(No Model.) 2 Sheets—Sheet 1.

C. MARKS.

LAP SEAM GAGE FOR SEWING MACHINES.

No. 456,198. Patented July 21, 1891.

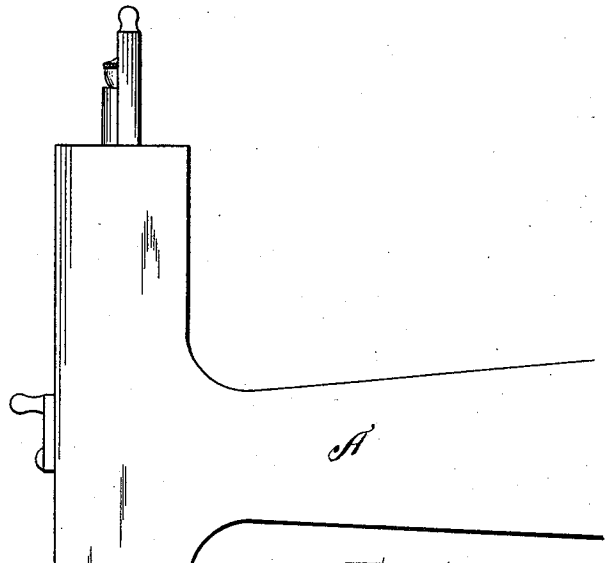


Fig. 1.

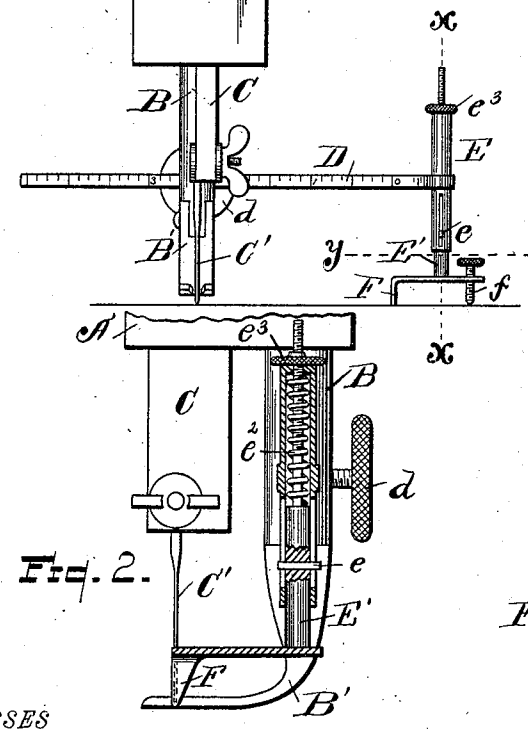


Fig. 2.

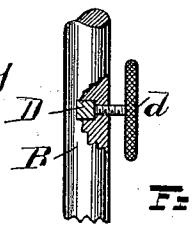


Fig. 3.

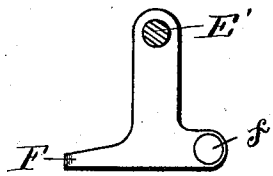


Fig. 4.

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

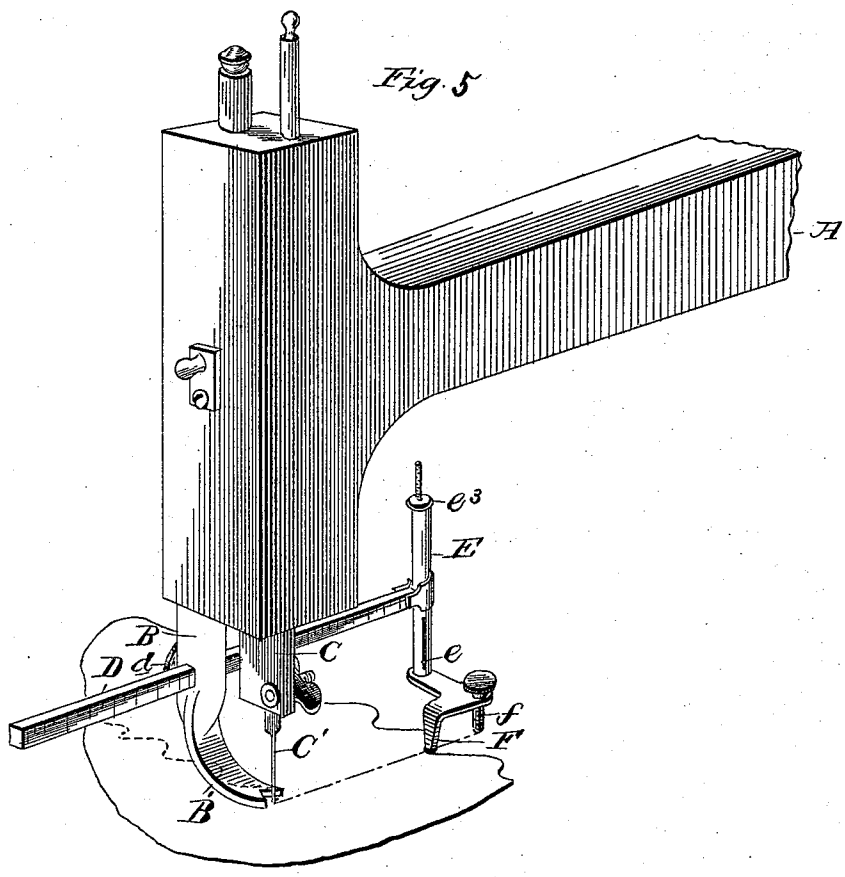
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Fig. 5



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UNITED STATES PATENT OFFICE.

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LAP-SEAM GAGE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 456,198, dated July 21, 1891.

Application filed December 14, 1889. Serial No. 333,811. (No model.)

To all whom it may concern:

Be it known that I, CHARLES MARKS, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Lap-Seam Gage for Sewing-Machines, of which the following is a specification.

My invention relates to lap-seam gages for sewing-machines, and its object is to provide a lap-seam gage that shall be easy of adjustment, and that may be adjusted to any width for sewing lap-seams, cuffs for coat-sleeves, &c.

By my invention I am also enabled to guide work cut in irregular shapes as well as straight work.

In the accompanying drawings, Figure 1 shows a front view of a sewing-machine with my invention attached. Fig. 2 shows a cross-section of the seam-gage with the presser-foot and needle-bar in the background. Fig. 3 shows a section of the presser-foot bar with means of attaching my invention. Fig. 4 shows plan of the gage proper. Fig. 5 is a perspective view of my improvement, taken from the front, showing a piece of fabric being stitched by the machine.

Like letters refer to like parts on the several figures.

B represents the presser-bar of a sewing-machine, and D a horizontal graduated bar capable of longitudinal adjustment in the direction of and under the machine-arm A. The arm D passes through the presser-bar at right angles thereto and parallel with the arm A, as is shown in Figs. 1 and 3, and is held in adjustment by the set-screw *d*. The horizontal bar D is graduated in a scale of inches and fractions of an inch.

Attached to the outer end of the bar D is a perpendicular sleeve E, carrying the guide-bar E′, the guide-bar having a perpendicular movement within the sleeve. The upper part of the guide-bar E′ is reduced and threaded and extends above the sleeve. Surrounding the threaded part of the guide-bar E′, and compressed between its shoulder and the closed end of the sleeve E, is the spiral spring E^2. The action of this spring is to depress the guide-bar E′, while its perpendicular adjustment is secured by means of the thumb-screw E^3, acting in conjunction with the spring.

The guide-bar E′ is prevented from oscillating by the pin *e* passing through it and the slots in the sleeve E, as is shown in Fig. 1.

Rigidly attached to the lower end of the bar E′ is the gage proper, of a plan as shown in Fig. 4. Its shape is such as to carry its index-point F forward to a plane passing through the longitudinal axis of the needle at right angles to the line of feed and opposite O on the graduated bar. On a line with the index is the set-screw *f*, to rest on the base-plate of the machine to steady the gage and at the same time to adjust the point vertically, for purposes hereinafter stated. The object of the form of construction of said gage-foot is, first, to bring the single index-point forward in the direction of the plane passing through the longitudinal axis of the needle at right angles to the line of feed and away from the sleeve and gage-bar, so that in setting the gage to a narrow seam the sleeve and bar will not be brought close to or in contact with the presser-bar or other parts of the machine. Thus it will be seen that if the gage be moved in the direction of the presser-bar until set for a seam of one-eighth of an inch the sleeve and gage-bar would stand away the distance from zero-mark on the graduated bar. In the second place, the index is set forward a distance to correspond with the distance between the presser-bar and the needle-bar, so that the index-point stands exactly opposite or in a plane passing through the longitudinal axis of the needle at right angles to the line of feed. The object of this is to aid the operator to sew a seam of regular width from an edge or guide line that is curved or scalloped. In sewing a straight seam the point might set either forward or back of the plane passing through the longitudinal axis of the needle at right angles to the line of feed; but as the operator feeds the cloth directly from him straight into the machine and reaches a curve it is essential that the index-point of the gage and the needle stand in a line at right angles to the work, so that the inside curve formed by the needle will correspond with that of the index and of the cloth. This is true whether the curve be an inside curve or an outside curve. For the same reason it is evident that the single index-point is of advantage over a gage-foot.

By having the index-point correspond with zero on the graduated bar a seam of any desired width in inches can be made without the use of a rule. This is essential in case of cuff-seams and for lap-seams, as in such cases wide seams are required. The adjustment is quickly made, and similar seams in different garments can be made of uniform width.

In using my invention the graduated bar is set in the presser-bar of the machine and adjusted to the width of seam desired by the scale. The gage is accommodated to different thicknesses of cloth by raising or depressing the guide-bar E′ by means of thumb-screw e^3. The set-screw f is used to raise the index-point against the tension of spring e^2, so that the point may follow the contour of an irregular edge or border somewhat back of the outer edge, the index riding on the outer edge portion of the material, while the set-screw rests on the plate of the machine.

What I claim as my invention, and desire to have secured to me by Letters Patent, is—

In a sewing-machine, the combination, with the presser-bar and needle, of a lap-seam gage consisting of a horizontal graduated bar adjustably secured to the presser-bar and extending longitudinally of the machine, a vertical sleeve on the end of the graduated bar, a guide-bar in the sleeve, a spring surrounding said guide-bar, a gage-foot on the lower end of the guide-bar extending toward the front of the machine and having a downwardly-extending index-point in the plane passing through the longitudinal axis of the needle at right angles to the line of feed, and a set-screw for supporting the rear end of the gage-foot, substantially as described.

CHARLES MARKS.

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