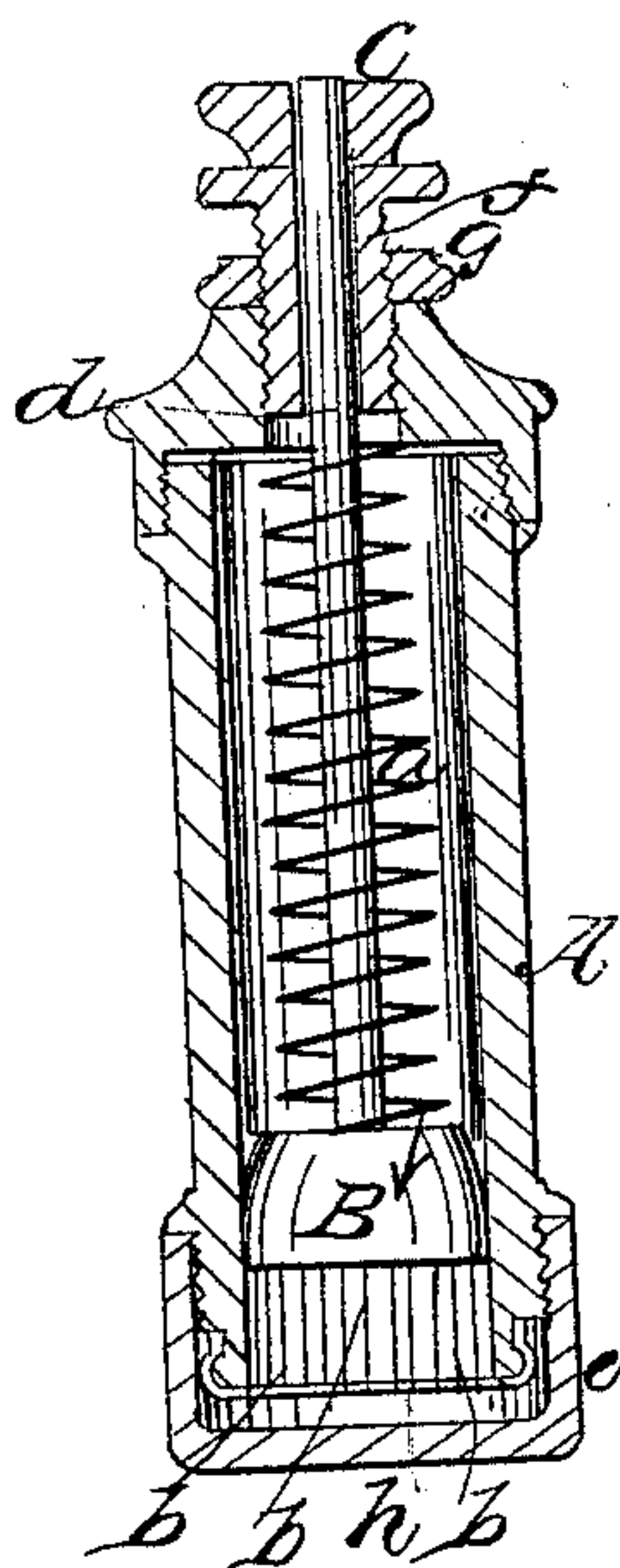
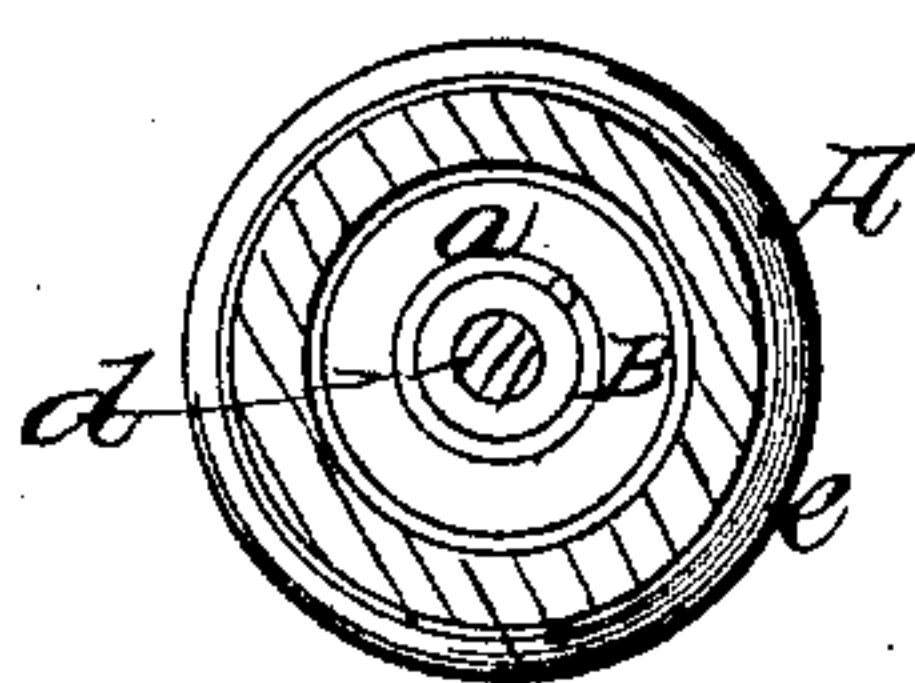


*F. Klee,*  
*Scarificator,*  
*No 55,775, Patented June 19, 1866.*

*Fig. 1*



*Fig. 2*



*Witnesses:*

*J. B. Prington*  
*Wm. Brown*

*Inventor:*

*F. Klee*

*Per Myself*  
*Attorney*

# UNITED STATES PATENT OFFICE.

FRIEDERICH KLEE, OF WILLIAMSBURG, NEW YORK, ASSIGNOR TO LOUIS KLEE, OF SAME PLACE.

## IMPROVEMENT IN INSTRUMENTS FOR IRRITATING THE SKIN.

Specification forming part of Letters Patent No. 55,775, dated June 19, 1866.

*To all whom it may concern:*

Be it known that I, FRIEDERICH KLEE, of Williamsburg, in the county of Kings and State of New York, have invented a new and Improved Irritation-Instrument; 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 make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a longitudinal central section of this invention. Fig. 2 is a transverse section of the same.

Similar letters of reference indicate like parts.

This invention consists in the application to an irritation-instrument of a regulating-screw, whereby the points or pricks can be adjusted in such a manner that the same penetrate the skin of the patient to a greater or less depth, as may be desirable.

It consists, further, in the arrangement of a diaphragm of leather or other suitable material at the bottom end of the cylinder containing the pricks in such a manner that when said diaphragm is saturated with the essential oil or other liquid to be introduced in the skin of the patient the whole operation is effected by causing the pricks to pass through said diaphragm, just before they enter the skin of the patient, and thereby the time and trouble is saved which is ordinarily required for rubbing with the oil or other liquid after the pricking has been effected.

My irritation-instrument is composed of a cylinder, A, of hard rubber or other suitable material, bored out to receive a piston, B, which is exposed to the action of a spring, *a*, and from the face of which project a series of points or pricks, *b*. The spring *a* has a tendency to force the piston out in the direction of the arrow marked near it in Fig. 1, and a button or handle, *c*, on the end of the piston-rod *d* serves to draw the same back against the action of said spring. When the instrument is to be used the cap *e*, which serves to protect the pricks, is removed and the cylinder is placed on the spot where the pricks are to take effect, and by pulling the button *c* and letting go suddenly the pricks fly out and penetrate the skin.

The depth to which the pricks are permitted to enter or penetrate the skin is regulated by the screw *f*, which is tapped in the head of the cylinder A, and which is held in the desired position by a jam-nut, *g*. By screwing this regulating-screw in the pricks are allowed to fly out farther beyond the open end of the cylinder, and vice versa, and the depth to which they are permitted to penetrate the skin or flesh of the patient can thus be adjusted with the greatest accuracy.

After the skin has been penetrated by the pricks it is desirable and customary to rub the spot with an essential oil or other liquid to produce the desired irritation. This operation is rendered superfluous by my instrument, which is provided with a diaphragm, *h*, of leather or other suitable material, fastened to the open end of the cylinder A in such a manner that the pricks have to pass through said diaphragm just before they enter the skin of the patient. This diaphragm I propose to saturate with the desired oil or liquid, so that the pricks, in passing through the same, will drive a sufficient quantity thereof into the skin to produce the desired irritation. By this simple arrangement the tedious operation of rubbing the pricked parts of the skin with the oil or other liquid is saved, and said oil or other liquid is evenly divided without waste.

The position of the regulating-screw may be determined by a suitable index, so that the distance to which the pricks extend can be adjusted with ease and facility, and instead of the screw a spring-catch or adjustable stop may be employed.

What I claim as new, and desire to secure by Letters Patent, is—

1. The arrangement of the screw *f*, piston *d*, spring *a*, nut *g*, and handle *c*, applied relatively to the cylinder A, combined and operating in the manner and for the purpose herein specified.

2. The diaphragm *h*, in combination with the cylinder A and pricks *b*, constructed and operating substantially as and for the purpose set forth.

FRIEDERICH KLEE.

Witnesses:

WM. F. MCNAMARA,  
W. HAUFF.