

G. F. CLEMONS.

Cloth Guide for Sewing Machines.

No. 64,840.

Patented May 21, 1867.

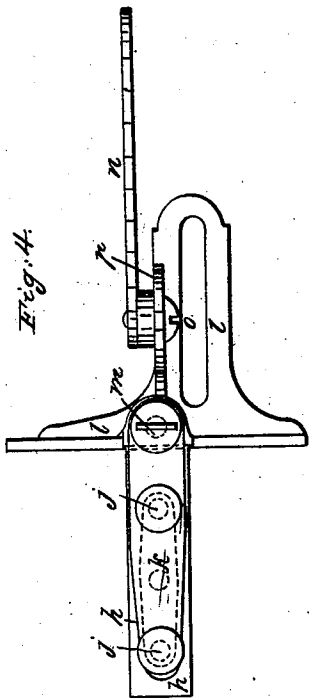


Fig. 4.

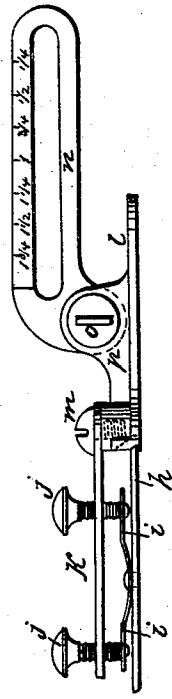


Fig. 5.

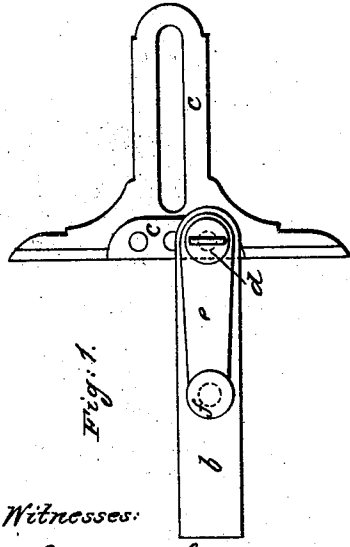


Fig. 1.

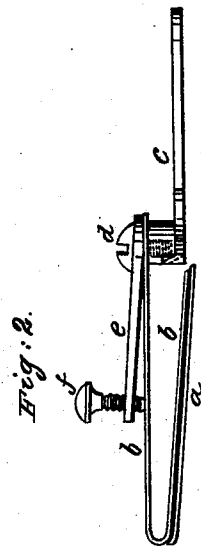


Fig. 2.

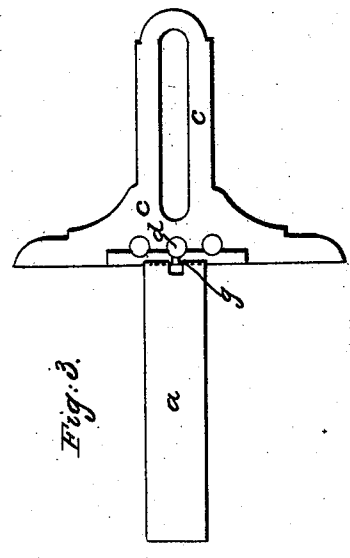


Fig. 3.

Witnesses:

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GEORGE F. CLEMONS, OF SPRINGFIELD, MASSACHUSETTS.

Letters Patent No. 64,840, dated May 21, 1867.

## IMPROVEMENT IN CLOTH-GUIDE FOR SEWING MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, GEORGE F. CLEMONS, of Springfield, in the county of Hampden, in the State of Massachusetts, have invented certain new and useful Improvements in Cloth-Guides for Sewing Machines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My said invention consists chiefly in combining a rigid guide-plate with a sewing-machine gauge, and in providing therewith means for such adjustment and operation of the guide-plate, that it is adapted to guide the material being sewed, as required, by its pressure upon it, all substantially as hereinafter set forth.

To enable those skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In Figures 1, 2, and 3, *a* is a rigid, smooth piece of plate metal, forming a guide-plate to rest upon the material being sewed. Its side edges and outer end are bevelled or curved upward to facilitate the inserting and the passage underneath it of the material to be sewed and guided. It is attached to the under side of the lower half of a strip of thin elastic sheet metal, *b*, which is bent near its middle, forming two nearly equal leaves or limbs which diverge from each other nearly as shown in fig. 2. The upper limb of *b* is attached at its end to a gauge, *c*, by a set-screw, *d*, which screw also fastens to the gauge a rigid pressure-plate, *e*, which rests upon *b* at its inner end, and is bent upward so as to be separated from *b* at its outer end nearly as shown in fig. 2. The pressure-plate *e* carries at its outer end a thumb-screw, *f*, which bears at its lower end upon *b*, and which when turned gives greater or less pressure downward at the bow end of *b*. The gauge *c* is attached to a sewing-machine cloth-plate by a set-screw like common gauges. It is provided with three screw holes for attaching the spring-plate *b* and pressure-plate *e* to it in three positions, in order to adapt the guide to be used on different machines, which vary in respect to the position of the screw hole for attaching the gauge relative to the position of the sewing-needle, the guide thus being adapted for different machines, so that its guide-plate *a* shall rest upon the material being sewed, near and in front of the sewing-needle, and extend out from the gauge-face across the line of the seam being sewed. To keep the material being sewed from slipping up between the inner end of the guide-plate *a* and the gauge-face, the gauge is bevelled off at the lower corner of its face, (shown in fig. 3,) so that the inner end of the guide-plate *a* projects towards the gauge beyond the line of its face. But in front of the middle screw hole the gauge-face is not bevelled away, a guiding projection, *g*, being left against which the edge of the cloth touches. The guide-plate *a* is notched at its inner end to clear the projection *g*. In constructing the spring-plate *b*, it is formed to give nearly the relative position of the guide-plate *a* to the gauge *c*, shown in fig. 2, so that when the guide is attached to a sewing-machine bed-plate for use, and when no pressure is given to the plate *b* by the screw *f*, the inner end of the guide-plate will bear lightly upon the material to be guided, while the outer or bow end of the guide-plate will not touch the material. By this adjustment of the guide-plate it will guide the material towards the gauge-face when sewing seams near the edge of the material. But when sewing seams at greater distance from the edge of the material, the thumb-screw *f* is turned so as to give more pressure on the cloth towards the outer end of the guide-plate, it being required in guiding the cloth towards the gauge-face, whether sewing wide or narrow seams, that the guide-plate shall give more pressure upon the cloth outside than inside of the line of seam being sewed. The rigid guide-plate *a*, in the described connection, is found in practice to be productive of better results than by using a thin elastic guide-plate like the lower limb of *b*, the bevelling of its edges giving more ready passage of the cloth under the guide-plate, and the stiffening of the guide-plate effecting a better application and distribution of the guiding pressure, and also making the guide-plate less liable to be bent and injured. But the guide may be very beneficially used without the rigid plate *a*. When the guide is made for a special kind of sewing machine, the spring-plate *b* and pressure-plate *e* may have but one place of attachment to the gauge *c*, and may be either pivoted to the gauge or riveted fast to it, either at right or oblique angles to its face.

I do not herein claim a bent spring-plate like *b*, used as a guide-plate, in combination with a gauge and an adjustable pressure-plate, as Letters Patent have been granted to me for such a cloth-guide. But what is new in this described invention is the employment of a rigid guide-plate *a* connected with a bent spring-plate *b*, and with a new construction of pressure-plate, and all differently connected to a gauge.

Figures 4 and 5, show a cloth-guide with another mode of using a rigid guide-plate, and also means for

attaching the guide to the needle-post of a sewing machine or to the bed-plate. *h* is a rigid piece of plate metal bevelled or turned up at its outer end edge and side edges, to admit the cloth readily under it. Near its middle is attached to it, by a rivet, a strip of elastic sheet metal, *i*, curved upwards on each side the rivet, and having fastened in its ends the lower ends of thumb-screws *j j*, which pass through screw holes in a rigid plate, *k*, fastened to a gauge, *l*, by a set-screw, *m*. The lower corner of the gauge-face is bevelled away, similarly and for similar purposes to that described of the gauge shown in figs. 1, 2, and 3. *n* is a slotted link attached by the set-screw *o* to a projection, *p*, of the gauge *l*, and is used to attach the guide to the needle-post of a sewing machine when desired. It is graduated into a scale of equal parts to aid in regulating the width of seams sewed. It may be dispensed with for ordinary purposes of guiding cloth when sewing seams near the edge of the cloth. But it is useful when sewing seams far from the edge of the cloth, in which cases the gauge *l* may be raised so that the cloth can slide freely under it, and be smoothed and guided by the guide-plate, which is made to press upon the cloth. The gauge *l* may be provided with more than one screw hole for attaching the plate *k* to it, similarly and for the same described purpose shown in figs. 1, 2, and 3. Or the plate *k* may be either pivoted or riveted fast to the gauge in any required position, and be set either at right or oblique angles to the gauge-face.

In operating the cloth-guide it is fastened to the sewing machine, either by attaching the gauge *l* to the bed-plate, as is ordinarily done, or by fastening the link *n* to the needle-post by a set-screw passing through its slot and into a screw hole made in the needle-post. By turning the screws *j j*, the pressure of the guide-plate *h* upon the material being sewed may be so distributed as to guide the material inward towards the gauge-face by giving more pressure upon it outside than inside the line of seam being sewed, whether sewing wide or narrow seams, and the best guiding results are obtained by setting the screws *j j* so that there shall be such distribution and application of their pressure upon the guide-plate as to gently guide the material inward, without clamping it too hard, and detaining it only sufficiently to give the required inward guiding action. It will be seen that by raising the inner end of the guide-plate so as to clear the cloth, and by causing only the outer end to bear on the cloth, as may be done by turning the screws *j j*, an inward guiding action is had by thus pressing on the cloth at one point outside the line of seam being sewed, but with the disadvantages of not smoothing the cloth and not keeping its edge down flat so as to run evenly along against the gauge-face.

I claim as my invention—

1. In a cloth-guide for sewing machines, the employment, with a cloth-gauge, of a rigid guide-plate, adapted to bear upon the cloth in front of the sewing-needle and extend across the line of seam being sewed, and having elastic and adjustable pressure given to it in such a manner as that it shall press more upon the cloth outside the seam than inside thereof, and thereby guide the cloth towards the gauge-face.

2. The elastic plate *b*, either with or without the rigid guide-plate *a*, combined with the pressure-plate *e*, screw *f*, and gauge *c*, substantially as described and for the purposes set forth.

3. The rigid guide-plate *h*, combined with the elastic plate *i*, screws *j j*, rigid plate *k*, and gauge *l*, all with or without the link *n*, substantially as described and for the purposes set forth.

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Witnesses:

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