H. SHOGREN
Treadle.

No. 196,770. Patented Nov. 6, 1877.

Fig. 1.

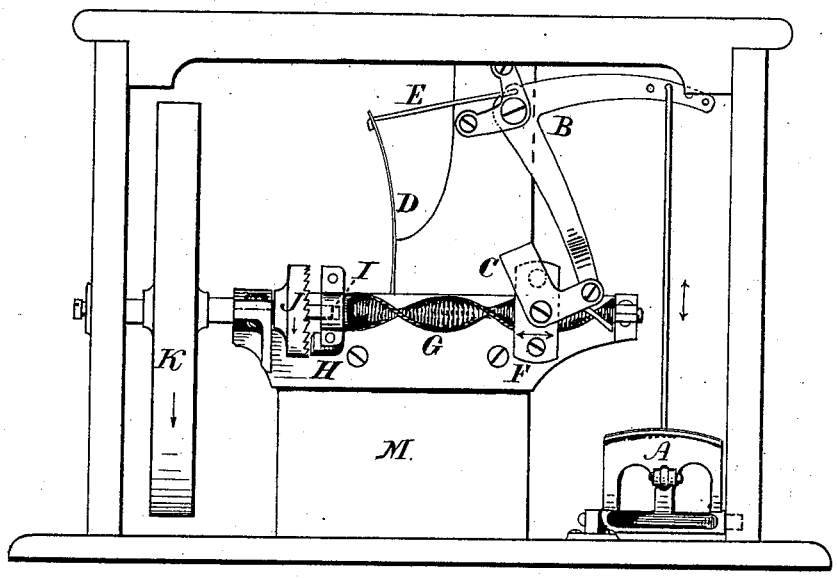


Fig. 2.

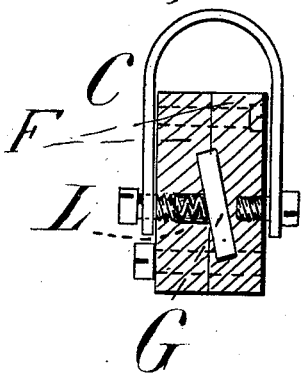
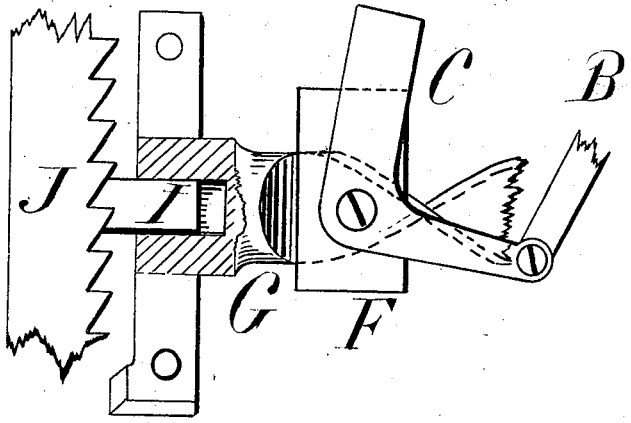


Fig. 3.



Witnesses,
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C. B. Talbot.

Inventor:
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UNITED STATES PATENT OFFICE.

HANS SHOGREN, OF PORTLAND, OREGON.

IMPROVEMENT IN TREADLES.

Specification forming part of Letters Patent No. **196,770**, dated November 6, 1877; application filed April 13, 1877.

To all whom it may concern:

Be it known that I, HANS SHOGREN, of Portland, in the county of Multnomah, in State of Oregon, have made an Improvement in Treadles, to be used on foot-lathes, sewing-machines, scroll-saws, or other machinery of like character driven by the foot, of which the following is a specification:

The object to be gained is to turn the fly-wheel or driving-shaft constantly in one direction, in regular or irregular manner, as may be required, the treadle being always ready for starting on the downstroke, and with this the ability to use the full weight of the body constantly, or at any time, as required.

In the drawings, Figure 1 represents a front elevation of the treadle ready for starting; Fig. 2- a section of the driving-slide, showing the end of same, and the interior spring and the link; Fig. 3, a view of the clutch and parts of the attachments—both Figs. 2 and 3 being enlarged views for the better showing of the parts.

In Fig. 1 is seen the whole arrangement of the parts.

The foot is placed on the foot-rest A of the treadle, which operates a rod working in one end of the bell-crank B, and to the opposite end of B (this end being made in the shape of a yoke) a link, C, is made to embrace it and the slide F. This link is made in one piece, in such way that both sides shall join by an arch spanning the nut. If this link were not made in this way, it would not be of much use, as it would cramp or bind, and not work freely along the screw G. By treading on the foot-piece A the slide F is caused to reciprocate along the screw G, and in so doing a rotary motion is communicated, through the ratchet J, to the fly-wheel K.

On the first pressure of the foot the clutch or pawl H is thrown into the teeth of the ratchet J. To assist in this action a friction-spring is placed inside of the slide F, in such a way that it will press against the screw G. (See L, Fig. 2.) This may be a spiral or leaf spring. The pressure of this spring assists in the engaging and disengaging of the clutch. When the foot presses on the foot-rest, the screw G and clutch H are thrown into gear, and as soon as the pressure is removed the spring D and rod E lift the foot-rest, and also pull the clutch out of gear by the help of the friction-spring L.

The end of the screw G nearest the ratchet J is provided with a recess to fit over the end of the fly-wheel shaft, (see I, Figs. 1 and 3,) thus forming an arbor or bearing for the end of the screw G. The other end of screw G is placed in a common box in such way that it can slide, to a slight extent, endwise in either direction.

The whole of the screw and lever mechanism is supported on a piece, M, secured to the frame of the machine to be driven, or the floor, in a substantial manner.

I claim—

The crank B, link C, slide F, spring L, screw G, clutch H, journal I, ratchet J, spring D, and rod E, combined substantially as described, and for the purpose set forth.

HANS SHOGREN.

Attest:

G. BRASEN,

C. B. TALBOT.