

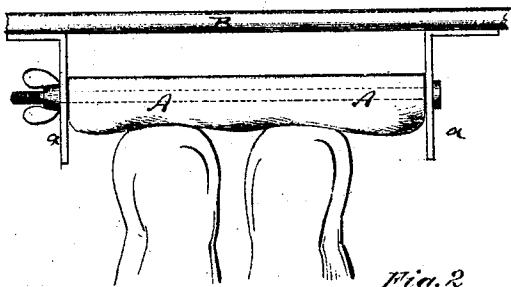
*J. W. W. Gordon,*

*Treadle.*

*No. 110,132.*

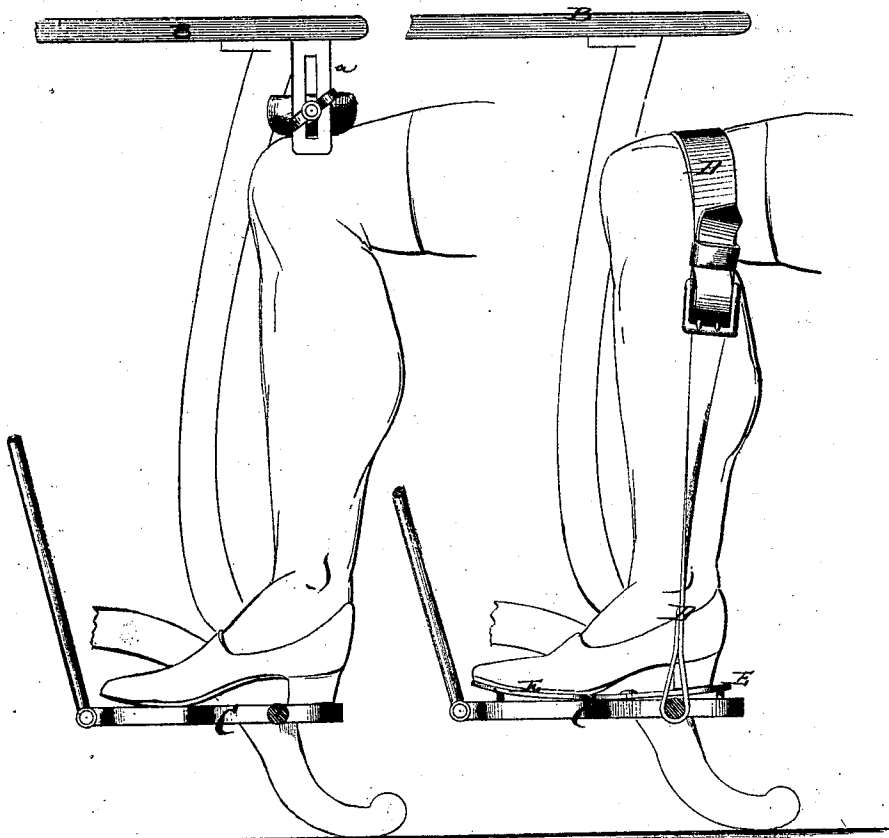
*Patented Dec. 13, 1870.*

*Fig. 3.*



*Fig. 1.*

*Fig. 2.*



**Witnesses:**  
*Gustave Dietrich.*  
*S. J. Maber*

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# United States Patent Office

JAMES W. W. GORDON, OF NEWPORT, KENTUCKY.

Letters Patent No. 110,132, dated December 13, 1870.

## IMPROVEMENT IN TREADLES FOR SEWING-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, DR. JAMES W. W. GORDON, of Newport, in the county of Campbell and State of Kentucky, have invented a new and improved Treadle for Sewing-Machines, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figures 1 and 2 are side views of treadles which are provided with my improvements.

Figure 3 is a face view of the device shown in fig. 1.

Similar letters of reference indicate corresponding parts.

This invention has for its object to so construct the treadles of sewing-machines, lathes, and other machinery driven by muscular power, that the power of the muscles of the calf and foot may be increased without straining the muscles of the thigh and body.

As treadles are now used, but little power further than that obtained from the weight of the leg and foot can be exerted without either leaning the body forward, which is exceedingly injurious to the muscles and other parts of the abdomen, and to the spinal column, or resting the body against a back support, which removes the head too far from the machinery to be observed.

The proper upright position of the body cannot be retained when power is actually required, nor can motion be kept up for any length of time even when

the body is leaned back, without excessively fatiguing the muscles of the leg.

My invention consists in the application to the treadle of a cushion, strap, or spring, whereby the knee of the operator is held down to press the lower joint of the leg upon the treadle. The muscles of the calf and foot are thereby braced to operate without loss of power.

For this purpose I can employ either a vertically-adjustable cushion, A, shown in figs. 1 and 3, which is suspended from slotted pendants *a a*, or from the sides of the machine B, of which the treadle C forms part, or a strap, D, as shown in fig. 2, the strap being with both ends secured to the treadle and laid over the knee; or a spring, cushioned or plain, may be used to press upon the knee.

A spring, E, may also be secured to the treadle to hold the knee against the strap or cushion. In this manner the lower part of the leg is locked to the foot, so that a greater leverage and more powerful action upon the treadle can be obtained.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

The cushion, strap, or spring, combined with the treadle, for the purpose of drawing down the knee of the operator, substantially as herein shown and described.

Witnesses: DR. JAMES W. W. GORDON,  
W. H. GORDON,  
S. J. GORDON.