

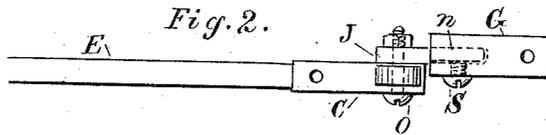
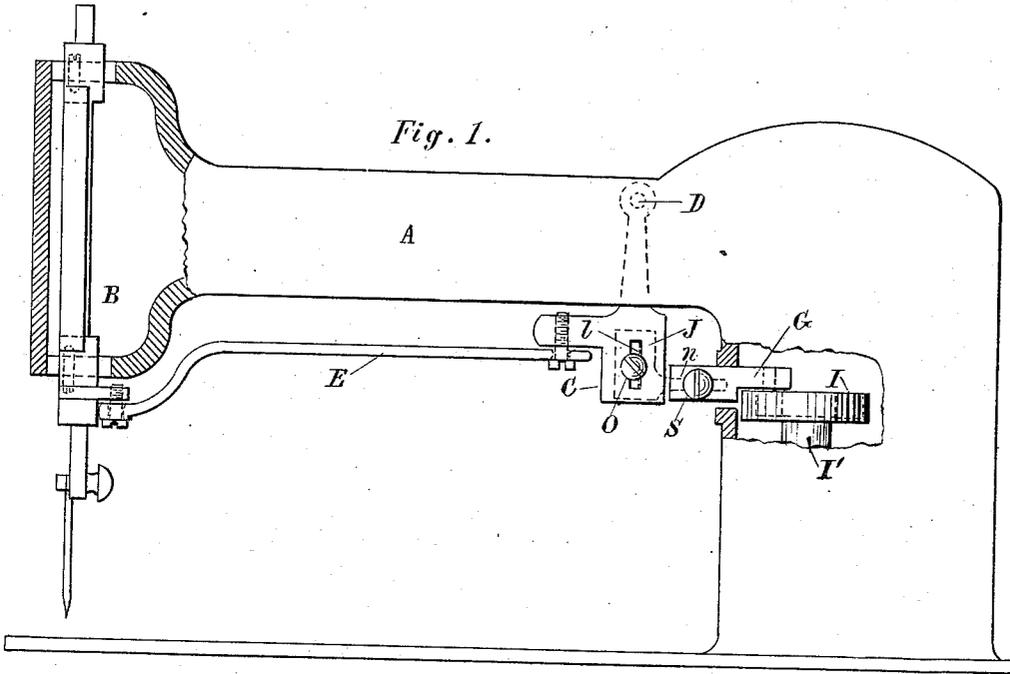
(No Model.)

J. S. FREESE.

BUTTON HOLE SEWING MACHINE.

No. 314,444.

Patented Mar. 24, 1885.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN S. FREESE, OF BROOKLYN, NEW YORK.

## BUTTON-HOLE SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 314,441, dated March 24, 1885.

Application filed July 23, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN S. FREESE, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Button-Hole Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to means for imparting motion to the needle-bar carrier of button-hole sewing-machines; and it consists in the novel features of construction, hereinafter described, whereby such motion can be varied and the initial position of the needle-bar carrier can be adjusted.

In the accompanying drawings, Figure 1 is a side view, partly in section, of a sewing-machine embodying my invention. Fig. 2 is a plan or top view of the carrier-operating mechanism.

Similar letters indicate similar parts.

The letter A designates the machine-arm, in the head of which is arranged the needle-bar carrier B in the usual manner. C designates an arm which swings at one end on a pivot, D, of the machine, and to which the needle-bar carrier B is connected by means of a rod, E.

The letter G designates a pitman engaging with a cam-groove of a revolving disk, I, mounted on a supporting-shaft, I'; and J denotes a link connecting the swinging arm C to the pitman in such a manner that when the pitman is actuated the swinging arm thence receives a swinging motion, thereby imparting the proper motion to the needle-bar carrier through the connecting-rod. The link J is adjustable both in relation to the pivot D of the swinging arm and to the pitman G, and by shifting the link toward or from the fulcrum of the arm the motion of the needle-bar carrier can be varied for regulating the throw of the needle, while by shifting the link toward or from the pitman the initial position

of the needle-bar carrier can be adjusted in accordance with the looper or other part cooperating with the needle.

In the example shown the adjustment of the link J is effected by means of set-screws O S, one passing through a radial slot, L, of the swinging arm into the link to form a pivotal point for the link, and the other entering a socket, N, of the pitman to impinge against the link, a suitable part of which is fitted into the socket, as shown in Fig. 2; but I do not wish to be confined to this construction, as the desired purpose can be accomplished in other ways, which will readily suggest themselves to skilled mechanics.

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

1. The combination, substantially as hereinafter described, with the needle-bar carrier, of the swinging arm pivoted at one end, the rod connecting the needle-bar carrier to the swinging arm, the grooved disk, the shaft supporting the disk, the pitman engaging the groove of the disk, the link connecting the swinging arm to the pitman, and a means for adjusting the link in relation to the pitman.

2. The combination, substantially as hereinafter described, with the needle-bar carrier, of the swinging arm, the rod connecting the needle-bar carrier to the swinging arm, the grooved disk, the shaft supporting the disk, the pitman engaging the groove of the disk, the link connecting the swinging arm to the pitman, a means for adjusting the link in relation to the pivot of the swinging arm, and a means for adjusting the link in relation to the pitman.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN S. FREESE.

Witnesses:

FRANCIS CLARE BOWEN,  
JAS. S. EWBANK.