

J. W. A. HUSS.
Elastic-Treadle for Sewing-Machines

No. 216,616.

Patented June 17, 1879.

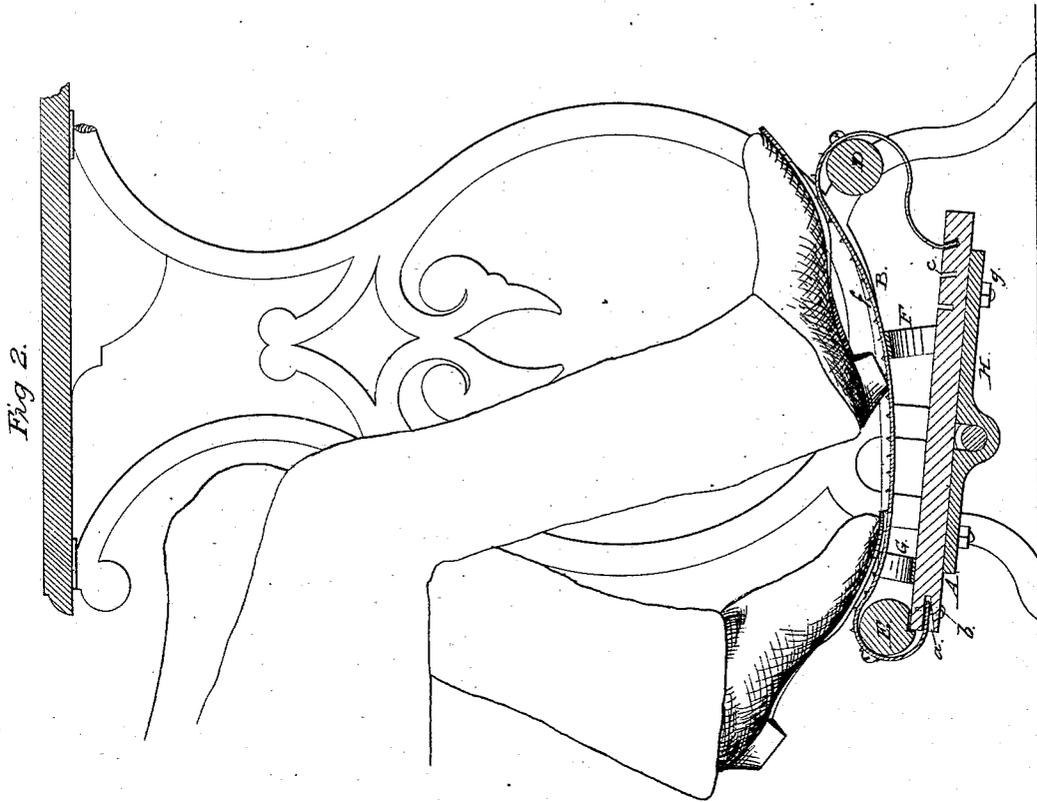


Fig. 2.

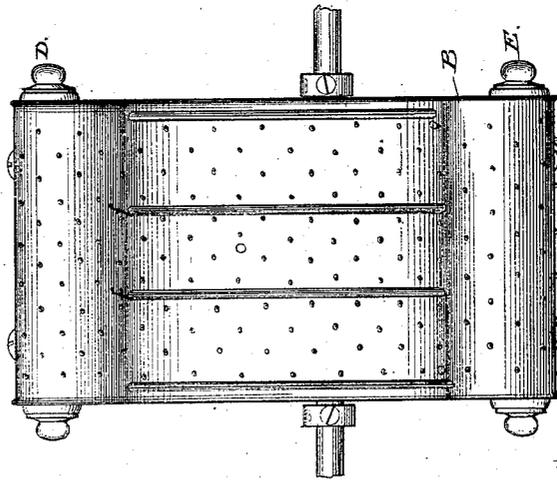


Fig. 1.

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IMPROVEMENT IN ELASTIC TREADLES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **216,616**, dated June 17, 1879; application filed May 22, 1879.

To all whom it may concern:

Be it known that I, JOHANN WILHELM ALBERT HUSS, of the city of Bernburg, Duchy of Anhalt, German Empire, have invented certain Improvements on Elastic Treadles for Sewing-Machines and the like, of which the following is a specification.

The object of the present invention is to furnish an elastic treadle attachment, whereby the leg action of the operator is made easier and less tiresome than in the ordinary treadles, a greater number of muscles being also brought into play than heretofore.

The invention consists in an elastic sheet-metal tread-surface, which is adjustably applied to a base or foundation plate, this latter plate being securely attached to the treadle-plate or treadle rock-shaft of a sewing or other machine, as will be hereinafter more fully described.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan or top view of a treadle attachment constructed according to my invention. Fig. 2 is a vertical section representing the same applied to a sewing-machine treadle-shaft, and showing the position of the operator's feet.

The letter A denotes a board, which serves as the base or supporting-plate of a sheet-metal tread-surface, B. The latter has its ends curved or bent, so as to raise it a sufficient distance from the base-board to permit a downward and upward movement of said tread-surface. A gain, *a*, cut in the end of the board A receives the rear inwardly-turned portion of the tread-surface or sheet-metal plate, the same being secured therein by means of a screw, *b*, or other suitable fastening device. The front downwardly-bent portion of the tread-surface is sprung into one of two or more parallel grooves, *c*, made in the top surface of the board A, these grooves being suitably inclined or shaped to hold the tread-surface by its own elasticity. By setting the tread-surface or sheet-metal plate onto the foremost groove the greatest degree of vertical play is given to the same, and when set farther back into either of the other grooves the play is not so great. To the front end of the tread-surface is secured a wooden bar, D,

the same being located at the point where it is turned in a downward direction, for the purpose of giving a proper degree of rigidity to the tread-surface, and preventing the same from being pressed out of shape. A similar bar, E, secured to the rear end of the tread-surface and resting on the foundation-board, serves to hold these two parts away from each other.

For the purpose of giving an additional degree of elasticity to the tread-surface the same rests on bow or plate springs F G, interposed between the foundation-board and tread-surface. As heretofore stated, the latter is constructed of a sheet-metal plate, which is also provided with longitudinal ribs or corrugations *f* for strengthening the same, and with spurs or projections struck up from the metal for preventing the slipping of the feet.

As shown in Fig. 2, the elastic treadle attachment above described is secured to the treadle-plate H of a Howe sewing-machine, the two parts being secured by bolts and nuts *g*.

It will be obvious, however, that the wooden foundation-board of the tread-surface or sheet-metal plate may be secured to the treadle-shaft in any preferred manner.

In ordinary treadles the feet of the operator are commonly placed in the center of the treadle-plate, causing an irregular and tiresome action of the leg-muscles, whereas in the present invention the feet of the operator can be placed one in advance of the other, as is shown in Fig. 2, whereby a greater leverage is attained and a less exercise of muscular force is required.

The provision of an elastic tread-surface, or of a yielding feed-supporting plate, will enable a treadle to which my device is applied to be used without injuriously affecting the muscles, as is the case when an unyielding tread-surface is employed.

Other points of advantage attributable to the treadle attachment herein described will readily suggest themselves without further explanation.

Having thus described my invention, I claim as new the following, viz:

1. The elastic tread-surface or sheet-metal

spring-plate B, in combination with a treadle, substantially as and for the purpose set forth.

2. A treadle attachment consisting of the base-board A, the elastic tread-surface or spring-plate B, adjustably applied thereto, and the stiffening-bars D E, as and for the purpose set forth.

3. The combination of the springs F G with the base-board A and the elastic tread-surface

or spring-plate B, as and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHANN WILHELM ALBERT HUSS.

Witnesses:

WEURES LAUS V. NAWROCKI,
EDWARD P. MACLEAN.