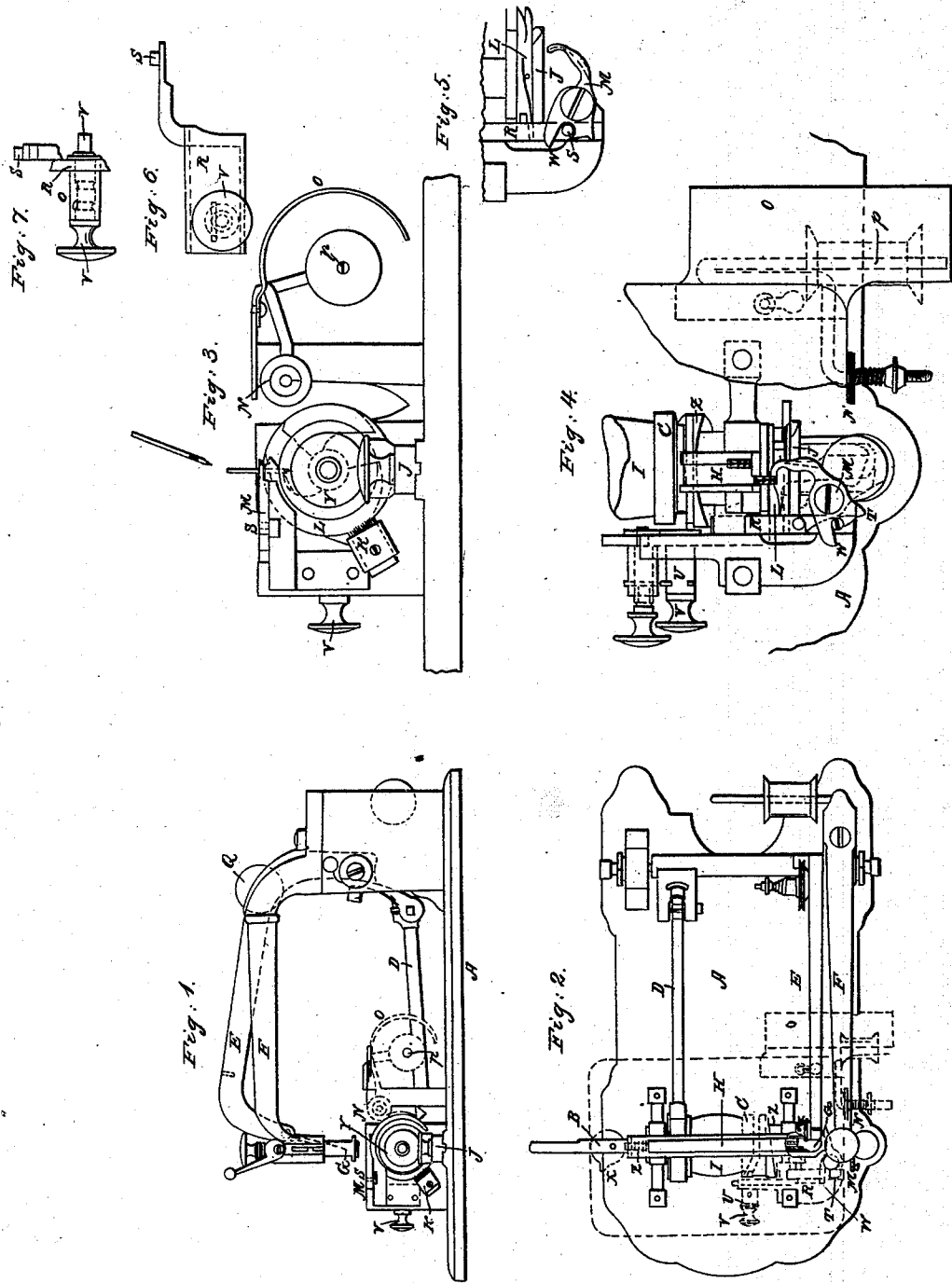


L. B. BRUEN.
Sewing Machine.

No. 68,839.

Patented Sept. 17, 1867.



Witnesses:
J. J. Gordon.
Geo. H. Collins.

Inventor:
Lewis B. Bruen.

United States Patent Office.

LEWIS BUDD BRUEN, OF NEW YORK, N. Y., ASSIGNOR TO THE "BRUEN MANUFACTURING COMPANY."

Letters Patent No. 68,889, dated September 17, 1867.

IMPROVEMENT IN SEWING MACHINES.

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, LEWIS BUDD BRUEN, of New York, county of New York, and State of New York, assignor to the "Bruen Manufacturing Company," a corporation established under of laws and located at the city of New York, in the State of New York, have invented a new and useful Improvement in Sewing Machines; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, and the letters of reference marked thereon, in which the same letters represent the same thing in each figure.

Figure 1 is a right-hand side view of my improved machine.

Figure 2, a plan view thereof.

Figure 3, a side view, showing the rotary hook, thread-carrier, guard, and tension.

Figure 4, a plan view, showing two positions of the thread-carrier and slide.

Figure 5, a plan view, showing the attachment of the slide.

Figure 6, a side view of the slide.

Figure 7, an end view thereof.

My improvement consists in so organizing the machine as to adapt it to forming several different stitches without adding parts or adjustment of special devices.

A is the bed-plate; B, the shaft; C, the cam; D, the connecting-rod; *b*, the eye-pointed needle; E, the needle-arm; F, the presser-foot arm; G, the presser-foot; H, the slotted feed-bar; I, the band-wheel; J, the ring-slide; K, the brush-pad; L, the rotating hook; M, the thread-carrier; N, the tension therefor; O, the guard; P, the under spool-holder; Q, the upper thread-tension; R, the slide; S, the pin thereon; T, the stop; U, the hub for cam-pin; V, the cam-pin; W, the notch in the thread-carrier; X, the stitch-regulator; Y, the bobbin; Z, the feed-cam; *g*, the feed-spring.

This improved machine is adapted to make three or more different stitches. First, the lock stitch, as follows: Rotating shaft B, connecting rod D, causes the vibration of needle-arm E, and feed-cam Z in its revolution alternately throws feed-bar H up and forward by striking a lug beneath it, gravity bringing it down, and spring *g* in the heel then taking it back. Its rotation at the same time carries the point of rotating hook L within the slightly spread loop of upper thread caused by the needle's rise, and hook L spreads it over and around bobbin Y, containing the lower thread, and catching such thread across its path, the two are drawn by the ascending needle into the material. Second, the double-loop stitch, as follows: Remove the thread from bobbin Y, from spool-holder P, carry the thread between the plates of tension N, through the back eye of carrier M, and along its grooved back to and through the eye near its point, and draw the thread forward a few inches. Carrier M has thus far been held in its extreme outward position by pin S against stop T. Push carrier M forward and notch W in carrier M will come into connection with pin S: Push forward slide R, and pin S, entering notch W, will throw the point of carrier M in the arc of a circle sufficiently around the path of the upper needle to spread a loop of its own outside of the needle from eye to eye of carrier M, through which loop the upper needle descends, thread-carrier M itself entering a loop of the upper needle-thread at each rise of the needle, and thereby the loop of each thread is interlooped with the other and laid in a chain on the under surface of the material. Pushing forward slide R carries hub U with its pin V opposite grooved cam C. Turning pin V its flat side will permit its release from a little pin designed to hold it in place by its lower groove, and pin V may then be pushed forward, so that its point will enter the groove of cam C, and a slight turn of pin V will cause the little pin before mentioned to engage with the upper groove of pin V and so lock it. The revolution of cam C will cause the successive vibrations of carrier M necessary to repeated stitches. Third, the three threaded stitch, by threading the bobbin and proceeding as last above explained. Fourth, a many-threaded stitch, by multiplying the threads in thread-carrier M.

What I claim, and desire to secure by Letters Patent, is—

1. The combination of eye-pointed needle *b*, thread-carrier M, cam C, feed-bar H, and rotating hook L, operating together to form seams, as described.

2. The combination of eye-pointed needle *b*, thread-carrier M, cam C, feed-bar H, rotating hook L, and bobbin Y, operating together to form seams, as described.

3. Cam C, pin S, and thread-carrier M, acting in combination, substantially as and for the purposes explained.

4. Cam C, slide R, and thread-carrier M, acting in combination, substantially as and for the purposes explained:

5. Spool-guard O, removable or permanent, and with or without spool-holder P and tension N.

LEWIS BUDD BRUEN.

Witnesses:

S. J. GORDON,
GEO. H. COLLINS.