

J. L. WOODRUFF.

Needle-Sharpener for Sewing-Machines.

No. 146,628.

Patented Jan. 20, 1874.

Fig. 1.

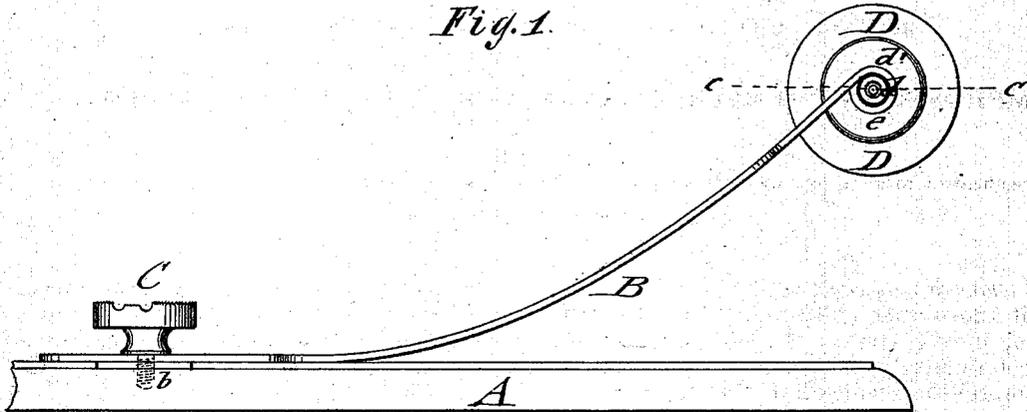
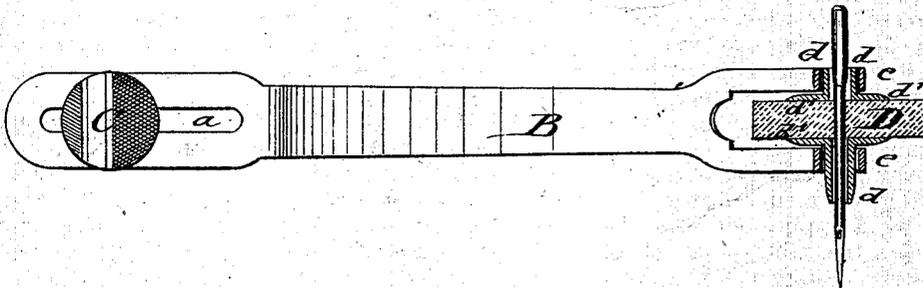


Fig. 2.



WITNESSES:

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JOHN L. WOODRUFF, OF EASTON, PENNSYLVANIA.

IMPROVEMENT IN NEEDLE-SHARPENERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **146,628**, dated January 20, 1874; application filed October 25, 1873.

To all whom it may concern:

Be it known that I, JOHN L. WOODRUFF, of Easton, in the county of Northampton and State of Pennsylvania, have invented a new and Improved Needle-Sharpener for Sewing-Machines, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side elevation of my improved needle-sharpener attached to a sewing-machine; and Fig. 2, a top view of the same, partly in section, on the line *c c*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of my invention is to furnish a convenient attachment to sewing-machines by which needles of all kinds, whether straight or curved, may be rapidly sharpened, and thereby the expense for new needles and other inconveniences be avoided. My invention consists of a curved arm, which is attached by a set-screw to the sewing-machine table, and which carries at its upper end a rubber wheel, connected to the fly-wheel of the machine, through which the needle is passed to be sharpened by a small whetstone.

In the drawing, A represents the table of a sewing-machine; B, a curved arm of suitable material, which is applied either to the upper or lower side of the table by a set-screw, C, which operates through a slot, *a*, at one end of arm B into a socket, *b*, of the table. The top part of set-screw C is provided with one or more grooves, which form a raised table between them, on which the needle, when bent, may be laid and straightened by tapping it

with a light hammer. The rest of the top part may be cut like a rasp or file, over which the needle, when too blunt, is passed several times, to be more readily pierced through the rubber wheel. The upper end of curved arm B is forked, and carries, in ring-shaped bearings *e*, the hollow axle *d* of the rubber wheel D. The axle *d* is applied to suitable metal disks *d'* at both sides of the rubber wheel, without extending through the wheel, and projects at one side, with its tapering end beyond bearing *e*, so as to guide and retain the needle when forced through the wheel. The rubber closes tightly on the needle, leaving at the same time a sufficient degree of elasticity to prevent too great a degree of rigidity in sharpening. Rubber wheel D is driven by the band or fly wheel of the machine, and the needle sharpened by holding a small whetstone to the point of the same. After the needle is pointed it is withdrawn for use, the rubber wheel being immediately ready for taking up the next needle, forming thus a neat and convenient sharpening device.

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

The combination, with table A and set-screw C, of the curved arm B and wheel D, and hollow axles and disks, all constructed substantially as and for the purpose described.

JOHN L. WOODRUFF.

Witnesses:

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