

ELIJAH L. HOWARD.

Improvement in Mechanism for Operating Sewing Machines.

No. 119,930.

Patented Oct. 17, 1871.

Fig. 1.

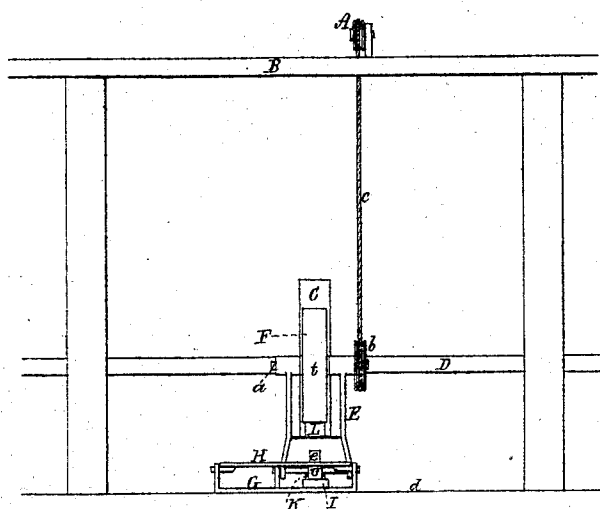
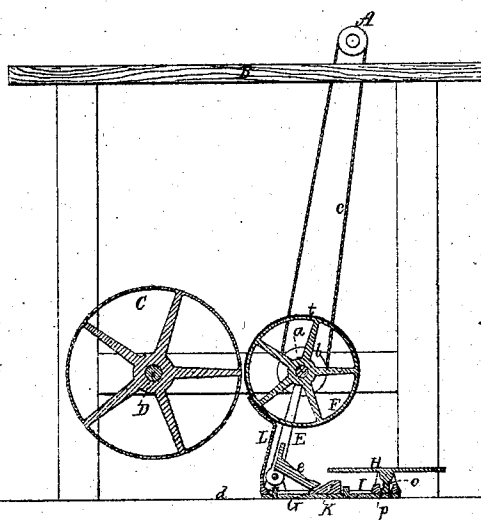


Fig. 2.



Witnesses.

L. N. Möller.

J. R. Snow

Elijah L. Howard.

by his attorney.

R. H. Eady

UNITED STATES PATENT OFFICE.

ELIJAH L. HOWARD, OF HINGHAM, ASSIGNOR TO GEORGE A. WHITING, OF CHARLESTOWN, MASSACHUSETTS.

IMPROVEMENT IN MECHANISM FOR OPERATING SEWING-MACHINES.

Specification forming part of Letters Patent No. 119,930, dated October 17, 1871.

To all whom it may concern:

Be it known that I, ELIJAH L. HOWARD, of Hingham, of the county of Plymouth and State of Massachusetts, have invented a new and useful Improvement in Mechanism for Operating a Sewing-Machine; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, of which—

Figure 1 denotes a front elevation, and Fig. 2 a transverse section of a sewing-machine table or bench, as provided with my invention.

In such drawing A is to be supposed to represent the driving-pulley of a sewing-machine, and B the table or bench of such machine. C exhibits a wheel carried by a driving-shaft, D. Where several machines are fixed on a bench or table and put in operation by a driving-shaft carrying a number of pulleys or wheels corresponding to the number of machines, each machine having its separate driving-belt or band running around one of the shaft-wheels, it often becomes desirable to stop one or more of the machines and continue the rest in operation. Under these circumstances it will be seen that all the driving-belts must continue in operation, or the shaft must be revolved in the driving-pulleys of such belts, thereby creating friction and wear, and, generally speaking, more or less objectionable noise, which it is very desirable to avoid if possible. My mechanism for effecting the rotary motion of a sewing or other machine driving-wheel is so entirely independent of the wheel by which it is put in operation, that when out of contact or engagement therewith, such mechanism will be entirely at rest, and the wheel may revolve without noise or friction. My present invention has reference to the subject or mechanism of the first claim as made by me in the United States patent No. 110,569, dated December 27, 1870, and consists in the combination of the said subject of mechanism with a sliding inclined plane, or such and a brake. The said inclined plane is so applied to the pedal as to be movable rectilinearly thereby and against or away from the arm of the rocker-frame, and the brake is to be fixed to and movable by the carrier of the inclined plane and toward or away from the driving-wheel carrier by the rocker-frame. In the drawing the rocker-frame or lever is shown at E as provided with an arm, *e*, and car-

rying a driving-wheel, F, having its periphery covered with a tire, *t*, of leather, India rubber, or other suitable soft and yielding material, to work against the periphery of the driving-wheel C. The said wheel F is to be disposed in front of the wheel C, and to have upon its shaft *a* at one end a grooved wheel or pulley, *b*, around which and the sewing-machine driving-pulley A an endless band, *c*, is to work. The rocker-frame or open lever E I pivot to the floor *d*, or to a stand or frame, G, fixed to such floor. Sometimes I prefer to pivot the lever E to the bench or table, or to a frame fixed thereto. On the frame G, to which the rocker-pedal H is pivoted, there is a slider, I, carrying the inclined plane K and the brake L, arranged as shown. The pedal H is pivoted to the slide I, or has a projection, *o*, to extend into a recess or stop, *p*, in the slide, all being as shown, the slide being applied to the frame G so as to be movable rectilinearly thereon.

By a person placing his or her foot on the rocker-pedal and moving it one way, the slide will be moved so as to force the inclined plane K against the arm *e* of the roller-frame or lever E, whereby each frame will be moved and arrested so as to carry and hold the driving-wheel F against the wheel C. By moving the pedal in the opposite direction the brake may not only be caused to force the wheel F away from the wheel C, but arrest rotary motion of the wheel F that it may have derived from the wheel C. Where the wheel F has to be maintained in contact with the wheel C by the foot of an attendant pressing upon the pedal, the jar of the mechanism, and more especially that of the wheel C is found to be very inconvenient or unpleasant, as well as more or less injurious to the attendant; but with the inclined plane movable by the pedal, as described, and acting in concert with the arm *e* of the frame E, the wheel F will be held automatically in contact with the wheel C, whereby the foot of the attendant during such contact, or a greater part of the time such may exist, may be removed from the pedal so as not to be subjected to the jar of the mechanism. Then, again, my present invention affords a ready means of at once stopping the wheel F or the mechanism driven by it immediately after it may be drawn out of contact with the periphery of the wheel C.

I claim—

1. The combination of the movable inclined plane K with the pedal H, the frame E, (provided with the arm *e* or its equivalent,) and the driving-wheel F, to operate with the wheel C, as described, all being arranged and applied together substantially as and for the purpose as set forth.

2. The combination of the brake L and the inclined plane K, with the pedal H, the frame E,

and the wheel F to operate with the wheel C, the frame E being provided with the arm *e* or its equivalent, and all being arranged essentially in manner as shown and explained.

ELIJAH L. HOWARD.

Witnesses:

R. H. EDDY,
J. R. SNOW.

(67)