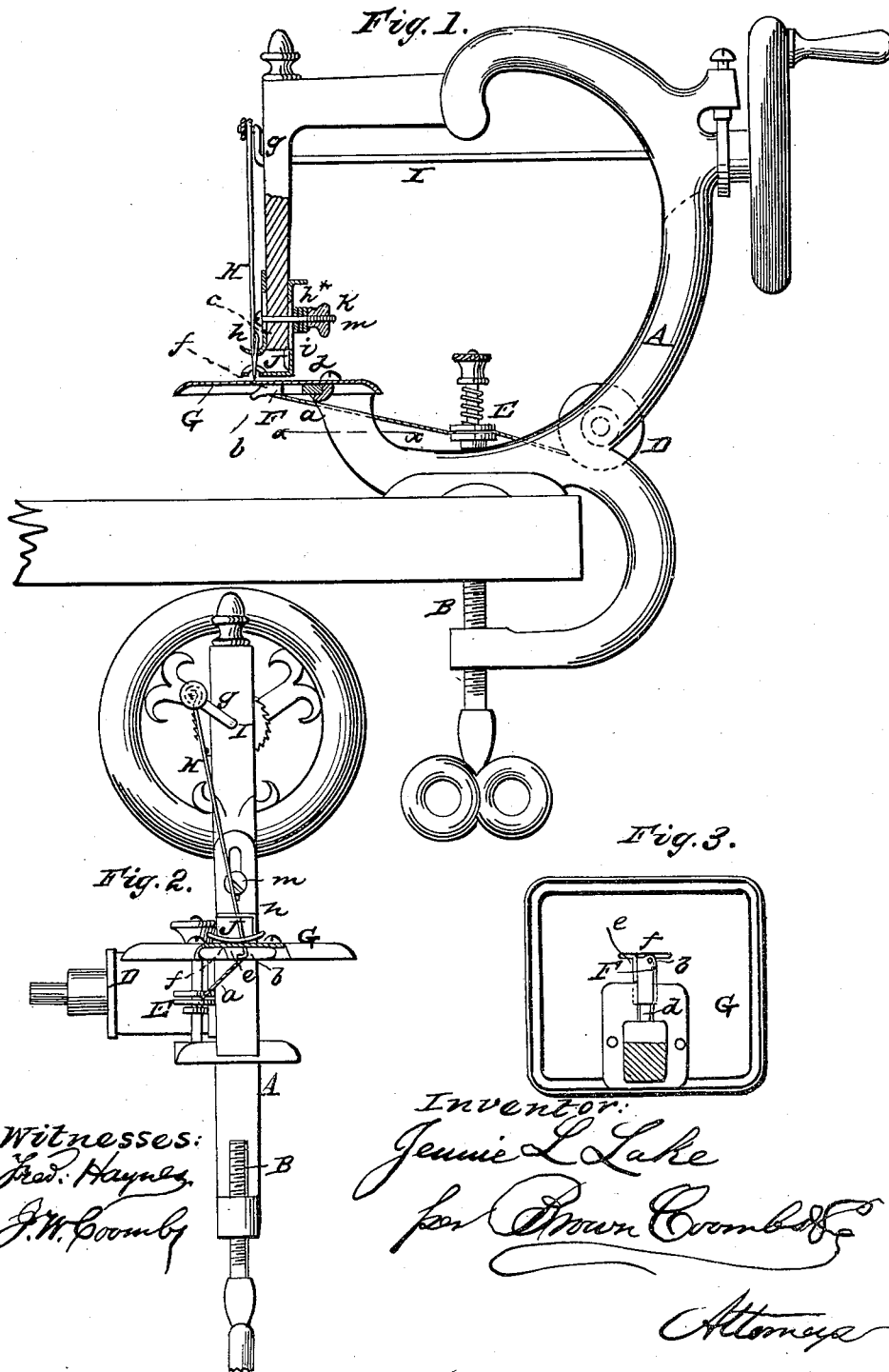


J. L. LAKE.
Sewing Machine.

No. 106,943.

Patented Aug. 30, 1870.



United States Patent Office.

JENNIE L. LAKE, OF BROOKLYN, NEW YORK.

Letters Patent No. 106,943, dated August 30, 1870.

IMPROVEMENT IN SEWING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, JENNIE L. LAKE, of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Sewing-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing forming part of this specification, and in which—

Figure 1 represents a partly sectional side view of a sewing-machine constructed in accordance with my improvement;

Figure 2, a front view of the same; and

Figure 3 an inverted plan of the under side of the table portion of the machine, taken as indicated by the line *xx*, in fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to a sewing-machine in which a needle with an elastic hook is used for working a single thread, made to pass through a guide that is arranged on the under side of the table, and which also serves as a needle-closer to prevent the barb of the needle from catching in the cloth as it carries the loop therethrough, said needle having a lateral as well as an up-and-down movement, to effect feed of the cloth and proper formation of the stitch.

My invention consists in a thread-guide and needle-closer of a rigid character, but hung so as to be capable of sliding, and pressed outward by a rubber, or other suitable spring, on its back, whereby, while all requisite elasticity is secured as regards the working of the needle over or in contact with said device, a more positive and effective action is obtained than is attainable by a thread-guide and needle-closer of an elastic wire construction.

Referring to the accompanying drawing—

A represents the frame of the machine, which may be secured to a bench or table by a clamping-screw, B.

The needle-thread *a* is taken from a spool, D, and, after being passed through a tension device, E, is entered through an eye, *b*, of a thread-guide and needle-closer, F, arranged below the cloth-bed G, for production of the stitch, by the operation of the hooked needle, as in other machines of similar general description, and in which the needle H, as it is reciprocated up and down, has also a lateral or swinging action, causing the needle, as it descends, first to pass on the one or outer side of the eye of the thread-guide, then to swing in direction of the feed of the cloth to effect said feed, and to secure the proper adjustment of the thread for the elastic barb

c of the needle to catch the thread, and to carry it up in the form of a loop through the cloth, for the needle in its succeeding action to pass a second loop therethrough.

The thread-guide and needle-closer F, however, is of peculiar construction, the same being of a rigid and positive character, as formed by a bar arranged to have a sliding action transversely to the feed, and pressed outward by a rubber, or other suitable spring, *d*, also suitably formed on its front end or surface, to secure the thread entering the open barb of the needle in the early portion of the ascent of the latter, and the subsequent closing of the barb prior to and during the passage of the hooked portion of the needle up through the cloth to prevent the catching of the elastic barb in the cloth. To this end the front surface of the device F is scooped or shelved away in a downwardly direction on one side of the eye *b*, as at *e*, leaving a forwardly projecting upper surface or edge, *f*, that operates to close the hook of the needle under an elastic friction or pressure on the latter, as effected by the spring *d*.

A thread-guide and needle-closer constructed to operate as described is at once positive and effective, and superior in many respects to a mere wire thread-guide that is not dependent upon a separate spring, but is elastic in itself.

The needle H is operated by a crank, *g*, on the end of a revolving shaft, I, and works through a perforated guide, *h*, to secure its proper action or swing, and through a slot in a cloth-presser, J, and in the bed G of the machine.

This cloth-presser J is of a bent plate construction, arranged to fit the front leg *h** of the frame, and adjustable up or down thereon to secure its proper hold on the cloth by means of a vertical slot, *i*, in said presser, and locking-nut, *k*, made to fit a screw, *m*, and having interposed between it and the leg *h** bevel-shaped washers with a rubber packing wedged in between them. In this way the cloth-presser or holder J operates by frictional pressure on the cloth, and secures a steady hold of the same.

What is here claimed, and desired to be secured by Letters Patent, is—

The sliding thread-guide and needle-closer F, with its spring *d*, constructed and arranged for operation in connection with the needle H, substantially as specified.

JENNIE L. LAKE. [L. S.]

Witnesses:

J. O. HORTON,
S. BLACK.