(No Model.)

# P. F. FRANCKE.

## SURGICAL INSTRUMENT.

No. 343,306. Patented June 8, 1886.

Fig. 1.

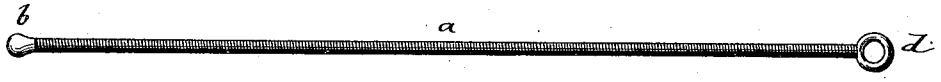



Fig. 2.

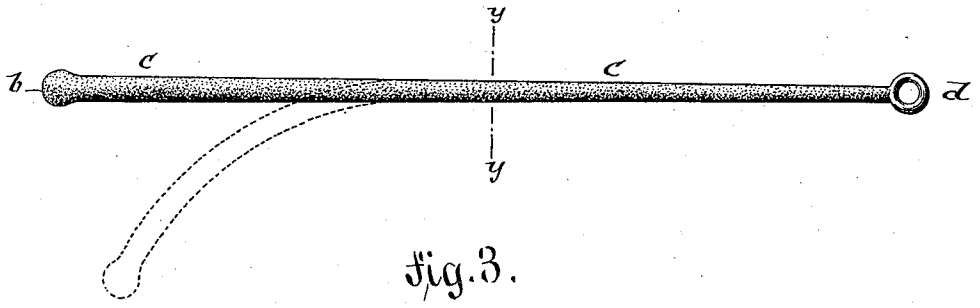



Fig. 3.




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# UNITED STATES PATENT OFFICE.

PAUL FRIEDRICH FRANCKE, OF CHEMNITZ, SAXONY, GERMANY.

## SURGICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 343,306, dated June 8, 1886.

Application filed January 20, 1886. Serial No. 189,170. (No model.)

*To all whom it may concern:*

Be it known that I, PAUL FRIEDRICH FRANCKE, of Chemnitz, in the Kingdom of Saxony and Empire of Germany, have invented certain new and useful Improvements in Surgical Instruments, of which the following is a specification.

This invention relates to an improved depurator or instrument for treating suppurating wounds; and the invention consists of a depurator composed of a core made of a spirally-coiled flexible wire having an enlarged head at one end and a handle at the other end, said core and head being covered by a medicated composition and covered with a layer of talc or other substance.

In the accompanying drawings, Figure 1 represents a side elevation of the elastic core of my improved depurator. Fig. 2 is a side elevation of the depurator; and Fig. 3 is a vertical transverse section of the same, taken on line *y y*, Fig. 2, drawn on a larger scale.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, *a* represents the core of my improved depurator, which core has an enlarged head, *b*, at one end and a handle, *d*, at the other end. The core is made of a spirally-coiled flexible wire. The core *a* and head *b* are coated with a medicated composition, *c*, that extends up to the handle *d* of the same. The medicated composition *c* is composed of glycerine and gelatine, to which a small quantity of sulphate of zinc, sulphate of copper, or iodoform, or any other suitable antiseptic medical substance is added, together with a small quantity of carbolic acid, for preserving the composition. The composition is deposited on the core by dipping the same into the heated and melted composition, and allowing the same to dry thereon in layers, one layer above the other.

To prevent the sticking together of the instruments when they are put in a box, they are covered with a layer, *e*, of finely-pulverized talc or other suitable materials.

The gelatinous composition retains its consistency up to a temperature of 96° Fahrenheit, but melts when exposed to a temperature higher than that of blood.

The instrument is inserted into the suppurating wound to be treated and allowed to remain in the same some time, so that the composition is melted by the heat of the body, upon which the core is withdrawn. The composition remains in the wound and serves to disinfect it and to produce the rapid healing of the same. The enlarged head of the instrument opens the pus-channel and prevents the medicated composition from being removed from the core while the instrument is inserted into the wound, the round shape of the head having the advantage of not acting injuriously upon the same.

Before use the coating of talc is removed by rinsing it with water, which also dissolves to some extent the outermost layer of gelatine.

The instrument is made up in different lengths, so as to be introduced into wounds of different depths. Depurators with elastic cores adapt themselves to the sinuosities of the pus-channels into which they are introduced.

The advantages of my improved depurator are, first, that the interior surface of the suppurating wound is retained for some time in contact with the medicated composition, which is more advantageous than the temporary injections heretofore in use; secondly, that the instrument exerts a disinfecting influence upon all parts of the wounds; and, thirdly, that the instrument can be used for wounds of greater depths, in which injectors are not always effective.

I am aware that bougies made of a rigid wire core coated by a medicated composition have been used heretofore, and I therefore do not broadly claim the same.

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

A depurator or surgical instrument consisting of a flexible core made of a spirally-bent wire having an enlarged head, and a coating of a medicated composition extending over the core and head, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two witnesses.

PAUL FRIEDRICH FRANCKE.

Witnesses:
CARL HUGGENBORG,
BENNO JOHANNES SCHMIDT.