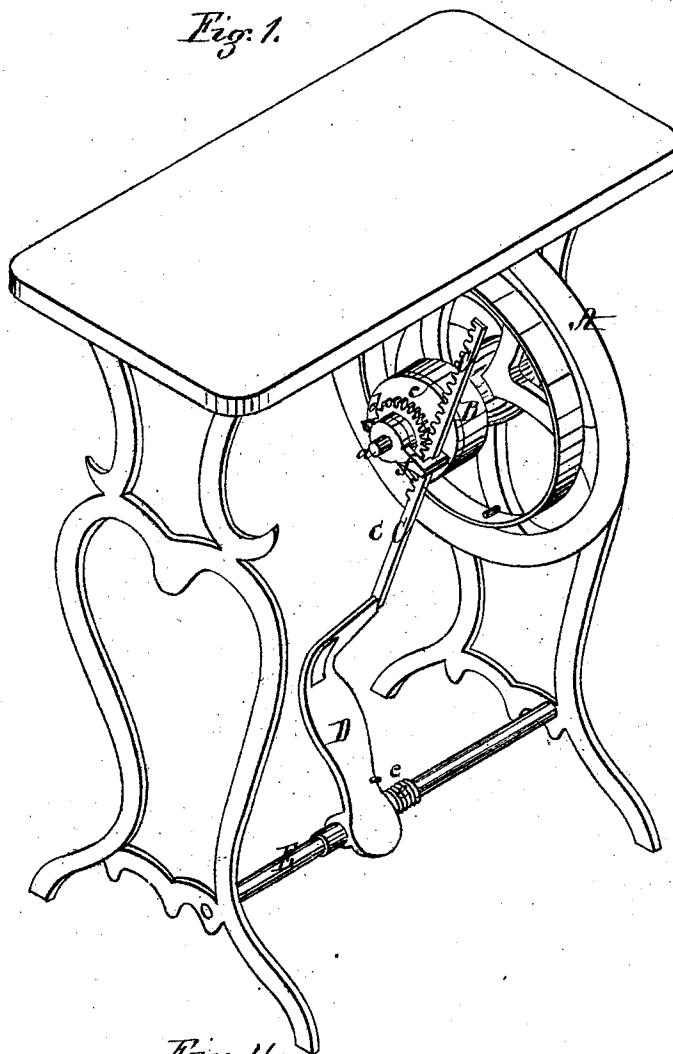


*Al. B. Shaw's Improvement in Treadles:*  
2 Sheets--Sheet 1.

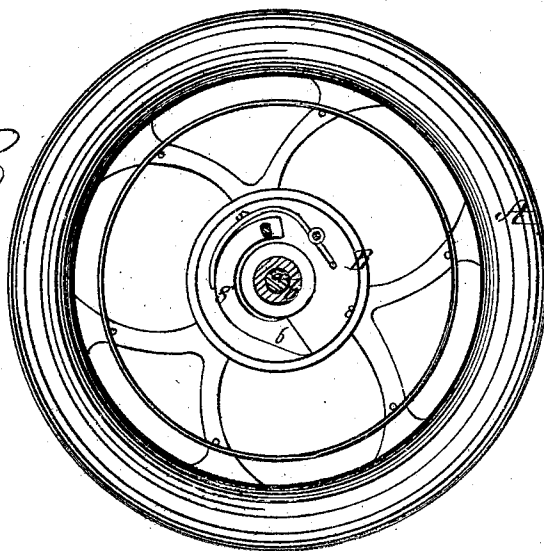
No. 120,461.

Patented Oct. 31, 1871.

*Fig. 1.*



*Fig. 4.*



Witnesses,  
*L. E. Steinhilber*  
*W. J. Cambridge*

Inventor,  
*Al. B. Shaw*

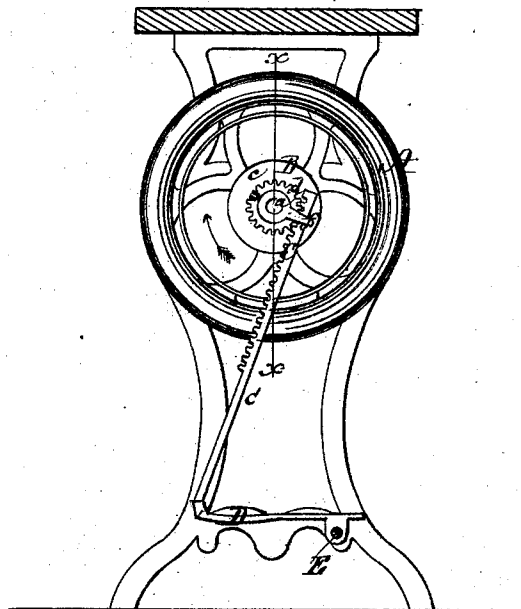
# *Al. B. Shaw's Improvement in Breadles:*

2 Sheets--Sheet 2.

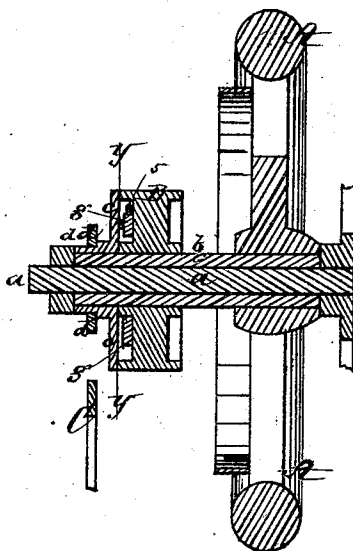
No. 120,461.

Patented Oct. 31, 1871.

*Fig. 2.*



*Fig. 3.*



Witnesses,  
*J. E. Schenck*  
*W. J. Cambridge*

Inventor,  
*Al. B. Shaw*

# UNITED STATES PATENT OFFICE.

AI B. SHAW, OF MEDFORD, MASSACHUSETTS.

## IMPROVEMENT IN TREADLES.

Specification forming part of Letters Patent No. 120,461, dated October 31, 1871; antedated October 18, 1871.

*To all whom it may concern:*

Be it known that I, AI B. SHAW, of Medford, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Treadles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a perspective view of a sewing-machine table with my improved treadle applied thereto. Fig. 2 is a sectional elevation, the parts being represented in a different position. Fig. 3 is a longitudinal vertical section on the line *x* of Fig. 2. Fig. 4 is a transverse vertical section on the line *y y* of Fig. 3.

My invention relates to that class of treadles used in sewing and other light machines, lathes, &c.; and consists in a rack-bar operated by the foot-plate, in combination with a cog-wheel, pawl, and fly-wheel.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawing, A represents a fly-wheel turning loosely on the shaft *a*, and having an elongated hub or sleeve, *b*, extending over the greater portion of the shaft, as seen in Fig. 3; and to this sleeve *b* is permanently secured the pawl-case or pulley B, one side of which is covered by a circular plate, *c*, to the outside of which is secured a cog-wheel, *d*, with which engages a rack-bar, C, the lower end of which is attached to the foot-plate D, which is pivoted upon a rod, E, and is raised, after being depressed by the

foot, by a spiral spring, *e*; and thus, as the foot-plate is operated, the plate *c* is partially revolved or oscillated back and forth. The rack-bar is supported and held in contact with the cog-wheel *d* by an arm or guide, *f*, which is secured to the shaft *a* by a set-screw, the inner end of the arm serving to hold the plate *c* and cog-wheel *d* in place upon the shaft. To the inside of the plate *c* is loosely pivoted a pawl, *g*, of the form seen in Fig. 4, which is pressed toward the center by a light spring, *5*, the width of the outer end 6 of the pawl being greater than the distance between the hub 7 of the box B and its rim 8, so that as the plate *c* is partially revolved in the direction of the arrow, Fig. 2, the portion 6 of the pawl is wedged between the hub 7 and the rim 8, and the fly-wheel is revolved thereby; while, when the plate *c* is rotated in the opposite direction, the friction of the pawl is relieved, so as to allow the fly-wheel to continue its revolution independently of the plate *c*, and when pressure is again applied to the foot-plate the fly-wheel receives an additional impetus.

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

The rack-bar C, operated by the spring foot-plate D, in combination with the cog-wheel *d*, pawl *g*, and fly-wheel A, operating substantially in the manner and for the purpose set forth.

Witness my hand this 23d day of March, A. D. 1871.

Witnesses:

P. E. TESCHEMACHER,  
W. J. CAMBRIDGE.

AI B. SHAW.

(67)