(No Model.)

E. WRIGHT.

HAND POWER FOR SEWING MACHINES.

No. 306,370. Patented Oct. 7, 1884.

Fig. 1.

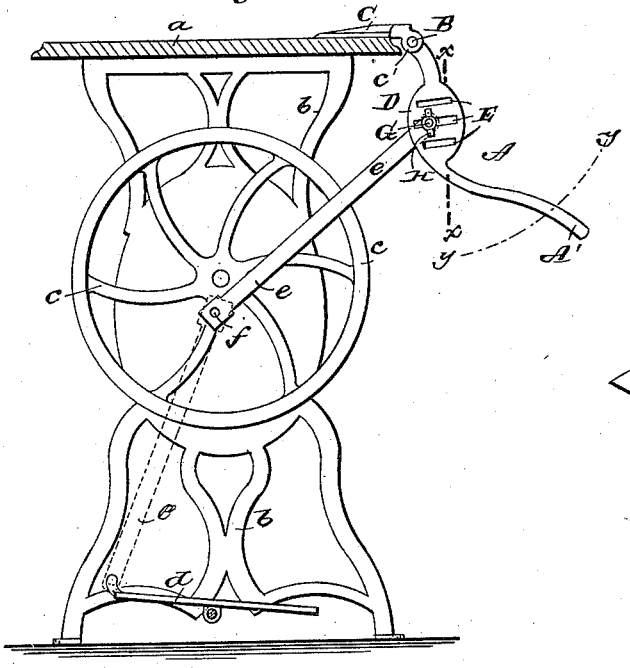


Fig. 3.

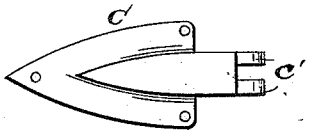
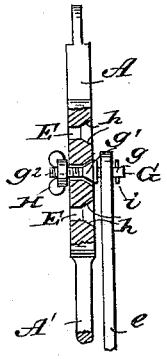


Fig. 2.



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ELIJAH WRIGHT, OF COLDWATER, MISSISSIPPI, ASSIGNOR TO HIMSELF AND SILAS R. WHITTEN, OF SAME PLACE.

HAND-POWER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 306,370, dated October 7, 1884.

Application filed June 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, ELIJAH WRIGHT, of Coldwater, in the county of Tate and State of Mississippi, have invented a new and improved Hand-Power for Sewing-Machines, of which the following is a full, clear, and exact description.

The object of my invention is to provide a simple, efficient, and inexpensive hand-power attachment to sewing or other light machines, whereby the injurious effects of a continual use of the treadle for working such machines may be avoided.

The invention consists of a hand-lever pivoted to the table or bed of the machine, and provided with a series of transverse slots to receive a pivot-stud, by which the pitman is connected to the lever. The lever has a peculiar shape, enabling it to be worked without quickly fatiguing the operator; and the fastenings of the lever to the pitman are by a stud-bolt of special construction, which enters a slot of the lever, so as to insure, with a thumb-nut, a reliable and quickly-adjustable connection, all as hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of a sewing-machine stand, with the work-table in section, and with my improved hand-power applied. Fig. 2 is a sectional elevation taken on the line *x x*, Fig. 1, and in larger size; and Fig. 3 is a plan view of a hinge-plate to which the hand-lever may be pivoted, also drawn to a larger scale.

The letter *a* indicates the top or work-table of any ordinary sewing-machine. *b* is one of the end leg-frames which support the table. *c* is the drive-wheel, which connects by a belt (not shown) with the pulley of the upper driving-shaft of the sewing-machine above the table. *d* is the treadle, and *e* the rod or pitman which usually connects the end of the treadle with the wrist-pin *f* of the drive-wheel *c*, as indicated in dotted lines in Fig. 1, the said pitman *e* being shown in full lines as connected with the hand-lever A, which is the principal part of my invention and will next be described. This hand-lever A is hinged on a pin, B, to lugs *c' c'* of a plate, C, which is fixed by screws or pins to the sewing-machine table *a*. The hinge-lugs for the lever may of course be cast upon or otherwise formed as a part of the table *a*, if desired. A short distance outside of its pivot B the lever A has a transverse enlargement, D, in which I form slots E, three slots, as shown, being preferred. I make these slots E in the lever A so that at the extreme downstroke of the lever the slots shall be lengthwise in about the horizontal plane, and that portion of the lever above the lower end of the enlargement D will stand about vertical. From the lower or outer end of the enlargement D the extreme outer or handle portion proper of the lever ranges forward at about an angle of forty-five degrees and in a gentle curve, as at A', Fig. 1, making it easy to grasp and operate the lever.

The end of the pitman *e*, which usually connects with the treadle, is, by my arrangement of it, passed loosely on the round end bearing *g* of a pivot-stud, G, which stud is adapted to enter either one of the slots E in the lever, and the tapering portion *g'* of the stud fits by two opposite flat sides against the opposite flared or beveled faces or edges *h* of either slot E, and the round screw-threaded portion g^2 of the stud G extends through the slot to receive the thumb-nut H, which, when tightened on the face of the lever opposite to the pitman *e*, will bind the stud G firmly at any point along the length of either of the slots E, as will readily be understood. A pin, *i*, passed through the stud G, outside of the pitman, holds the latter on the stud and to the lever.

It is evident that by forming the transverse slots in the lever A provision is made for attaching pitmen *e* of various lengths to the lever by the stud G; hence my improved hand-power may be connected with any ordinary sewing-machine by varying the location of the pivot-stud in either slot E, to accommodate the length of the pitman. It will also be seen that the lever A may be connected to the table *a*, and will be out of the way of an operator working the machine by the treadle to which the pitman *e* then connects; and when wearied by the use of the treadle-power the operator can disconnect the pitman *e* from the treadle

d in a few moments, and connect the pitman to the lever A, as in full lines in Fig. 1, to work the machine by the hand-lever. The shape of the hand-lever A is such that in swinging it on the pivot B to work the machine, the hand of the operator does not have a direct up-and-down movement, which would tend quickly to tire the muscles of the arm and shoulder, but the hand, grasping the lever, describes an inclined arc, indicated by the dotted line *y y*, Fig. 1, which allows a more natural and easy swinging motion of the arm, and is much less fatiguing to the operator.

By the use of my improvement many of the distressing diseases caused by the constant use of the treadle in driving sewing or other light machines may be avoided.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with the pitman *e* of a sewing or other machine, of the hand-lever A, pivoted to the table or bed of the machine, and provided with the series of transverse slots E, and the pivot-stud G, adapted to connect the pitman at any point along any one of the slots, substantially as shown and described.

2. In hand-powers for sewing-machines, the lever A, adapted to be pivoted at one end to the machine-table *a*, and provided with a series of transverse slots ranging about horizontally when the lever is at the extreme of its downstroke, and a handle portion extending outward from below the slots and about at an angle of forty-five degrees, so that the operator's hand in working the lever shall describe an inclined arc, substantially as shown and described.

3. The combination, with the pitman *e* and the lever A, having a series of transverse slots, E, formed with opposite beveled edges *h h*, as specified, of the pivot-stud G, made with the pitman-bearing *g*, the tapering portion *g'*, and the threaded end g^2, and the thumb-nut H, substantially as herein shown and described.

ELIJAH WRIGHT.

Witnesses:
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