M. J. FERREN.

Sewing Machine.

No. 91,318. Patented June 15, 1869.

Fig. 2.

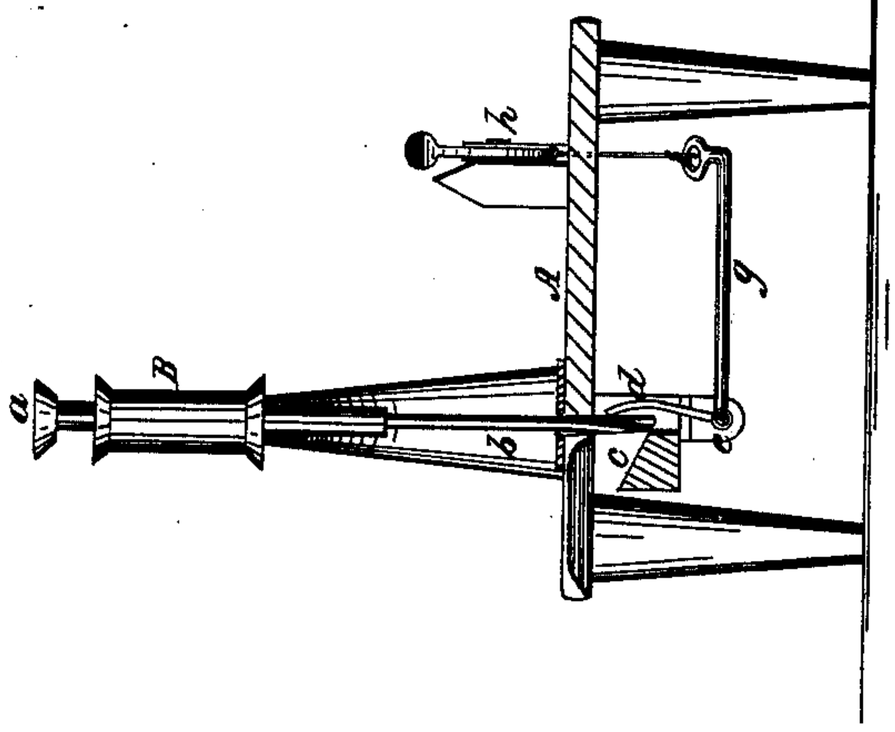
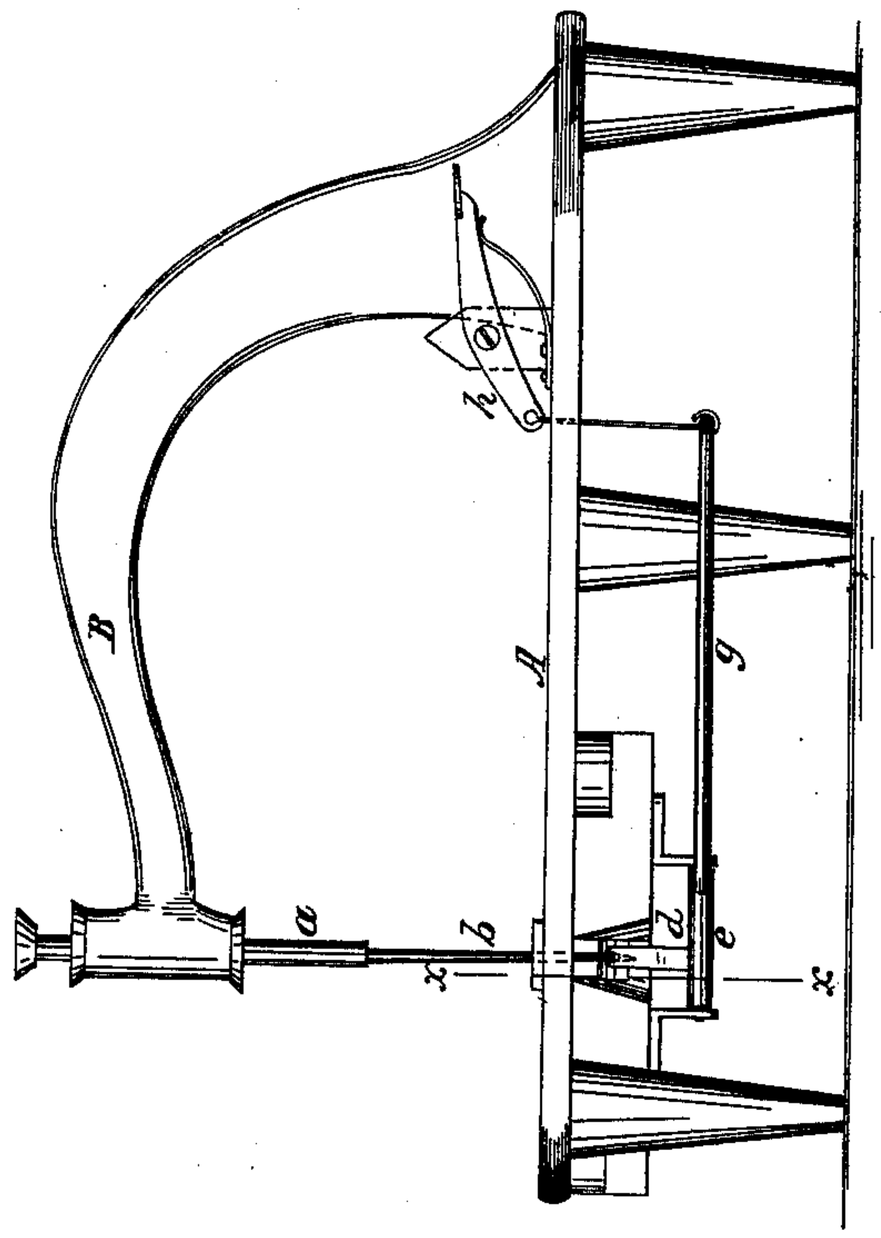


Fig. 1.



Witnesses,
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MYRON J. FERREN, OF STONEHAM, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND WILLIAM J. BATTLES, OF SAME PLACE.

Letters Patent No. 91,318, *dated June* 15, 1869.

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, MYRON J. FERREN, of Stoneham, in the county of Middlesex, and State of Massachusetts, 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 thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a view of my invention, showing its mode of application to a sewing-machine.

Figure 2 is a view of the same, from a different stand-point.

Similar letters of reference indicate like parts.

This invention relates to an improvement in sewing-machines; and consists in a device for pressing the needle toward the face of the shuttle-race, for the purpose of preventing it from skipping or missing stitches when working over seams or inequalities in the fabric, which difficulty is a common fault with sewing-machines.

A represents the bed-plate of a sewing-machine, and B, the needle-arm, for carrying the needle-bar *a* and needle *b*, working in the face of the shuttle-race *c*, all constructed and operating in the usual manner.

Behind the needle is a lever, *d*, attached at one end to a rock-shaft, *e*, which is vibrated by means of a rod-and-lever attachment, *g h* by way of illustrating the operation of the lever *d* upon the needle, but is designed to be connected with the shuttle-driver, or other part of the mechanism of a sewing-machine, and receives its motion in concert with the movement of the needle.

The operation of the device is as follows, to wit:

After the needle has descended, and is in the act of rising to form the loop, the lever *d* moves forward, and presses the needle toward the face of the race, so that the shuttle will certainly pass through the loop and make the stitch, and at the moment the point of the shuttle enters the loop, the lever moves back again without interrupting the movement of the needle in ascending or descending.

The lever acts on the needle by springing it outward just enough to effect the object of presenting the loop of the thread to the shuttle, to make its passage through it certain, and thus prevent the loss of a stitch, which often occurs through the liability of the needle to spring or glance backward from the race at the moment of the passage of the shuttle, which obliquity of movement is caused by seams, or other inequalities in the fabric in which the needle is working at the time.

Having described the nature and the operation of my improvement,

I claim as new, and desire to secure by Letters Patent—

The oscillating lever *d*, and rock-shaft *e*, in combination with the needle *b*, and shuttle-race *c*, arranged and operating as described, for the purpose specified.

MYRON J. FERREN.

Witnesses:

W. F. SWEETSER,

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