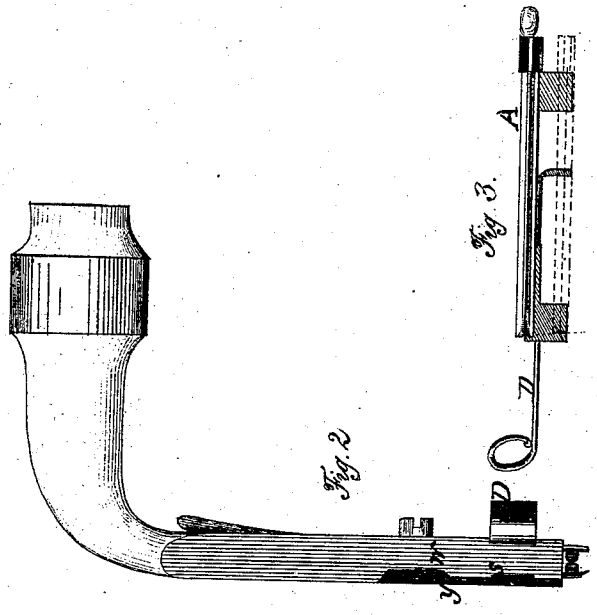
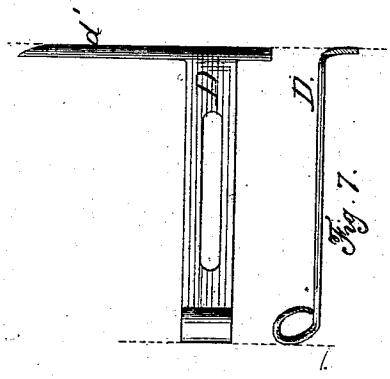
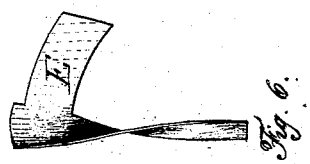
J. KARR.

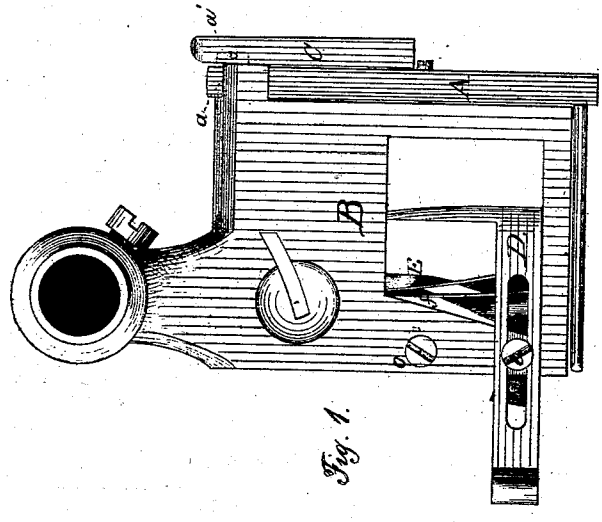
Hemming and Felling Device for Sewing Machines.

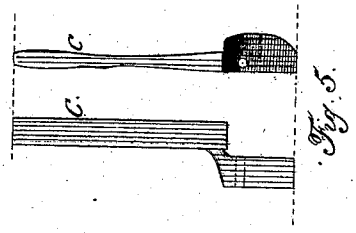
No. 106,489. Patented Aug. 16, 1870.

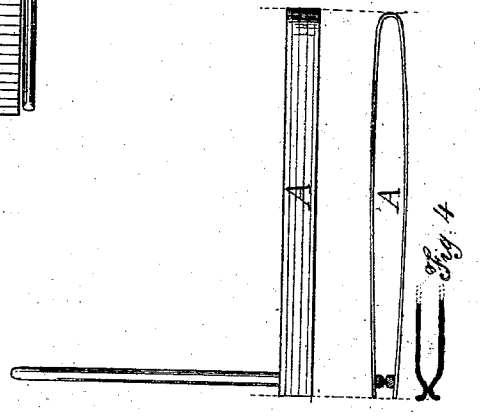



Witnesses

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# UNITED STATES PATENT OFFICE.

JACOB KARR, OF WASHINGTON, DISTRICT OF COLUMBIA.

## IMPROVEMENT IN HEMMING AND FELLING DEVICE FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **106,489**, dated August 16, 1870.

I, JACOB KARR, of Washington, in the District of Columbia, have invented certain Improvements in Hemmers and Felling-Guides, of which the following is a specification:

*Description of the Accompanying Drawing.*

Figure 1 is a plan embodying my invention. Fig. 2 is an elevation, showing that lateral end of the machine which is at the left hand in Fig. 1. Fig. 3 is a vertical transverse section. Fig. 4 is a lateral and plan view of my spring-presser. Fig. 5 is a side and plan view of my cam-lever. Fig. 6 is a plan view of my metallic slide-gage or spring-guide. Fig. 7 is a vertical transverse section and plan view of the slide gage or guide.

My invention relates to a hemmer and felling-guide for sewing-machines, whereby the width of the hem or fell can readily be adjusted to meet the requirements of the work to be performed.

It consists, first, in a guide or sliding gage attached to the presser, and co-operating with the scroll-plates, for regulating the width of the hem or fell; secondly, in the adjustable spring scroll or plate E, in combination with the spring-plate or scroll *f*; and, thirdly, in combination with a pair of spring-pressing jaws, for retaining the cloth in position as it is fed to the needle to be hemmed, of a cam-lever for operating such jaws, as hereinafter described.

A is an angular metallic spring-presser, which is fitted into a recess, *a*, formed in the base or foot B, and retained in place by the screw *a'*. Said presser is preferably formed of a single piece of flat steel, fashioned to correspond to the shape shown in Fig. 4; but steel wire, with similar effect and facility, may be employed.

B is the base-plate of the device, composed of the pieces *w* and *y*. The part *w* is provided with the recesses *t* and *s*, the former for the reception of the auxiliary base-plate Y and the latter for the adjustable scroll E, against which it presses, as aforesaid. The base-plate Y is held in position by the screw *o*, which regulates the pressure upon the scroll E.

C is a pivoted cam-lever, which is located laterally between the jaws of the spring A, and, when thrown backward or forward, opens, closes, and changes the position of the jaws of the spring-presser A. When thrown forward it elevates the jaws of the presser, as shown in Fig. 3, and out of the way of the fabric, to admit of felling, and when thrown backward leaves the jaws as shown in Fig. 2, and so as to act as a smoother to the cloth previous to its entrance into the hemmer.

D is a slide gage or guide, slightly curved longitudinally at *d*, and provided with a slot, and it slides upon the base B, where it is secured by the set-screw *e*, the head of which presses upon and retains said gage at any required position, whereby the width of the hem or fell is adjusted.

E is an adjustable scroll or spring-plate, arranged to operate in conjunction with the scroll *f*, provided with peculiar curvatures and twistings, which, on inserting the edge of the cloth therein and drawing the same through the entire length of the convolution thereof, turns down the raw edge and tucks it under in the manner proper for a hem neatly and uniformly through the entire length of the cloth, and also guides the edges of the fell as close as desired to the needle.

The scroll or spring-plate E is adjusted by means of the screw *o*, which passes through the plates *w* and *y*, and presses the plate *y* against the base-plate *w*, thereby rendering it adjustable, as aforesaid. Said scroll or spring-plate E is provided with a tang, whose contour is shaped in conformity with a segment of a circle, and when it is pressed inwardly it widens the convolution at that point where the cloth is first entered, while the opposite or remote part is not thus affected, but retains its position.

The stock of the foot or base-plate A is also provided laterally with a curved slot or recess for the reception of said tang, and which, being adapted to its curvature or shape, thereby guides it in its movement, with the effect as aforesaid; and the said conformation and arrangement of the adjustable scroll *f* and the slot in the stock of the foot provided for its reception greatly facilitate the work, as the front or entrance to the scroll can thus be rendered wider than the rear or that part thereof where the cloth emerges therefrom.

The process of felling is as follows: Two pieces of cloth are laid in a parallel line, the one upon the other, the edge of the lower one

projecting laterally and to the right a distance greater than the upper one in proportion to the desired width of the fell, and the pieces are thus sewed together, after which the cloth is straightened out its full width, and the wider tuck or projecting piece is then folded or pressed over upon the left-hand piece of cloth, and in this condition sewed thereto.

The guide D guides and regulates the width of the fell, which it renders uniform by pressing upon the cloth; and by its peculiar construction and operation the width of the fell or hem may be adjusted with facility.

*Claims.*

I claim—

1. The combination, with the foot B, of the adjustable gage D and scroll E, substantially as and for the purpose shown and described.

2. The spring-plate E, provided with a curved tang, and adjustable in the stock of the foot, in combination with the spring-plate *f*, as and for the purpose described.

3. The combination and arrangement on the presser-foot of the spring-presser A and the cam-lever C, substantially as shown and described.

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Witnesses:
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