

S. J. Baird.

Motive Power for Sewing Mach.

N^o 85,505.

Patented Jan. 5, 1869.

Fig. 1.

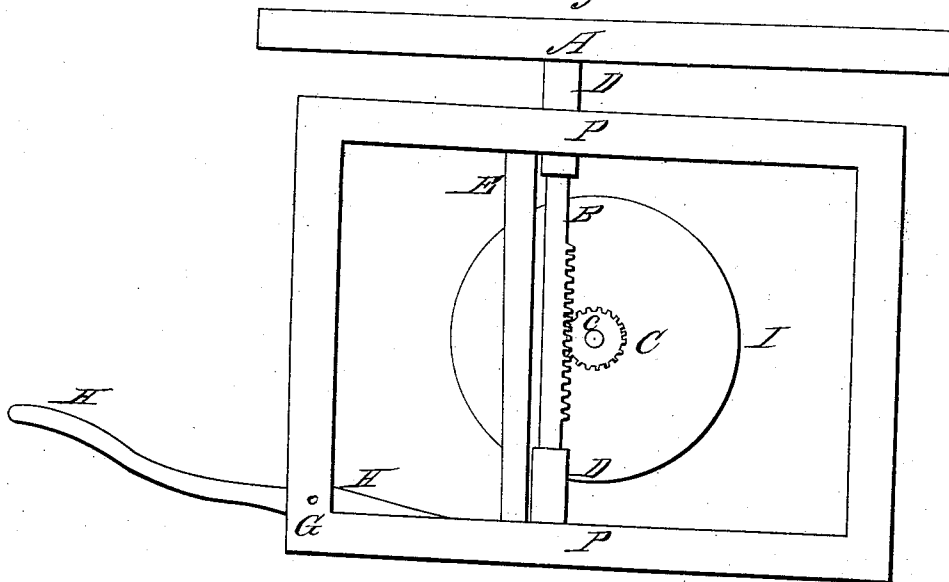
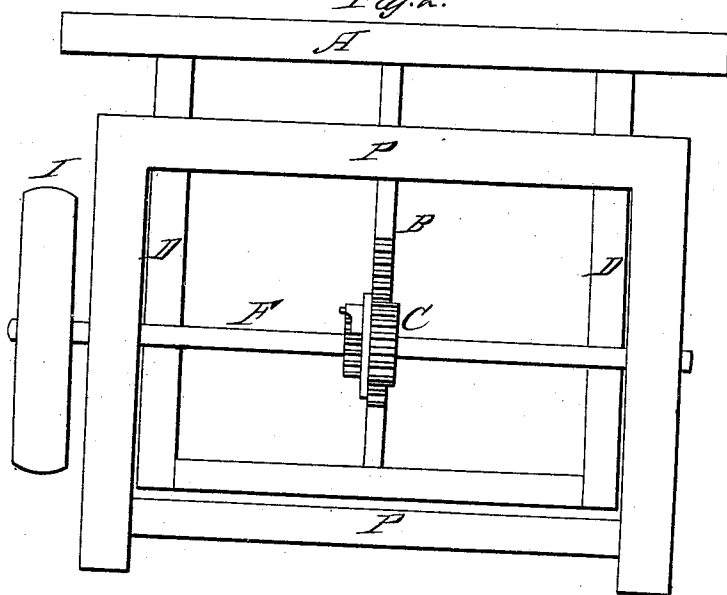


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

SAMUEL J. BAIRD, OF STAUNTON, VIRGINIA.

IMPROVEMENT IN MOTIVE POWERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 85,505, dated January 5, 1869.

To all whom it may concern :

Be it known that I, SAMUEL J. BAIRD, of Staunton, in the county of Augusta and State of Virginia, have invented a new and Improved Mode of Propelling Sewing-Machines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In them, Figure 1 is a side elevation, and Fig. 2 a front elevation, of the machine.

The nature of my invention consists in so constructing the seat of the operator as to render his weight a motive power, available for sewing-machines and other like purposes.

To enable others skilled in the art to make and use my invention, I proceed to describe its construction and operation.

In the drawings, Figs. 1 and 2, A is the seat of the operator. B is a rack or cogged shaft, fastened to the under side of this seat, and descending perpendicularly toward the floor. C is a pinion with ratchet and detent, upon which the rack B operates. D is the frame of the rack, which, sliding perpendicularly in the grooves E, holds the rack up to the pinion. F is a pedal-lever, resting upon its fulcrum G, with one end passing under the lower end of the rack-frame, and the other projecting in front of the machine, in a position convenient to the foot of the operator. When, therefore, the operator takes his seat upon the chair or stool, his weight causes the rack to descend, and as its teeth operate upon the pinion, the latter is made to revolve, carrying with it the main shaft or axle F until the movement is arrested by the descent of the seat, so that it rests upon the frame of the machine P P. The operator then placing his foot upon the pedal-lever and slightly rising

from the seat, the latter is instantly lifted up to its original position, the rack carrying with it the reversed pinion, while the main shaft, released from the detent, remains. The weight is restored to the seat and the process repeated. By this process, with the aid of a fly-wheel on the main shaft, the latter may be kept in sustained rotation, if desired. The motion, whether continued or occasional, may be employed in winding a spiral spring to constitute a motive power; or it may be made to operate directly, through any suitable system of wheels or other appliances, to propel sewing-machines or other similar machinery.

In this machine the system may be adjusted to suit the different weights of operators by arming the main shaft with pinions of different diameters, and so fixing the rack that it may be connected with that one which may best suit the weight of the operator.

A crank, after the manner of a clock-key, may be adapted to the end of the shaft F, to be used, at the pleasure of the operator, to wind up the spring. The velocity of the machine may be regulated by conical pulleys, an adjustable pendulum, or any other of the familiar appliances.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the pedal-lever, rack and pinion, and seat, substantially as above described, and for the purpose of rendering the weight of the operator available for propelling sewing-machines.

SAMUEL J. BAIRD.

Witnesses:

N. P. CATLETT,
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