A. L. Dewey,

Treadle.

No. 47,282. Patented Apr. 18, 1865.

Fig. 3

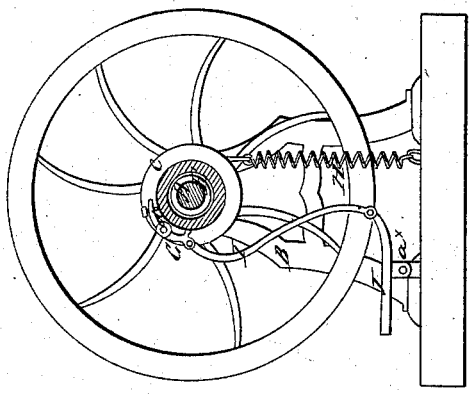


Fig. 2

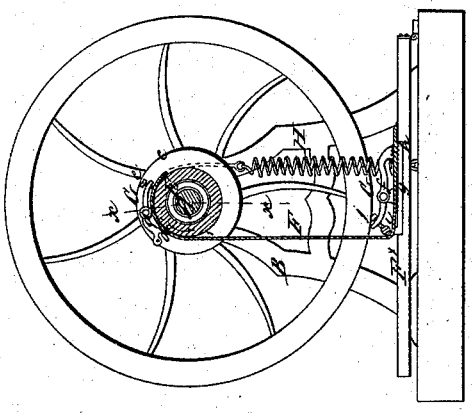
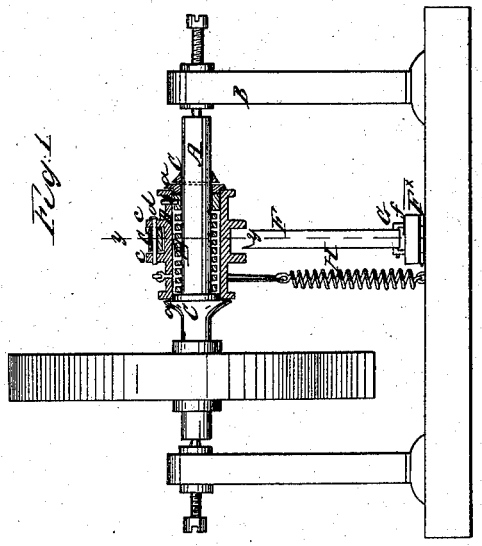


Fig. 4

Fig. 1



Witnesses.

M. A. Leame Jr.

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UNITED STATES PATENT OFFICE.

ALBERT L. DEWEY, OF WESTFIELD, MASSACHUSETTS.

IMPROVEMENT IN TREADLE-MOTION.

Specification forming part of Letters Patent No. **47,282**, dated April 18, 1865.

To all whom it may concern:

Be it known that I, ALBERT L. DEWEY, of Westfield, in the county of Hampden and State of Massachusetts, have invented a new and Improved Treadle-Motion; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical section of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a transverse section of the same, taken in the line *y y*, Fig. 1; Fig. 3, the same view as Fig. 2, showing a modification of the invention; Fig. 4, a detached view of a spring pertaining to the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved treadle-motion designed for turning-lathes, sewing-machines, and all other devices in which motion is given a rotating shaft through the medium of a foot-treadle.

A represents a shaft supported by a framing, B, and having two bosses, C C, upon it, rabbeted or grooved at their peripheries to receive a hollow or tubular hub, D, which is fitted loosely on the hubs or bosses C C, the flanges *a*, formed by the rabbets or grooves in the latter, preventing the hub from moving laterally thereon, as will be understood by referring to Fig. 1.

E is a spiral spring, which is placed on the shaft A between the two bosses C C, and consequently within the hub D. One end of this spring is connected to the hub D, as shown at *b*, the opposite end of the spring being free or disconnected. The hub D is provided with two flanges, *c c*, which extend around it circumferentially, and between these flanges a belt, F, is secured to the hub, the lower end of the belt being attached to a treadle, $F^{\times}$. The belt is secured to the hub by means of a jaw or clamp, G, which is fitted on a pivot, *d*, passing through the flanges *c c*, and about centrally through the jaw or clamp, one end of G being formed with a lip, *d'*, and the other end having a set-screw, *e*, passing through it, by adjusting which the lip *d'* may be pressed snugly down on the belt, firmly securing the latter to the hub. (See Fig. 2.) The lower end of the belt F is secured to the treadle $F^{\times}$ by means of a clamp, G, constructed in a similar manner, said clamp being fitted on a pivot, *f*, in a plate, *g*, which is secured to the upper surface of the treadle, and has a portion of its upper surface corrugated, as shown at *h*. One end of the plate *g* is provided with a loop or eye, *i*, through which the belt F passes, and underneath one end of the clamp, which end is also corrugated, and is made to press firmly down upon the belt by means of a screw, *j*, passing through the opposite end of G and bearing upon the eye *i*, as shown in Fig. 2.

H is a spiral spring, which is connected to the hub D, so as to act upon it in a direction contrary to the belt F.

The operation is as follows: The action of spring E is peculiar. When the treadle $F^{\times}$ is pressed downward under the action of the foot the belt F will turn the hub D in the direction indicated by arrow 1 in Fig. 2, and spring E will be contracted and bear upon the shaft A, so as to cause it to rotate also, the spring forming the only connection between the shaft A and the hub D. The instant that the pressure is removed from the treadle $F^{\times}$ the spring E relaxes and allows the shaft A to continue its rotation, while the hub D is allowed to turn in the opposite direction under the contraction of spring H, the latter having been distended during the downward movement of the treadle. The backward movement of hub D winds the belt F upon it and raises the treadle $F^{\times}$, ready for a succeeding downward movement.

In certain cases the belt F may be dispensed with and a rod, I, substituted, as shown in Fig. 3, said rod being attached to a treadle, J, working on a joint, $a^{\times}$. In this case the spring H for giving the return motion to the hub and treadle is not absolutely necessary.

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

The spring E and hub D, applied to shaft A, substantially as shown, and used in connection with a foot-treadle, all arranged to operate in the manner substantially as and for the purpose set forth.

ALBERT L. DEWEY.

Witnesses:

Mrs. HELEN L. DEWEY,

WILLIAM W. TUCKETT.