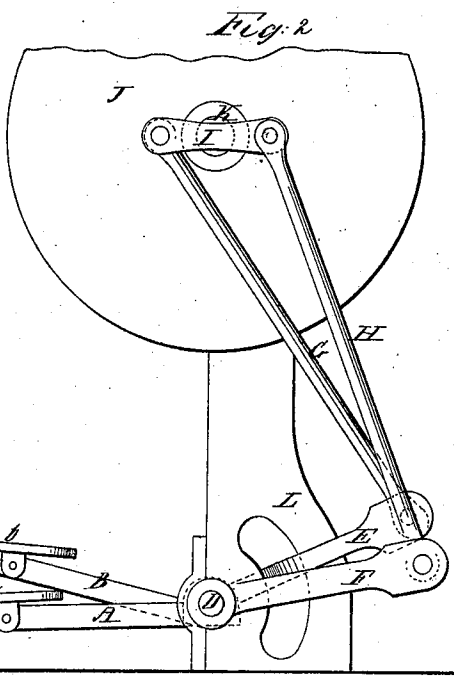
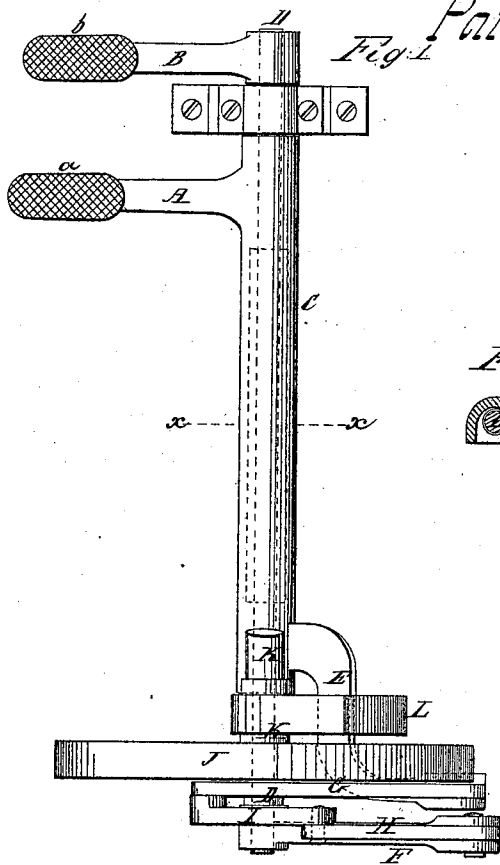


T. J. Halligan,

Treadle.

N^o 70,835.

Patented Nov. 12, 1867.



Witnesses
J. W. Coombs
G. W. Reed

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THOMAS J. HALLIGAN, OF NEW YORK, N. Y.

Letters Patent No. 70,835, dated November 12, 1867; antedated November 1, 1867.

IMPROVEMENT IN TREADLE FOR SEWING MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, THOMAS J. HALLIGAN, of the city, county, and State of New York, have invented a certain new and useful Improvement on Treadle-Motions for Operating Sewing Machines, and other purposes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents a plan of a double-treadle action or arrangement constructed according to my improvement.

Figure 2, a side view of the same, and

Figure 3 a transverse section through the line *x x* in fig. 1.

Like letters indicate corresponding parts throughout the several figures.

My invention relates to what are known as double-treadle motions, in which two treadles, worked by the right and left foot of the operator, are used for giving motion through separate connections to a common shaft; and the nature of my invention consists in a peculiar construction and arrangement of the treadle-shafts, whereby the one is not only protected by but forms bearings for the support of the other; and in a combination of the same with suitable connections, and a double-throw crank for giving rotary motion to a common shaft.

Referring to the accompanying drawing, A B represent right and left-foot treadles, with rocking-foot pads *a b* attached. The one, A, of these treadles is connected with an outer hollow shaft, C, which not only serves as a cover to protect from injury an inner shaft, D, to which the other treadle B is connected, but, by a cylindrical formation of it at or near its ends, is supported by or has its bearings on said inner shaft. Intermediately of such bearings, the outer shaft A may be only partially closed, or of V form, as represented in fig. 3, or it may be of a closed form throughout its whole length. This construction and arrangement of the two treadle-shafts not merely cause the outer shaft to protect the inner one, and the latter to support the former, only rendering necessary two pedestals or outer bearings *c c* to the one shaft, but, by such arrangement, the same or nearly the same compactness is secured as a single-treadle action possesses. To add to this compactness, as far as consistent with a double-treadle motion, and to enhance the efficiency of such an arrangement, the two shafts C D have their driving-levers E F connected, by pitmen G H, with opposite ends of a double-throw crank, I, carried by a fly-wheel, J, or other device made fast to or connected with a shaft, K, to which the treadles give a rotary motion, and which may represent the main or driving-shaft of a sewing machine; the standard L that forms one of the supports to said shaft representing the one-end portion of the frame of such a machine.

For sewing heavy work, this double-treadle arrangement will be found very advantageous in sewing machines generally; the ease and regularity with which both treadles may be worked, economizing time and labor, while, by the special construction and arrangement of the parts herein described, great compactness and simplicity are secured.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The construction and arrangement, substantially as herein described, of the treadle-shafts C D with their treadles A B for operation in unison, and whereby said shafts are made, the one to support and protect the other, essentially as herein set forth.

2. The combination of the treadle-shafts C D, arranged as described, with their treadles A B, driving-arms or levers E F, pitmen G H, and double-throw crank I, of or to the revolving-shaft K, substantially as shown and described.

Witnesses:

GEO. G. SICKLES,
O. F. SHAW.

THOMAS J. HALLIGAN.