E. B. NIMMO.

Cannula Points for Syringes.

No. 144,352. Patented Nov. 4, 1873.

Witnesses
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UNITED STATES PATENT OFFICE.

EDWARD B. NIMMO, OF BROOKLYN, NEW YORK, ASSIGNOR TO SHEPARD & DUDLEY, OF NEW YORK CITY.

IMPROVEMENT IN CANNULA-POINTS FOR SYRINGES.

Specification forming part of Letters Patent No. **144,352**, dated November 4, 1873; application filed October 24, 1873.

To all whom it may concern:

Be it known that I, EDWARD B. NIMMO, of Brooklyn, county of Kings and State of New Yord, have invented certain new and useful Improvements in Cannulated Points and Needles for Syringes, of which the following is a specification:

This invention relates to cannulated points or needles for hypodermic syringes, and other syringes employing a point cannulated—*i. e.*, of tubular formation—the channel being very small and minute. It will be understood that in the course of this specification the word canulated refers to a duct or channel of the above-specified character in contradistinction to the ordinary tubular discharge-nozzles of considerable internal diameter, which are not subject to the difficulties and objections heretofore encountered in the use of cannulated points or needles, which difficulties and objections it is the object of my invention to avoid. Cannulated points or needles have heretofore been made almost invariably of steel. In exceptional cases gold has been used for this purpose; but the cost of this metal, and its extreme liability to bend and get out of shape, have constituted insuperable obstacles to any extended use of it in this connection. Steel has, therefore, been the metal heretofore generally employed, the point or needle of this material being, in some instances, afterward gilded. The most serious difficulty experienced in the use of steel points or needles is their liability to rust, causing the channel to be impeded and even entirely stopped up. Unless a fine wire be introduced through the orifice of the steel point or needle each time it is used the channel will speedily close up, and will then defy all efforts to open it. The steel needle or point is thus very liable to oxidize; and, further, is often injuriously affected by the solutions that may be forced through it.

It has been my object to remove the difficulties above specified by making the cannulated points or needles of a material not liable to oxidize, or to be injuriously affected or acted on by the solutions or fluids that may be brought in contact with it. To this end I make said cannulated points or needles of an alloy of aluminum and copper. The proportions of this alloy may vary, but I have found that for my purpose the best results are obtained by combining the ingredients in the proportion of about one part of aluminum to nine parts of copper. The cannulated points or needles are made of this material, the operation of manufacturing them being conducted in the usual way, well understood by those skilled in the art, and requiring, therefore, no detailed explanation. This material is not oxidized by the contact of any fluid substances ordinarily used in syringes. It is not even, so far as I have been able to ascertain, acted upon by caustic solutions or medicaments of any kind. Its value in the manufacture of cannulated points and needles is, therefore, at once apparent, inasmuch as, by its use, all the difficulties above specified are at once and effectually removed. The material, further, is cheap, and points or needles made of it cost no more than the same articles made of steel and gilded, as heretofore customary.

In the manufacture of the points or needles of syringes for hypodermic or endermic injections, my invention will be found of special value and utility.

The accompanying drawing represents one of these needles. It will be understood, however, that I make no claim to the special configuration or form of the article; and it will also be understood that the form or structure of the article may vary according to the uses for which it is intended.

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

A cannulated point or needle for syringes made of an alloy of aluminum and copper, substantially as herein specified.

In testimony whereof I have hereunto signed my name this 21st day of October, 1873.

EDWARD B. NIMMO.

Witnesses:

EDWD. W. GIFFORD,

GEORGE O. SIMMONS.