck of the instrument and the position of the needles, before the leather cover is put on. Fig. III is a longitudinal section of the instrument (inverted).

The nature of my invention relates to the construction and use of a dermopathic instrument in such manner that the puncturing needles shall be in contact with the medicinal preparation, so that the skin of the patient may be punctured and the medicine infused into the punctures at one and the same operation.

Letters of like manner and kind refer to like parts in each of the figures.

A, represents the containing cylinder or main body of the instrument, made of wood or other suitable material. It is about three inches in length, and one inch and one-eighth in diameter (more or less). A handle is formed on one end, as shown at a', its opposite end or mouth being open.

B, represents the puncturing needles, projecting from the circular head piece b', and C, represents a screw rod, which connects with, or screws into the circular head piece as shown, and also screws into the head, or handle part of the cylinder, as shown—forming a water tight fit therein, and a support for the needles. It is of sufficient length to allow the needles to project through the neck b^2 of the cylinder as shown in Fig. II. A sufficient space is left in the cylinder and around the screw rod for the reception of the medicinal preparation, which is put therein, when the instrument is used.

D, represents a piece of buckskin or other suitable material, which covers the points of the needles and holds the medicine in the cylinder (except so much thereof as follows the needles into the skin). It is tied down to the neck, b^2, of the cylinder, by a cord or thread, or otherwise fastened thereto.

E, is a piece of oil silk, or other thin material which is impervious to water. It has a circular hole cut through it, a little larger in diameter than the circle formed by the needles, so as to allow the needles to pass without puncturing the silk. This oil silk is placed on the outside of the leather, and is tied down to the neck of the cylinder with the leather. It will prevent the medicine from coming in contact with the skin except within the circle of the needles.

F shows an elastic spring of india rubber or other suitable material, made in the form of a ring. It rests upon the neck (b^2) of the cylinder, and surrounds the needles. As a spring it serves to graduate the depth of the punctures. The greater the pressure upon the instrument, the more the rubber spring will yield, and hence, the deeper the needles will penetrate the skin.

G, is a cylindrical cap, which slides easily over the cylinder A. It has two small eyes, g', which connect it to the spiral spring H.

H, is a spiral spring, which is coiled around the cylinder A, resting upon a shoulder on said cylinder as shown at a^2, and connects with the cap G, through the eyes g'. This spring will keep the cap G, extended above the needles, so that the cap will protect the needles when the instrument is not in use, and will also immediately react in a manner to separate the needles from the skin, after the punctures are made, and the pressure of the hand removed.

Operation: The medicine used is an irritant and in the form of a liquid. This is put into the cylinder A, in contact with the needles. The operator then places the open end of the cap G, on the skin of the patient, on that part of the body which it is desirable to operate upon. The operator then gently and quickly presses down upon the instrument with his hand. The spiral spring H will yield to the pressure, and allow the cylinder A, to pass through the cap G, sufficiently far to allow the needles to penetrate the skin. The points of the needles project through the leather cover, and carry with them a portion of the medicinal preparation, which will be equally diffused into the punctures in the skin made by the needles. The oil silk will prevent the medicine from spreading on the skin, be-

yond the circle of the needles. Thus there is no waste of medicine beyond the circle of the punctures and the distribution of the medicine into the punctures is more equal and uniform, and more certain and active in its effects, than under the old methods.

In the course of my practice as a physician I have used this instrument with success in a great variety of diseases.

What I claim as my invention and desire to secure by Letters Patent is—

A dermopathic instrument constructed substantially as described, having a cylinder or cup which contains the puncturing needles, and a medicinal preparation in contact with the needles; so that the skin of the patient may be punctured and the medicine infused at one operation of the instrument as set forth.

JOSEPH FIRMENICH.

Witnesses:
E. B. FORBUSH,
B. H. MEALY.