

(No Model.)

F. S. GRANT.
HYPODERMATIC SYRINGE.

No. 286,605.

Patented Oct. 16, 1883.

Fig. 1.

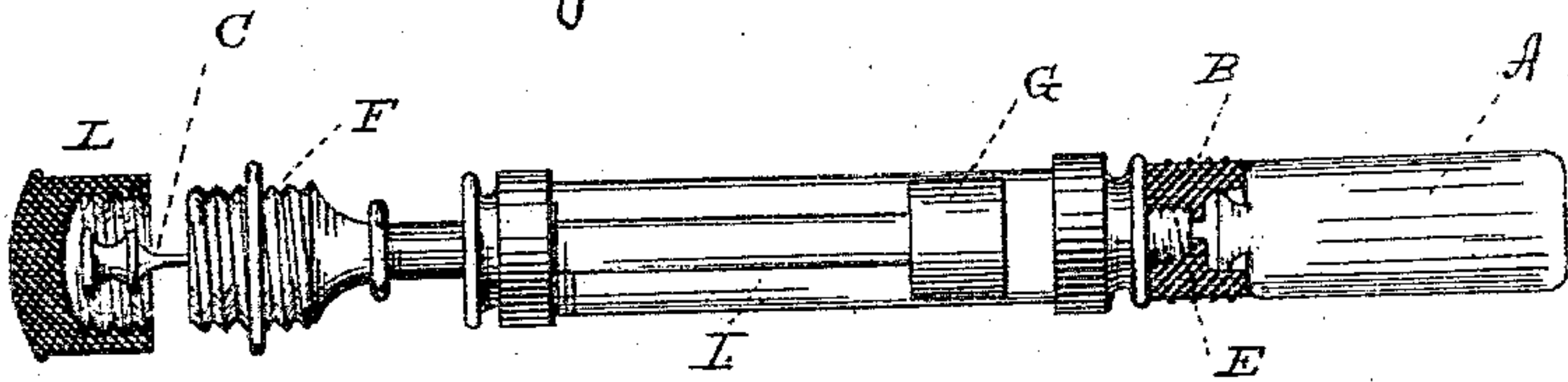


Fig. 2.

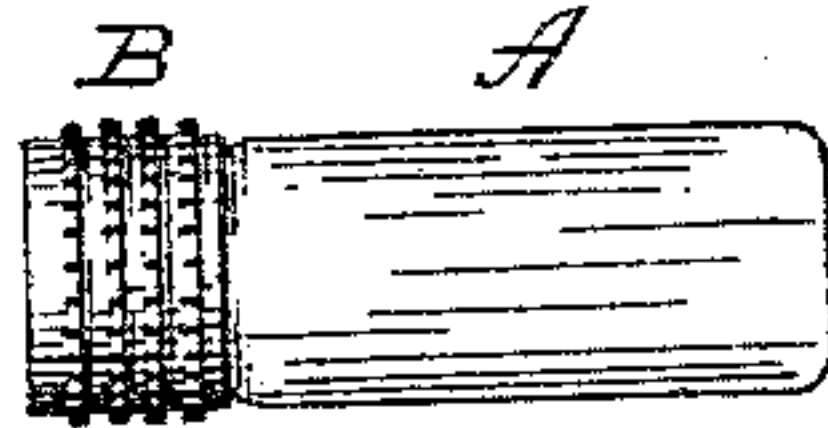
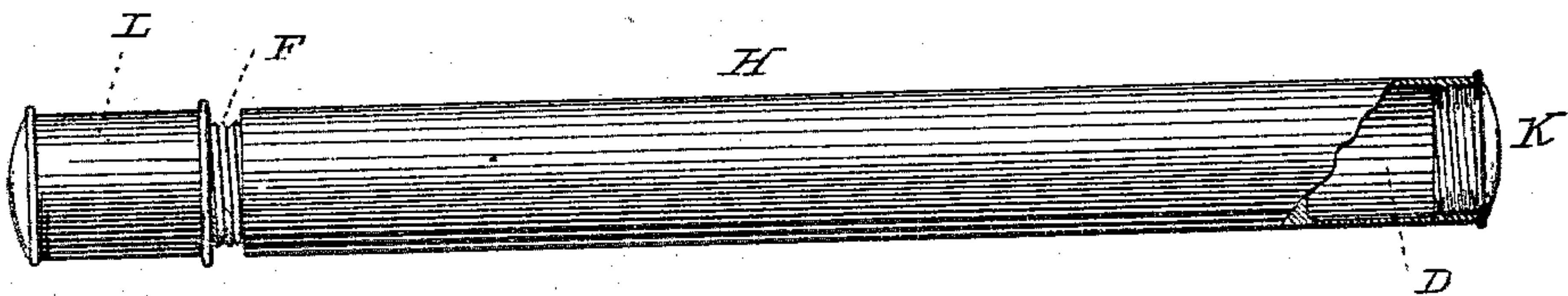


Fig. 3.



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HYPODERMATIC SYRINGE.

SPECIFICATION forming part of Letters Patent No. 286,605, dated October 16, 1883.

Application filed April 20, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRANK S. GRANT, residing in the city and county of New York, in the State of New York, have invented certain new and useful Improvements in Hypodermatic Syringes, of which the following is a full and exact specification, reference being had to the accompanying drawings, in which the same letters are used to refer to similar parts in the different drawings.

The object of my improvements is to provide, in connection with a hypodermatic syringe designed to be carried in the pocket, a suitable device for carrying the solution for hypodermic injection, or material for making the same, and at the same time for keeping the leather packing of the syringe soft and moist, so that the instrument shall be always ready for use. This I accomplish by means of the devices shown in the drawings, in which—

Figure 1 shows the syringe withdrawn from its case, with the vial or fountain A screwed onto the lower end of the syringe-barrel I, and the needle-nozzle C partly withdrawn from its socket in the plunger. Fig. 2 is the vial or fountain A unscrewed from the syringe-barrel; and Fig. 3, the case containing the syringe for transportation with a section cut away, showing the box or recess D.

The glass vial A is provided with the rubber head B, having a threaded hole, by means of which the vial may be screwed onto the threaded projection E, forming a prolongation of the syringe-barrel I. When the syringe is not in use, the vial A is attached to the syringe-barrel I at E, and kept nearly filled with water, the evaporation of which keeps the leather packing G of the syringe moist and soft, and in condition for immediate use. Instead of water the vial may, if desired, be kept filled with the solution to be used for injection; or the solution may be prepared, when required for use, by dissolving in the water contained in the vial globules of proper material, which may be carried in the box D of the case H. The box D is formed by shutting off one end

of the case H with a partition, so as to form a separate chamber or recess, closed by means of the removable cap K. This is convenient as a case in which to carry morphine or other substance to be used in making the solution for injection.

In using the syringe, it is inverted so as to bring the vial A uppermost, and the plunger is retracted so as to draw the desired amount of the solution from the vial into the syringe. The vial A is then unscrewed and the needle-nozzle C screwed on in its place, ready for use. When not in use, the needle is carried in a cavity in the upper part of the plunger of the syringe, and held in place by the screw-cap L, as shown in Fig. 1. The vial A is made preferably of glass, but may be of rubber or other suitable substance.

I am aware that hypodermatic syringes have heretofore been made with a device for temporarily attaching a vial to the syringe by means of a hollow plug driven into the mouth of the vial and into the syringe-barrel. With such a device, however, the vial cannot be firmly attached to and carried about with the syringe on account of the wearing of the plug, causing leakage. This defect I remedy by attaching the vial to the syringe-barrel by means of a screw-thread, as described above, thus forming a firm and close connection between the vial and the syringe-barrel.

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

The combination, with a hypodermatic syringe having the nozzle end thereof provided with a screw-thread, of a vial or fountain adapted to be screwed thereon, and also adapted to be contained in the same case with the syringe when attached thereto, substantially as and for the purposes set forth.

FRANK S. GRANT.

Witnesses:

S. F. RANDALL,
C. T. HAVILAND.