

(No Model.)

2 Sheets—Sheet 1.

J. H. STEWART.
TREADLE.

No. 502,683.

Patented Aug. 1, 1893.

Fig. 1.

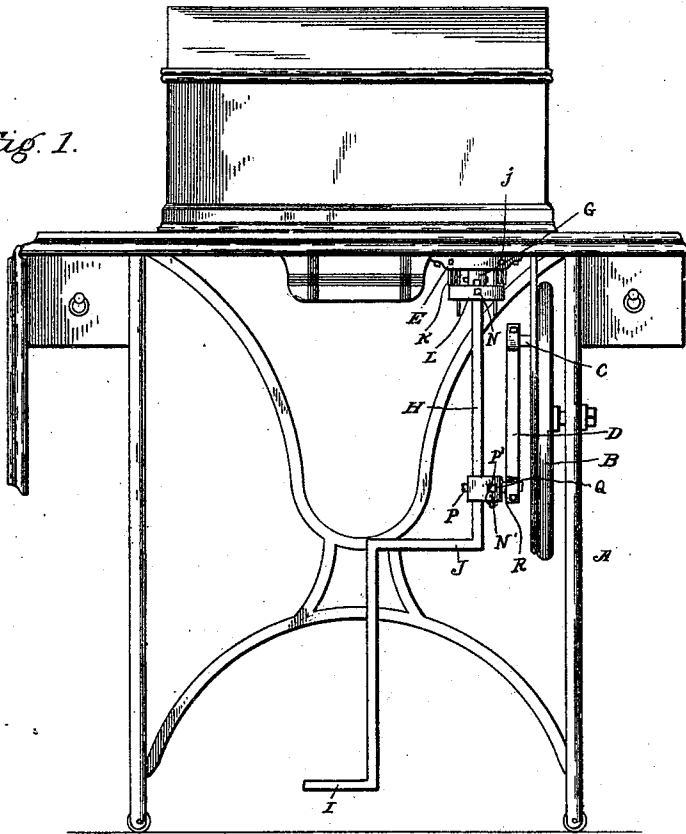
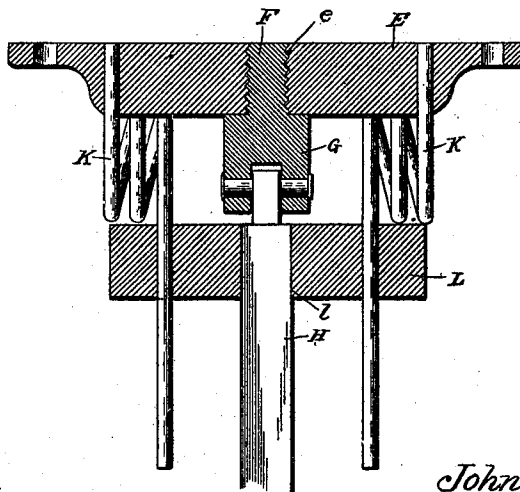


Fig. 3.



Witnesses

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2 Sheets—Sheet 2.

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Fig. 4.

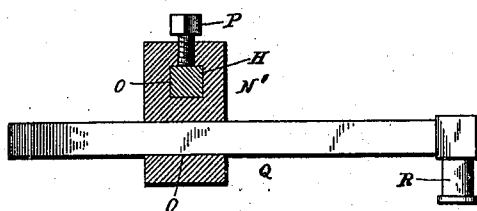


Fig. 2.

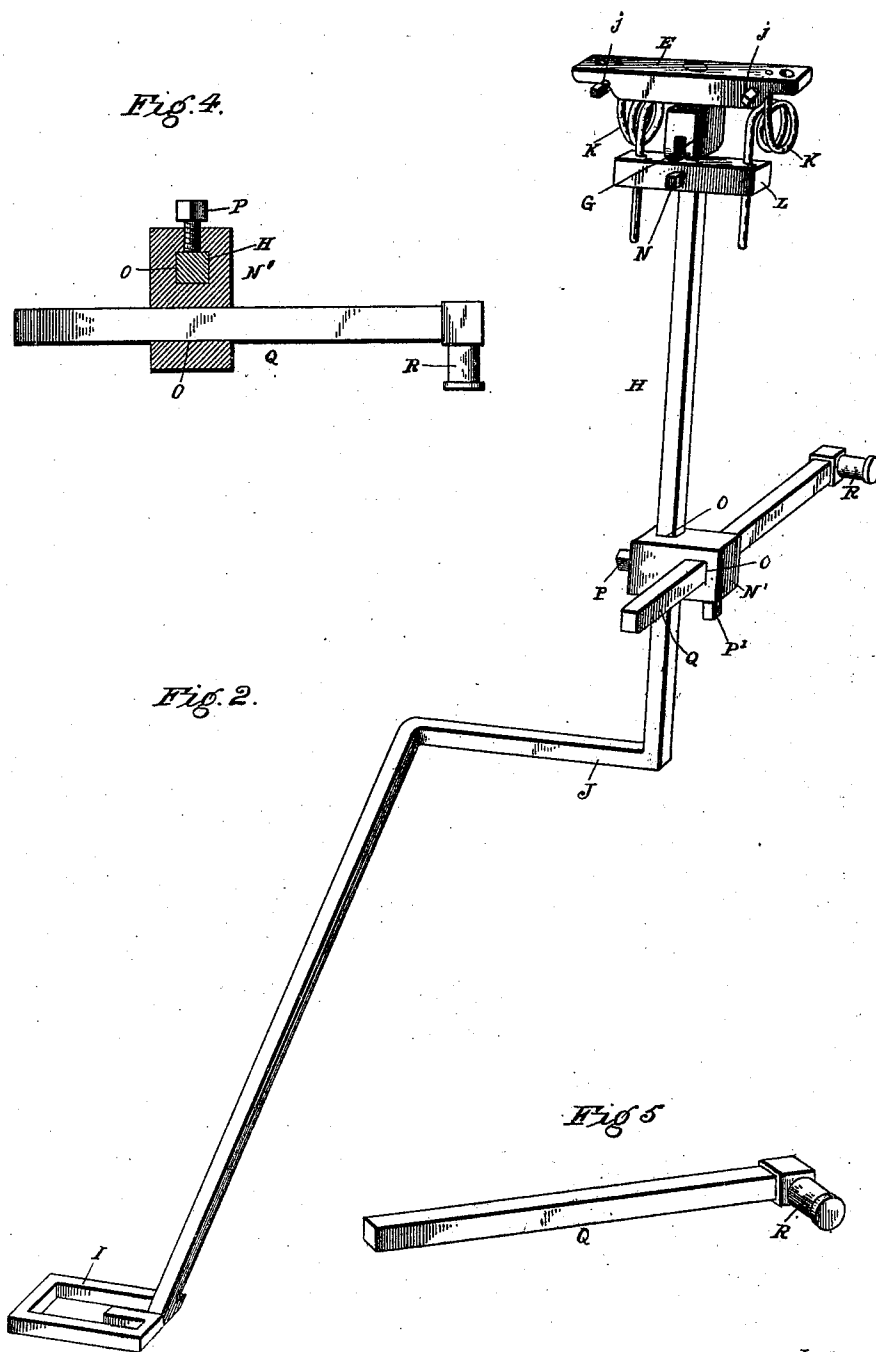
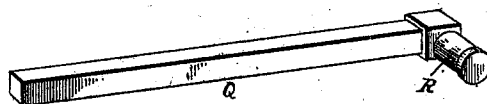


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN H. STEWART, OF DANVILLE, VIRGINIA.

TREADLE.

SPECIFICATION forming part of Letters Patent No. 502,683, dated August 1, 1893.

Application filed October 26, 1892. Serial No. 450,022. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. STEWART, a citizen of the United States, residing at Danville, in the county of Pittsylvania and State of Virginia, have invented a new and useful Treadle, of which the following is a specification.

This invention relates to treadles; and it has for its object to provide an improvement in operating treadles, which are designed to provide the motive power for machines usually operated by means of such machine elements, and to this end the invention primarily contemplates an improved construction in treadles, which are particularly adapted for operating ordinary sewing machines, and one which can be readily applied and adapted to any make of machine, as well as adapted to other kinds of machines employing an operating pitman to which the present device could be connected.

With these and other objects in view which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a front elevation of a sewing machine showing my improved treadle attached thereto. Fig. 2 is a detail in perspective of the treadle attachment removed from the machine. Fig. 3 is an enlarged longitudinal sectional view of the upper end of the treadle attachment. Fig. 4 is a detail transverse sectional view through the adjustable double flange. Fig. 5 is a detail in perspective of the adjustable crank rod.

Referring to the drawings:—A represents a machine stand of any style or construction, and which carries the usual power or drive wheel B, having the usual crank pin C, to which is connected at one end the ordinary short pitman D, the other end of which is loosely connected with the improved treadle attachment to be described.

Suitably secured in any suitable position to the under-side of the machine table is the treadle attachment plate E, which is provided with a central threaded perforation e, which receives the threaded stud F, of the bifurcated pivot block G, which is thus removably

connected to the attachment plate, but it will of course be understood that the plate and block can be cast into one piece if so desired, for simplicity of construction. Pivoted at its upper end in the bifurcated block G, is the swinging treadle lever H. The treadle lever H, is preferably squared in cross-section, and terminates at its lower end in an integrally formed treadle I, which may be either coiled or cast thereon in any suitable shape to accommodate the ball of the foot. As illustrated in the drawings, the treadle lever H, is provided with an intermediate off-standing crank portion J, which sets the lower end of the treadle off from the power or drive wheel of the sewing machine, and also throws the same at an angle toward the front of the machine. By this crank construction it will be readily seen that the treadle itself will be disposed at the center of the machine stand, so that the person can easily use one foot or the other, while the angle of the lower end of the treadle throws the same directly out to the front of the machine.

The cranked angled lever H, is normally held to the front of the machine and at the limit of its forward or front movement, by means of the position of the drive wheel, and also by means of the opposite springs K. The springs K, have one end removably and firmly secured in the attachment plate by means of the set screw j, and their other free ends extend into perforations in the sliding spring adjusting block or bar L, and are suitably held fast thereto, so that the tension of said springs can be readily adjusted by moving said block or bar on the lever. The said spring adjusting bar is provided with a central perforation l, which receives the lever, and renders the bar capable of adjustment thereon, by means of the adjusting screw N, passing through the bar and adapted to impinge on the treadle lever, to secure any desired adjustment of the tension of the springs. The springs primarily serve to return the swinging treadle lever from its rear to its front position, with the least possible friction, so that the treadle device can be operated with but a slight movement of the foot.

At a suitable point on the squared lever H, is adjustably mounted a sliding clamp N'. The clamp N', is double and is provided with

the right angularly disposed orifices or apertures O, one of which embraces the lever H, and the clamp is adjusted in any position thereon by means of the set screw P. The
 5 other right angularly disposed orifice is adapted to receive the transversely adjustable crank rod or bar Q.

The crank bar or rod Q, is of square cross-section to prevent turning in the clamp, and
 10 is held in the clamp in any adjusted position by means of the set screw P'. The extreme outer end of the rod Q, is provided with a right angularly disposed crank pin R, to which is pivotally clamped the free end of the drive
 15 wheel pitman D.

Now it will be readily seen that by the adjustment of the double clamp and the crank pin rod, the treadle attachment can be adapted to various lengths of pitmen, which vary on
 20 different makes of machines, and it will also be apparent that the crank rod of the treadle attachment can be adjusted for connection with any pitman, which is connected directly to the drive wheel of any power.

25 Changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

30 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a treadle for sewing and other machines, the combination with the drive wheel
 35 and the pitman of the machine; of an attach-

ment plate, a bifurcated pivot or bearing block removably secured in said plate, a swinging treadle lever pivoted at its upper end in said block and having an angled treadle portion disposed to the front and center of the
 40 machine, lever returning springs connected at one end to said attachment plate, a sliding tension adjusting bar longitudinally adjustable on the treadle lever and receiving the other ends of the springs, which are fast
 45 therein, and a crank-rod adjustably clamped to the lever, and connected to said pitman, substantially as set forth.

2. In a treadle, the combination, with a drive wheel having a pitman, of a swinging
 50 spring-returned angled treadle-lever pivotally and removably suspended from a suitable point of attachment, a double clamp adjustable on the treadle lever and having right-
 55 angularly disposed orifices, one of which is adapted to embrace the treadle-lever, an adjustable crank bar or rod adjustably mounted in the other orifice of said clamp at one end and having at its outer end a right-angularly
 60 disposed crank-pin pivotally receiving the free end of the pitman, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN H. STEWART.

Witnesses:

J. H. SIGGERS,

BERNICE A. WOOD.