

(No Model.)

F. M. FOSTER.
HAND POWER ATTACHMENT.

No. 491,418.

Patented Feb. 7, 1893.

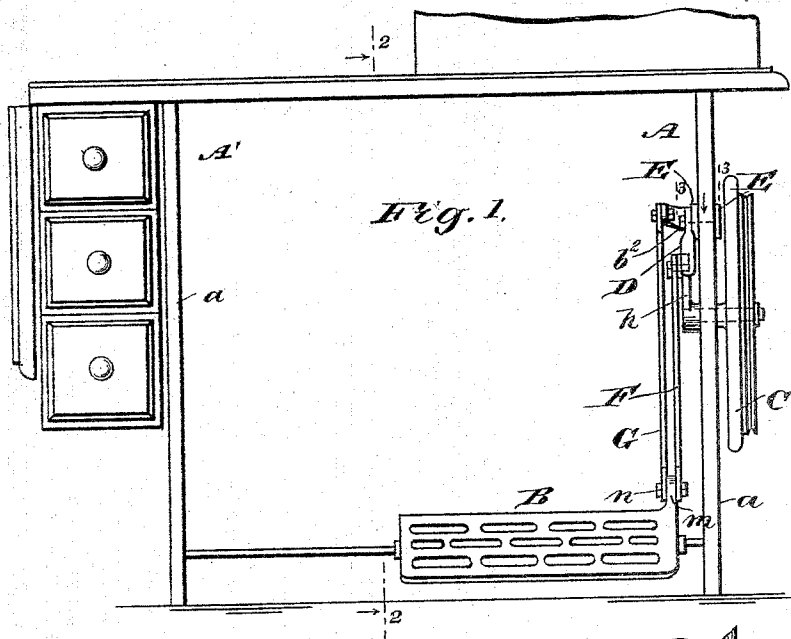


Fig. 2.

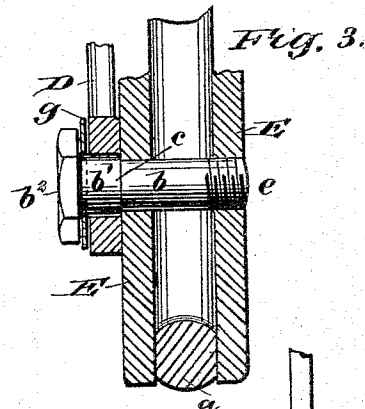
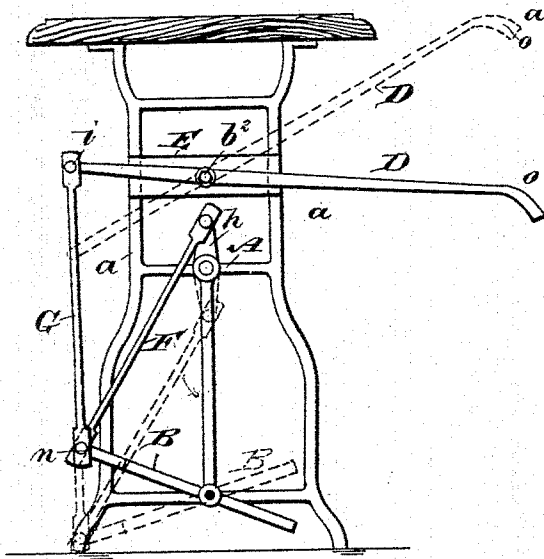
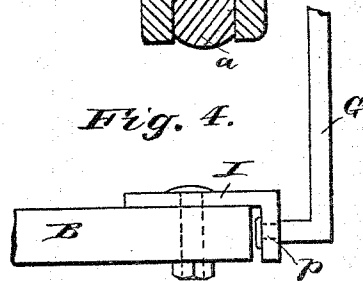


Fig. 4.



WITNESSES:
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HAND-POWER ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 491,418, dated February 7, 1893.

Application filed May 31, 1892. Serial No. 434,965. (No model.)

To all whom it may concern:

Be it known that I, FINLEY M. FOSTER, of New York city, in the county and State of New York, have invented a new and useful Hand-Power Attachment for Sewing-Machines, of which the following is a full, clear, and exact description.

The object of this invention is to provide a simple and inexpensive attachment for sewing-machines, that will afford means to actuate the machine by lever power that may be operated by hand, solely, or in conjunction with foot power applied through the usual pedal mechanism.

To this end my invention consists in the construction and combination of parts, as is hereinafter 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 view of a sewing machine having the improvement in place on it; Fig. 2 is a transverse section on the line 2—2 in Fig. 1; Fig. 3 is an enlarged and broken plan view partly in section on the line 3—3 in Fig. 1, showing a part of the improvement; and Fig. 4 is a detached and broken edge view of a sewing machine pedal and a bracket plate thereon with the lower end of a pitman connection for the improved hand lever attachment pivoted thereto.

In the drawings A, A', represent the frame portions of a sewing machine of any style, upon which the improvement is to be placed, and B, the foot piece or pedal. Upon the frame portion A, whereon the belt wheel C is rotatably supported, the lever D is secured to vibrate.

The preferred means for attachment of the lever D, upon the frame side A, consists of two clamping plates E, that are flat rectangular slabs of metal, having such a proportionate length as will adapt them to embrace the upright frame bars *a*. By preference a single bolt *b* is employed to retain the plates E, in clamped condition upon the frame bars, which bolt penetrates perforations in the plates near their centers; having the inserted portion of its body reduced in diameter, producing a

shoulder *c*, thereon, which has a bearing upon the outer face of one of the clamping plates when the parts are assembled. A journal *b'* is formed on the bolt end portion that is of greatest diameter, and a suitable head *b²* is its outer terminal. On the end portion *e* of the bolt *b*, that passes freely through one of the clamping plates E, a thread is cut, which threaded part is screwed into a mating thread formed in the perforation centrally produced in the other clamping plate, which latter is located upon the side of the frame piece A, nearest to the belt wheel C.

The lever D is made of proper length for efficient action, and at a point near one end, a transverse hole is formed, which is of such a relative diameter as will allow the journal *b'*, to loosely fit therein, a washer *g*, that is strung upon the journal, having a loose contact with the outer face of the lever and the adjacent head *b²* of the bolt.

The usual pitman F is provided for a loose connection of the pedal B, with the crank *h*, on the shaft that rotatably sustains the belt wheel C, on the frame side A, and a similar pitman G, is furnished to loosely connect the end *i* of the lever D, with the pedal named. When the pedal B, has a limb *m*, projected from it, to afford means for an attachment of the pitman F, thereto, the other pitman G, may be loosely secured to said limb by a bolt *n*, that serves as a pivot for both pitmen.

The lever D, which as shown, extends beyond the upright member *a* of the side frame A, toward the side nearest the operator, is thus located conveniently to be grasped with the right hand of the sewer, who by vibration of the lever transmits motion to the pedal B, and thence to the other mechanism of the machine, the other hand being available to direct the work below the needle bar (not shown). As considerable leverage is afforded by an increased length of the lever portion between the grip piece *o* and fulcrum bolt *b*, as compared to the length of the lever portion between said bolt and the other end *i*, of the lever, it is evident that the labor will be reduced, as compared to that required when the pedal B is alone employed.

If the use of the lever D, alone is preferred,

the operator can employ the pedal B, simply as a foot rest, and should the pedal be worked, the lever can be utilized as a brake to arrest motion of the machine, for which it is well adapted. As but a single bolt *b* is needed to connect the lever with the frame A of the sewing machine, it is apparent that its disconnection or application can be quickly effected without any alteration of the machine frame being needed.

If the pedal B is not constructed in a manner to allow the pitman G to be attached pivotally thereto, a special bracket plate I, may be used, as shown in Fig. 4, said plate being bolted fast to the pedal so as to project at its end, and have a loose connection produced at *p*, with the lower end of the pitman named, which latter is bent to permit such a pivoted junction to be easily effected.

The provision of this improved means for running sewing machines, will meet a popular want, as the treadle movement has been found to injuriously affect many operators; who, by using the hand power with or without the pedal, will be enabled to run a sewing machine without personal harm, and much

less fatigue than results from the continued operation of a sewing machine having a pedal movement only for its actuation.

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

In a hand power for sewing machines, the combination of a clamp comprising two separate clamp plates, adapted to be placed at the sides of a machine frame to engage the same, a shouldered bolt adapted to aligning apertures in said plates, the said bolt between the shoulder and head forming a journal, a handle lever apertured intermediately its length to be received on the said journal, and a pitman having connection with said hand lever beyond the aperture of the latter, and adapted at its other end for connection with the treadle of a machine, the screwing up of the bolt serving to move the clamp plates bodily for causing them to firmly bind on the machine frame, substantially as described.

FINLEY M. FOSTER.

Witnesses:

WM. P. PATTON,
E. M. CLARK.