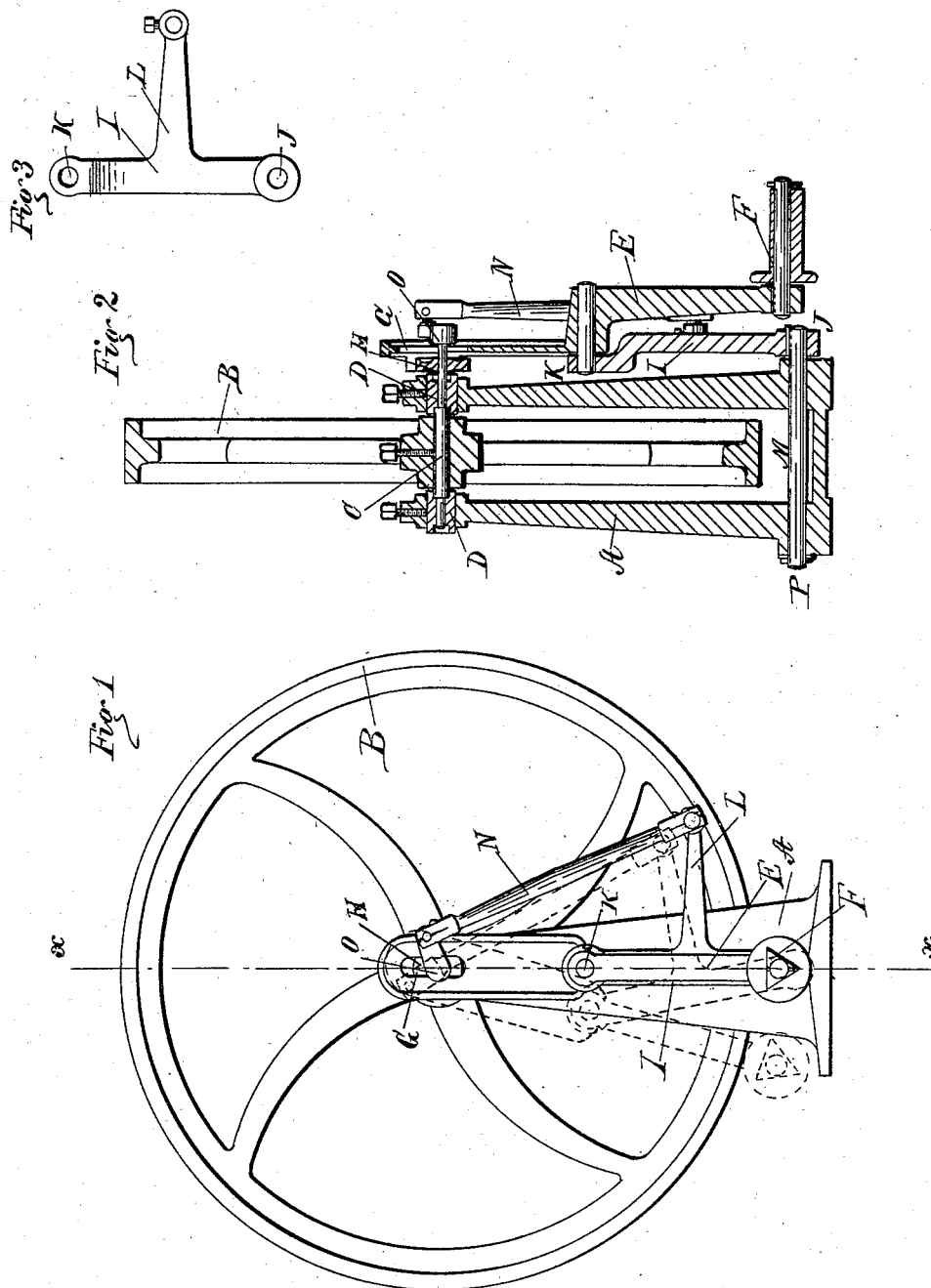


(No Model.)

J. H. RIVERS.  
FOOT TREADLE.

No. 305,332.

Patented Sept. 16, 1884.



Witnesses  
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# UNITED STATES PATENT OFFICE.

JULIAN H. RIVERS, OF CHICAGO, ILLINOIS, ASSIGNOR TO LAPP & FLERSHEIM, OF SAME PLACE.

## FOOT-TREADLE.

SPECIFICATION forming part of Letters Patent No. 305,332, dated September 16, 1884.

Application filed June 2, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JULIAN H. RIVERS, a citizen of the United States, and residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Foot-Treadles, which is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a side elevation of my treadle and its attachments; Fig. 2, a vertical central section taken on the line *x x*, Fig. 1; and Fig. 3, a detached view of one of the pivoted pieces.

My invention relates to a swinging foot-treadle having a pendulum motion; and it consists in the combination of the parts, hereinafter fully shown and described, whereby the pendulum motion of the treadle communicates power to a wheel and gives it a rotary motion.

In the accompanying drawings, A represents the standard or frame of the machine, which may be constructed in any manner adapted to the uses to which the machine is applied.

B is the drive-wheel of the machine, secured to the shaft C, which has suitable bearings, D, in the frame A.

E is the treadle; F, the foot-piece. The treadle E has a slot, G, in its upper end, through which the shaft C passes, and it also rests on a small anti-friction wheel, H, which rests loosely on the shaft C. This connection of the treadle with the shaft C allows it to swing, and at the same time play up and down a short distance by means of the slot G.

I is a vibrating piece, pivoted at its lower end, at J, to the frame A of the machine, and its upper end, at K, to the treadle E, so that when the treadle E vibrates back and forth the piece I is also vibrated on its pivot J.

L is an arm rigidly attached to the vibrating piece I, or to the rock-shaft M, as hereinafter explained.

N is a pitman, one end of which is pivoted to the end of the arm L, and the other to the crank O on the shaft C of the wheel B. When the operator, by placing his foot upon the

foot-piece F, causes the treadle E to vibrate back and forth, the upper end of the vibrating piece I is also vibrated by means of its pivotal connection at K with the treadle E. This piece I in turn vibrates the arm L, and it, through the pitman N and crank O, turns the shaft C and communicates power to the wheel B.

It will be observed that by rigidly connecting the piece I to the shaft M, which extends through the base of the machine, the shaft M will be caused to rock, and by placing the arm L upon the end of the rock-shaft M at P, and placing the crank O upon the opposite end of the shaft C and connecting its pitman with the arm L, the crank and pitman could be placed upon the opposite side of the machine and out of the way of the foot or clothes of the operator while operating the treadle E; but for most purposes I prefer to attach the rigid arm L directly to the vibrating piece I, and place the crank O on the same end of the shaft with the treadle E. For many purposes this swinging pendulum motion of the treadle makes it much easier to the operator than the ordinary treadle motion, and the treadle, being supported upon the upper end of the vibrating piece I, which vibrates from the pivot J, is carried up and down on its upper pivotal end, and therefore has a slot, G, through which the shaft C passes; but in order to prevent the slot G bearing directly against the shaft C as the treadle makes its up-and-down motion, it has a rim that bears against the wheel H, that rests on the shaft C, thus reducing the friction on the shaft C as much as possible.

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

The foot-treadle E, the vibrating piece I, arm L, pitman N, and crank O, substantially as specified and shown.

JULIAN H. RIVERS.

Witnesses:

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