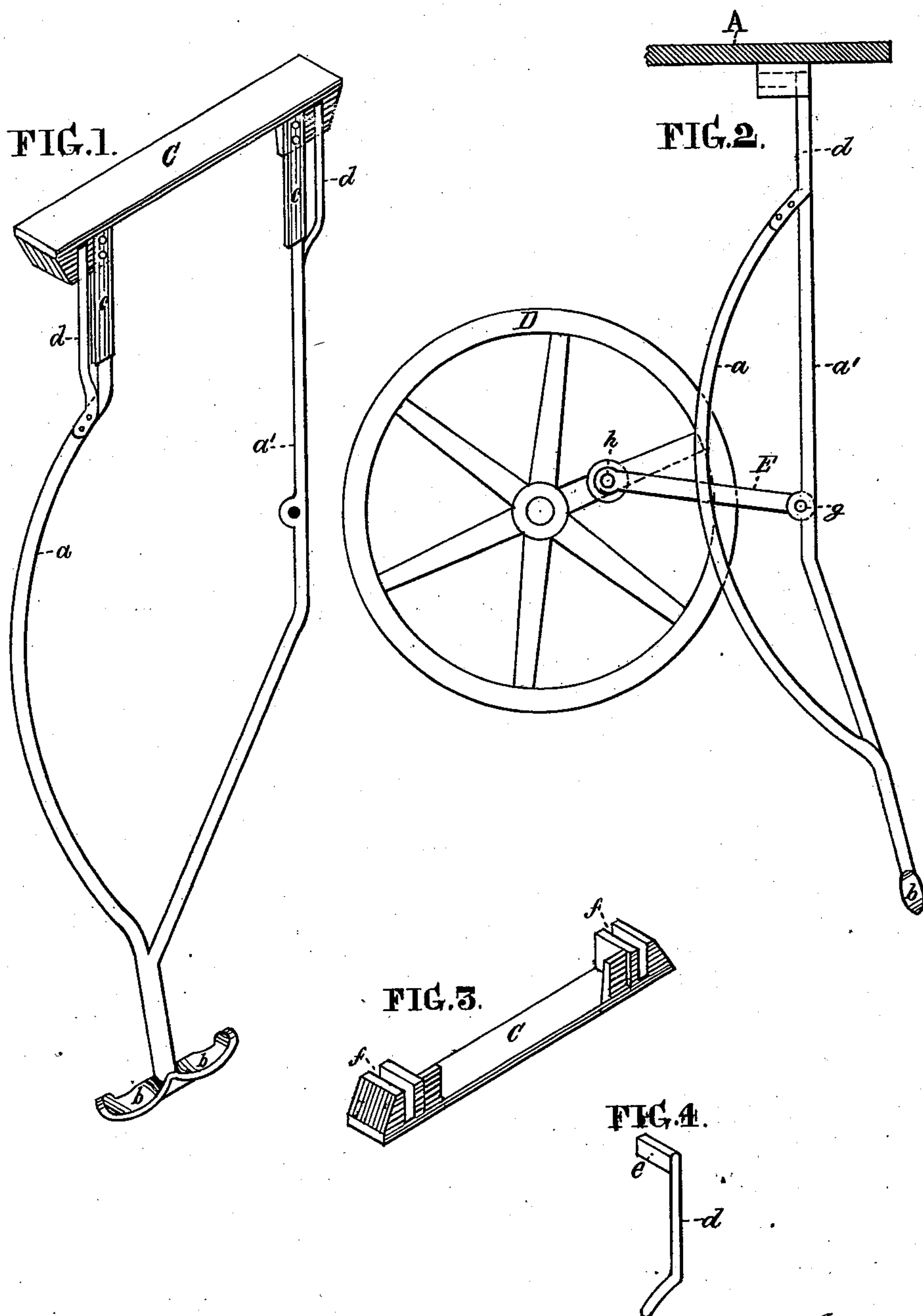


(No Model.)

R. STEEL.
Sewing Machine Treadle.

No. 230,503.

Patented July 27, 1880.



Witnesses:

Thomas J. Bewley,
Ben. Wrigley.

Inventor:

Robert Steel.
per Stephen Ustick, attorney.

UNITED STATES PATENT OFFICE.

ROBERT STEEL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF THREE-FOURTHS OF HIS RIGHT TO CHARLES H. BINNS, ADAM STEINMETZ, JR., AND CHARLES SPRING, OF SAME PLACE, ONE-FOURTH TO EACH.

SEWING-MACHINE TREADLE.

SPECIFICATION forming part of Letters Patent No. 230,503, dated July 27, 1880.

Application filed June 19, 1880. (No model.)

To all whom it may concern:

Be it known that I, ROBERT STEEL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Sewing-Machine Treadles, of which the following is a specification.

My invention consists in the connection of a spring or springs with the upper end of a swinging treadle, which is provided at its lower end with a pedal or pedals, the springs being permanently attached to the lower side of the table-top to admit of backward and forward movement of the treadle.

The invention also consists in the combination of arms with the upper end of the treadle, and with guiding-ways, in such a manner as to steady the treadle in its line of movements, as hereinafter fully described.

In the accompanying drawings, which make a part of this specification, Figure 1 is a perspective view of my improved treadle and bracket C, with which it is connected. Fig. 2 is an edge view of the same and a section through the table-top A, the treadle being connected with the driving-wheel D. Fig. 3 is an inverted view of the bracket C. Fig. 4 is a perspective view of one of the arms *e*.

Like letters of reference in all the figures represent the same parts.

A (seen in Fig. 2) is a section of a table-top, with which the treadle is connected. My improved treadle is composed of the rods *a* and *a'*, connected together at their lower ends and provided with pedals *b b*, the springs *c c* at the upper ends of the rods, and arms *d d*, which have slides *e e*. The treadle is hung to the table-top by means of the bracket C, which is bolted to the under side thereof, the upper ends of the springs being riveted to the bracket, and the slide *e e* of the arms fitting in the grooveways *f f* of the bracket. The springs are made sufficiently elastic to admit of the backward and forward movements of the treadle. In these movements there is a

reciprocating movement of the slides *e e* of the arms *d d* in the groove *f f*, whereby the treadle is prevented being twisted by any unequal bearing on the pedals and a free and easy oscillation is secured.

The bracket C and one of the arms *d* are shown respectively in detail in Figs. 3 and 4.

The treadle is connected with the driving-wheel D by means of the connecting-rod E, wrist-pin *g*, and crank-pin *h*, as seen in Fig. 2.

Instead of constructing the treadle with two rods, *a a*, as shown in the drawings, a single rod or bar may be used, preferably a flat bar, having the spring *c* riveted or welded to its upper end. In the case of a single bar or rod there should be an arm, *d*, at each side, in connection with a groove, *f*, respectively.

It is found in practice that comparatively little power is required for working a sewing-machine with my improved treadle, and that only one pedal is required for ordinary work instead of two, as shown in the drawings.

I claim as my invention—

1. A treadle having one or more springs, *c*, which are rigid extensions of the upper end of the treadle, in combination with a table-top or other permanent support, to which the upper ends of the springs are rigidly attached, substantially in the manner described, and for the purpose set forth.

2. A treadle having a spring or springs, *c*, at its upper end, for suspending it to a table-top or other support, and arms *d*, adapted to be guided by ways to steady the treadle in its line of movements, substantially as described.

3. The combination of the bracket C, having guiding ways or grooves *f f*, with the table-top A and treadle having arms *d d*, provided with slides *e e*, substantially in the manner and for the purpose set forth.

ROBERT STEEL.

Witnesses:

THOMAS J. BEWLEY,
STEPHEN USTICK.