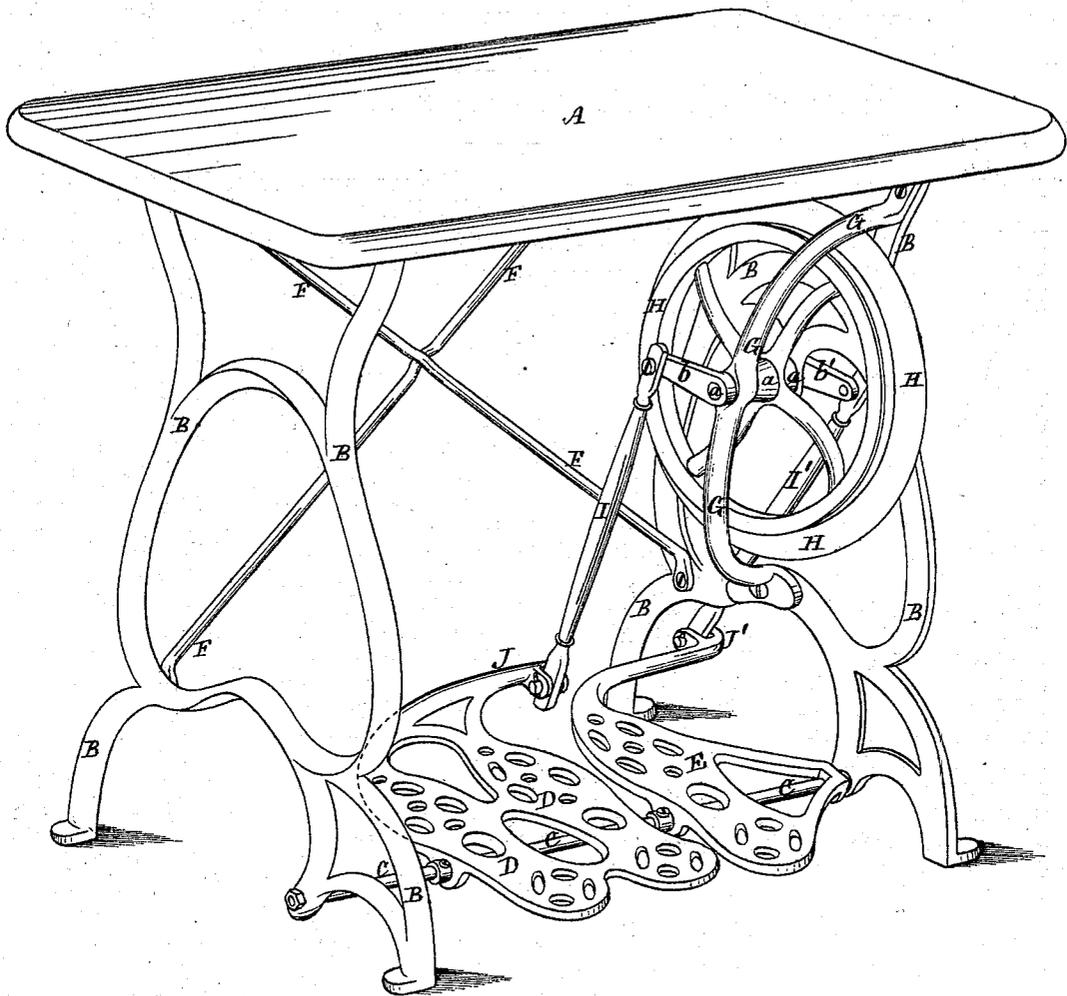


R. LEAVITT.  
 Improvement in Treadles for Sewing Machines.  
 No. 125,201. Patented April 2, 1872.



Witnesses  
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# UNITED STATES PATENT OFFICE.

RUFUS LEAVITT, OF BRIDGEPORT, CONNECTICUT.

## IMPROVEMENT IN TREADLES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 125,201, dated April 2, 1872.

*To all whom it may concern:*

Be it known that I, RUFUS LEAVITT, of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Treadles for Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, and which represents the treadle and its application to a sewing-machine frame or table in perspective.

I am aware that double pedals and double cranks have been used in sewing-machine treadles. These I lay no claim to independent of my special manner of uniting and using such double pedals and double cranks, whereby the user attains a much more natural and easy motion for his feet, and makes the operation much less wearying or fatiguing.

When the cranks are arranged on the "quarter center"—that is, at right angles to each other—the motion of the feet upon the separate pedals is of the most unnatural kind, and wearing and fatiguing to the operator, inasmuch as one pedal follows the other so closely as to make the motion of the feet more like shuffling or skipping than the natural motion of walking. It is true that in this "quarter center" arrangement the "dead center" is almost avoided, and the machine can be started without applying the hand to the fly, balance, or belt wheel; but it creates another evil, worse than the one it remedies—namely, the exceedingly unnatural and wearying motion of the feet.

In using one pedal, wide enough for both feet, there is an opportunity for a change, or an alternating motion of the feet. Where two single pedals are used the motion of the feet alternate, but there is no change of that motion, and, consequently, no resting of the limbs or feet.

My invention consists in applying two separate pedals to two distinct cranks set at the "half center," or diametrically opposite each other, so that the motion of the feet, when on the separate pedals, shall be like that of an easy, natural walking motion; and in making one of the pedals of double width, or so that both of the feet of the operator may rest thereon, and thus give the operator an opportunity

to change from a coinciding to an alternating motion of the feet, or vice versa, and thus rest his limbs or feet, by breaking the monotony of one continuous and uniform motion.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawing.

A represents a sewing-machine table, supported on legs B B. A rod, C, extends through from one leg or support to and through the other, which not only braces the supports, but serves as a bearing or fulcrum for the two pedals D E. Other brace-rods, F, diagonally placed, strengthen the table. At the right-hand end of the table or stand there is attached to the leg or support B a bent or bowed bearing-piece G, which, together with the leg or support, form two bearings for the journals or axes *a* of the fly or balance wheel H, which is also the driving-wheel of the sewing-machine, or belt or band wheel, as it is termed. Upon each end of the shaft *a* of the driving-wheel H there is placed a crank, *b b'*, so that the two cranks *b b'* shall be outside of or beyond the bearings of the driving-wheel. To these cranks *b b'*, respectively, are connected the pitmen I I', said pitmen, at their other and lower ends, being pivoted to the necks J J' of the separate pedals D E. The pedal D is broad or wide enough to receive both of the feet of the operator, while the other, E, needs only to be wide enough for one foot; but the wide and the narrow pedal may be transposed without effecting any difference of operation, or of the objects to be attained.

The cranks *b b'*, as above stated, are placed on the ends of the axis or shaft *a* of the belt or band wheel H, and they are set diametrically opposite each other, or at the "half center," as it is commonly called, so that, in operating the pedals, the motion or action of the feet may be like that in the act of walking; and the one wide and one narrow pedal allow the operator to change the motion of his feet or legs; as, for instance, when one foot is on one pedal and the other on the other pedal, then the motion in operating them is like that of walking, which, although a natural motion, is very tiresome and wearying when constant for any length of time; but when both feet are upon the wide pedal, then the machine may be still run, but the motion of the two feet is alike

and coincident. The change from one motion to the other makes the work far less wearing and wearisome to the operator.

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

The arrangement of the two pedals D E, the

connecting-rods I and I', and the cranks *b b'*, as and for the purpose described and represented.

RUFUS LEAVITT.

Witnesses:

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