P. DIEHL.

Roller-Presser for Sewing-Machines.

No. 225,274. Patented Mar. 9, 1880.

Fig. 1.

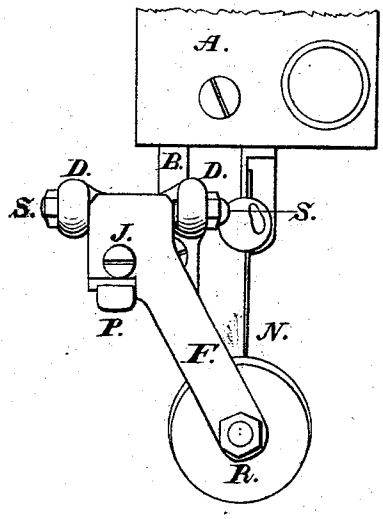


Fig. 2.

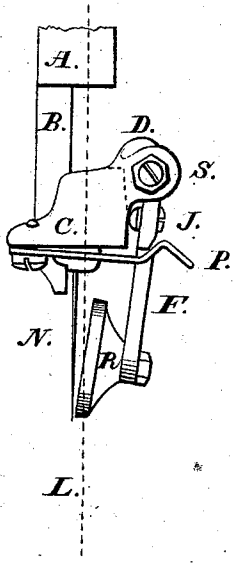


Fig. 3.

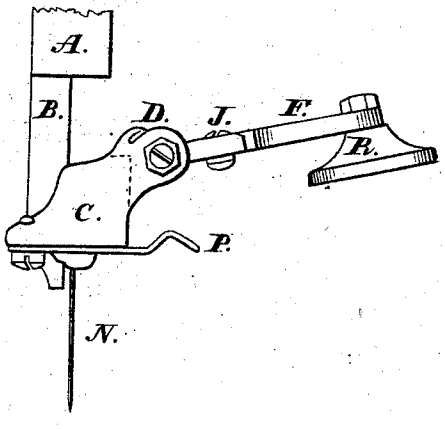


Fig. 4.

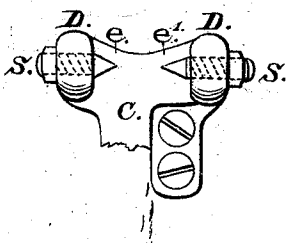
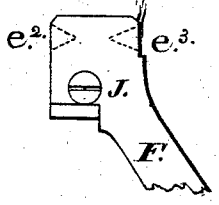


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

PHILIP DIEHL, OF ELIZABETH, NEW JERSEY, ASSIGNOR TO THE SINGER MANUFACTURING COMPANY OF NEW JERSEY.

ROLLER-PRESSER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 225,274, dated March 9, 1880.

Application filed February 1, 1879.

To all whom it may concern:

Be it known that I, PHILIP DIEHL, of Elizabeth, in the county of Union and State of New Jersey, have invented a new and useful Improvement in Roller-Pressers for Sewing-Machines, of which the following is a specification.

In the drawings, Figure 1 is a front view of the roller-presser attached to the presser-bar of the sewing-machine and in position ready for operation, the lower portion of the face-plate of the machine only being shown. Fig. 2 is a side or edge view of the roller-presser in position ready for operation. Fig. 3 is the same as Fig. 2, except that the arm of the presser carrying the roller is thrown up or to one side away from the needle in order to permit the needle to be threaded. Figs. 4 and 5 are portions of the bracket and arm of the presser, respectively, and show the plan of adjusting the arm in the bracket.

In a roller-presser it is of the greatest importance that the roller shall press the goods at a point close to the needle, and as different kinds of work require the use of needles of different diameters the arrangement must be such as will permit the roller to be set or adjusted toward or away from the needle, as the case may be, in a line at right angles to the line of the stitch; and, further, the arrangement must also be such that when the roller is swung out and upward to thread the needle or to inspect or adjust the work the roller-arm, being griped or pinched at the hinged end, will, when swung up, be retained in any position in which it is placed, and also, by means of the said griping or pinching arrangement at the upper or jointed end of the arm, any looseness of the said joint may be overcome and lost motion taken up or prevented.

In order to retain the roller-arm in appropriate position when lifted up from the work by the action of the lifter, it is necessary to hold it by a spring. When at work it is kept in position both by the spring and its own action, as the jointed or hinged end of the arm is outside of or to the right of the perpendicular line of pressure, (see L, Fig. 2,) so that when the roller is resting on the goods and pressure is applied the tendency of the roller is always toward the needle, the spring being necessary only when the roller is lifted up in direct line from the work.

The same letters indicate like parts in all the figures.

In the drawings, A is the face-plate of the machine. B is the presser-bar, to which is attached the roller-presser, (shown in Figs. 1, 2, and 3.) C, Figs. 2, 3, and 4, is the bracket of the presser, having the lugs D D, through which are inserted the screws S S, (plainly shown in Fig. 4.) The ends of the screws are adjusted to fit into the recesses e^2 e^3, Fig. 5, formed in the upper end of the arm F, which is retained in any position in which it is placed by means of the pressure exerted upon it by the screws S S whenever the arm is required to be swung up or away from the needle, as shown in Fig. 3. The screws S S are adjustable in the lugs D D, and may be turned and set in any position required.

The lock-nuts (shown in Figs. 1, 2, 3, and 4) on the exterior ends of the set-screws S S are for the purpose of locking and retaining the screws in position after they are properly set and pressed into the recesses formed to receive them in the upper end of the arm F.

R is the roller attached to the lower end of the arm F. When the said arm is brought down ready for work the position of the roller on a line at right angles to the line of the stitch, and relative to the needle N, Fig. 2, is adjusted by turning the set-screw J, Figs. 1, 2, and 3, either forward or back, as may be required.

The set-screw J, when the roller is in operation or when it is lifted up from the work, bears upon the side of the bracket C, as shown in Fig. 2.

P, Figs. 1, 2, and 3, is the spring attached at one end, as shown, to the bracket C, by means of a screw, and is so shaped that when the roller is in position ready for work, Fig. 2, the spring, resting upon the beveled side of the arm F, will clasp the arm and retain it through the set-screw J in contact with the bracket C, whatever may be the adjustment relative to the needle of the said arm, and

whether the roller is upon the work or is lifted up by the action of the lifter.

What I claim is—

1. The combination, with the roller-presser, of the bracket C, arm F, and spring P, substantially in the manner and for the purposes described.

2. The combination, with a roller-presser, of the bracket C, arm F, set-screw J, and spring P, substantially in the manner and for the purposes described.

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DANIEL F. TOMPKINS.