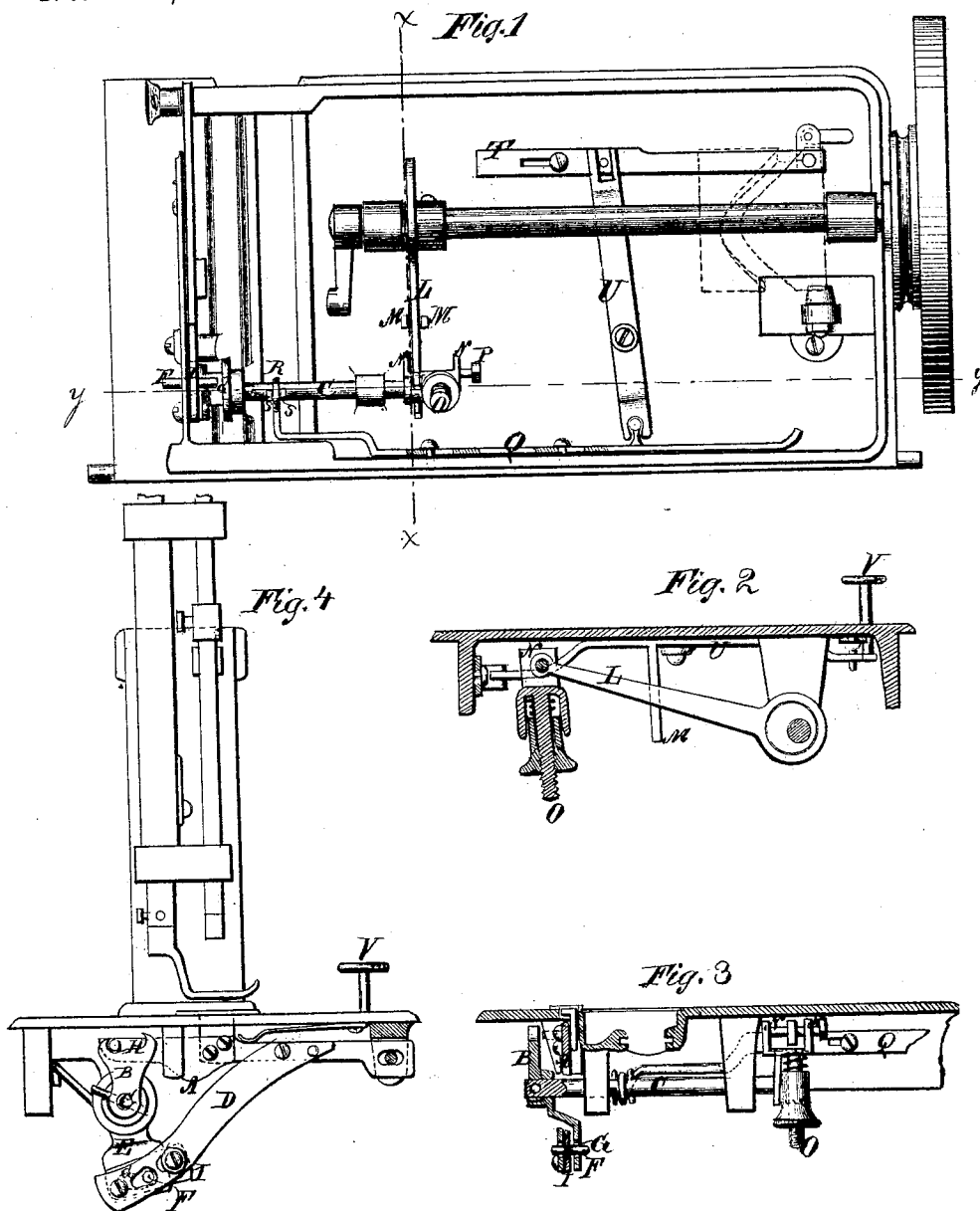


J. I. HIRSCHBUHL.
Sewing Machine Feed.

No. 101,265.

Patented March 29, 1870.



Witnesses:
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JOSEPH IGNATZ HIRSCHBUHL, OF LOUISVILLE, KENTUCKY.

Letters Patent No. 101,265, dated March 29, 1870.

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, JOSEPH IGNATZ HIRSCHBUHL, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and improved Reversible Feed for 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.

This invention relates to improvements in sewing-machines, applicable to the Weed and other like machines, and consists in the attachment to the feed-bar of an arm projecting below the feed-operating shaft, and in attaching a rocker-arm to the said shaft, for working the feed by connection with this arm, at the side of the said shaft opposite the said rocker-arm now used to give the direct feed, so that a reverse motion will be imparted to the feed-bar by connecting these arms and disconnecting the others.

The invention also consists in arranging the feed-shaft to slide longitudinally for shifting the connection of the said rocker-arms with their respective bars.

And also, in an arrangement of levers for sliding the shaft.

Figure 1 is a plan of the bottom of a Weed sewing-machine with my improved reversing attachment applied.

Figure 2 is a transverse section on the line $x x$ of fig. 1.

Figure 3 is a longitudinal section on the line $y y$ of fig. 1; and

Figure 4 is an end elevation.

Similar letters of reference indicate corresponding parts.

A is the feed-bar.

B the oscillating-arm, and

C the feed-operating shaft, as commonly arranged.

D is a bar or arm, which I attach to the feed-bar A, and which may be, in practice, made together with the feed-bar in one piece.

It projects under the shaft C sufficiently far to connect with a rocker-arm, E, which I attach to the shaft C at the side opposite to the arm B, so that it will move simultaneously with the said arm B, but in an opposite direction.

This arm E has a slot or notch, G, at or near the lower end, similar in arrangement to the notch H of the arm B, and for working the feed-slide in a similar manner by action on a pin, F, projecting from a plate, I, attached to the arm D by screws passing through elongated holes in the said arm, so that it may be adjusted forward or back to regulate the length of the stitch, or up and down on the arm E for causing the said pin to make the stitches the same length as the stitches made by the direct feed.

I arrange the shaft C to slide longitudinally in its bearings, and so place this arm E thereon that it will not engage the pin F when the arm B engages its pin, as clearly shown in fig. 3, and for disengaging the arm B from its pin, and engaging the arm E with the pin F, I slide the said shaft toward the front of the machine, and in the opposite direction for re-engaging arm B and its pin and disengaging-arm E and pin F.

To admit of thus sliding the shaft without disarranging the connection with the eccentric-rod L, I provide the guide-pins M to prevent lateral movement of the said rod, and on the adjusting-pin O I place ears N N to hold a connecting-pin, P, to which arm L is attached.

The ears are as far apart as the distance it is desired to slide the shaft C, and as said shaft is moved longitudinally the pin slides through the hole in the rod L.

For shifting the shaft C back and forth, I provide the sliding bent bar Q in suitable ways, at the under side of the table, and with a hooked or crotched end R, engaging the shaft C between two pins or collars S, or other equivalents, and I connect this bar with another slide-bar, T, by a lever, U, and provide a stud-pin, V, on the latter bar, rising up through the table at the rear end of it where the pin will not interfere with the work, and where it may be readily taken in the hand to shift the bar T back and forth and through it and the lever V, and slide the shaft C.

This change may be made when the machine is in operation or standing still. Other arrangements of slide-bars and levers for working the shaft C may be made as found best.

Having thus described my invention,

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

1. The combination with the feed-bar A and shaft C of the rocker-arm E, slotted or notched bar D, and pin F, all constructed and arranged substantially as described, for the purpose of reversing the feed.

2. The arrangement with the arms B E and arm D of the adjustable plate I and pin F, substantially as described.

3. The arrangement with the rod L and the adjusting-screw O of the guide-pins M, the extended ears N, and the long pin P, all substantially as specified.

4. The arrangement with the sliding shaft C, and the table of the machine, of the bent, hooked, or crotched bar Q, lever U, slide-bar T, and stud-pin V, all substantially as specified.

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Witnesses:

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