J. B. LINCOLN

FRINGING-MACHINE.

No. 184,637. Patented Nov. 21, 1876.

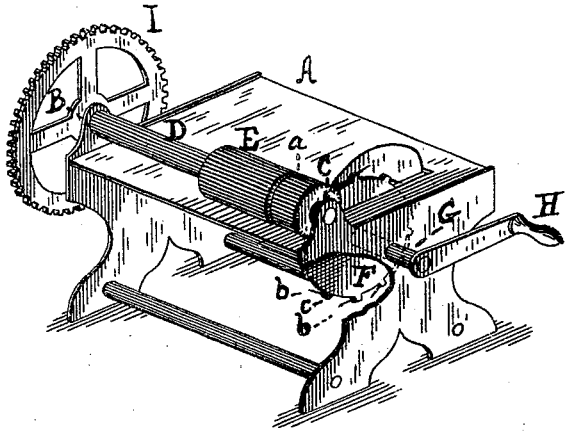

FIG. 1.

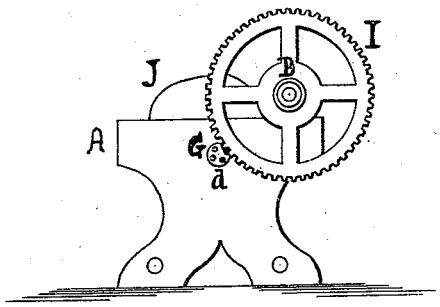

FIG. 2.

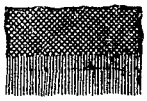

FIG. 3.

WITNESSES.

Warren R Pierce

Wm B M. Hallett

INVENTOR.

Jesse B. Lincoln

UNITED STATES PATENT OFFICE.

JESSE B. LINCOLN, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR OF ONE-HALF HIS RIGHT, BY MESNE ASSIGNMENTS, TO ALBERT CONGDON, OF SAME PLACE.

IMPROVEMENT IN FRINGING-MACHINES.

Specification forming part of Letters Patent No. **184,637**, dated November 21, 1876; application filed August 22, 1876.

To all whom it may concern:

Be it known that I, JESSE B. LINCOLN, of the city and county of Providence, in the State of Rhode Island, have invented a new and Improved Fringing-Machine, of which the following is a specification, reference being had to the accompanying drawing.

In the drawing like letters indicate like parts.

Figure 1 is a perspective view of my invention. Fig. 2 is an end elevation of the same. Fig. 3 shows the product of the machine.

My invention is designed for the manufacture of a fringe having a feathery edge, which is extensively used as a dress-trimming. The fringe is made of silk or other suitable cloth, which is cut in strips diagonally, (see Fig. 3,) and the threads of which, both of the warp and the woof, are separated and drawn out apart to form a fringe upon one side of the strip, thus constituting a rich and beautiful trimming.

Hitherto this work has been done by hand, and the thread have been separately picked out and apart by a needle or pin. The only attempt, so far as I know, to do this work by machinery has been to use a needle with a flat notched end in a sewing-machine, which, being thrust through the cloth rapidly in a vertical direction, produced a similar but imperfect result; but this device frequently broke the threads instead of separating them, besides so clogging the machine with the refuse as to interfere with its usefulness for general work.

My invention consists in a feeding attachment, properly geared, advancing the strip of cloth into contact with a rotating series of points or hooks, which, engaging with the threads, separate them and form the fringe.

A table, A, properly mounted and braced, has bearings B and C at opposite ends, within which the spindle D turns. On the end of this spindle is the feeding-roll E, which may be corrugated or otherwise roughened to seize on and carry forward the cloth, and grooved circumferentially at *a* to allow the revolution of the wheel F. The wheel F, turning upon its spindle G, is rotated by means of the crank H, and has on its periphery a series of metallic hooks or points, *b b*, set at a sharp angle thereto. These points may be set straight into projections *c* on the rim of the wheel, or may be bent into a hook shape and inserted directly in the rim itself. The spindle G has its bearings in and through the standards of the table A, and, at the end opposite the crank, terminates in a small gearing, *d*, to engage with and revolve the cog-wheel I, which latter wheel, being fastened to the spindle D, turns the feed-roll E. By this gearing the feeding mechanism is revolved very slowly, while the fringing mechanism revolves rapidly, thus enabling the latter to fully separate and draw out the threads of the cloth while the strip is advancing. A guard, J, is erected to protect that part of the cloth not to be fringed from contact with the finger.

The cloth, being inserted beneath the feeder E, is slowly carried forward, and one edge of the strip is brought upon the finger F, the sharp hooks *b b* of which enter the cloth, and, continuing as the wheel revolves, draw each thread out from the texture.

This series of hooks or points *b b* is the essential feature of my invention, and is new as applied for the purpose aforesaid, and, though used in connection with any other device than a wheel, (as, for example, upon the edge of a straight bar advancing in a vertical plane,) is equally within my invention.

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

1. The series of metallic hooks or points *b b*, set into a fringing surface at intervals, substantially as and for the purpose specified.

2. The rotating wheel F, having on its periphery a series of fringing-points, *b b*, in combination with a feeding mechanism, E, substantially as and for the purpose specified.

3. The combination of the table A and revolving finger F, substantially as and for the purpose specified.

4. The fringing-machine, substantially as described, consisting of the table A, bearings B C, spindles D G, crank H, gearing *d* I, wheel F, fringing-points *b b*, and guard J, all made and operating as shown.

JESSE B. LINCOLN.

Witnesses:

WARREN R. PERCE,

WM. B. W. HALLETT.