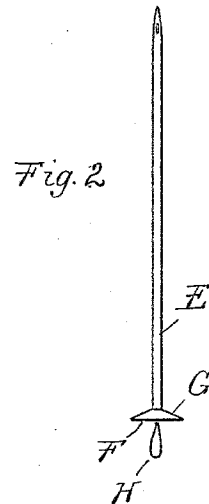
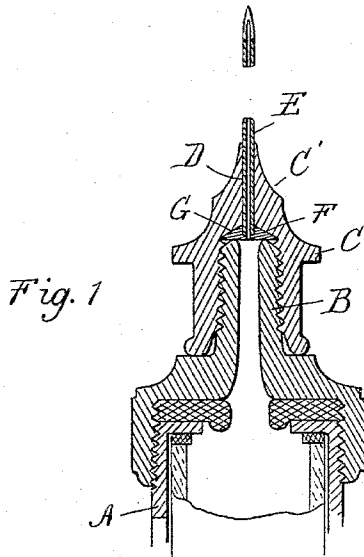


(No Model.)

G. R. SCHIMMEL.
HYPODERMIC SYRINGE.

No. 563,621.

Patented July 7, 1896.



Witnesses:
P. M. Hulbert
A. F. Bantlett

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Attys

UNITED STATES PATENT OFFICE.

GUSTAV R. SCHIMMEL, OF DETROIT, MICHIGAN.

HYPODERMIC SYRINGE.

SPECIFICATION forming part of Letters Patent No. 563,621, dated July 7, 1896.

Application filed August 20, 1895. Serial No. 559,901. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV R. SCHIMMEL, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Hypodermic Needles, of which the following is a specification, reference being had therein to the accompanying drawings.

In the present construction of hypodermic needle the needle proper is provided at one end with a screw-socket or so-called "butt" for the purpose of removably attaching the needle to the syringe, and a hypodermic case as provided for medical practitioners' use contains only a limited number of such needles. As it often happens that the fine perforations in the needles become stopped up, the limited supply contained in the case proves often insufficient, and as in cases of suspected infection, especially in dental practice, it becomes absolutely necessary to submit each needle used to a thorough process of disinfection before using it again it will readily appear how desirable it is to have a large supply of needles on hand.

My invention is designed to fill this want, and it enables the practitioner to provide himself with a large supply of needles without adding or increasing the size of the case or its cost.

To this end my invention consists in a hypodermic needle formed or provided at one end with a flat disk soldered or otherwise united to the shank of the needle and of a butt formed as a separate part and provided with a seat for the disk of the needle, all as more fully hereinafter described, and shown in the accompanying drawings, in which—

Figure 1 is an elevation, partially in central section, and Fig. 2 is a detached elevation, of the needle.

A represents the body or syringe part of the usual or known construction and terminating into the screw-threaded nozzle B.

C is the screw-threaded butt, adapted to engage with the nozzle B.

E is the needle proper, provided with the disk-shaped or flattened head F, which is centrally perforated like the needle. This needle is secured in the butt by forming the butt with a tapering tip C', provided with a central bore D just large enough to receive

and firmly hold a sufficient portion of the shank of the needle. In order to form a tight joint, I make the disk preferably with a cone-shaped seat G and form the bottom of the socket in the butt with a corresponding seat. By making the nozzle B of a harder metal than the head F and slightly beveling the end, the needle may be readily secured with an absolutely tight joint, and this does away with the use of a separate washer, which is a very undesirable feature of the old construction.

A hypodermic case according to my invention is less bulky than the old, as only one butt is needed, while a large number of needles may be carried along, inclosed in a small glass bottle, and thus be safely guarded from injury. As usual, a fine wire thread H may be looped into every needle to keep out any particles of dust, and my construction has the additional advantage that such wires can be more easily removed or inserted than in the old construction.

The continuous channel formed with this new needle with the end of the syringe is also of importance, as with the present form of attachment the liquid for hypodermic injection comes in contact with most of the surfaces of the threading on both the end of syringe and needle, frequently carrying particles of oil and worn metal with it, carrying infection, and causing stoppage of needles.

What I claim as my invention is—

In a hypodermic syringe the combination with the cylinder, of a nozzle B thereon having a reduced threaded section a butt engaging over the reduced portion formed with a tapered outer end integral therewith having a longitudinal bore and conical seat at the base of the bore of a diameter greater than the bore of the nozzle, and a needle member closely fitting the bore of the butt and having a conical soft-metal head fixedly secured on its lower end seated in said conical seat and against the base of which the upper edge of the nozzle B engages, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

GUSTAV R. SCHIMMEL.

Witnesses:

M. B. O'DOHERTY,
O. F. BARTHEL.