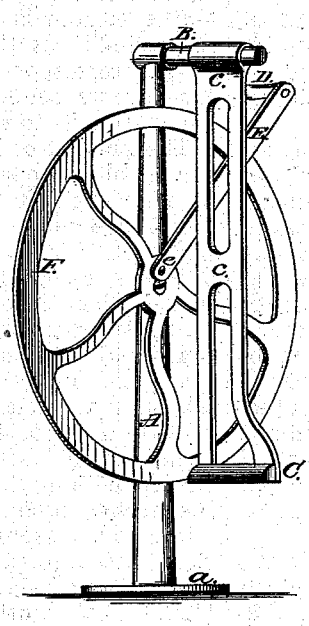
C. HOPKINS.

TREADLE.

No. 186,564. Patented Jan. 23, 1877.



Witnesses.

John Eaton

H. G. Bowers

Inventor.

Caleb Hopkins.

UNITED STATES PATENT OFFICE.

CALEB HOPKINS, OF WALTHAM, MASSACHUSETTS.

IMPROVEMENT IN TREADLES.

Specification forming part of Letters Patent No. **186,564**, dated January 23, 1877; application filed January 27, 1876.

To all whom it may concern:

Be it known that I, CALEB HOPKINS, of Waltham, State of Massachusetts, have invented an Improved Swing-Treadle, and its combination with a fly-wheel, of which the following is a specification:

The object of my invention is, first, by attaching an arm, D, to the treadle-bar *c c*, at or near its top, and then passing the connecting rod or bar E from this arm to the crank of the wheel, instead of direct from the treadle-bar to the crank, to equalize the leverage, and at the same time to overcome, far as practicable, the objectionable feature heretofore experienced in using a swing-treadle for propelling small machinery by foot-power, of the movement being much quicker in one direction than in the other; second, so to combine this improved swing-treadle with a fly-wheel that on simply screwing the pedestal of an upright pillar to the floor the whole will be ready for use.

The invention is illustrated in detail in the accompanying perspective drawing, in which A represents an upright pillar with flat base *a*, and with the arm B at its top, reaching squarely over and somewhat beyond the wheel F, which is made to revolve on an axle attached to the side of the pillar A. From the arm B is suspended the treadle-bar *c c*, at or near the top of which the arm D is attached, and from this arm D the connecting-bar E is passed to the crank, or to a wart on one of the arms of the wheel, made to serve the purposes of a crank, as shown at *e*.

In use, by a natural and easy movement of the foot of the operator, rested in the stirrup C, the treadle is swung backward and forward, and thus the outer end of the arm D caused correspondingly to rise and fall, and through its connection with the bar E the wheel is made to revolve.

The amount of leverage obtained, and the control of the operator over the movements of the wheel, are found to be much greater by this contrivance than with the ordinary up-and-down treadle.

While one object of my invention, as herein described, is to furnish a fly-wheel with swing-treadle for light lathe-work, so combined and adjusted as to be complete within itself, and ready for use immediately upon placing it in position and screwing the pedestal C to the floor, it will be evident that the treadle-bar *c c*, with its attachments, may be suspended from the under side of a bench, table or any other suitable support, and the wheel from a separate support, dispensing entirely with the pillar A, and in this way be rendered available for running sewing-machines, and for other like uses.

I claim as my invention—

The combination of the treadle-bar *c c*, terminated in the stirrup C at its lower end, and having the arm D near its top, with the pillar A, having the arm B at its top, the connecting-bar E, and the wheel F, substantially as described.

CALEB HOPKINS.

Witnesses:

JOHN EATON,

H. F. BOWERS.