(No Model.) 2 Sheets—Sheet 1.

R. FRISBEY.

TREADLE.

No. 457,315. Patented Aug. 4, 1891.

Fig. 1.

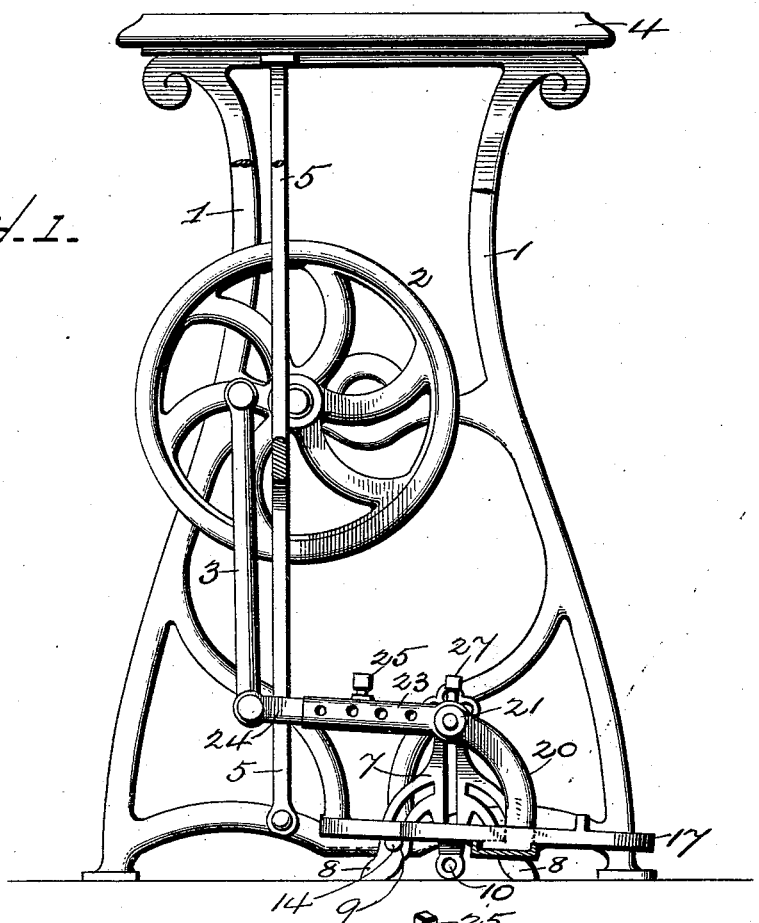
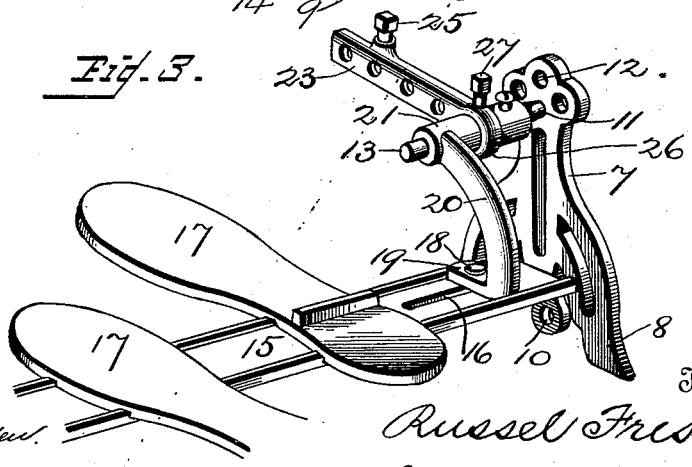


Fig. 3.



Witnesses
C. L. Gooch

Inventor
Russel Frisbey

By his Attorney
Chas J. Gooch

(No Model.)

2 Sheets—Sheet 2.

R. FRISBEY.

TREADLE.

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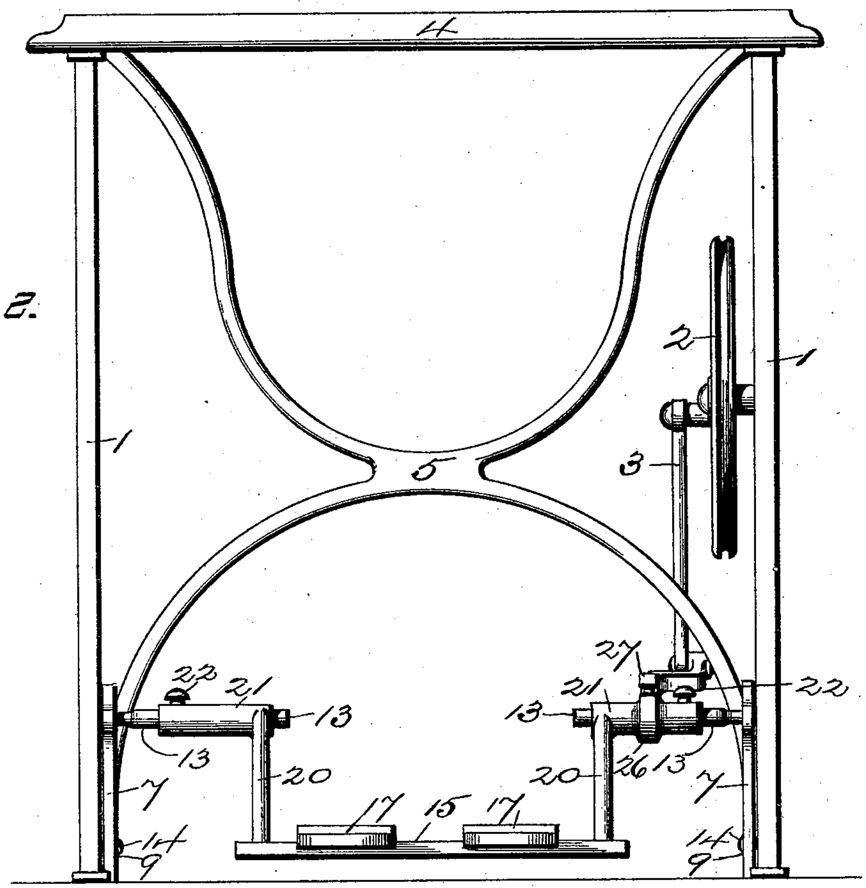
Fig. 2.



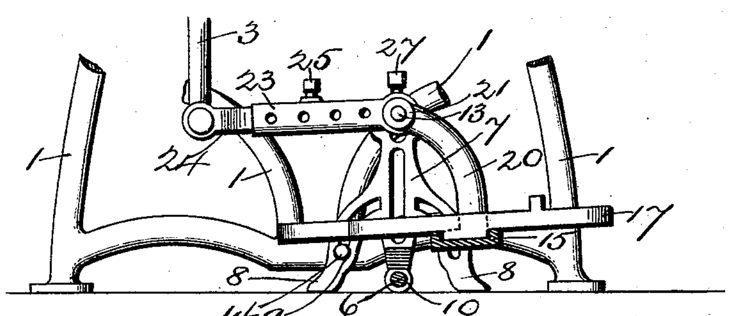


Fig. 4.

Witnesses
Wm. J. Sheiden,
C. L. Gooch

Inventor
Russel Frisbey
By his Attorney
Chas. J. Gooch

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

RUSSEL FRISBEY, OF ELMIRA, NEW YORK.

TREADLE.

SPECIFICATION forming part of Letters Patent No. 457,315, dated August 4, 1891.

Application filed May 6, 1891. Serial No. 391,749. (No model.)

To all whom it may concern:

Be it known that I, RUSSEL FRISBEY, a citizen of the United States, residing at Elmira, in the county of Chemung and State of New York, 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 invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in adjustable swing-treadles for sewing-machines, whereby the treadle is adapted for use in connection with machines of varying width between the legs and of varied makes, can be readily and quickly placed in position by unskilled operatives, and whereby the treadle can be hung nearer the floor than customary.

In the accompanying drawings, Figure 1 represents a side elevation, and Fig. 2 a front elevation, of a portion of a sewing-machine having my improvements applied thereto. Fig. 3 represents a detail perspective view, on a larger scale, of my improvement. Fig. 4 is a detail side elevation representing my improved treadle-support connected with the ordinary treadle rod or shaft.

1 represents the legs of a sewing-machine minus the customary treadle-rod, which in my construction is unnecessary.

2 represents the propelling-wheel, and 3 the pitman connecting the propelling-wheel and treadle foot-plate.

4 represents the table, and 5 the brace found in some makes of machines.

In Figs. 1 and 2 I have shown my improvement as applied to a type of machine having such brace, and in such cases I dispense with and remove the customary treadle-rod. Where, however, such brace as 5 is absent and where the treadle-rod 6, Fig. 4, performs the additional function of bracing the sides or legs of the machine, said treadle-rod may, as will hereinafter appear, be utilized in securing my improved swing-treadle supports or hangers in position.

A great objection to the use by women of sewing-machines supplied with treadles of ordinary construction or with swing-treadles hung in the ordinary manner is that in the operation thereof the leg is necessarily raised to such a height above the floor and the whole leg brought into such vertical play that functional derangements ensue to the operator. While efforts have already been made to avoid these injurious results with more or less success, one of the important objects of my present improvement is to secure the easy operation of the treadle simply by the manipulation of the foot and foreleg without any movement of the upper part of the leg of the operator.

7 represents my novel hanger or support for the treadle. This hanger consists of a pair of standards or uprights having outwardly-flaring curved legs 8, which rest upon the floor and afford firm bracing support for said hangers. In one of said legs is a slot or hole 9, through which either a bolt secured by a nut or other suitable means is passed, when the customary treadle-rod is dispensed with, into the usual treadle-rod-receiving orifice in the machine-legs. By thus bolting the two members of the hanger, one to each inner face of the said legs, it will be apparent that they will be readily and firmly secured to the legs or frame of the machine in a most expeditious manner and can be readily removed therefrom by any unskilled person, or when it is desired to apply my treadle hanger or support to a machine in which the brace 5 is absent and in which the treadle-rod performs the function of a brace the treadle-rod is passed through a slot or hole 10 mediately of the legs 8 of the respective members of the hanger and its ends clamped or otherwise secured in the legs of the machine in the customary manner.

In the heads of the respective members of the hangers or standards 7 are formed transverse holes 11 12 to receive, with capability of oscillation therein to permit of the treadle swinging, the outer ends of the treadle-shafts. When the treadle-hanger is secured in position by bolts passed through the bolt-receiving holes 9, the two sections of my treadle-shaft 13, to be presently described, are swingingly hung in the holes 11. When the usual treadle-rod is utilized, the treadle-shafts are hung in the holes 12 in the heads of the standard 7, so as to permit the foot-board swinging clear of the treadle shaft or rod 6. In either mode of

suspension a treadle of the construction set forth herein will be so swingingly supported in position as to bring the foot-board fully an inch nearer the floor than is generally the case, whereby the degree to which the foot of the operator requires to be raised is materially lessened, thereby securing an easy position of the foot in operating the treadle with the minimum of fatigue.

When it is desired to apply one of my swing-treadles to a machine having brace 5 and a treadle of ordinary construction carried by the usual treadle-rod, said treadle-rod is removed, the hangers 7 are placed against the inner faces of the respective legs 1 of the machine and bolts 14 passed through the holes 9 in each standard 7 into and through the treadle-rod-receiving holes in the sides or legs of the machine and secured in position by nuts (not shown) clamping the outer ends of said bolts to the outer faces of the legs 1.

When my treadle is to be applied to machines in which the ordinary treadle-rod performs the additional function of a brace for the machine-legs, I remove the treadle and treadle-rod, place my treadle-supporting standards in position, and secure them to said legs, as before explained.

It will thus be seen that my novel treadle-supporting standards can be very readily applied in position to machines of different constructions.

I will now proceed to describe the form of swing-treadle I employ in connection with the above-described hangers.

15 represents the foot-board, which at each end is provided with a longitudinal slot 16 and has foot-plates 17 secured to said foot-board at each end by bolts 18, passing through the flanges or feet 19, and into said slots 16 are rearwardly-curved standards 20, each having at its upper end a horizontal sleeve 21, within which the two sections of the treadle-shaft 13 are contained, with capability of longitudinal adjustment therein, as will be clearly apparent on reference to the drawings.

22 represents a set-screw or equivalent device, which is passed through a hole in said sleeves 21 into gripping contact with the treadle-shaft 13 for the purpose of clamping said shaft in its adjusted position. By thus providing the foot-board 15 with the slots 16 and adjustably connecting the shaft-carrying standards 20 therewith, as explained, and by forming my treadle-shaft in two sections with capability of adjustment longitudinally within the sleeves 21 it will readily appear that my improved treadle is adapted for use on machines considerably varying in the distance apart of their respective legs, it being by this arrangement equally well adapted for use on all makes of machines.

23 represents a sleeve, within which the pitman-rod coupling 24 is adjustably secured by a set-screw 25 for the purpose of adjustably connecting the pitman and treadle under varying conditions of distance apart between said pitman and treadle-shaft. The sleeve 23 is connected with the sleeve 21 by an eye 26 and is clamped in position on said sleeve by a set-screw 27.

By curving the shaft-carrying standards 20, as represented in the drawings, the ankle-joint of the user when in position on the foot-plate will be in line with the treadle-shaft 13, by which the foot-plates will swing an inch nearer the floor than in makes of machines not similarly equipped, the expenditure of power for operating the machine will be lessened materially, and the necessity for moving any other portion of the leg than the foot in operating the machine will be entirely obviated.

Having thus described my invention, what I claim is—

1. A hanger for swingingly supporting a sewing-machine treadle in position, consisting of a pair of plates or standards, each having outwardly-extending legs adapted to rest upon the floor and at its upper portion one or more holes to receive the ends of the treadle-shaft, and bolts passing through the lower portion of said hangers for the purpose of securing the members of said hanger, respectively, to the inner face of each side of the framing, substantially as set forth.

2. A hanger for swing-treadles for sewing-machines, consisting of a pair of plates or standards adapted to be attached, respectively, to the inner faces of the framing and having outwardly-extending feet adapted to rest upon the floor, said hangers having transverse slots therein, through which a bolt is passed to secure said hanger members to the framing and having an upper portion provided with a transverse hole or holes to receive the treadle-shaft, substantially as set forth.

3. A hanger for swing-treadles for sewing-machines, consisting of a pair of plates or standards, each having at its upper end a plurality of holes vertically disposed for receiving the ends of the treadle-shaft in vertically-adjustable positions and having at its lower portion a brace-rod-receiving orifice, and a pair of outwardly-extending legs having slots or holes to receive bolts for connecting said hanger-sections to the framing of the machine, substantially as set forth.

4. A swing-treadle for sewing-machines, consisting of hangers secured to the framing of the machine, foot-plates, a sectional treadle-shaft, and shaft-carrying standards secured to said foot-support and of an angular formation to insure the ankle-joint of the user when the foot is in position on the foot-rest registering with the treadle-shaft, substantially as and for the purposes set forth.

5. A treadle for sewing-machines, consisting of a longitudinally-slotted foot-board, foot-plates mounted thereon, rearwardly-curved standards secured to said foot-board and adjustable longitudinally thereof and having at their upper ends a horizontally-ex-

tending sleeve, a treadle-shaft formed in sections, one section being contained within each of said sleeves with capability of longitudinal adjustment therein, set-screws for clamping said shaft-sections in position within said sleeves, and a pitman connection connecting the treadle and pitman, substantially as and for the purposes set forth.

6. As an improvement in treadles for sewing-machines and in means for connecting them to such machines, the combination of a pair of standards or hangers having at their upper portion vertically-disposed holes to receive with capability of vertically-adjustable suspension therein the treadle-shaft and at their lower portion supporting-feet and holes to interchangeably receive bolts or the customary treadle-rod, whereby said treadle hangers or standards may be secured to the framing of the machine, a foot-board and foot-plates, rearwardly-curved standards secured to said foot-board with capability of longitudinal adjustment thereon, a sectional treadle-shaft carried by and longitudinally adjustable in said rearwardly-curved standards, and a suitable connection between the treadle and pitman, substantially as and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

RUSSEL FRISBEY.

Witnesses:

CHAS. J. GOOCH,

S. BRASHEARS.