(No Model.)

A. M. GREENWOOD.

TREADLE.

No. 265,596. Patented Oct. 10, 1882.

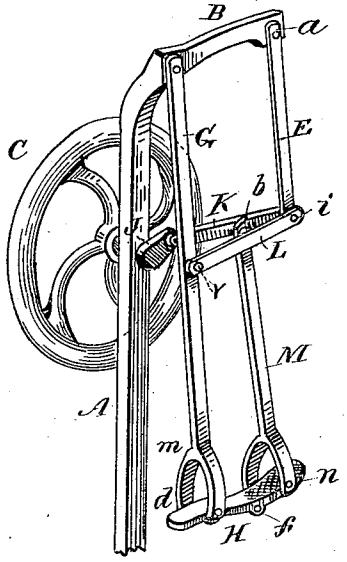

Fig. 1.

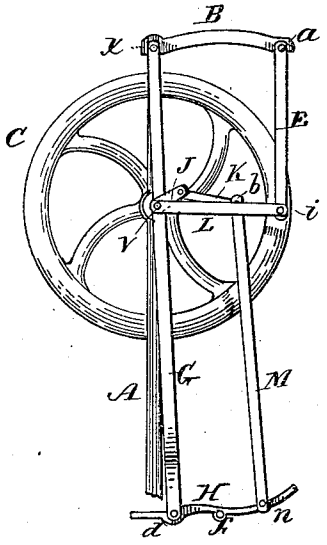

Fig. 2.

Witnesses.
Alfred. Barnett
Burnham Noyes

Inventor.
Albert M. Greenwood,
per C. C. Shaw,
Atty.

UNITED STATES PATENT OFFICE.

ALBERT M. GREENWOOD, OF PHILLIPS, MAINE.

TREADLE.

SPECIFICATION forming part of Letters Patent No. 265,596, dated October 10, 1882.

Application filed August 24, 1882. (No model.)

To all whom it may concern:

Be it known that I, ALBERT M. GREENWOOD, of Phillips, in the county of Franklin, State of Maine, have invented a certain new and useful Improvement in Treadles, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains to make and use the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an isometrical perspective view, and Fig. 2 a side elevation.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates to that class of treadles which are more especially designed for sewing-machines, jewelers' lathes, &c.; and it consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth and claimed, by which a new and more effective device of this character is produced than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation, its extreme simplicity rendering an elaborate description unnecessary.

In the drawings, A represents the upright or standard, which is provided at its upper end with the horizontally-projecting arm B, and carries near its center the balance-wheel C, journaled on the shaft D. A pendulous lever, E, is pivoted at *a* to the outer end of the arm B, and a similar lever, G, is pivoted at *x* to the inner end of said arm or to the top of the standard A. The lever G is elongated, having its lower end carried below the axis of the wheel C and bifurcated, as seen at *m*, the heel of the foot-piece H being pivoted therein, as shown at *d* in Fig. 1. The shaft D is provided with a crank, J, and pivoted to said crank and to the lower end of the lever E there is a horizontally-arranged bar, K, a corresponding bar, L, being jointed or pivoted at *v* to the lever G and at *i* to the lower end of the lever E. A pitman-rod, M, having its lower end bifurcated, is pivoted or jointed at *b* to the bar K, the toe of the foot-piece H being pivoted in the arms of said rod at *n*.

When the treadle is used for sewing-machines or lathes the standard A and arm B may sometimes be wholly or in part substituted by the table or cabinet of the machine, or by the bench of the lathe, if desired, or by attachments connected therewith designed to perform the same functions.

In treadles of this class as usually constructed the foot-piece has no horizontal motion, the toe of the same being connected by a pitman-rod directly with the crank of the balance or driving wheel, and the foot-piece rocked or given vertical reciprocating movements by the foot to produce rotary movements of the wheel. There is also another form of treadle, sometimes called the "walking-treadle," in which the foot-piece is disposed at the lower end of a pendulous lever, which is connected by proper intermediate mechanism with the crank, and given horizontal reciprocating movements to produce rotary movements of the wheel. My invention is designed to embody or combine both of these principles or forms, thereby securing in one treadle a large part of all the advantages pertaining to each. This will be more readily understood by reference to the drawings, by which and the foregoing description of the same it will be seen that when the pitman-rod M is removed a walking or swinging treadle is produced, and that by the use of said rod, as shown, nearly all of the advantages of a treadle in which the foot-piece is connected directly with the cranks are secured, in addition to those pertaining to the walking-treadle. When the rod M is removed it is preferable to pivot the foot-piece H at *f*, or nearer its center, in the lever G.

Having thus explained my invention, what I claim is—

1. The pitman-rod M, in combination with the horizontal bar K, to which it is jointed, and the foot-piece H, substantially as specified.

2. In a treadle substantially such as described, the pendulous lever G, in combination with the lever E and bars K L, substantially as set forth.

3. The pendulous lever E, in combination with the horizontal bars K L, pitman-rod M, and foot-piece H, substantially as set forth and described.

4. The improved treadle described, the same consisting of the pendulous levers G E, horizontal bars K L, pitman-rod M, and foot-piece H, in combination with the wheel C, shaft D, crank J, standard A, and arm B, substantially as specified.

ALBERT M. GREENWOOD.

Witnesses:
ANDREW PINKHAM,
ELISHA MERROW.