

D. A. SWIFT.

Treadle for Sewing-Machines.

No. 152,705.

Patented June 30, 1874.

Fig. 1.

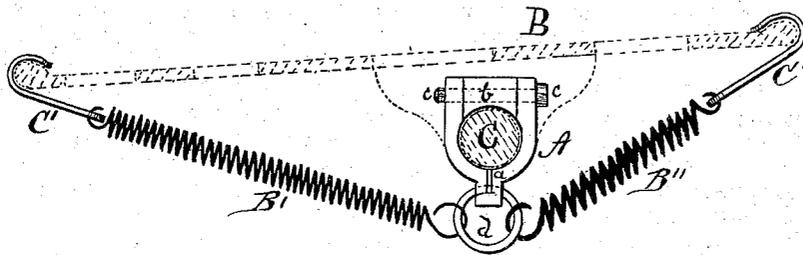
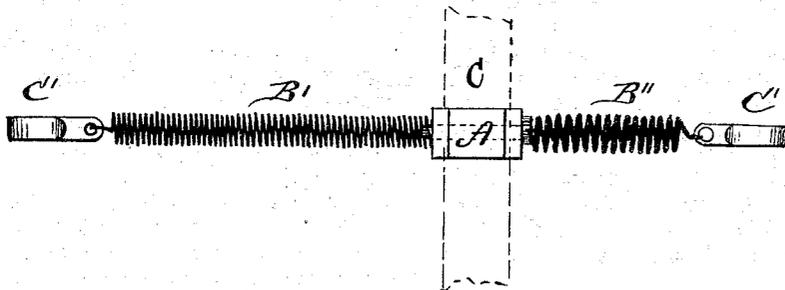


Fig. 2.



WITNESSES.

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IMPROVEMENT IN TREADLES FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **152,705**, dated June 30, 1874; application filed January 20, 1874.

To all whom it may concern:

Be it known that I, DAVID A. SWIFT, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Equalizing Power for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to a device to equalize the power applied to sewing-machines through the medium of a treadle, having for its object to assist the motion in passing the dead-center, and to equalize the power applied, and requiring less power applied to the heel of the treadle than applied to the toe, as in ordinary machines, thus causing great injury to the spine of the operator; and it consists in the use of an adjustable clamp in connection with the rocking shaft and springs, and in the use of springs of unequal power in connection with the treadle, as will be hereinafter more fully described.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and use, referring to the annexed drawings, in which—

Figure 1 represents a side elevation of a device embodying my invention, showing rocking shaft and treadle in section; and Fig. 2 is a plan view of the same with treadle removed.

B represents the treadle, and C the rocking shaft, of a sewing-machine of any ordinary construction. A represents a clamp, the inside of which is of circular form, the opening at the top being filled with a block, *b*, the inside of which is circular, the same as clamp A. The bottom of clamp is slotted at *a* in order to leave but little material at the bottom, so that the clamp may be opened or closed to fit a large or small rock-shaft, C, and at the same time have sufficient material to furnish a solid bearing. The top of the clamp and block *b* are drawn together so as to be rigidly secured to the shaft C; but, by loosening the screw *c*, the clamp may be longitudinally adjusted upon the shaft, for a purpose presently

described. B' represents a spring connected to the ring *d* in the bottom of the clamp, at one end, and at the other end connected, by a hook, C', to the toe of a treadle; and B'' is another spring connected to the clamp and heel of the treadle. The spring B'', attached to the heel of the treadle, is the largest, possessing the most power for the purpose of relieving the heel of the operator. The tension of the spring B'', being the greatest, draws the heel end of the treadle down, thus overcoming the objections to sewing-machines requiring so much power applied by the heel of the operator, causing injury to the spine.

To adjust the tension of the springs, the clamp may be adjusted longitudinally upon the shaft C.

The hooks C' will allow or admit of being attached to the heel and toe of any treadle, while the clamp A will accommodate itself to any ordinary shaft, C, thus providing a device that may be readily attached, adjusted, and detached in use with any sewing-machine, to equalize the power, relieve the heel of the operator, to prevent the machine from stopping on the center, and consequently it is not necessary to take hold of the wheel to start the machine.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The clamp A, with slot *a*, block *b*, and screw *c*, in combination with the rocking shaft C of a sewing-machine, substantially as and for the purpose specified.

2. The springs B' and B'', of unequal tension, in combination with the treadle B of a sewing-machine, as and for the purpose set forth.

3. The adjustable clamp A, constructed as described, in combination with ring *d*, springs B' B'', shaft C, and treadle B, all constructed and arranged for operation as and for the purpose herein described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

DAVID ASQUE SWIFT.

Witnesses:

F. W. BROWN,
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