E. CORNELY.

MECHANISM FOR OPERATING STOP-MOTIONS OF SEWING AND EMBROIDERY MACHINES.

No. 182,804. Patented Oct. 3, 1876.

Fig. 1

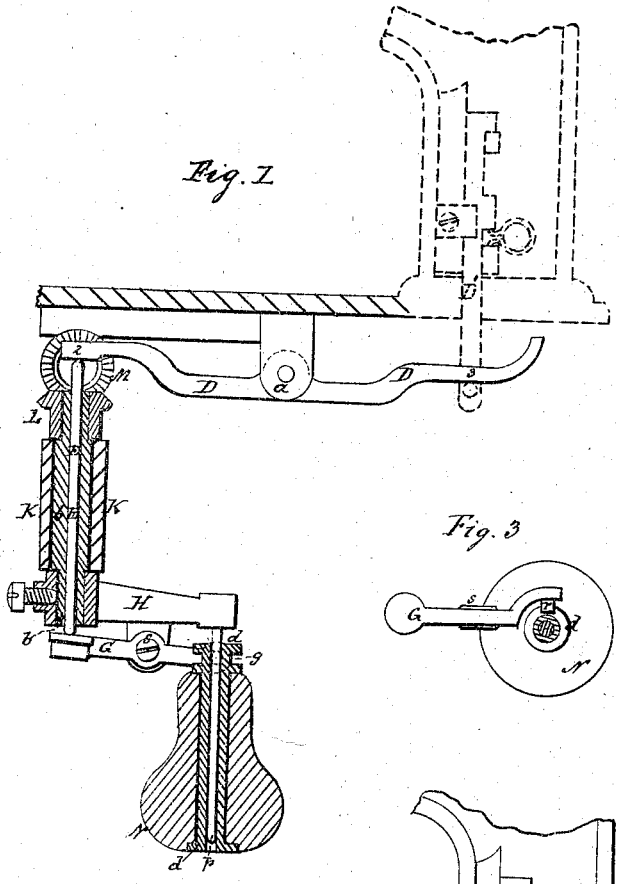
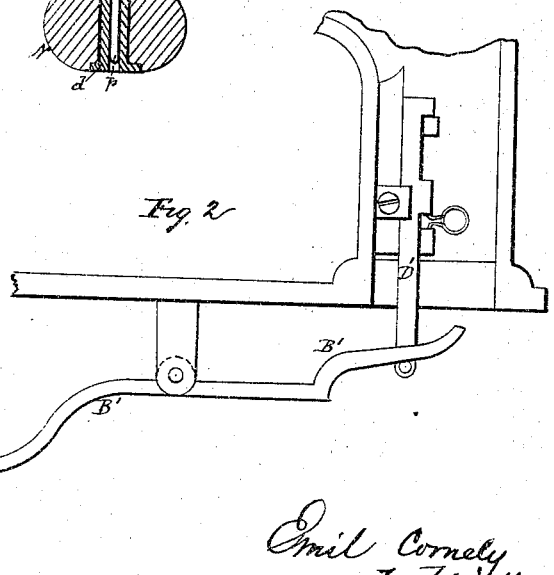


Fig. 3

Fig. 2



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EMIL CORNELY, OF PARIS, FRANCE.

IMPROVEMENT IN MECHANISMS FOR OPERATING STOP-MOTIONS OF SEWING AND EMBROIDERY MACHINES.

Specification forming part of Letters Patent No. **182,804**, dated October 3, 1876; application filed August 21, 1876.

To all whom it may concern:

Be it known that I, EMIL CORNELY, of Paris, France, have invented certain new and useful Improvements in Mechanism for Operating the Stop-Motion of Sewing and Embroidering Machines, of which the following is a specification:

This invention is more particularly to be employed upon such sewing and embroidering machines as work with a universal feed-motion, and in which the feed is governed by means of a crank-handle which is conducted by hand, such as described and shown in Letters Patent No. 83,910, granted to me November 10, 1868.

Heretofore in said machines the stop-motion was actuated by means of the left foot, while the right foot drove the right treadle, the fly-wheel, and the entire mechanism of the machine. It follows therefrom that the entire fatigue of driving the machine was borne by the right foot, while the left foot remained comparatively idle, and the labor thus not only was very fatiguing, but the operator, for the same cause, could drive the machine with a moderate speed only.

The object of my present invention is to enable the operator to drive the machine with both his feet, and to operate the stop-motion by hand; but as the left hand is employed to conduct the material, and as the right hand must constantly hold the crank-handle for the purpose of guiding the universal feed, it is evident that the mechanism for operating the stop-motion can only be combined with the crank-handle if both feet are to be employed for driving the machine.

The difficulty which presented itself in the execution of this invention was, that the operation of the stop must be performed in any position of the crank—that is, while the latter is turned in any direction the operator must be able to stop the machine or to set it in motion instantaneously. I have resolved this problem in the following manner, as will be seen by reference to the description and the accompanying drawings, in which—

Figure 1 represents a vertical section through my improved mechanism. Fig. 2 represents a side view of the mechanism used heretofore, as shown and described in Letters Patent No. 83,910. It is again represented here so as to be more easily compared with my present invention. Fig. 3 represents a detached view, hereafter to be referred to.

N represents the handle of my improved crank. It is secured upon the sleeve *d*, which is provided at its upper end with a collar, *g*, and the sleeve *d* can slide freely upon the crank-pin *p*.

H represents the crank. It is secured to the hollow shaft *b*, on which it turns freely, and which is provided at its upper end with a pinion, L, which drives the pinion M and all the gears of the machine which connect the feeding and stitching mechanism with the crank-handle. The hollow shaft *b* is supported by the bracket K.

G represents a horizontal lever, which is pivoted at *s* to the crank-arm H. A pin, *r*, Fig. 3, of lever G, enters into the collar *g* of the sleeve *d*, and the other end of lever G supports a loose rod, E, which can slide freely within the hollow shaft *b*, and whose upper end bears against the end 2 of the horizontal lever D, pivoted at *a*, and which actuates the rod D′ and the stop-motion of the machine in the same manner as was done heretofore by rod D′. (Represented at Fig. 2, and shown and described in Letters Patent No. 83,910.)

Thus, by slightly pressing downward the handle N the pin *r* and lever G will follow the movement, and the other end of lever G will raise the rod E within the hollow shaft *b*, which will thus raise the end 2 of lever D, thus pressing downward the end 3 of said lever and the rod D′, which releases the stop-motion, whereby the machine is set in motion instantaneously, no matter in what position the crank-handle N may be, and so little pressure is required that the weight of the hand is almost sufficient to set the machine in motion. Upon raising the handle N the rod E will descend, thus liberating the lever D and the rod D′, which will be pushed upward by the spring in the stop-motion, whereby the machine is arrested instantaneously. This operation of the crank-handle does not in the least interfere with the free motion which is necessary for guiding the feed, and the operator can thus drive the ma-

chine with both his feet, enabling him to accomplish a greater amount of work with less bodily fatigue, which is not, as heretofore, borne by one side of the body, but by the whole.

In Fig. 2 I have represented the mechanism which was used heretofore for operating the stop-motion by means of the left foot, which, by a pressure upon its treadle, acts upon lever B′, being connected thereto by means of the rod A′. Lever B′ actuates rod D′ and the stop-motion, as shown and described in Letters Patent No. 83,910.

Having thus fully described the nature of my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

1. The combination, with the feed and the stop motion of universal-feed sewing or embroidering machines, of a single crank-handle, which both governs the feed and operates the stop motion, substantially as herein set forth.

2. The combination, with the stop-motion mechanism, of the sliding handle N, lever G, hollow shaft *b*, rod E, and lever D, substantially in the manner herein set forth.

EMIL CORNELY.

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