W. H. DAYTON & J. ALLDIS.

MACHINES FOR POINTING WIRE FOR SEWING-MACHINE NEEDLES.

No. 184,348. Patented Nov. 14, 1876.

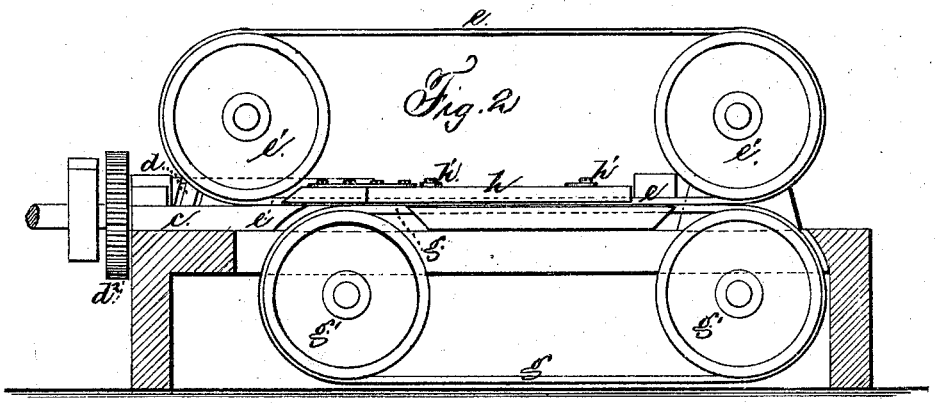

Fig. 2.

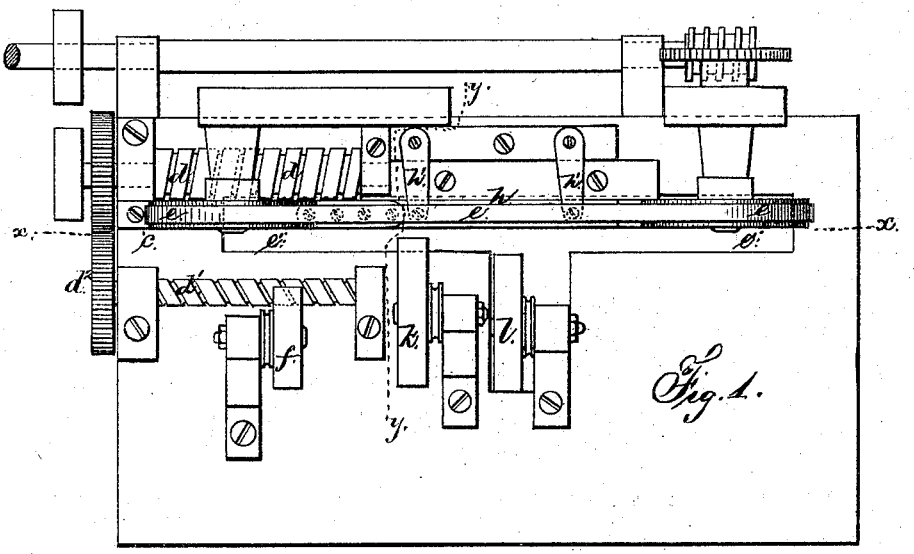

Fig. 1.

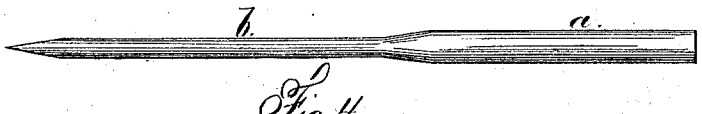

Fig. 4.

Fig. 5.

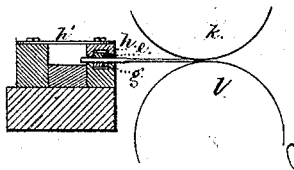

Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM H. DAYTON AND JAMES ALLDIS, OF TORRINGTON, ASSIGNORS TO EXCELSIOR NEEDLE COMPANY, OF WOLCOTTVILLE, CONNECTICUT.

IMPROVEMENT IN MACHINES FOR POINTING WIRE FOR SEWING-MACHINE NEEDLES.

Specification forming part of Letters Patent No. **184,348**, dated November 14, 1876; application filed September 4, 1876.

To all whom it may concern:

Be it known that we, WILLIAM H. DAYTON and JAMES ALLDIS, of Torrington, in the State of Connecticut, have invented an Improvement in Pointing Wire for Sewing-Machine Needles, &c., of which the following is a specification:

Sewing-machine needles for leather-work are usually made with the points flattened in the form of a straight awl, and the angles of the knife-edge are slightly removed.

The object of the present invention is to sharpen the needle-blanks, awls, or similar articles with rapidity and precision, so that the bevel or inclination may be equal at each side of the point, and the corner or angle of the knife-point may be slightly rounding.

In the drawing, Figure 1 is a plan of the machine employed by us. Fig. 2 is a section vertically at the line *x x*. Fig. 3 is a cross-section at *y y*. Fig. 4 is a side view, and Fig. 5 is an end view, of the needle in larger size.

The sewing-machine-needle blank is made with the shank *a* and needle portion *b*, as usual. These blanks are laid successively by hand or automatically upon the bed *c*, with the end of the shank *a* in the groove of the screw-cylinder *d*, and with the needle-body *b* in the groove of the screw cylinder or roller d^1, and these screws are geared together at d^2 and revolved, so as to carry the needles along beneath the belt *e*, that is endless and passes around the pulleys *e'*, that are moved at such a speed that each needle will be revolved as it is moved along, in consequence of the shank being rolled upon the bed *c*, and while this movement is given to the needle its end comes into contact with the grinder at *f*, to slightly or partially round the point. The needle-shank, awl, or similar article is then received between the endless belt *e* and a second endless belt or chain, *g*, around pulleys *g'*, so that the shank is firmly grasped between them, and it is preferable that the belt or chain *g* be made with transverse recesses, into which the needle-shank *a* is received, and there is a bar, *h*, above the belt *e*, upon which bar springs *h'* act to press the belts together and clamp the shanks of the needles firmly while being carried along in contact with the grinders *k* and *l*, that act above and below the needle-point, to grind the same into a wedge shape, and the needle runs above a rest, by preference, while being acted upon by the grinder *k*, and below another while being ground by *l*, so that the points are made perfectly uniform, with an equal inclination at both sides, and with the corners slightly rounded.

The grinders *f*, *k*, and *l* are shown as wheels. They may be of any suitable material, such as emery, or they may be of steel, with file-surfaces, or reciprocating files may be employed, if desired.

We claim as our invention—

The chain or belt *g*, in combination with the belt *e*, presser-bar *h*, and files or grinders *k l*, substantially as set forth.

Signed by us this 28th day of August, A. D. 1876.

WILLIAM H. DAYTON.
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Witnesses:
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