J. KARR.

Sewing-Machine Attachment.

No. 110,144. Patented Dec. 13, 1870.

FIG. 1

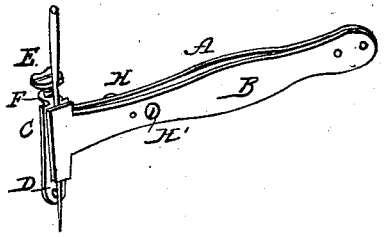


FIG. 2.

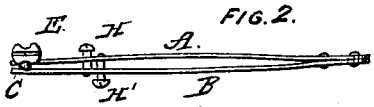
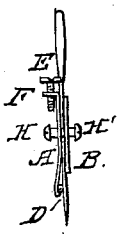


FIG 3.



Witnesses

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JACOB KARR, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN NEEDLE-SETTERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **110,144**, dated December 13, 1870.

To all whom it may concern:

Be it known that I, JACOB KARR, of the city and county of Washington, in the District of Columbia, have invented a new and useful Needle-Adjuster, of which the following is a specification.

My invention consists in the novel combination of self-operating pinchers, gage-point, and screw-gage, by which I am enabled to produce an inexpensive, simple, practically convenient, useful, and durable device which greatly facilitates the setting of needles within the needle-bars of sewing-machines; and I do hereby declare the following specification to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 represents a perspective view of one of my needle-adjusters with a needle in position. Fig. 2 represents a top view, and Fig. 3 an end view, of the same.

In the drawings, A and B represent the two parts of my adjuster. They are shown constructed of springy sheet metal of an L-shaped form, slightly curved in the center, and, being suitably connected at one of their ends, they are made to act upon the principle of a pair of self-operating spring jaws or pinchers, their disconnected ends always being in close contact under pressure of the springs.

C represents a needle-groove formed in the outer or disconnected end of the part A. This groove, in order to assist in securely holding a needle, is made of an angular form. In this instance the groove C is represented as straight; but it will often be found necessary in cases where curved needles are used to form a curved groove upon the part B.

D represents a stud or gage-point, which enters the eye of the needle. It is firmly attached to the part A directly below and on a line with the groove C.

E is an adjusting-screw working in a projection, F, formed upon the part A, above the groove C. This screw, which constitutes an important feature of my invention, is provided with a recessed head, which is clearly shown in Fig. 2. In this instance two recesses are made upon opposite sides of the head. Slides have heretofore been used for a similar purpose, in connection with gage-points, in needle-setters. They have, however, been used with separate set-screws so arranged as to hold the slides in any desired position. With my screw-gage the finest degree of adjustment is possible, as the recesses in the side of the head admit of a single half-turn of the screw.

H and H′ are finger-pieces attached to the parts A and B. The finger-piece H passes loosely through an opening in the part A, and its inner end is rigidly secured to the part B. The piece H′ in a similar manner passes through the part B, while its inner end is attached to the part A. By this arrangement in simply pressing the finger-pieces together the parts A and B are separated for the reception of a needle.

When it is desired, with the aid of my adjuster, to place a needle within the needle-bar of a sewing-machine it will be found necessary to first adjust the screw F to such a height as will be required by the bar into which the needle is to be inserted, care being taken, after turning the screw to the height desired, to leave one of the recesses directly over and on a line with the groove C. There being a great variety of needle-bars, requiring the needle to be inserted at different heights, this adjusting-screw will be found of great assistance. After adjusting the screw the parts A and B are separated by pressing upon the finger-pieces H H′. The needle is then placed within the groove C, the eye being held upon the stud D, while the upper portion rests within the recess of the screw E. The pressure upon the finger-pieces is then removed, and the needle, by the action of the parts A and B, is firmly held in a straight position. Held in this manner, the head of the needle is placed within the needle-bar, the screw allowing it to enter only the required distance, and the holding-screw of the bar being tightened, pressure is applied to the finger-pieces H H′ and the adjuster removed from the needle, which, after the operation described, will invariably be found to be in its proper position.

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

The needle-setter consisting of the self-closing pinchers, both limbs of which are made elastic and provided with the finger-pieces H H′, the gage-point or stud D, the groove C, and adjusting-head, all as described.

JACOB KARR.

Witnesses:

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