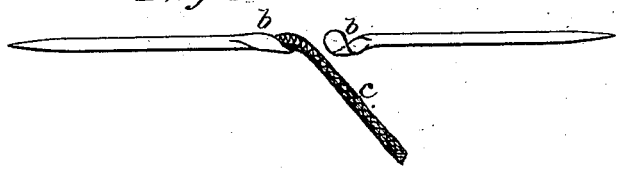
J. BURROWS.
Needles.

No. 209,018. Patented Oct. 15, 1878.

Fig. 1.

Fig. 3. Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

JAMES BURROWS, OF MANCHESTER, NEW HAMPSHIRE.

IMPROVEMENT IN NEEDLES.

Specification forming part of Letters Patent No. **209,018**, dated October 15, 1878; application filed August 21, 1878.

To all whom it may concern:

Be it known that I, JAMES BURROWS, of Manchester, in the county of Hillsborough and State of New Hampshire, have invented certain new and useful Improvements in Needles; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide means by which the attachment of shoe-buttons is greatly facilitated; and the invention consists in a peculiarly-constructed needle, specially adapted for the thread used in securing shoe-buttons.

In the drawings, Figure 1 shows the needles after having been pointed and their opposite ends flattened. Fig. 2 shows a needle with its flattened end coiled spirally to receive the thread. Fig. 3 represents the needle attached to the thread, its flattened end being coiled spirally around the thread and embedded therein.

In constructing these needles the wire is commonly cut into lengths, each of which, when completed, will form two needles. Both ends of these blanks are then pointed, after which they may be placed under a drop-press and their ends flattened and separated, as shown at *a* in Fig. 1, or the blanks may be cut apart after being pointed, and their ends flattened upon an anvil by a hammer. The next operation is to give the flat end of the needle a spiral twist, as shown at *b* in Fig. 2, by means of pliers or other mechanism. This prepares the needle for the reception of the thread, which is attached by passing it through the spiral coil, and then closing the latter firmly upon the thread, as illustrated by Fig. 3, in which *b* is the coil, closely embracing and embedded in the thread *c*. This closing of the coil upon the thread may be accomplished by means of a hammer upon an anvil provided with a shallow groove in its face, in which the needle is placed and slightly rotated during the operation; or it may be performed more quickly in a drop-press provided with suitably-shaped dies, a single blow in this case being sufficient to secure the thread in place.

Many different methods might be used for constructing and applying these needles to the thread; but I prefer those above described as being simple and requiring but small outlay for the necessary mechanism required to put the invention in use.

It will be observed that the thread used is fully as large as the needle, being proportioned to the size of the eyes in the buttons, so that a single thread fills the eye completely, thus making it necessary to pass the needle but once through each eye of the button.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent, the following:

A needle having a flattened spirally-coiled end for attachment to the thread, which may be as large or larger than the needle, as described.

In testimony that I claim the foregoing as my own I hereunto affix my signature in presence of two witnesses.

JAMES BURROWS.

Witnesses:
ISAAC N. RIDDLE,
B. P. CILLEY.