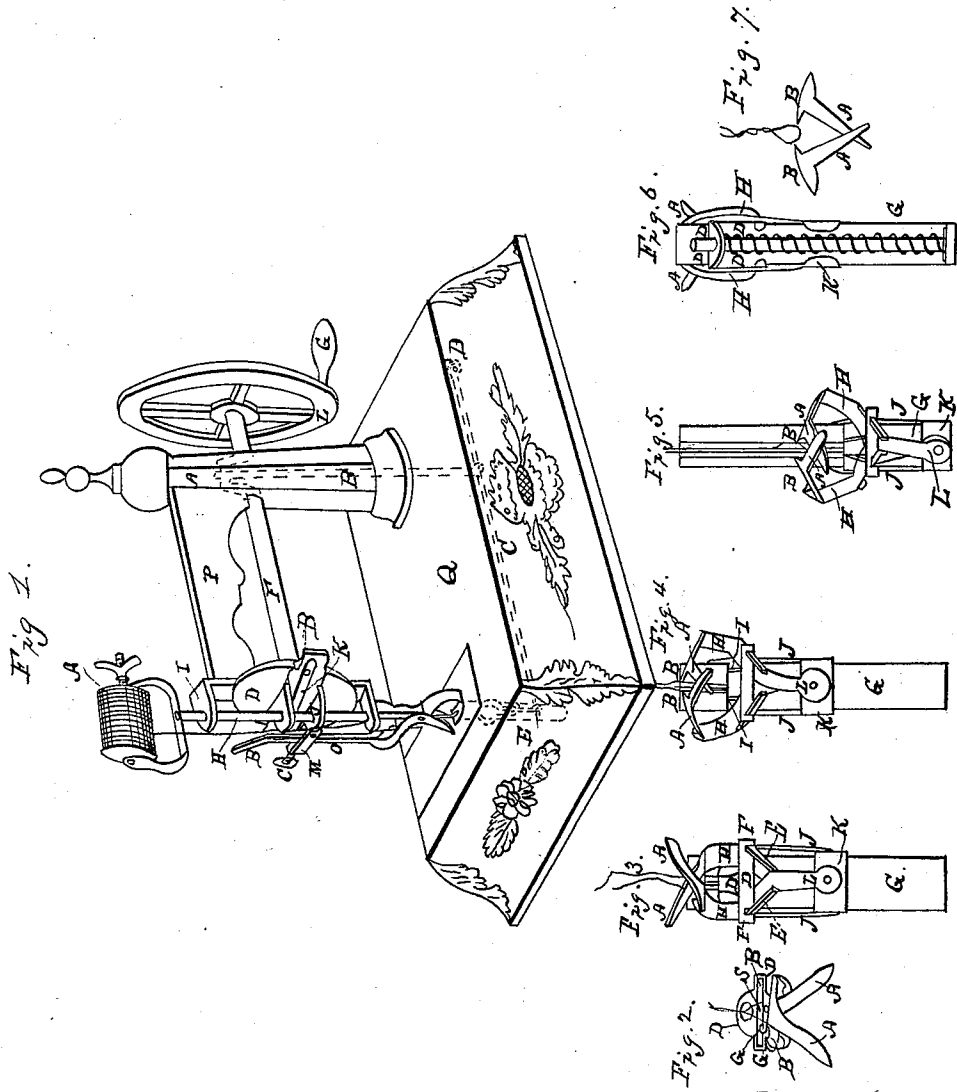


J. & A. W. SANGSTER.

Sewing Machine.

No. 19,723.

Patented March 23, 1858.



Witnesses

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JAMES SANGSTER AND AMOS W. SANGSTER, OF BUFFALO, NEW YORK.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 19,723, dated March 23, 1853.

To all whom it may concern:

Be it known that we, JAMES SANGSTER and AMOS W. SANGSTER, of Buffalo, in Erie county, and State of New York, have invented certain new and useful Improvements in Sewing-Machines; and we declare the following description of our method of constructing the same to be sufficiently clear and exact to enable others skilled in the art to make and use our invention, and for that purpose reference is had to the accompanying drawings.

Figure 1 is a perspective view of the machine complete.

The same letters in Figs. 2, 3, 4, 5, and 6 refer to like parts in each.

In Fig. 1, P is a stationary frame fastened to the base Q. A is a spool containing the thread; B, the feeding-lever. C is a set-screw attached to the plate marked J, for the purpose of regulating or adjusting the feed motion, so that the length of the stitch may be varied. This set-screw works in the frame M, which surrounds the lever-bar, and is fastened to the lower part of the slotted plate marked J. F is the main shaft. G is a handle attached to the fly-wheel L for the purpose of turning said shaft. D is a circular plate attached to and revolving with the shaft F. To the plate D is attached a small pin, E, which moves along and within the slot K in plate J. This plate J is firmly fastened to the upright rod or shaft H. It will be readily seen that a revolution of the shaft F will cause an up-and-down (or vertical) motion of the shaft H and plate J, together with the set-screw C. The point of the set-screw butts against the upper part of the said lever-bar, (which is bent, as shown in the drawings,) when the shaft is ascending, thus throwing the upper part of the lever-bar toward the shaft H and moving the lower part in a contrary direction, which pushes the cloth one stitch ahead. The downward motion reverses the action of the lever-bar. This is done by means of the small pin O, which passes through the frame M.

Fig. 2 is a plan view of the loopers, showing the manner in which the loop is held while the point of the needle is passing through it. A A are two pieces of metal projecting outward for the purpose of keeping the loop in its place, or from being caught in any other part of the machinery, except by the little pro-

jecting points B B. G is the upper end of the upright plate, as will be better seen by reference to letter G in Fig. 3. D D is a frame-piece, which slides up and down the upright piece G. S is a bed-piece, which is made hollow and filled with lead or other soft metal. This bed-plate is made in the center of the upper part of frame D D. Into this the needle-point presses and makes a bed for itself (or forms a cavity the shape of its point) when operating.

Fig. 3 is a side elevation of the looping apparatus complete with its different parts closed and holding the loop, so that the needle may pass through it. E E are two flanges projecting outward from the frames H H. D D is a frame-piece, with notches cut in at F F. This frame or cross piece fits over the flanges E E, (the flanges sliding between the notches F F,) and part of it surrounds the upright piece G, as will be more readily seen by reference to Fig. 4 at the point marked I I. The piece D D moves up and down the bar G, and carries the frame H H up and down with it. It is carried down by the needle-point pressing downward into the cavity marked S in Fig. 2, and is forced up as the needle ascends by means of the spiral spring. (Marked P in Fig. 6.) This spring is placed on the back part of the plate G and presses against the cross-piece D D. This plate D D in descending first opens the frames H H (at the proper time to let go the loop,) and then carries said frames H H with it in its downward motion. In ascending the said frame D D first closes the looping-frames H H at the proper time to catch the loop from the needle, and then follows it in its upward motion.

In Figs. 3, 4, 5, and 6 are represented friction-springs J J, fastened to the plate K, upon which the frames H H swing at the point L. These friction-springs hold the plate K, so that the upward or downward movement of the cross-piece D D may (or can) open the looping-frames H H or close them.

(The looper may be operated without the use of the spiral spring P and without the operation of the needle for that purpose in its "bed-place," as in these writings described. To make this plan plain, reference may be had to the drawing in red ink in Fig. 1. Letter A (in red ink) represents a crank connected to a rod, B,

which is fastened to the lever C. This lever works on a pivot at D, and the end E operates the loopers.)

What we claim as our invention, and desire to secure by Letters Patent, is—

The looper when the several parts thereof are constructed and arranged to operate in re-

lation to each other to the needle and thread, substantially as herein set forth.

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