H. WARREN & C. H. LUTHER.

Improvement in Motive-Power for Operating Sewing-Machines.

No. 129,998. Patented July 30, 1872.

Fig: 1.

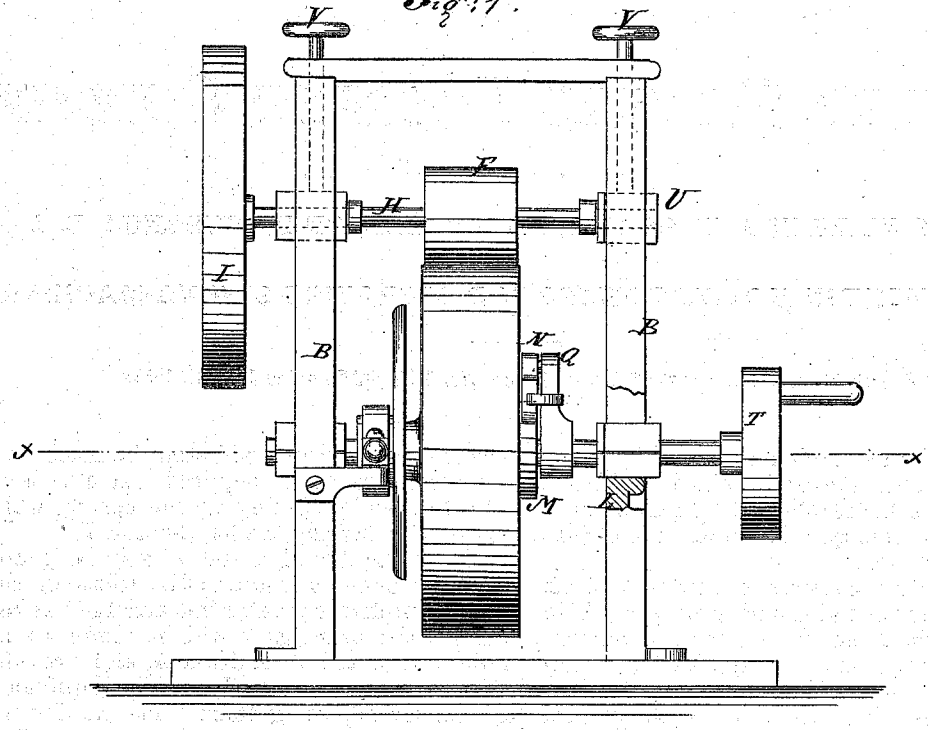
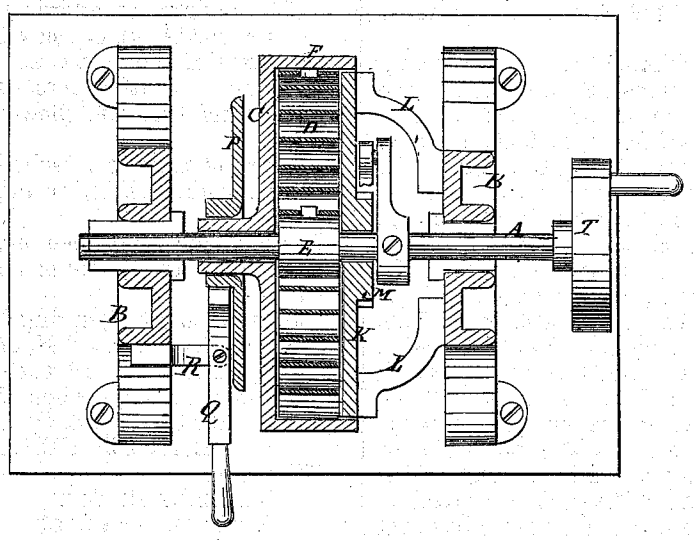


Fig: 2.



Witnesses:

Chas. Nida.

W. A. Graham

Inventor:

H. Warren

C. H. Luther

PER

Attorneys.

UNITED STATES PATENT OFFICE.

HENRY WARREN AND CHARLES H. LUTHER, OF PROVIDENCE, R. I.

IMPROVEMENT IN MOTIVE POWERS FOR OPERATING SEWING-MACHINES.

Specification forming part of Letters Patent No. **129,998**, dated July 30, 1872.

Specification describing a new and Improved Sewing-Machine Power, invented by HENRY WARREN and CHARLES H. LUTHER, of Providence, in the county of Providence and State of Rhode Island.

Our invention consists of a novel and efficient arrangement of a spring winding, holding, regulating, and transmitting apparatus, for adapting the same for application to sewing-machines, all as hereinafter described.

Figure 1 is a front elevation of the apparatus with a part sectioned, and Fig. 2 is a horizontal section taken on the line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A is a crank-shaft mounted in the housings B, with a drum, C, inclosing a spring, D, fixed loosely on it, said spring being connected at its outer end to said drum, and at the inner end to the hub E made fast to the shaft. The face of this drum gears with a small roller, F, by frictional contact, to transmit the motion through the shaft H and pulley I. K is a disk at one side of the drum, attached to the brackets L, projecting from one side of the frame. Said disk has a ratchet-toothed hub, M, on the outside, for holding the shaft A after the spring has been wound up by a pawl, N, pivoted on the arm O of said shaft. P is a friction-holding disk on the side of the drum, opposite to the one where the ratchet is arranged. Its hub is pivoted in the ends of the crotched shifting-lever Q, which is pivoted on the bracket R. This disk, being pressed against the side of the drum, will stop the machine or slow the motion, as required. It also holds the disk while winding up the spring, which is done by turning the hand-crank T.

The drum A and wheel F may be geared together by teeth instead of by frictional contact, as preferred; but, when arranged as here shown, the bearings V will be made adjustable toward and from drum A, and provided with adjusting-screws V, or other equivalent means for adjusting them. The motion will be transmitted to the sewing-machine from the pulley I.

This arrangement affords a simple and efficient apparatus, which may be wound up by a few turns of the crank, and will run a sewing-machine or other light machinery very much longer than the time required to wind it up.

The frame may be attached directly to the sewing-machine table, or otherwise, as preferred.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

The crank-shaft A, spring D, drum C, fixed disk K, ratchet M, pawl N, crank O, friction-disk P, and lever Q, all constructed and arranged substantially as specified.

HENRY WARREN.
CHARLES HENRY LUTHER.

Witnesses:
MANELLY B. HART,
RICHARD HARRISON.