

(No Model.)

J. D. WEED.

TREADLE FOR SEWING MACHINES.

No. 273,921.

Patented Mar. 13, 1883.

Fig. 1.

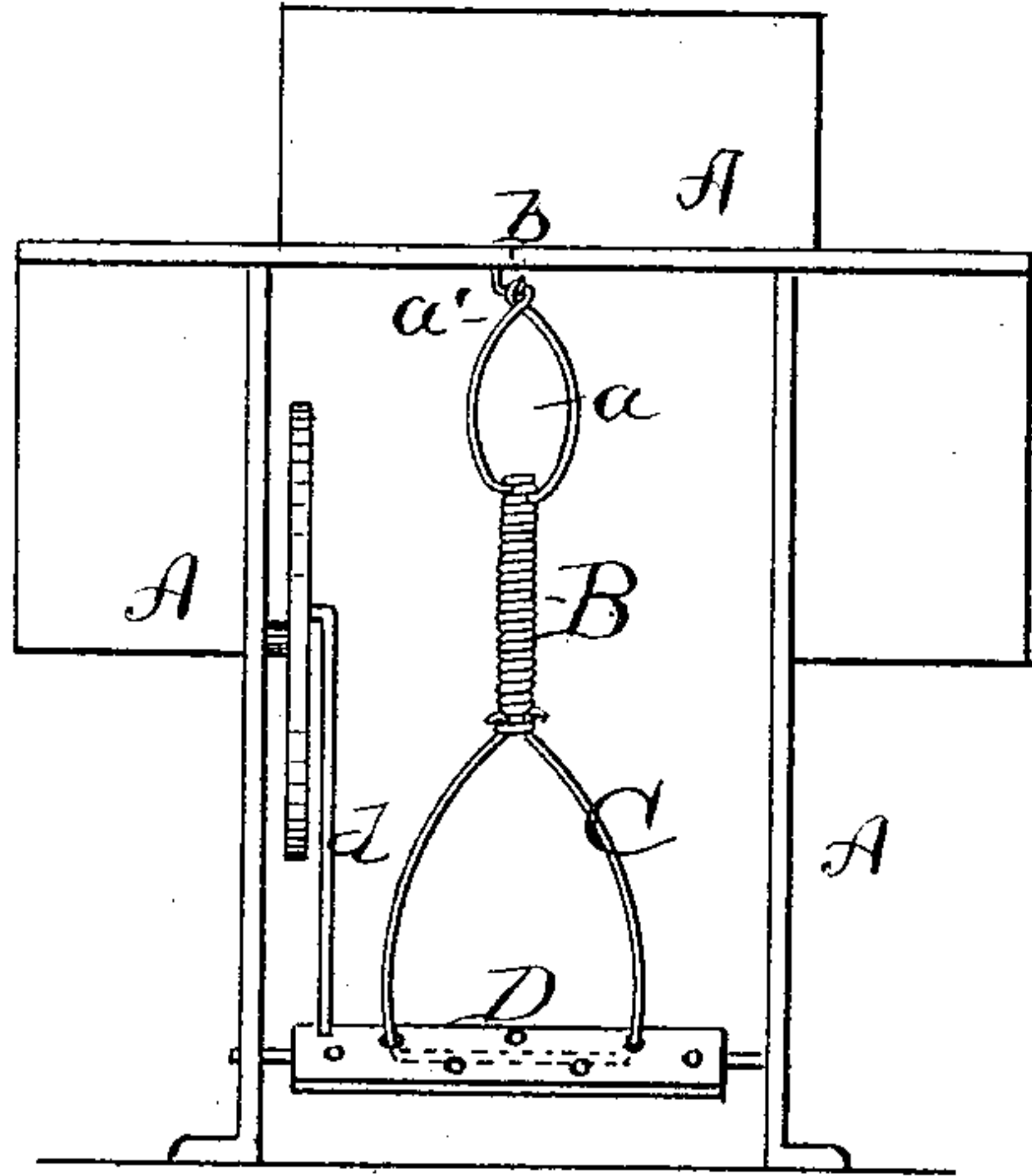
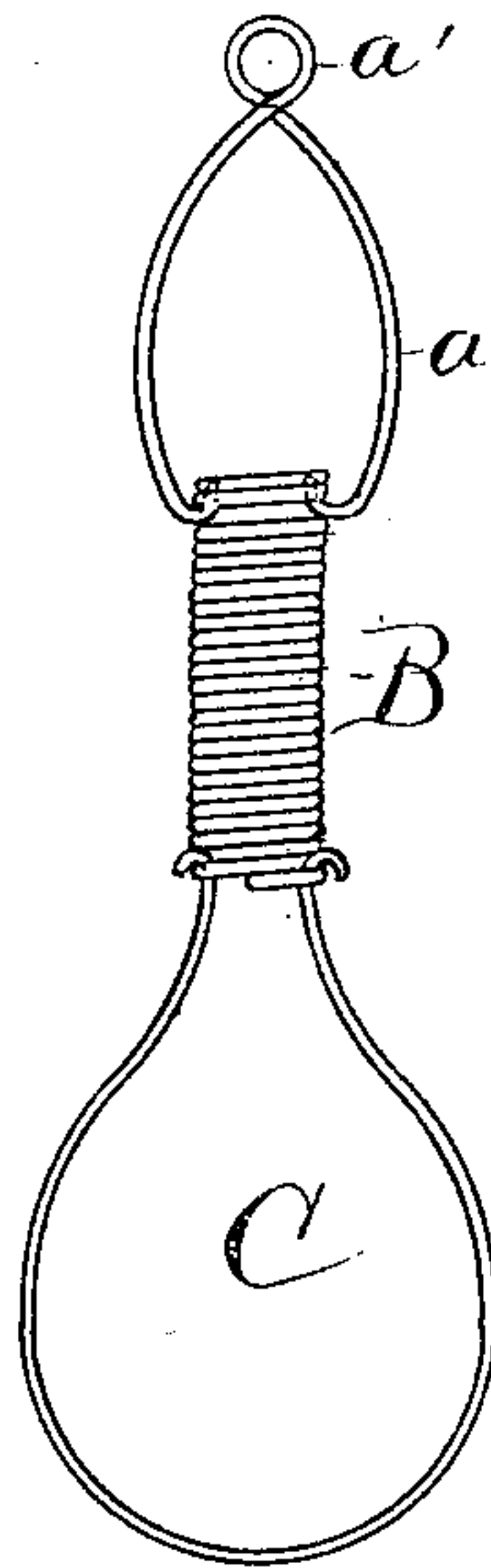


Fig. 2.



Witnesses:
D. H. Carson.
J. R. Drake.

John D. Weed,
Inventor, by
J. R. Drake,
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UNITED STATES PATENT OFFICE.

JOHN D. WEED, OF BUFFALO, NEW YORK.

TREADLE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 273,921, dated March 13, 1883.

Application filed January 22, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. WEED, a citizen of the United States of America, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Treadles for Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This improvement relates to the working of treadles of sewing-machines, the object being to lessen the labor of operating them by the foot and also take off the wear on certain parts; and the invention consists in the application of a spiral spring having two attaching-loops—one hooked to the under side of the machine-table, the other to the treadle—said loops having hooks or bent portions on their ends for engagement in the coils of the spring, whereby they are made adjustable on the spiral spring, all as hereinafter fully explained.

In the drawings, Figure 1 is a back elevation of part of a sewing-machine, showing the attachment of my spring thereto; Fig. 2, an elevation of the spring and its two loops.

A represents the back of a sewing-machine.

B is a tightly-coiled metal spiral spring; *a*, a metal loop, made of wire the same as the spring, and is twisted into an eye, *a'*, in the middle, by which it is hung on a hook, *b*, screwed into the under side of the top of the sewing-machine, as in Fig. 1. The two lower ends of the loop are bent into hooks, and the same are caught into the upper spirals of the spring B. (See Fig. 2.)

C is a longer wire loop, which is attached to the usual treadle, D, of a machine in any suitable manner; but I usually run it through the openings of the treadle, and the two ends are bent into hooks and caught into the lower spirals of spring B, as shown in both figures. This is the simple construction and the equally simple attachment to a sewing-machine, and by its use nearly one-half the force expended is taken off the usual pitman, *d*, thereby saving in the wear of the bearings of the wheel and treadle, the parts usually worn out first.

The spring also relieves the labor of the heel of the operator, as, when the toe part of the foot presses down, it expands the spring B and the return of the spring draws back the treadle. It also gives great steadiness and governs and regulates the movement of all the working parts, acting in this respect as a balance-wheel, as it partly, when started, carries the working parts along at a regular rate, thereby giving a more uniform motion to the shuttle and needle, making them work in proper connection without jerking, and preventing cutting the thread and missing stitches. Its greatest advantage is in taking off to a considerable extent the exertion in running a machine, and which is considered so injurious by many.

The attaching-loop *a* is also important, inasmuch as it regulates the tension or power of the spring B, as if too tight or too loose this loop is turned up or down in the threads of the spiral spring, thereby lengthening or shortening the working part of the spring with corresponding effect on the movement of the parts. This is an important and very simple arrangement.

I am aware that springs have been heretofore used in a position similar to mine to lighten the labor of operating the machine; but the arrangement of such spring is not the same as mine.

I claim—

In a sewing-machine, the combination, with the machine table and treadle, of the connecting-loops *a*, *a'*, and C, provided with hooks at their inner ends and attached to the table at their outer ends, and the central coiled spring, B, having the hooks on the ends of *a*, *a'*, and C, engaged in the coils, said hooks being movable up and down in said coils, so as to adjust the tension of the spring, substantially as set forth.

In testimony whereof I affix my signature, in presence of two witnesses, this 28th day of December, 1882.

JOHN D. WEED.

Witnesses:

J. R. DRAKE,
T. H. CARSON.