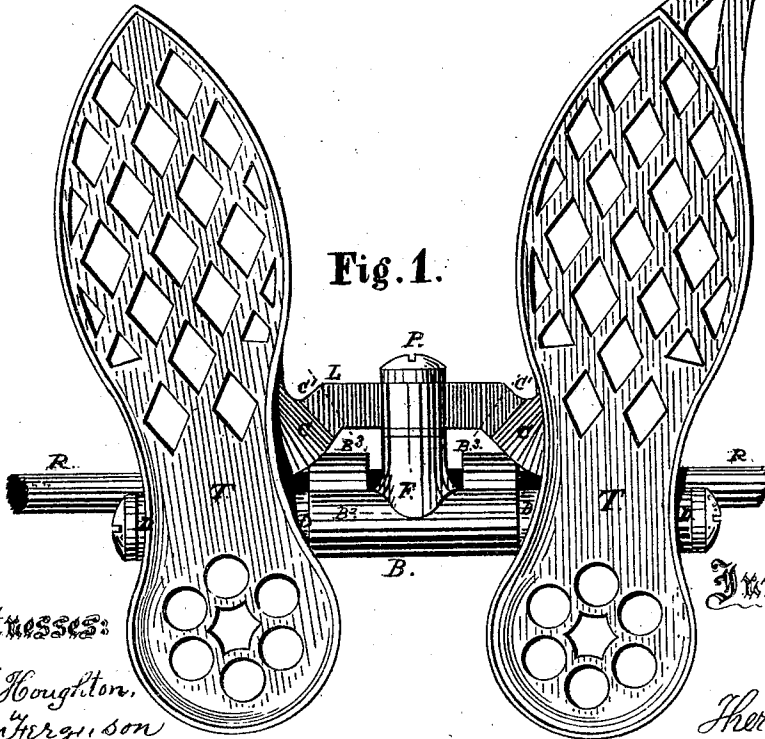
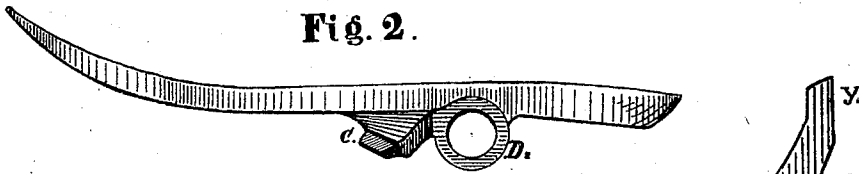
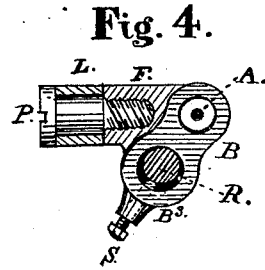
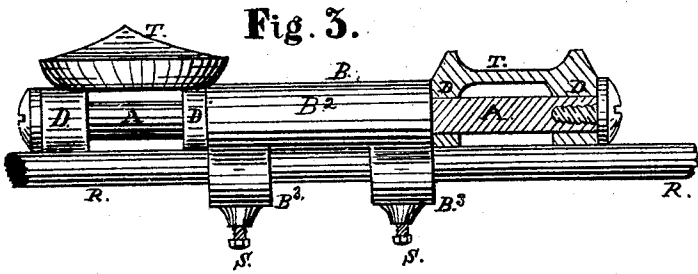


T. A. RICHARDS.

Improvement in Treadles for Sewing-Machines.

No. 131,411.

Patented Sep. 17, 1872.



Witnesses:

Thos. Houghton,  
H. J. Ferguson

Inventor.

Theron A. Richards  
by  
James A. Shelton  
his atty

# UNITED STATES PATENT OFFICE.

HERON A. RICHARDS, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN TREADLES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 131,411, dated September 17, 1872.

*To all whom it may concern:*

Be it known that I, HERON A. RICHARDS, of the city of Brooklyn, county of Kings and State of New York, have invented certain Improvements in Treadles for Sewing and other Machines, of which the following is a specification:

My invention relates to a class of treadles in which there is alternate action or pressure by each foot, the downward pressure of each foot operating to drive the machine, and also to elevate the opposite treadle preparatory to its action in turn, and is specifically an improvement of my invention patented January 23, 1872, and numbered 122,910. It consists in an improved mode of constructing and applying a stationary bracket for the support and operation of treadle-shoes, as will be hereinafter more fully shown.

Figure 1 is a top view of my invention as applied to a stationary rod or bar of the sewing-machine stand. Fig. 2 is a side elevation of one treadle-shoe with my improvements attached thereto. Fig. 3 is a back elevation of the improved bracket. Fig. 4 is an end elevation of bracket B, with its central pivot projection or boss F in section.

B is a stationary bracket, provided with side arms A A projecting from its upper part or body B<sup>2</sup>, and the projecting boss F for the support of the lever L, as shown in Figs. 1 and 3. B<sup>3</sup> B<sup>3</sup> are collars cast upon or otherwise firmly attached to the lower part of bracket B, as shown in Figs. 1, 3, and 4. A sleeve may be used instead of two collars, but the latter are preferable. P is a pivot-screw attached to boss F, and upon which is balanced a lever, L, which is provided with cog-wheel segments c' at its ends. K is the stationary rod or bar to which the parts are attached by means of set-screws SS, as shown in Figs. 3 and 4. T T are the treadle-shoes, which are provided with collars D D upon their under sides and cog-wheel segments c, as shown in Figs. 1, 2, and 3.

It will be seen from the above that the bracket B, with its treadles T T and balanced or connecting lever L, may be fitted ready for immediate application to any sewing-machine, and may be applied by any intelligent boy.

The operation of my invention is as follows: The various parts of my invention having been combined in their proper positions,

as shown in the accompanying drawing, the bracket is then secured to the stationary rod R by means of set-screws S S, having previously attached the pitman of the machine to the bracket Y, provided at the end of one of the treadle-shoes, as shown in Fig. 1. The feet of the operator being placed one on each shoe, T T, and pressure being made, say, by the right foot, and at the same time release of pressure being made by the left foot, the result will be a downward motion of the right shoe. This downward motion of the right shoe is communicated by its cog-wheel segment c to the balanced lever L. This lever L being balanced on the pivot-screw P, its opposite end is tilted upward, thereby, through the cog-wheel segments c' and c of that side, causing the toe of the left shoe to be elevated, along with the foot resting upon the same. The right treadle-shoe being connected to the crank of a sewing-machine by means of a pitman, in the usual manner, a half revolution of the machinery will have taken place; by pressure with the left foot and releasing the right the remaining half of the revolution takes place. By continuing the alternate pressure upon the right and left treadle-shoes a continuous motion of the attached mechanism will take place.

By means of the stationary bracket B, provided with arms A or equivalent bearings, independent of and above the stationary rod R, a greater range and facility of adjustment are obtained than in my former patent for improved "walking-motion treadle," dated January 23, 1872.

My invention does not require the substitution of a new connecting-rod provided with a universal joint. I use the connecting-rod of each machine as I find it, no alteration being necessary.

What I claim is—

1. The bracket B provided with the arms A A, the lever-support F, and the collars or sleeve B<sup>3</sup>, in combination with a stationary rod, R.

2. The bracket B provided with the arms A A, the lever-support F, and the collars or sleeve B<sup>3</sup>, in combination with the treadles T T.

HERON A. RICHARDS.

Witnesses:

REUBEN H. RICHARDS,  
GEO. LYONS.