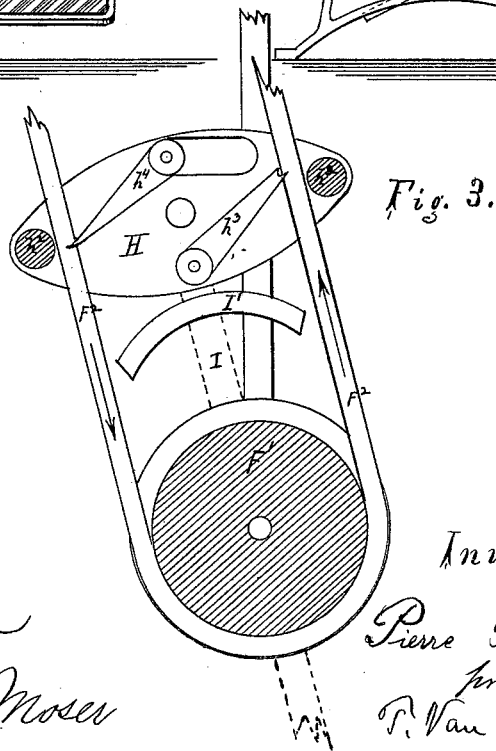
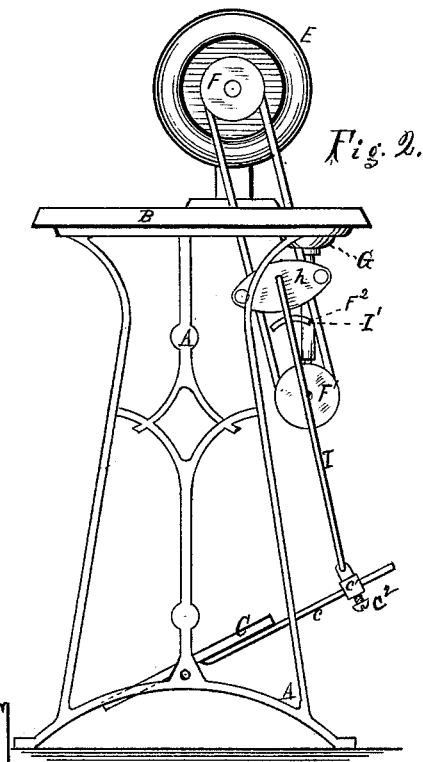
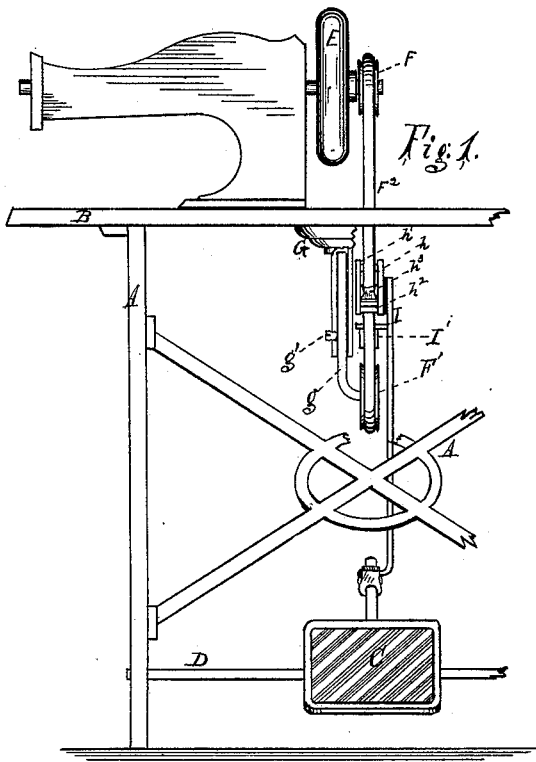


P. F. JOUTE.
Treadle-Movement for Sewing-Machines.
No. 220,385. Patented Oct. 7, 1879.



Attest:-
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UNITED STATES PATENT OFFICE.

PIERRE F. JOUTE, OF CINCINNATI, OHIO.

IMPROVEMENT IN TREADLE-MOVEMENTS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **220,385**, dated October 7, 1879; application filed June 26, 1879.

To all whom it may concern:

Be it known that I, PIERRE F. JOUTE, of Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and Improved Treadle-Movement for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification.

In the drawings, Figure 1 is a front elevation. Fig. 2 represents a side elevation; and Fig. 3 is an enlarged view of the clutch, showing the working parts.

The nature of my invention relates to a device whereby an ordinary treadle-movement of sewing or other machines is changed into a continuous rotary motion, and being adjustable in minute degrees from a high to a low speed with the same speed of the treadle.

An important feature of this device is that the sewing-machine cannot be run backward, and hence the operator, on moving the treadle in either direction, will at once move the machine in the forward course. The device can, however, be made to run the machine in either direction simply by reversing the working parts; but, having been placed in position, it will cause the machine, when started, always to run forward.

The device is further provided with a brake-shoe, which coming in contact with one of the rotating wheels, the machine can be instantly brought to a stop, when so desired.

In construction my invention is as follows: A A represent a portion of an ordinary sewing-machine frame, supporting a table, B. At C is a treadle, oscillating freely on rod D. To the treadle is attached a projecting arm, e, holding the adjustable bearing c¹, which may be moved to or from the center of motion and held in position by means of set-screw c².

At E is seen the ordinary hand-wheel, fastened to the main shaft of the machine. To the same shaft is also permanently attached the grooved pulley F. To the lower side of table B is screwed a hanger, G, and an adjustable rod, g, is held in any desired position by means of set-screw g'. The lower end of rod g is bent at a right angle, and receives the pulley F¹. The belt F² encircles the two pulleys F and F¹, as shown in the drawings. The

belt is endless, and may be round or flat, according to the circumstances surrounding.

The clutch H consists of two plates, h and h¹, the latter being made removable, while the former is fastened to the pitman I, whose lower end is pivoted in part c¹. The two posts h² h² of the clutch rise from plate h, and are rounded, so as to prevent them wearing the belt. The pawl h³ rests with its weight against belt F², at such an angle that when clutch H is moved upward the pawl engages with the belt, but, on being lowered, it glides over the belt with no perceptible resistance. The other pawl (marked h⁴) is similarly constructed, but in reverse from h³, and is counterbalanced in such manner as to hold its point also against belt F². To the pitman I is fastened the brake-shoe I', which comes in contact with pulley F¹, but in some cases may as well be made to act on pulley F or to other working parts.

In operation my invention is as follows: On giving the treadle its usual oscillating motion, the pitman intervening transfers the motion to clutch H, to which it is fastened. As the clutch is moved upward, pawl h³ rests with its weight against belt F², and, pressing it against the post h² opposite, engages the belt, moving it up with the clutch, while pawl h⁴ passes over the descending part of the belt freely. On reversing the motion of the clutch each pawl reverses its action severally, and thus a continuous rotary motion is given the pulleys F and F¹, as shown by the arrows.

When the belt requires tightening the screw g' may be loosened, rod g pressed downward the required degree, and the set-screw retightened.

When the speed is to be increased part c¹ is moved out from the center of motion, thus increasing its sweep, and thereby giving a longer movement to the clutch with the same degree of treadle movement. When a slower speed is wanted to be given the machine, the part c¹ is moved nearer the center of motion of the treadle, which will give the reverse result.

The action of the brake-shoe becomes obvious from the above description. When the operator desires to stop the machine the treadle is given the full downward stroke, when brake-shoe I', coming in contact with pulley F¹, and

the pressure being continued, the friction thus produced brings the machine to a sudden stop. The contact of I' with F' is made only in the last part of the downward stroke, as in the usual action of the pitman the entire stroke is never used, as this would impede the motion of the machine.

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

1. The combination of pulleys F and F', belt F², and clutch H, substantially as described, for transmitting a reciprocating into a continuous rotary motion, for the purposes herein set forth.

2. The clutch H, having pawls h^3 and h^4 , and permanent posts h^2 , to engage with belt F², as specified.

3. The adjustable bearing c^1 , combined with treadle C and pitman I, to vary the speed of the machine, substantially as specified.

4. The brake-shoe I', permanently attached to pitman I or other equivalent parts, to come in contact with a moving part of the machine, when constructed and operated substantially as and for the purposes herein set forth.

PIERRE F. JOUTE.

Attest:

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