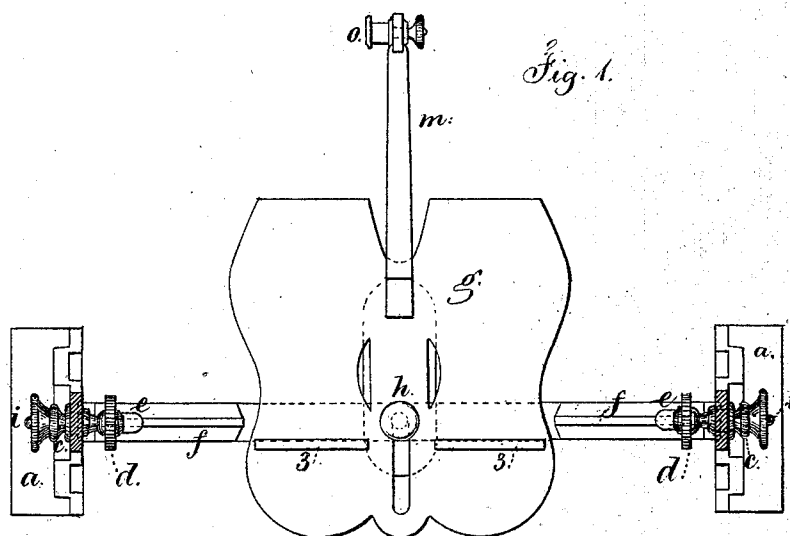
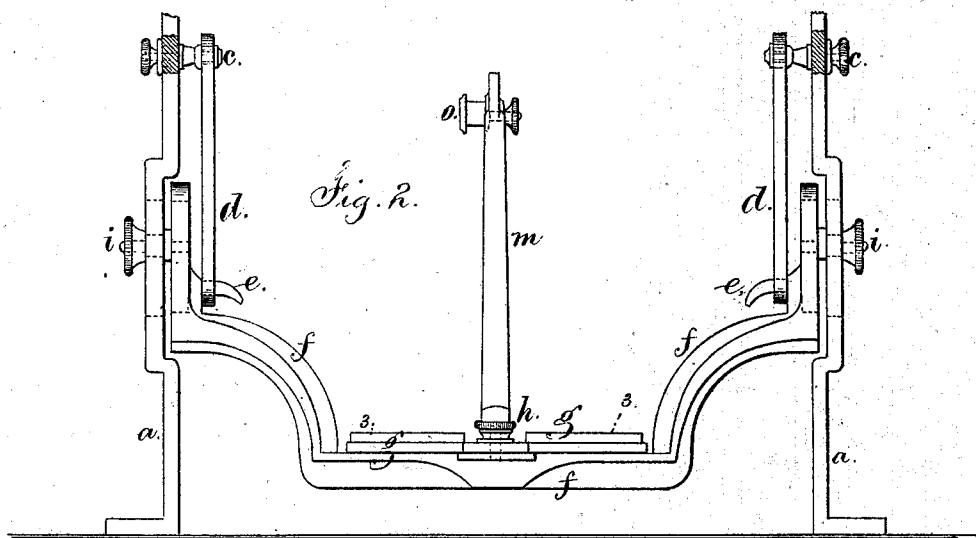


W. H. STEWART.

Treadles for Sewing-Machines.

No. 144,366.

Patented Nov. 4, 1873.



Witnesses:

Chas. H. Smith
Geo. D. Walker

Inventor

William H. Stewart
per *Lemuel W. Serrell*
att'y.

2 Sheets--Sheet 2.

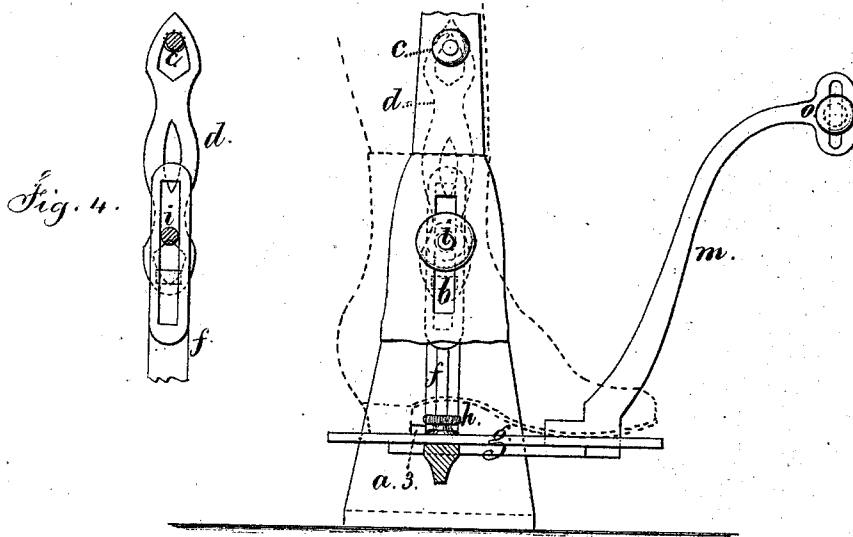
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Fig. 3.



Witnesses,

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att'y.

UNITED STATES PATENT OFFICE.

WILLIAM H. STEWART, OF BROOKLYN, NEW YORK, ASSIGNOR TO HIMSELF
AND ALFRED ROBINSON, OF MORRISTOWN, NEW JERSEY.

IMPROVEMENT IN TREADLES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 144,366, dated November 4, 1873; application filed
April 28, 1873.

To all whom it may concern:

Be it known that I, WILLIAM H. STEWART, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Treadles for Sewing-Machines, of which the following is a specification:

In the treadles of sewing-machines it is usual to place the fulcrum or axis of motion below the foot-plate; hence, as the treadle oscillates upon this point the ankle-joints of the operator swing in an arc of a circle and communicate to the lower joints of the legs a pendulous motion, and to the thighs and hip-joints a tremulous and jerking movement that is generally considered detrimental to health, especially with females.

My invention is made for preventing motion at either the knee or hip-joints in running the sewing-machine, and this is accomplished by swinging the treadle upon centers that are in line with the ankle-joints, so that the foot will move upon the ankle-joints by the action of the muscles of the legs without any vibratory or jarring motion at the hip-joints, pelvis, or base of the vertebræ.

In the drawing, Figure 1 is a plan of said treadle. Fig. 2 is a front view of the same. Fig. 3 is a side view, partially in section; and Fig. 4 is an elevation of the link and a portion of the treadle-yoke, detached.

The frames *a* of the sewing-machine are of the usual character, except that they are provided with the slots *b* and pivots *c*; or, if desired, the frames *a* may be separate from the ordinary sewing-machine frame or set within the wooden cabinet-case or otherwise retained in place. The links *d* hang from the pivots *c*, and suspend the treadle-yoke *f* by the hooks *e* or joint connections. Upon the treadle-yoke *f* are the foot piece or pieces *g*. These should be provided with a rib or ledge, 3, against which the boot or shoe heel rests, and by the clamping-screw *h* and slot in the foot-piece *g*, such foot-piece can be adjusted transversely of the yoke *f*, in order to accommodate the shape of shoe and heel to bring the center of the ankle-joint of the operator in a vertical plane passing longitudinally through the treadle-yoke. At the ends of the treadle-yoke there are vertical slots or openings corresponding to

the slots *b*, and in such slots *b* there are the clamping-nuts and pivot-pins *i*.

To adjust the treadle it is necessary to raise or lower the pivot-pins in the slots *b* and clamp them by their nuts to the frame *a* at the proper point, so as to be in line vertically with the center of ankle-joint. The foot-piece *g* is adjusted, if necessary, horizontally to position the ankle-joints in line with such pivot-pins *i*, and when this is done the treadle will be moved by the action of the feet without disturbing the knee or hip joints of the operator.

As a further convenience, I provide for adjusting the connection between the arm *m* that extends from the treadle-yoke and the pitman to the sewing-machine crank, by placing the joint-pin *o* for such pitman in a slot at the end of the arm *m*, and clamping the same by a nut; thereby the general position of the foot-pieces *g* can be tipped either one way or the other, according to the lengthening or shortening the distance between the treadle and the crank of the sewing-machine.

It will be apparent that the treadle-yoke and its parts hang from the links *d*, and that such links swing more or less as the treadle is moved, according to the position of the pivot-pins *i*, and, if desired, there may be division marks and numbers upon the surfaces of the frames *a*, near the slots *b*, to aid in adjusting the pivot-pins *i*.

I claim as my invention—

1. The treadle-yoke *f*, suspended by the links *d* and swinging upon the pivot-pins *i* that are adjustable vertically in the slots of the yoke and frame *a*, substantially as and for the purposes set forth.

2. The foot-pieces *g*, adjustable horizontally upon the treadle-yoke *f*, in combination with the adjustable pivots and treadle, substantially as and for the purposes set forth.

3. The arm *m* and adjustable connection for the pitman to the sewing-machine crank, in combination with the swinging sewing-machine treadle-yoke and the foot-piece, substantially as set forth.

Signed by me this 21st day of April, 1873.

Witnesses:

W. H. STEWART.

GEO. T. PINCKNEY,

CHAS. H. SMITH.