



# UNITED STATES PATENT OFFICE.

ALBERT H. HOOK, OF NEW YORK, N. Y.

## IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 24,027, dated May 17, 1859.

*To all whom it may concern:*

Be it known that I, ALBERT H. HOOK, of the city, county, and State of New York, have invented a new and useful improvement in the mode of feeding the material in barbed-needle sewing-machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figure 1 is a front view; Fig. 2, the same, lever *e* removed, showing the needle exposed; Fig. 3, a side elevation; Fig. 4, rear side of lever *e*.

The nature of my invention consists in furnishing the vibrating barbed-needle machine with a separate and adjustable apparatus for feeding, instead of using the motion of the needle for that purpose.

The driving-shaft *a* terminates in a disk, *b*, and the needle *c* is hung on a screw, *d*, which, being some distance from the center of disk *b*, acts as a crank and gives motion to the needle *c*, and also a vibrating motion to a lever, *e*, by playing in a slot of the same. This lever *e* rests with a projection, *e'*, on its rear side, upon the edge of the disk *b*, which is formed as a cam, in such a manner as to raise lever *e* and bring its upper end in contact with the cloth as soon as the needle enters the cloth. This lever in its vibrating motion turns on a fulcrum, *f*, which, being attached to a spring, *g*, can be varied up or down in a slot of said

lever *e* by a set-screw, *h*, whereby the points of lever *e* receive more or less vibrating motion. The upper end of lever *e* terminates in two points or edges, which, when brought in contact with the cloth by means of the cam *b*, will feed this cloth by their vibrating motion. The needle is hung on a screw, *d*, as stated before, and is guided on the rear side of the lever *e* in a hole through the projection *e'*, and also between the upper edges of the lever *e*, which protect the needle on both sides, which causes the needle to perform the same vibration as the lever *e* on the adjustable fulcrum *f*. The advantages of this arrangement are, the needle is not used to perform the feeding motion of the machine, which causes the destruction of needles and prevents their perfect action, but instead thereof an independent feed is established for the vibrating barbed needle in a strong, convenient, and cheap manner.

Having now fully described my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

The combination of the cam *b*, lever *e*, and spring *g*, arranged and combined substantially as and for the purposes herein set forth.

ALBERT H. HOOK.

Witnesses:

JOSHUA WEBB,  
WM. F. WILSON.