G. R. SCHIMMEL.

HYPODERMIC NEEDLE.

APPLICATION FILED MAY 9, 1908.

918,774. Patented Apr. 20, 1909.

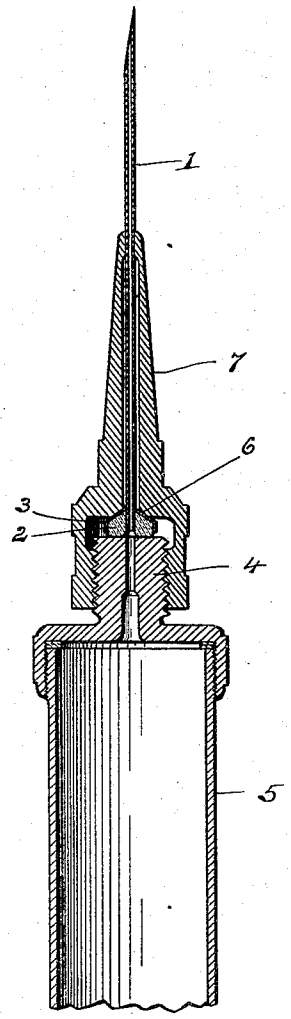


Fig. 1.

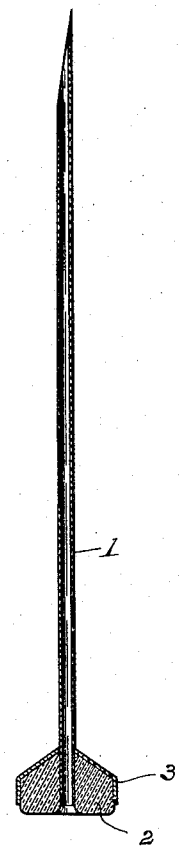


Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

GUSTAV R. SCHIMMEL, OF DETROIT, MICHIGAN.

HYPODERMIC NEEDLE.

No. 918,774. Specification of Letters Patent. Patented April 20, 1909.

Application filed May 9, 1908. Serial No. 431,741.

To all whom it may concern:

Be it known that I, GUSTAV R. SCHIMMEL, a citizen of the United States of America, 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.

This invention relates to improvements in hypodermic needles and its object is to provide a needle having certain new and useful features in its construction all as hereinafter more fully described, reference being had to the accompanying drawing in which—

Figure 1 is a longitudinal section of one end of a syringe with a needle embodying my invention in place therein; and Fig. 2 is an enlarged longitudinal section of the needle detached.

Hypodermic needles have been provided with soft metal heads by means of which they are secured within the nozzle-member of the hypodermic syringe and a tight joint formed to prevent leakage but after a short term of use these soft metal heads become flattened or distorted in shape so that it is necessary to discard the needle and provide a new one. Where the needle proper is made of nickel, platinum or other expensive material it is obvious that there would be a great saving if the head of the needle was so constructed that it could be used an indefinite number of times and to this end I provide the needle 1 with a soft metal head 2 at one end which is inclosed within a casing 3 of hard metal. The rear or inner end of the casing is open and the soft metal head projects a short distance from this open end to seat upon the end of a screw-threaded nipple 4 on the end of the cylinder 5 of the syringe. The needle-head is preferably made cylindrical with a conical-shaped forward or outer end and the casing or shell 3 is similarly shaped, the conical portion being adapted to engage the conical seat 6 at the inner end of the bore in the nozzle 7 of the syringe. The hard metal casing of the head prevents the soft metal from spreading out and becoming distorted when the nozzle-member is screwed upon the nipple to clamp the head between. The conical end of the casing serves to center the needle in the bore of the nozzle and being of hard metal retains its shape under pressure and constant use so that the needle will always be properly centered by the head. The soft metal of the head is allowed to project far enough through the casing to insure a tight joint between the head and the end of the nipple 4.

Having thus fully described my invention what I claim is:

1. A hypodermic needle consisting of a needle, a soft metal head on the needle, and a casing or shell for the head and open at one end from which open end the soft metal of the head projects.

2. A hypodermic needle consisting of a needle, a shell of hard metal upon the needle at one end thereof, and a soft metal head on the needle filling the shell and projecting therefrom to form a seating end for the head.

3. A hypodermic needle consisting of a needle, a soft metal head and a hard metal shell for the head which is cylindrical in form and provided with a conical forward end and an open rear end from which the soft metal of the head projects.

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

GUSTAV R. SCHIMMEL.

Witnesses:
C. R. STICKNEY,
OTTO F. BARTHEL.