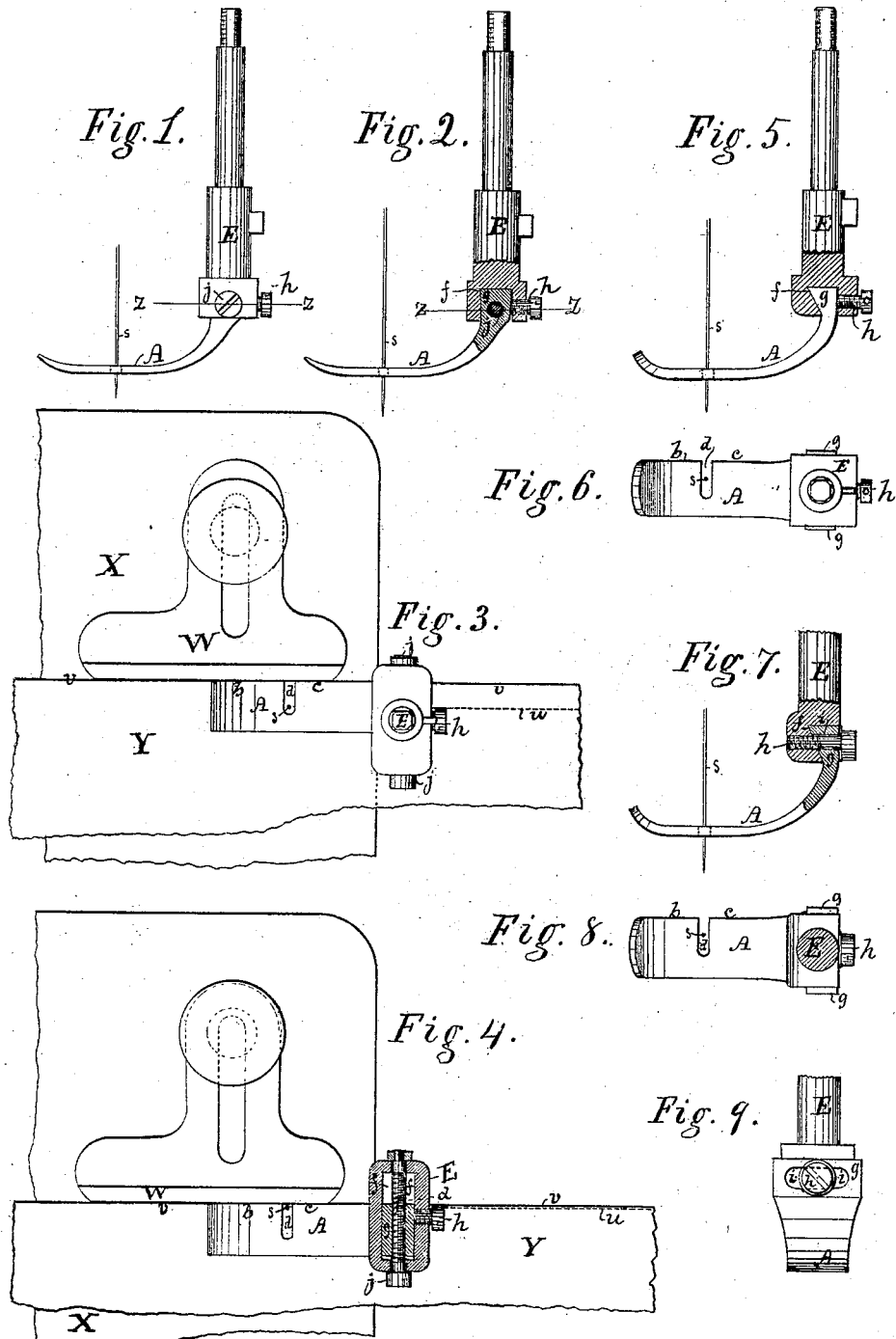


THOMAS HUDSON.

Improvement in Presser-Feet for Sewing-Machines.

No. 114,823.

Patented May 16, 1871.



Witnesses:

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN PRESSER-FEET FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **114,823**, dated May 16, 1871.

*To all whom it may concern:*

Be it known that I, THOMAS HUDSON, of the city of Troy, in the county of Rensselaer and State of New York, have invented an Improvement in Sewing-Machine Presser-Feet, of which the following is a specification, reference being had to the accompanying drawing, in which—

Figure 1 is a side elevation, and Fig. 2 a sectional elevation, of a sewing-machine presser-foot constructed according to my invention. Fig. 3 is a plan, and Fig. 4 is a top, view of a horizontal section at the line *z z* in Figs. 1 and 2 of the same presser-foot applied to a cloth-supporting plate of a sewing-machine, with the cloth, cloth-gage, and presser-foot represented thereon in the proper positions in respect to the needle-hole therein for sewing seams or rows of stitching at different distances from the edge of the cloth. Fig. 5 is a sectional side elevation, and Fig. 6 is a plan, of another presser-foot made according to my said invention. Fig. 7 is a sectional side elevation. Fig. 8 is a plan, and Fig. 9 is a rear elevation, of another form of my improved presser-foot for sewing-machines.

Similar parts are marked by like letters in the different figures.

In manufacturing ladies' and gentlemen's linen collars and cuffs of different varieties by the use of sewing-machines, it is necessary to run rows of stitching in such articles near and parallel to their edges, and at different distances therefrom. To run such rows of stitching nicely and truly parallel to the edges, without making wrinkles, in collars or cuffs formed of two or more thicknesses of thin linen or flimsy fabrics, requires that the edge of the article should be guided closely along a gage on the plate which supports the fabric, and that the fabric should be pressed down smooth upon the cloth-plate by a yielding presser-foot bearing down close alongside of the edge of the gage, and covering the space between the line of the seam and the gage, both in front and in rear of the point where the needle punctures the fabric in making the stitches.

Heretofore such presser-feet have commonly been made in one piece with or capable of being fastened in only one position upon the upright endwise-yielding supporting-stem of the

foot, as in the well-known Wheeler & Wilson and Wilcox & Gibbs machines, which are most generally used in manufacturing linen collars and cuffs. In such machines, when seams are to be run at considerable distances from and parallel with the edge of the collar or cuff, removable strips have been fastened by a set-screw to the edge of the foot, so as to fill up the otherwise open space between the presser-foot and cloth-gage. To have a series of such additional foot-pieces for all the different widths of seam required is quite expensive, and is impracticable when rows of stitches are to be run very near to the edge of the fabric, and at only slightly-different distances therefrom.

In the latter case it has been customary to solder onto that side edge of the presser-foot which is nearest to the edge-guide on the cloth-plate narrow strips of metal of the various slightly-different widths required to fill up the space between the edge-gage and the main body of the presser-foot. But the soldering on and unsoldering of the narrow strips cannot generally be done conveniently by the persons who operate the sewing-machines, and commonly requires the employment of a skilled workman to do it, which involves the loss of considerable time, and some expense to the operators or their employers; and the heat applied in such soldering and unsoldering operations is liable to lessen the temper or hardness of the foot, so that the cloth-feeding device will wear injurious dents or grooves in the bottom of the foot much faster than otherwise.

The aforesaid defects are greatly lessened or avoided by my invention, in which that part, A, of the presser-foot which bears upon the fabric, Y, to be sewed on the plate X of a sewing-machine has, in that side edge, *b c*, which is next to the laterally-adjustable cloth-guide W of the machine, an oblong transverse slot, *d*, for the needle *s*, and is secured to the upright stem E of the presser by devices substantially such as herein described, or the equivalent thereof, for rendering the foot adjustable laterally in or upon the stem in the lengthwise direction of the oblong needle-slot in the foot.

In the drawing the foot A is secured to the

stem E by means of a transverse slot or groove, *f*, in the lower end of the stem, and a corresponding tongue or head, *g*, on the upper part of the foot, and fitted so as to be movable lengthwise of and in the slot or groove *f* in a direction parallel with the lengthwise direction of the needle-slot *d* in the foot, and a set-screw, *h*, by which the foot can be fastened in any required position in the slot or groove in the stem.

In Figs. 1, 2, 3, 4, 5, and 6 the end of the set-screw *h*, and in Figs. 7, 8, and 9 the head of the set-screw, bears against and holds the head or tongue *g* of the foot fast in the slot or groove *f* in the stem, a slot, *i*, being formed in the head or shank of the foot in Figs. 7, 8, and 9, for the stem of the set-screw *h* to pass through.

In Figs. 1, 2, 3, and 4 a screw, *j*, is journaled horizontally in the stem E, and screws, without moving endwise, through a nut cut in the shank *g* of the foot, so that when the screw *h* is loosened the foot can be slid to and fro, and left in any desired lateral position in the stem by turning the adjusting-screw *j*.

When the set-screw *h*, in Figs. 5, 6, 7, 8, 9, is loosened, the foot A is free to be moved to and fro laterally, and set in any desired part of the slot or groove *f* in the stem.

According to my invention the slot, groove, or ways *f* may be in the upper part of the foot A, and the corresponding tongue or head *g* on the stem E; but in all cases it is essential to my invention that the foot A and stem E shall be so formed, in respect to each other, that the foot shall be adjustable on the stem

in a direction parallel, or nearly so, to the oblong needle-slot *d* in the foot, and shall be fastened to the stem by a set-screw, *h*, or its equivalent, and that that side edge, *b c*, of the foot in which the slot *d* is made shall be straight, or in one and the same line, or project equally, or nearly so, both in front and in rear of the needle-slot, so that the foot shall surely hold down the fabric along its edge *v*, and along and on both sides of the line of stitches, both in front and in rear of the slot *d* in the foot.

In my improved presser-foot above described the foot A can be readily adjusted on the stem E while in a sewing-machine by the operator of the machine, so as to run rows of stitching *u* nicely and accurately, either close to the edge *v* of the fabric, as represented in Fig. 4, or at any desired slightly-different distances from the edge within the limits of the needle-slot *d*, or of the lateral adjustment of the foot on the stem.

What I claim as my invention, and desire to secure by Letters Patent, is—

A sewing-machine presser-foot having in one side of the foot an oblong transverse needle-slot, *d*, and the edges *b c* on both sides of the slot in substantially one and the same line, when such foot is secured to its supporting-stem by the means herein described, or the equivalent thereof, for rendering the foot adjustable laterally on the stem.

THOMAS HUDSON.

Witnesses:

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