G. W. Miles,

Treadle.

No. 112,616. Patented Mar. 14, 1871.

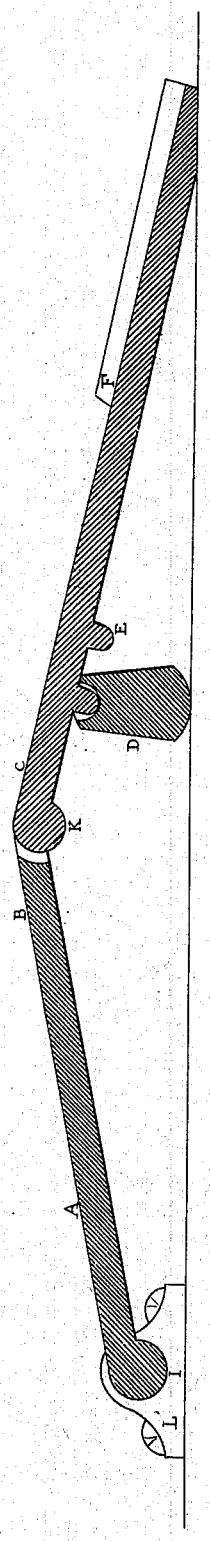

FIG. 2

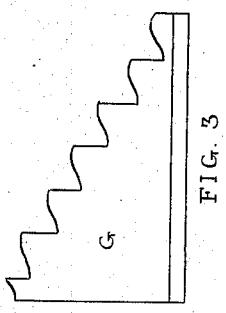

FIG. 3

FIG 1

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United States Patent Office.

GEORGE W. MILES, OF LYNN, MASSACHUSETTS.

Letters Patent No. 112,616, dated March 14, 1871.

IMPROVEMENT IN TREADLES FOR SEWING AND OTHER 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, GEORGE W. MILES, of Lynn, in the county of Essex and State of Massachusetts, have invented a new and improved Mode of Constructing Treadles designed to be used in connection with Sewing and other Machines, when such machines are carried by steam or other power, being especially adapted to be used with the "McKay" sewing-machine; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, which drawing forms a part of this specification, and which represents in—

Figure I, a perspective view of the whole machine attached to the floor or platform.

Figure II, a longitudinal vertical section of the same, showing the joint K and the position of the fulcrum D and the bosses E E.

Figure III, the notched sliding plate shown in Fig. I, at G.

My improvement is upon that class of treadles which is sometimes called power-treadles, and is not designed to propel any machine by foot-power, but simply, by its action, to throw a tightening pulley up against a belt, or to throw some clutching arrangement into connection, and thereby cause a transmission of power from the shaft-pulley to the machine to be operated.

In running a sewing-machine carried by power with a treadle, as ordinarily constructed, the operator is obliged to stand most of the time upon one foot, which is fatiguing and injurious. He is also obliged, in using such treadles, to elevate the foot considerably above the floor or platform.

Now the object of my invention is to obviate these disadvantages by providing a treadle which allows the use of either foot with equal facility, and furnishes a complete rest for the foot at a slight elevation above the floor or platform.

In constructing my improved treadle, instead of a rigid, inflexible bar, I use one provided with a freely-turning joint near the center of its length, shown at K, in Fig. I, thus forming the treadle of two sections, B C, of nearly equal length.

Under section C I place a supporting-block or fulcrum, D, of the required height, at such a point in relation to the center of this section as shall give such a decided preponderance to the end carrying the notched plate G that its weight will always bring it down to the floor or platform without the aid of a spring.

The forward end of section B I provide with a thin plate, A A, which I call the foot-plate. This plate is of suitable form, and of ample size to allow the use of either the right or left foot, at the pleasure of the operator.

The forward edge of the foot-plate is kept in position, very nearly in contact with the floor or platform, by being attached to the same by the journals I I and boxes or bearings L L.

The other end of this section B is free to rise and fall with the end of section C, to which it is attached at the joint K.

To the further end of section C I attach, in a vertical position, a thin triangular block or plate, G, shown in position in Fig. I, and detached by Fig. III.

The lower edge of this plate is dovetailed, and is held to the treadle-bar by two cleats, which form a dovetailed groove.

This plate is formed higher at one end, and provided with the series of notches, and made adjustable in the dovetailed groove in order to compensate for any slight variations in the length of the rod H or of the belt used, or any other similar variations which may exist or which it may be desirable to make.

Upon the under side of the treadle-bar, section C, are cast several bosses, designed to enter a corresponding depression in the top of the fulcrum-block D.

This boss or projection keeps the tradle-bar in position, and several similar ones are provided, so that the position of the fulcrum can be changed if desired.

All binding of the parts is avoided, and perfect freedom allowed to the movements of the treadle, by the play of plate G and by the construction of the fulcrum-block D, which is so made that it is capable of a rocking movement either on a suitable bed-piece or the floor or platform, to which it may be directly attached by screws passing through the slotted ears of the supporting casting or fulcrum-block D.

The front edge of the foot-plate A A being, as above shown, fixed in its position in relation to the floor, the operator always finds it at just the same point above the floor or platform, and in using the treadle he has simply to slide his foot from the floor or platform up the inclined foot-plate in order to cause a depression of the further end of section B. This movement, of course, correspondingly depresses the forward end of section C, which causes the further end of this section, which, by means of the notched plate G, is in connection with the rod H,

which supports and operates the arm of the sewing or other machine carrying the tightening-pulley, to rise till it produces the requisite tension of the belt passing from the shaft-pulley to the machine to be operated.

What, therefore, I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the treadle A B with the bar or lever C, the fulcrum D, and the sliding head G, when combined and arranged to operate substantially as set forth.

GEORGE W. MILES.

Witnesses:
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