

(No Model.)

J. C. GOODWIN.

MEANS FOR VERTICALLY RECIPROCATING SEWING MACHINE  
PRESSER FEET.

No. 313,933.

Patented Mar. 17, 1885.

Fig. 2.

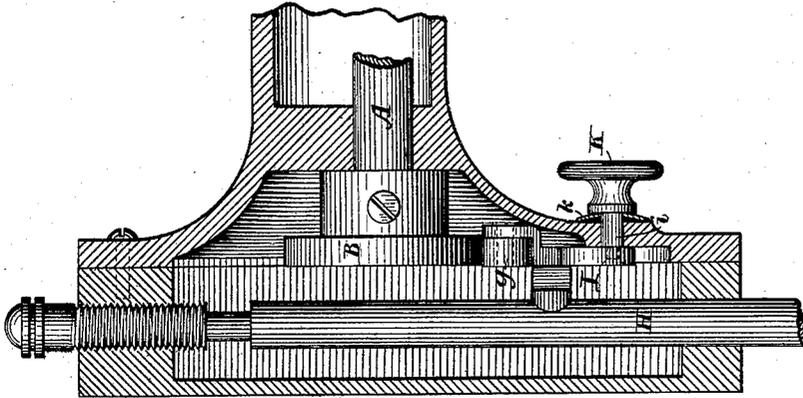
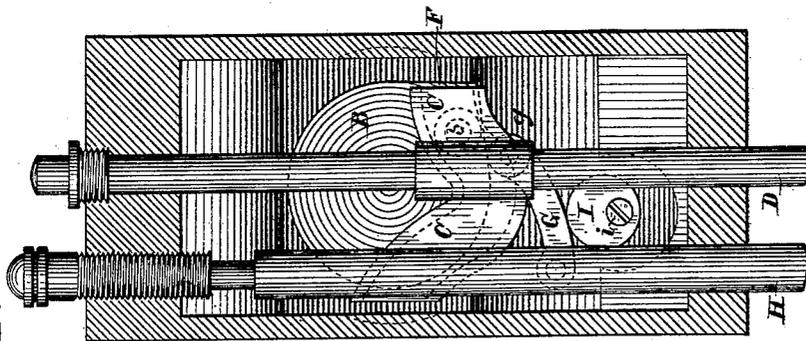


Fig. 1.



WITNESSES

*Ed. A. Newman,*  
*Chas. C. Newman,*

INVENTOR

*Julius C. Goodwin*

By his Attorneys

*Baldwin, Noyes & Patten,*

# UNITED STATES PATENT OFFICE.

JULIUS C. GOODWIN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE AMERICAN BUTTONHOLE, OVERSEAMING AND SEWING MACHINE COMPANY, OF SAME PLACE.

MEANS FOR VERTICALLY RECIPROCATING SEWING-MACHINE PRESSER-FEET.

SPECIFICATION forming part of Letters Patent No. 313,933, dated March 17, 1885.

Application filed August 4, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JULIUS C. GOODWIN, of the city of Philadelphia, in the State of Pennsylvania, have invented certain new and useful  
5 Means for Vertically Reciprocating Sewing-Machine Presser-Feet, of which the following is a specification.

The object of my invention is to provide a practical, simple, adjustable mechanism for  
10 vertically moving the presser-foot of a sewing-machine, the adjustment being designed to vary the vertical reciprocation of the presser-foot to accommodate materials of varying thickness.

In the accompanying drawings, Figure 1 is an end view of the head of a sewing-machine with the face-plate removed. Fig. 2 is a longitudinal section through the end of the sewing-machine head.

I have only illustrated such parts of the machine as are necessary to a full understanding of the invention. The other portions of the machine may be of any usual and well-known construction, to no special one of which  
25 this invention is limited.

The driving-shaft A, which is mounted in suitable bearings in the head of the machine, carries upon its end, as usual, a disk or cam-plate, B. A wrist-pin, *b*, on this disk travels in a cam-track, C, in a plate secured upon the  
30 needle-bar D, so that the disk in its rotation will impart a vertical reciprocatory motion to the needle-bar, as usual in this class of machines.

In this instance I have illustrated the disk B as a cam-disk, it being provided with a cam lip or teat, F, for producing the vertical motion of the presser-foot, as will now be described, though, of course, it will be obvious  
40 to those skilled in the art that a pin on a circular disk may be employed to accomplish the same purpose, as will now appear.

An arm, G, is pivoted to the presser-foot bar H, and its outer end, which is preferably provided with a roller, *g*, projects into the  
45 path of the cam projection F on the disk B, as clearly indicated in Fig. 1. This lever G rocks upon a fulcrum, I, carried in the head of the machine. At each revolution of the

disk B, therefore, when the cam-lip F strikes  
50 the roller *g* on the arm G the presser-foot will be elevated. Of course if the fulcrum of the lever G be raised or lowered the amount of the vertical movement of the bar H will correspondingly be varied, and I accomplish  
55 this result in the following manner: The fulcrum I consists of an eccentric-disk mounted on a bolt, *i*, which projects through the case of the machine, and is provided with a thumb-nut, K, by means of which the eccentric I may  
60 be rotated, so as to raise or lower the fulcrum of the lever G. In order to hold the eccentric in any position to which it may be adjusted, I interpose a concavo-convex spring friction-washer between the case of the machine and  
65 the shoulder formed by the hub of the thumb-nut, as clearly shown in Fig. 2.

The organization here described is simple in construction and capable of being adjusted permanently, so as to give any required vertical  
70 reciprocation of the presser-foot bar.

I am aware that a lever to vertically reciprocate a presser-foot has been pivoted on an adjustable fulcrum or support in the head of the machine, one end of said lever being vibrated  
75 by a cam on the needle-shaft and the other working against a pin on the presser-foot bar to elevate it, as shown, for instance, in the patent of James and Robert Blake, No. 149,565, of April 14, 1874.

What I claim as my invention is—

1. The combination of the disk or cam-plate, the presser-foot bar, its actuating-lever pivoted thereto, and an adjustable eccentric, which  
85 serves as a fulcrum for said arm.

2. The combination of the disk or cam-plate, the presser-foot bar, the actuating-arm pivoted thereto, the adjustable eccentric, which serves as its fulcrum, the bolt on which said eccentric is carried, means for rotating said bolt, and a  
90 friction-washer for holding the eccentric in any position into which it may be rotated.

In testimony whereof I have hereunto subscribed my name.

JULIUS C. GOODWIN.

Witnesses:

W. W. DOUGHERTY,  
C. A. DOUGHERTY.