

C. O. Crosby. Sheet 1, 3 Sheets.
 Sewing Needle.
 N^o 101,829. Patented Apr. 12, 1870.

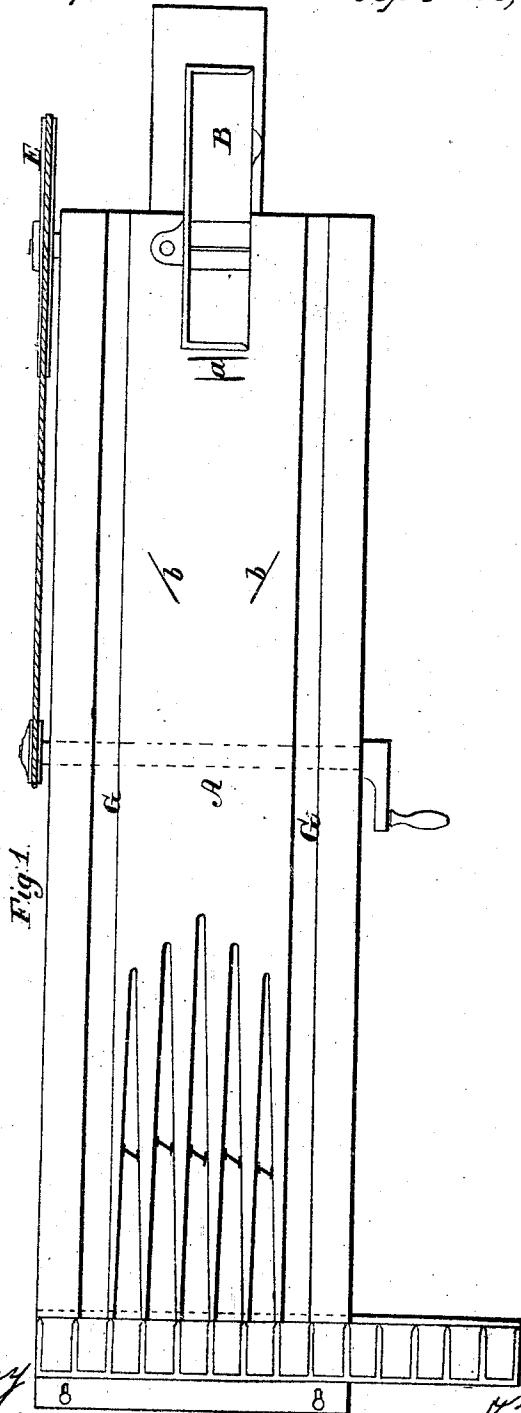


Fig. 1.

Witnesses;
 J. H. Shawney
 A. J. Tibbets

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 Wm. E. Carver

C. O. Crosby *Sheet 2, 3. Sheets.*
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Patented Apr. 12, 1870.

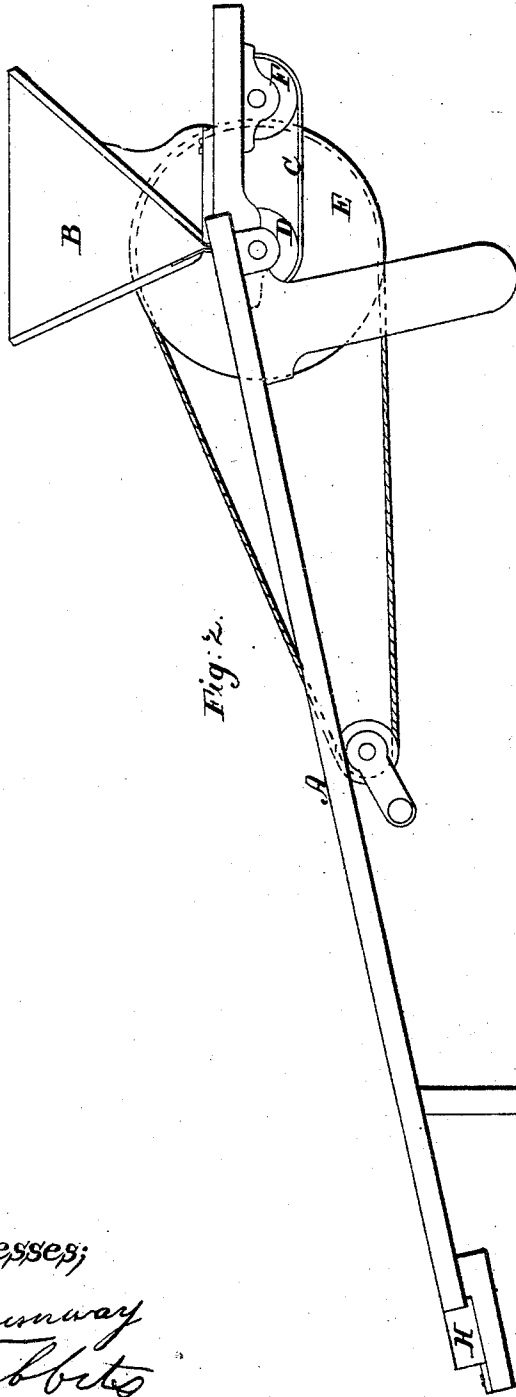


Fig. 2.

Witnesses;
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A. J. Roberts

Inventor;
C. O. Crosby
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John E. Earle

C. O. Crosby. *Sheet 3, 3 Sheets.*
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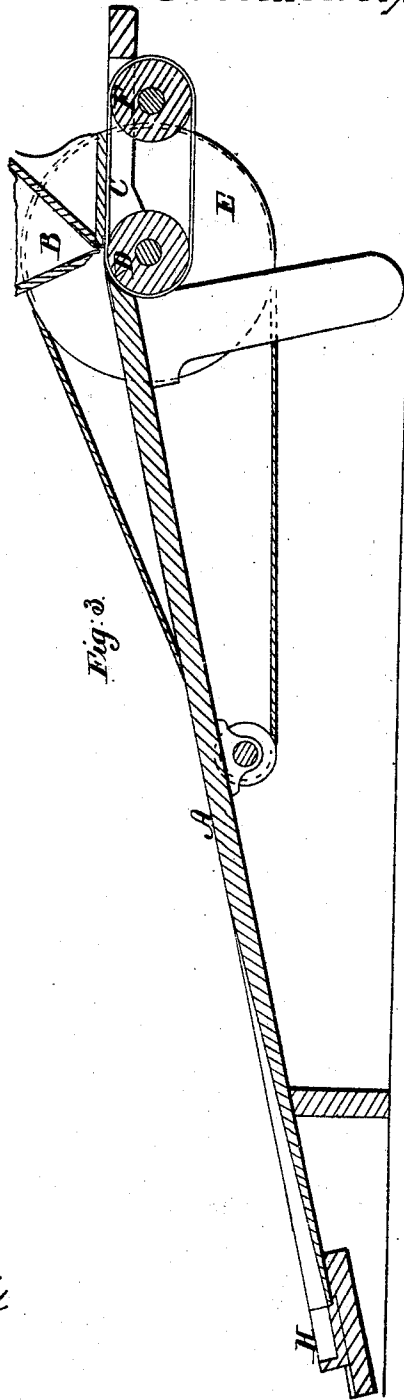


Fig. 2.

Witnesses;

J. H. Shuman
A. J. Tubbits

Inventor;

C. O. Crosby
By his attorney
John E. Case

United States Patent Office.

C. O. CROSBY, OF NEW HAVEN, CONNECTICUT.

Letters Patent No. 101,829, dated April 12, 1870.

IMPROVED MACHINE FOR ARRANGING NEEDLES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, C. O. CROSBY, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Machine for Arranging Needles; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent in—

Figure 1, a top view;

Figure 2, a side view; and in

Figure 3, a longitudinal central section.

This invention is designed for separating or assorting the needles so as to present their heads and points in the same direction, the object being to automatically perform the labor which has heretofore been done by hand. To this end,

The invention consists in the arrangement of an incline plane or table, with a delivering device arranged relatively to the said table, so that the needles may be presented at the elevated end of the table and, rolling of their own inclination, the heads advance faster than the points, and thus carry the needles to the right or left, according as their heads advance; that is to say, the needles, the heads of which lie to the left, will roll to the right, and *vice versa*.

To enable others to construct and use my improvement, I will fully describe the same as illustrated in the accompanying drawings.

I arrange an incline table, A, smooth upon its upper surface, and near the upper end a hopper, B, into which the needles are placed, regardless of the position of the heads or points, the mouth of the said hopper opening upon the upper surface of the band C; which said band is carried around a wheel, D, beneath the hopper, as seen in fig. 3, the said wheel being driven by a pulley, E, or in other convenient manner, revolving toward the table, and the band passing over the second wheel, F, arranged in the rear at a convenient distance.

I prefer this arrangement of the band, yet a wheel or a drum alone may be employed, the periphery of which lies in proper position beneath the mouth of the hopper.

The hopper is made adjustable in any convenient manner, so as to adjust the mouth for the proper delivery of the needles.

The needles are placed in mass into the hopper, care being taken that they lie nearly parallel to each other, and the wheel or band caused to pass beneath the mouth of the hopper carries from the hopper the needles, singly, and presents them to the incline table, as seen at *a*, fig. 1, where two needles are represented, their heads in opposite directions.

The inclination of the table is such that the needles will by their own gravitation readily roll down the table, and in so rolling the heads naturally travel faster than the points, and the needles, the heads of which lie to the left, will turn to the right, and *vice versa*, as seen at *b*, fig. 1.

While the hopper is the most convenient and desirable means of placing the needles on the feeding device for delivery, at some stages of the manufacture of needles they may be delivered to the feeding device directly from the machine which has performed the last operation; as, for instance, passing from a polishing-machine to the sticker; but generally I prefer the hopper.

Upon each side of the table I form a groove, G, into which the needles roll, their heads all lying downward; thence they may be conducted directly to the machine for any operation necessary to be performed upon the needles, delivering the needles their heads first to such machine or operation; or for some purposes it may be only necessary to deliver the needles to the receptacle, where for a while they remain, or by means of which they are transferred.

A convenient receptacle for the needles is shown in fig. 1, where a box, H, fitted with several compartments, is arranged so that each of the two channels G G communicates directly with a respective compartment in the receptacle, which two compartments being filled, the box is passed along to present other compartments, and so on until all are filled.

If upon the delivery of the needles upon the table any should be crooked, such crooked needles will not roll down the incline, but will be passed or brushed down the center of the table into a groove or grooves, I, where they will remain to be removed at pleasure.

It will be readily seen that this device for separating the needles so as to present their heads in one direction is applicable for many operations in the manufacture of needles, and alike applicable to the manufacture of other articles, when such separation of the articles is necessary, as in the manufacture of pins and screws. I therefor do not wish to be understood as confining myself to any particular use of this part of my invention, as I have shown it is adapted to other and many uses.

It is desirable that the table be constructed so so that the inclination may be adjusted, to cause the articles delivered thereon to roll freely down the surface.

Having fully described my invention,

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

1. The inclined table A with the grooves G G, and with or without its grooves I I, in combination with the band or wheel, substantially in the manner and for the purpose set forth.

2. In combination with the subject-matter of the first clause of claims, the hopper B, constructed and arranged so as to deliver the needles at right angles across the said inclined tables, substantially in the manner described.

C. O. CROSBY.

Witnesses:

A. J. TIBBITS,
J. H. SHUMWAY.