

V. PARKS.
No. 129,981.

Sewing-Machine.

Patented July 30, 1872.

Fig. 1.

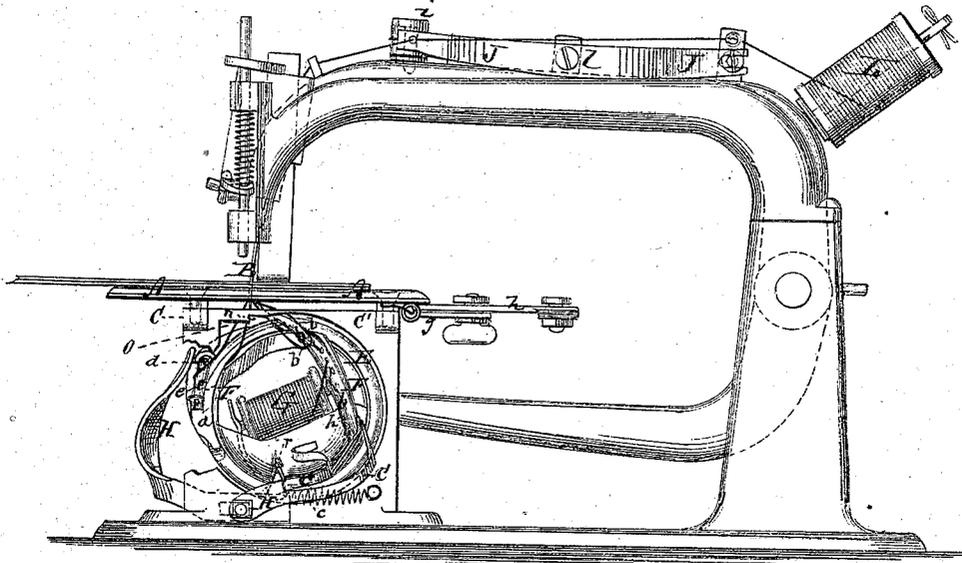


Fig. 2.

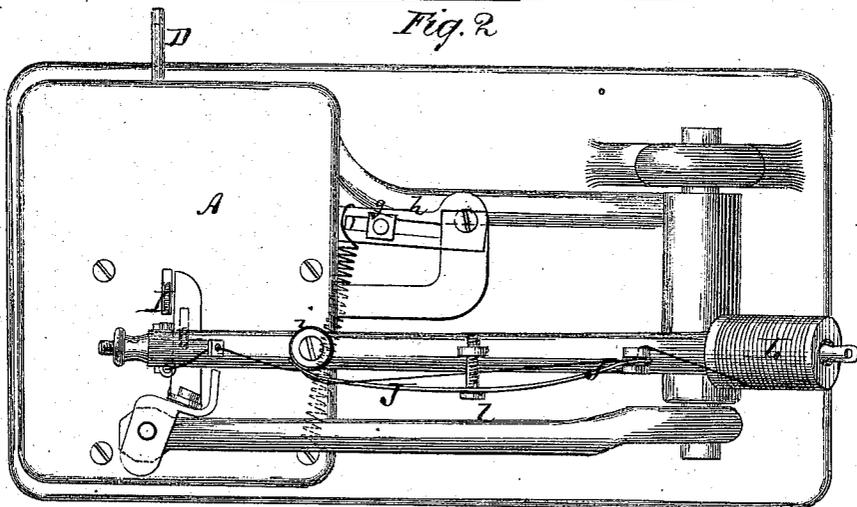
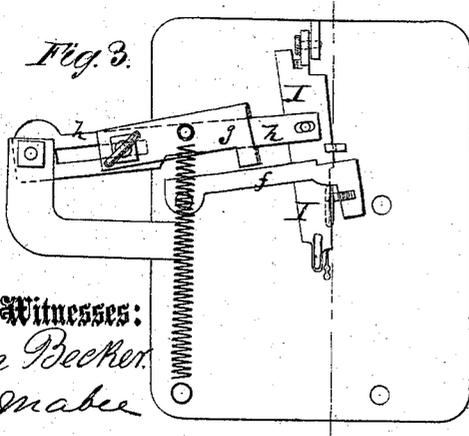


Fig. 3.



Witnesses:
John Becker.
Geo. W. Mabe

Fig. 4.

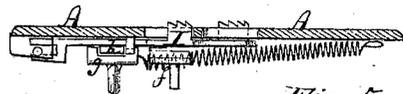
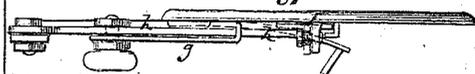


Fig. 5.



Inventor:
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UNITED STATES PATENT OFFICE.

VOLNEY PARKS, OF FORT WAYNE, INDIANA.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 129,981, dated July 30, 1872.

Specification describing a new and useful Improvement in Sewing-Machines, invented by VOLNEY PARKS, of Fort Wayne, in the county of Allen and State of Indiana.

Figure 1 represents a side elevation of my improved sewing-machine. Fig. 2 is a top view of the same; Fig. 3, an inverted plan view of the feed mechanism; Fig. 4, a transverse vertical section, and Fig. 5, a front view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to an improvement in the class of sewing-machines in which a hollow circular rotating hook is employed to receive a case adapted to contain an ordinary thread-spool, the arrangement being such as to allow the said hook to form a loop from the upper thread and carry it completely around the spool-case or bobbin. In my invention I provide the rotating hook with a rounded peripheral projection or cam-surface to adapt it to act upon a bar which is connected with the spool-case, arranged within the rotating hook, so as to cause the retraction of said case and permit the passage of the upper thread around it, as herein fully explained.

In the drawing, A represents the table of the machine, and B the needle, secured to the vibrating arm carrying the thread-tension device formed by the plate-spring J provided with an adjusting-screw, *l*, and bearing on the friction sleeve or roller *i*, around which the thread passes from the spool L. The driving-shaft D is arranged transversely beneath the table A, and carries the slotted cup-shaped device E, in which the spool-case or bobbin F is held somewhat loosely by means of its peripheral ribs or flanges fitting in an inner circumferential groove of the same. To assist in keeping the spool-case in position, I employ the curved springs O C, arranged to press lightly against it, as shown. To form a point or hook, *a*, on the front edge of the circular bobbin-holder E, a diagonal or inclined slot is formed in its periphery, and a roller, *e*, is also arranged at one side thereof to relieve the upper thread from excessive or undue friction while being drawn down and carried

around by the hook. To prevent the rotation of the spool-case with its holder E, (in consequence of the friction between them,) I provide it with a prong or arm, *b*, which projects upward in front of the edge of the rotating hook F, so as to come in contact with a lug or stop-piece, *n*, formed on the stationary frame C'. This arm has perforations to adapt it to form a guide and tension for the thread of the spool G, whence it passes up through the needle-slot in the plate A in the usual way. The spool G is held in the shuttle by spring-bearings of the ordinary or any suitable construction. By this arrangement, when the shaft D is rotated the point *a* of the hook E passes between the needle and its thread each time the former descends through the cloth, and carries the loop thus taken completely around the shuttle F and its contained spool. In Fig. 1, one such loop is represented as just being drawn out by the hook, while another is just passing from the arm *b* of the shuttle and over the thread of the spool G. A cam, *d*, is formed on the periphery of hook E, which acts on the curved end of the spring-retracted bar H, and a lug or projection, *a*, is formed on the horizontal portion of this bar, which takes into a notch in the side or edge of the spool-case, so that each revolution of the hook E, with its cam, occasions a slight reverse movement of the spool-case at the right juncture to allow a loop to pass over the end of the arm *b*.

From the foregoing it will be seen that every complete rotation of shaft D and the hollow hook E carries a loop of the upper thread around the spool-case or bobbin and forms a stitch. I is the feed-bar, operated upon by two rotary cams, one for imparting vertical, the other for horizontal, motion, in the ordinary manner. They are not shown in the drawing. The lateral motion is directly imparted to a lever, *f*, which bears against a slide, *g*, that is applied to the lever *h*, with which the feed-bar is directly connected, as indicated in Fig. 3. The more the slide *g* is shifted toward the pivot of the lever *f*, the smaller will be the motion transmitted from *f* to *h*, and the smaller will consequently, also,

be the stitches made. In this manner an adjustable feed is produced by a very simple device.

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

The notched spool-case, with its perforated thread-tension-regulating arm *b*, arranged

within the rotating hook, and combined with the bar *H*, its spring and lug, and a lug, *n*, all constructed and operating as set forth.

VOLNEY PARKS.

Witnesses:

STEPHEN CHASE,
J. H. ARCHER.