

T. J. W. ROBERTSON,
Sewing Machine.

No. 13,064.

Patented June 12, 1855.

Fig: 1.

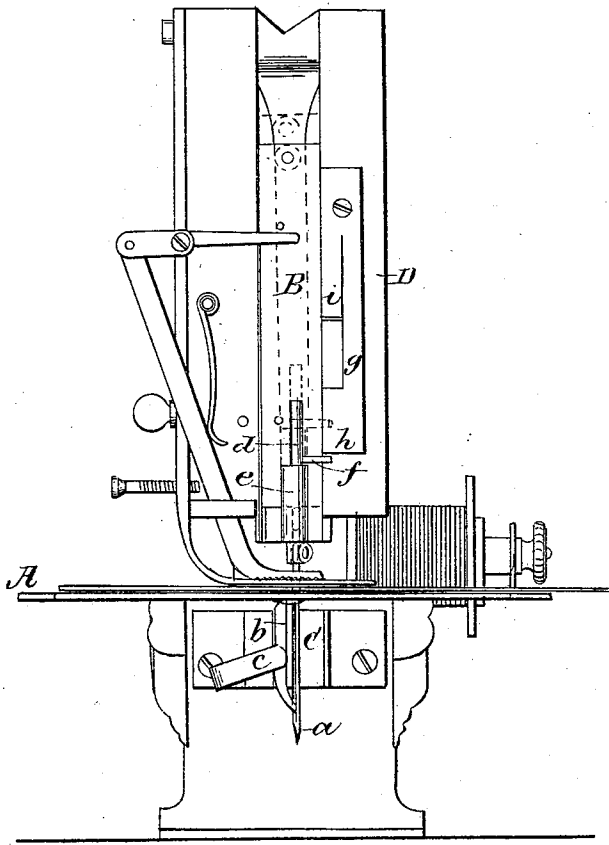


Fig: 3.

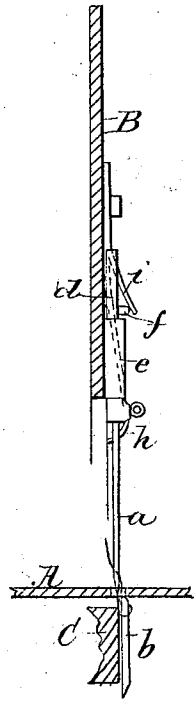
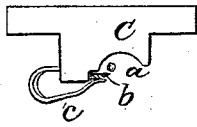


Fig: 4.



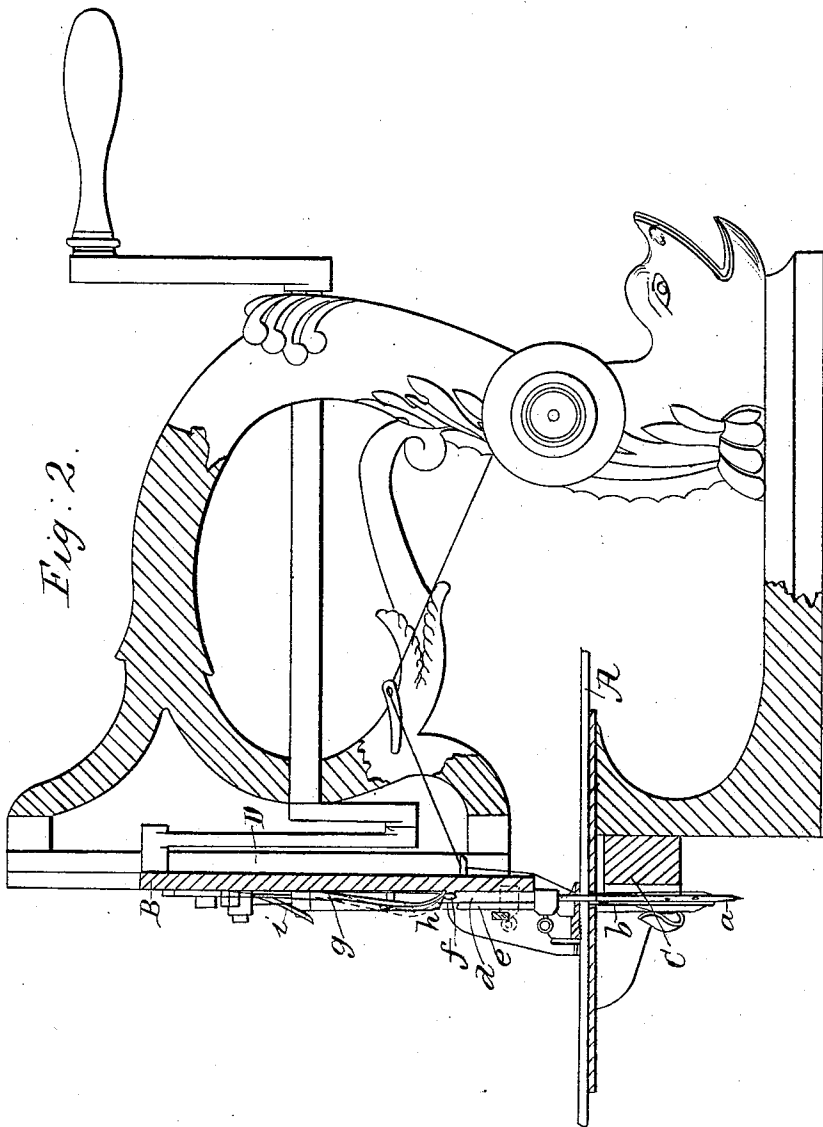
T. J. W. ROBERTSON.

2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

T. J. W. ROBERTSON, OF NEW YORK, N. Y.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 13,064, dated June 12, 1855.

To all whom it may concern:

Be it known that I, T. J. W. ROBERTSON, of the city, county, and State of New York, have invented a new and useful Improvement in Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front view of a sewing-machine constructed according to my invention. Fig. 2 is a vertical central section of the same. Fig. 3 is an elevation, partly sectional, of the parts by which the stitch is produced. Fig. 4 is a plan of the device by which the loop is retained at the back of the cloth.

Similar letters of reference indicate corresponding parts in the several figures.

This invention has reference to the employment of the needle thread or threads alone for the performance of the stitch, and making what is termed in other machines the "single-thread" or "chain" stitch; and the improvement consists in effecting such single or needle thread stitch by means of a detached and loosely-held looper and a reciprocating needle arranged and operating together essentially as hereinafter described.

A is the table upon which the cloth or other material is placed to be sewed.

a is a needle with an eye near the point, attached to a slide, B, and receiving the usual reciprocating motion by which it is caused to carry the thread through the cloth to form a loop on the under side.

b is the looper, which consists of a piece of metal which is straight except at one end, where it is slightly curved and pointed. This is placed parallel with the needle, below the table A, with its point downward and its other end touching the under side of the table, and in such a position relatively to the needle that the latter will pass close or nearly close to its point. The looper is held stationary by a spring, *c*, within a cavity in the face of a small block of metal, C, which is secured to the stand of the machine; but it may be held in a cavity made in the stand itself.

The needle passes through the cloth far enough to bring its eye below the point of the

looper, and in so doing carries that part of the thread which is to form the loop very near the point of the looper. Immediately after the needle begins to rise and leave the thread slack it also begins to turn on its center or axis toward the point of the looper, and by that means throws the slack of the thread over the said point, and as it continues to rise it draws the thread in the form of a loop over the looper, which, without detaining the loop, merely keeps it open and in a proper position for the needle to pass through it in its next descent. As tension is produced on the thread by the descent of the needle, the loop is drawn entirely over and off the looper; hence it is apparent that the looper passes entirely through the loop. The turning of the needle on its axis to pass the thread over the point of the looper is produced in the following manner: The needle-holder *d* is fitted to turn freely in a socket, *e*, attached to the slide B, with a shoulder above and below to prevent it moving longitudinally without the slide, and on one side it carries a pin, *f*, which, during the descent of the needle, passes under a spring, *g*, which is secured to the guide D of the needle-slide, and is by that means caused to work close to the said guide; but as the needle rises this pin, by reason of the bottom of the spring lying close to the guide, passes up the inclined or curved lower part, *h*, of the spring, and is thus thrown forward and caused to turn the needle. Before the termination of the ascent of the needle, the pin passes under and within a stationary inclined or curved piece, *i*, and by it is thrown back again into contact with the guide D, and thus caused to turn back the needle. The spring *g* and piece *i* are shown in blue outline in Fig. 2, in which figure they are the most clearly shown.

What I claim as new and useful herein, and desire to secure by Letters Patent, is—

Making a needle-thread, single, or chain stitch by means of a detached and loosely-held looper, *b*, and reciprocating needle, arranged and operating together in such a manner that, while the needle in its back-stroke draws the slack of its thread onto or along and around the looper, the looper, without de-

taining the loop formed by the drawing of the slack of the needle-thread on and along it, guides and keeps the loop open, and the needle and its thread in their next advance stroke pass through the open loop, which, kept moving and having the further feed of its own or needle thread passed through it, as

specified, is drawn entirely over and off the looper *b* to complete the stitch, substantially as described.

T. J. W. ROBERTSON.

Witnesses:

WILLIAM TUSCH,
R. BOEKLEN.