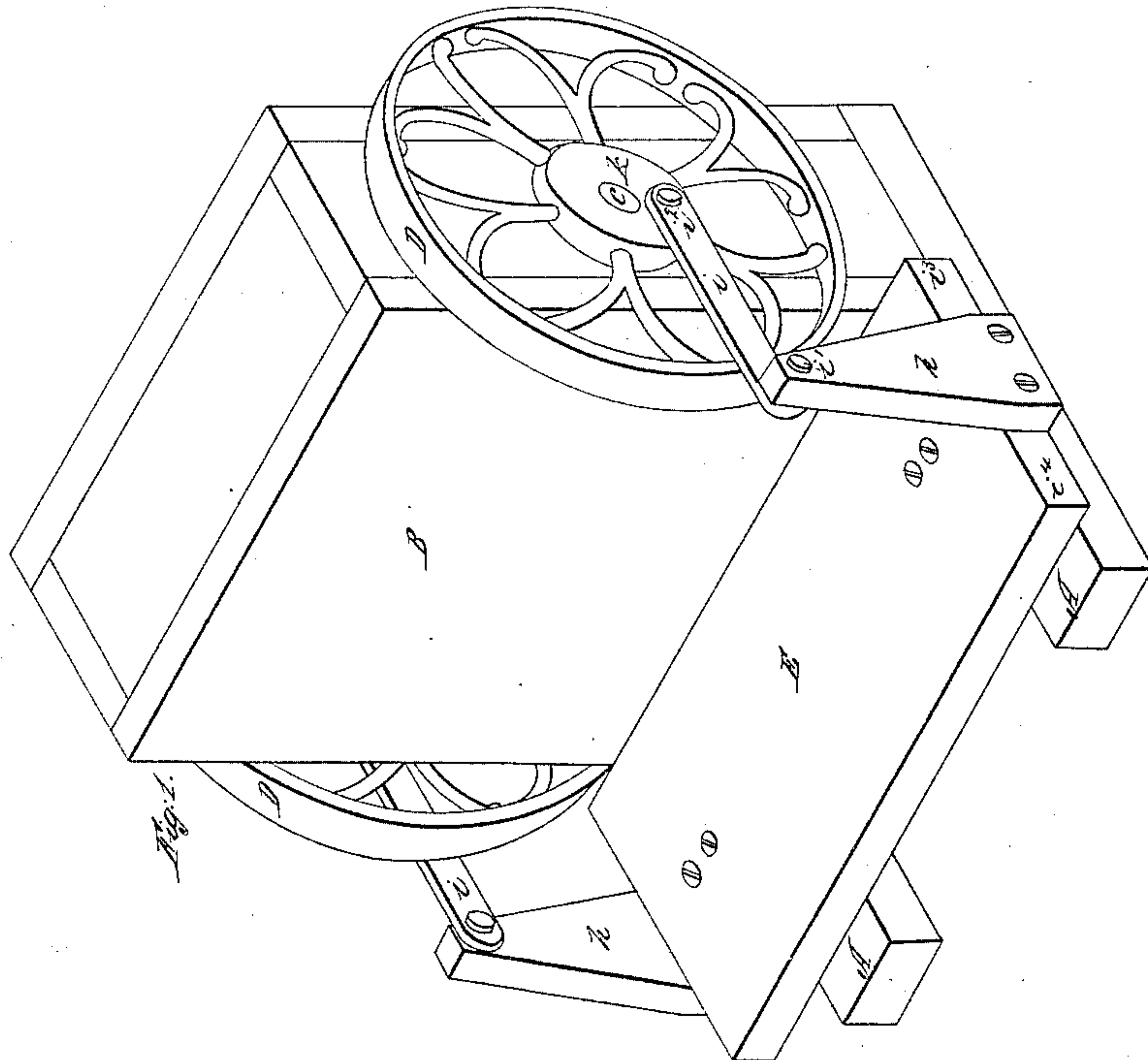
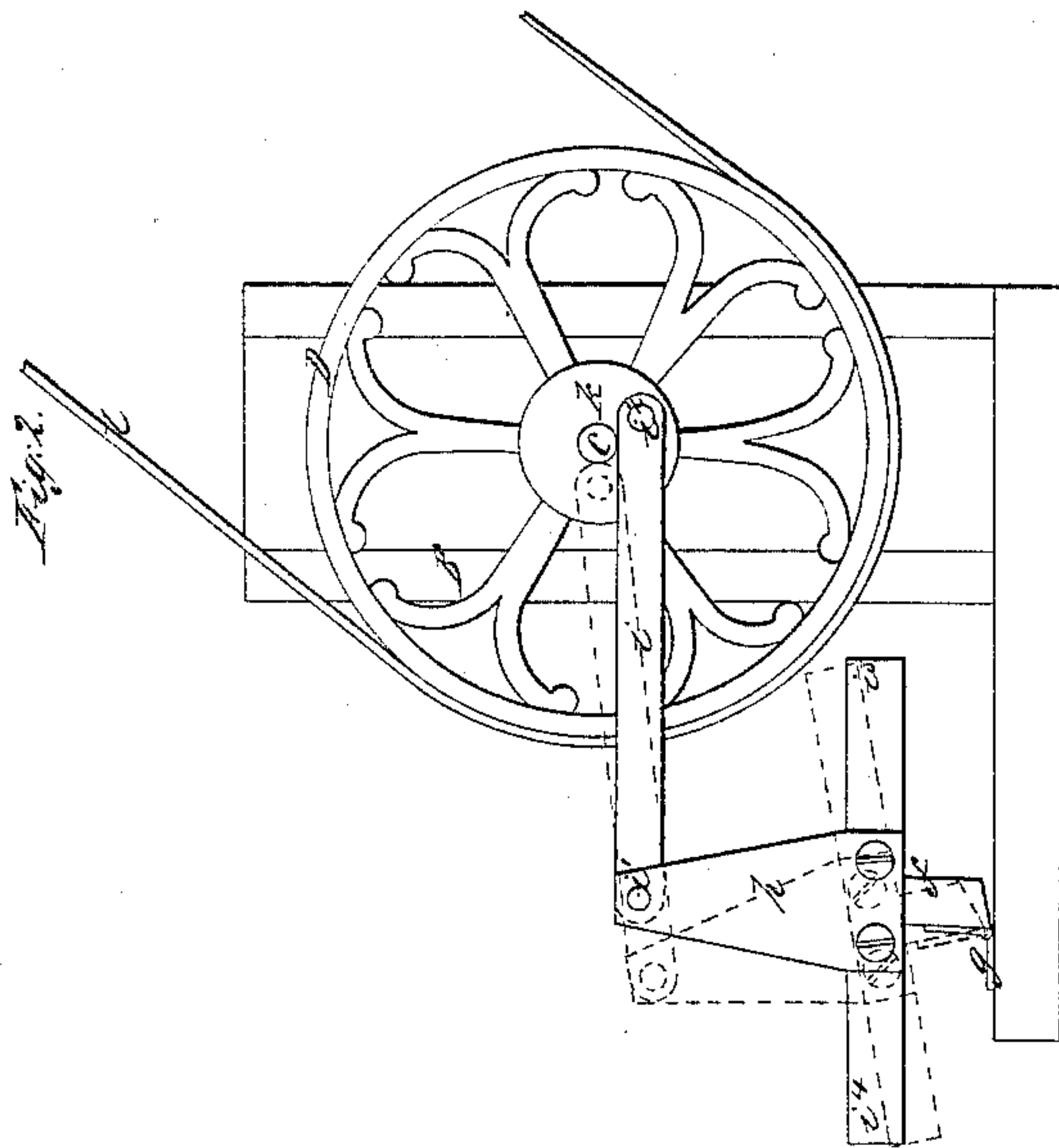


W. T. Nichols,
Treadle.

N^o 37,050.

Patented Dec. 2, 1862.



Witnesses:
Charles D. Smith
Edwin S. Smith

Inventor:
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UNITED STATES PATENT OFFICE.

WILLIAM T. NICHOLS, OF RUTLAND, VERMONT.

IMPROVEMENT IN MOTIVE POWER.

Specification forming part of Letters Patent No. 37,050, dated December 2, 1862.

To all whom it may concern:

Be it known that I, WILLIAM T. NICHOLS, of Rutland, in the county of Rutland and State of Vermont, have invented a new and Improved Motive Power for Ironing-Machines, Straw-Cutters, &c.; and I do hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, like letters in the figures indicating the same parts, and in which drawings—

Figure 1 is a front elevation of my improved machine, and Fig. 2 a side elevation thereof.

The particular object of my invention is to so adapt a machine for the transmission of what I will term "man-power" that the full weight of the operator may constitute the power imparted, and which may be imparted by simply varying the line of gravity of the operator alternately from heel to toe, and under such circumstances that the operator may at all times face the direction of the transmission of the power from the machine, and so be enabled to witness its operation and regulate it accordingly, the design being to obtain a greater power in this class of machines and with more ease to the operator than has heretofore been obtained under circumstances where the muscular action of the operator has been applied as the main motor. For this purpose, on foundation-pieces A, I erect and securely attach a main upright, B, which, near its center, affords a bearing for a wheel-shaft, c, to the ends of which wheels D are permanently attached, as indicated in the figures. In front of the upright B, and to the foundation-pieces A, I secure a rocker, E, by means of hinging-brackets f, hinges, as at g, being applied to the foundation-pieces and the brackets, as clearly represented in Fig. 2. At the ends of the rocker E arms h are secured, as shown, they being placed centrally of the width of the rocker, and having their vertical axis on a line nearly with the pivotal points of the hinges g. Connecting arms or rods i are pivoted, as at i', to the arms h, and as at i'' to the hub k of the wheels D. Thus organized, a band, l, may be passed over one of the wheels, as seen in Fig. 2, and thence to

the machinery to be driven. The operator then steps upon the rocker E, at which moment we will suppose the machine to be in the position shown in black lines in Fig. 2, whereupon by throwing the line of gravity of his person outside of the pivotal points of the hinges g the rocker will be made to assume the position shown in red outline, thus carrying the connecting-rod i also into the position shown in red, and so causing the wheels D to commence to rotate. Having caused the machine to assume the position shown in red by the means described the operator will then by a forward inclination of his person change the line of gravity of his body in front of the pivotal points of the hinges g, whereupon the wheels D will be caused to complete a revolution. It will thus be seen that the power of the machine is equal to the weight of the person standing upon the rocker E, and that to give motion to the machine simply requires a slight oscillation of the person of the operator, and, further, that the movement of the machine is not due to the muscular action of the operator, as in ordinary treadle-machines, but in lieu of such muscular action the whole weight of the operator is utilized and as the main motor.

For practical purposes the rocker E should be of sufficient width to allow a person to stand with ease upon it, the available leverage of the rocker of course being in proportion to its width within the range at which the operator might with comfort spread his feet, one of his feet being upon either side of the pivotal points of the hinge g.

It is apparent that the arms h might be made to extend down from the rocker E, and have their ends connect with the wheels D by means of rods i.

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

A treadle or rocker, E, constructed, arranged, and operated substantially in the manner and for the purpose set forth.

W. T. NICHOLS.

Witnesses:

H. G. CLARK,
F. MOWREY.