(No Model.)

S. F. JENKINS.

METHOD OF MAKING NEEDLES.

No. 383,733. Patented May 29, 1888.

Fig. 2.

Fig. 1.

Fig. 3.

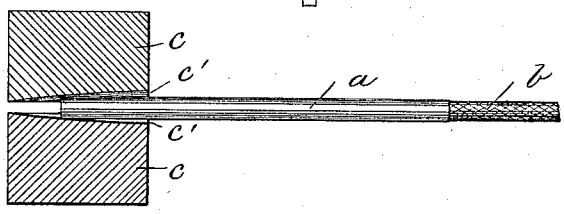


Fig. 4.

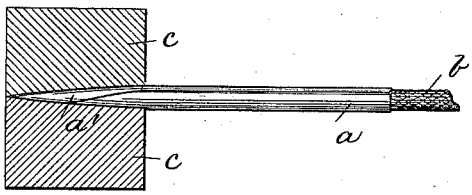


Fig. 5.

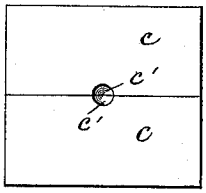


Fig. 7.

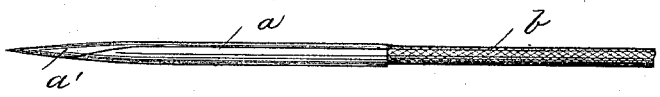
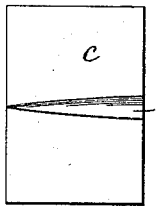


Fig. 6.



Witnesses.
H. L. Chapin.
O. A. Perry.

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his attys.

UNITED STATES PATENT OFFICE.

SALMON F. JENKINS, OF EAST BRAINTREE, MASSACHUSETTS.

METHOD OF MAKING NEEDLES.

SPECIFICATION forming part of Letters Patent No. 383,733, dated May 29, 1888.

Application filed November 30, 1887. Serial No. 256,556. (No model.)

To all whom it may concern:

Be it known that I, SALMON F. JENKINS, a citizen of the United States, and a resident of East Braintree, in the county of Norfolk and State of Massachusetts, have invented new and useful Improvements in the Method of Making Needles, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention has for its object to provide a novel method of making needles for sewing buttons on boots and shoes and for other purposes, and it is carried out as follows, reference being had to the drawings which are made to illustrate the method of making the needles.

On said drawings, Figure 1 represents a sectional side elevation of the metal tube from which the needle is made and the cord or thread secured within it. Fig. 2 is an end view of said metal tube. Figs. 3 and 4 represent sectional views of the dies for forming the point of the needle. Fig. 5 represents a front view of said dies. Fig. 6 represents a plan view of one of the dies. Fig. 7 represents a side view of the finished needle.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In carrying out my invention I take a strip of thin steel or other suitable metal and form it into the shape of a cylindrical tube, *a*, as shown in Figs. 1, 2, and 3, part of which is closed around the thread or braid *b* in the same manner as metal-pointed shoe-lacings are made. The free end of the said metal tube *a* is then introduced between the dies *c c*, each of which has on its inside a tapering recess, *c'*. (Shown in Figs. 3, 4, 5, and 6.) The said dies are set in a quick rotary motion around the tube *a*, and at the same time they are intermittently moved to and from each other and the tube *a* introduced between them, and by the hammering action and rotation of said grooved dies the free end of the tube *a* is compressed, hammered, swaged, and brought together in the form of a tapering or conical point, *a'*, as shown in Figs. 4 and 7.

I wish to state that I do not wish in this my method to confine myself to any particular mechanism for rotating and intermittently reciprocating the grooved dies *c c* for forming the point of the needle, as this may be done in any suitable manner. Also, if so desired, the needle may be rotated around its axis and the dies intermittently reciprocated without departing from the essence of my invention. After the point of the needle has been made as above described it is sharpened on a grinder or emery-wheel, if a sharp point is desired.

By this my improved method I form a tapering or conical point on the tube *a*, which is centrally in a line with the axis of the said tube *a* and its cord or braid *b*, as shown in Figs. 4 and 7, and by the said method I am able to close the end of the tube *a* together in such a manner as to produce a very smooth, solid, and uniform pointed end of the needle, so as to facilitate the puncturing of the material for which the needle is intended.

I am aware that it is not new to make a needle from a tube by compressing and flattening one end thereof to bring the walls in contact, then cutting away one edge of the flattened and compressed end on an oblique line, and finally sharpening to a point. I am also aware that it is not new to point the ends of the steel rods for forming sewing-machine needles by the use of revolving dies, and such constructions therefore I do not broadly claim.

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

The method herein described of making hollow needles, which consists in first constructing a hollow cylinder, then inserting an open end thereof between a series of reciprocating and rotating dies having tapering recesses, and laterally hammering and compressing the walls of the open end of the cylinder into a uniformly-tapered closed point, substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 17th day of November, A. D. 1887.

SALMON F. JENKINS.

Witnesses:

ALBAN ANDRÉN,

HENRY CHADBOURN.