

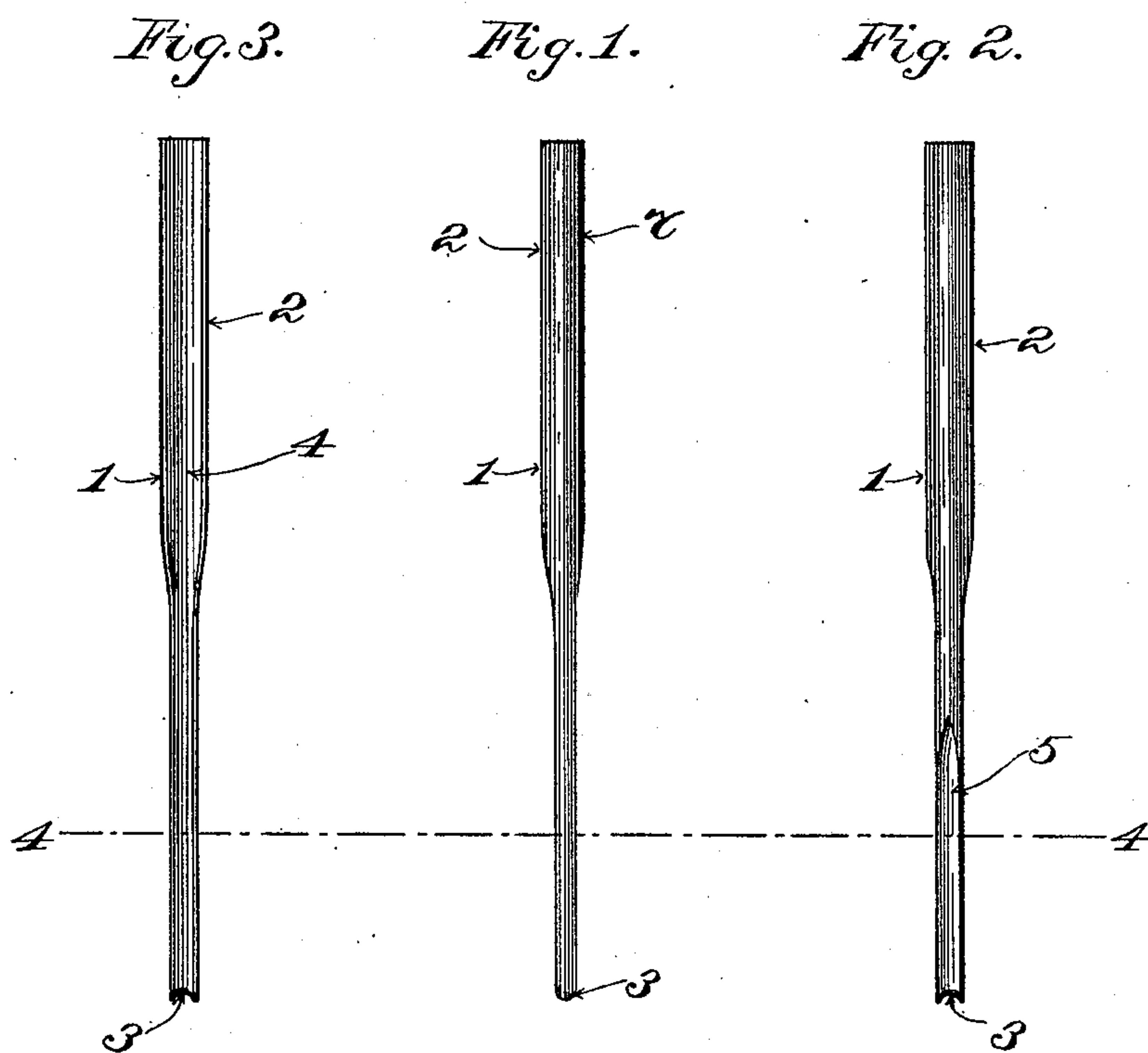
(No Model.)

E. F. MOWER.

THREAD INSERTING TOOL FOR FAIR STITCH MACHINES.

No. 584,952.

Patented June 22, 1897.



Witnesses:

Oscar F. Bill.

William A. Copeland.

Inventor:

Edwin F. Mower

by Macleod Calver Randall
Attorneys.

UNITED STATES PATENT OFFICE.

EDWIN F. MOWER, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO FRANK W. WHITCHER, OF SAME PLACE.

THREAD-INSERTING TOOL FOR FAIR-STITCH MACHINES.

SPECIFICATION forming part of Letters Patent No. 584,952, dated June 22, 1897.

Application filed October 13, 1896. Serial No. 608,749. (No model.)

To all whom it may concern:

Be it known that I, EDWIN F. MOWER, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Thread-Inserting Tools for Fair-Stitch Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to fair-stitch machines of the class which is presented in certain Letters Patent which already have been granted to me, and more particularly to the devices which are employed in such fair-stitch machines for punching the thread into the work in the form of loops to simulate stitches.

My present invention consists in a novel and improved form of punch.

The invention first will be described fully with reference to the accompanying drawings, and afterward the distinguishing characteristics thereof will be pointed out more particularly, and defined distinctly in the claim at the close of this specification.

Figure 1 of the drawings shows my improved punch in side elevation. Figs. 2 and 3 show the said punch in elevation, viewed from the left-hand side and right-hand side, respectively, in Fig. 1. Fig. 4 is a view in cross-section on the line 4 4 of Figs. 1, 2, and 3.

The punch as an entirety is designated 1 in the drawings. At 2 is the shank portion thereof, which portion is fitted to enter the hole that is formed to contain the same in the punch-carrying bar, the said shank being cramped or held in the said hole by means of a set-screw, as customary. At 3 is the working end of the said punch, it being notched to receive and hold the thread as it drives the same into the leather.

The punch and the awl which is employed in connection therewith work closely together, particularly when the stitching is fine, and in the finest kind of work the adjacent portions of the awl and punch are practically in contact with each other. For this reason the said adjacent surfaces are slabbed off to allow

the points of the tools to come as close together in the work as possible.

At 7, in Fig. 1, is the slabbed-off portion of the shank of the punch. The side of the punch which is next the awl, such side being termed, commonly, the "face," is grooved throughout the entire length thereof, as at 4, to receive and contain the thread between itself and the awl. The thread in practice lies in the groove throughout the entire length thereof. The other or rear side of the punch also is grooved, as at 5, but in this case the grooving does not extend more than one-half of the length of the punch. The grooving on the side next the awl accommodates the thread and not only permits the awl and punch to be set more closely together than would otherwise be the case, but prevents all gripping or binding and cutting of the thread through contact of the awl therewith. The grooving on the two sides of the awl receives the portions of the thread which are carried down by the punch into the leather, thereby avoiding any excessive distention or distortion of the hole that is formed in the leather by the awl for the reception of the stitch and enabling finer and more sightly work to be done. The thread is guided by the grooves, and by the said grooves the stitch is set and rendered plump and attractive in appearance. The groove 4 on the face of the punch is deeper than the groove 5 on the back, the object being to leave the thread comparatively free to render freely through the said groove 4, so that the thread which is taken up in forming a stitch shall be drawn from the source of supply and not from the stitch just previously formed. While the groove on the back of the punch is sufficiently large to receive the greater part of the thread on that side of the punch, so as to avoid cutting the thread and unduly enlarging the hole into which the loop of thread is forced by the punch, it yet shall operate to cause the thread to be held with a greater amount of pressure than is exercised upon the thread on the other side of the punch—that is to say, upon the face.

I claim as my invention—

The thread-inserting punch for use in fair-
stitch machines and the like, having the
notched point, the long groove on the face
5 thereof, and the short groove on the back, the
said long groove on the face of the punch be-
ing deeper than the groove on the back to en-
able the thread to play or render more freely

through said long groove, substantially as de-
scribed.

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

EDWIN F. MOWER.

Witnesses:

WILLIAM A. COPELAND,
CHAS. F. RANDALL.