(No Model.) 2 Sheets—Sheet 1.

T. W. BRACHER.

FABRIC AND METHOD OF PRODUCING FINISHED EDGES THEREON.

No. 567,948. Patented Sept. 15, 1896.

Fig. 2.

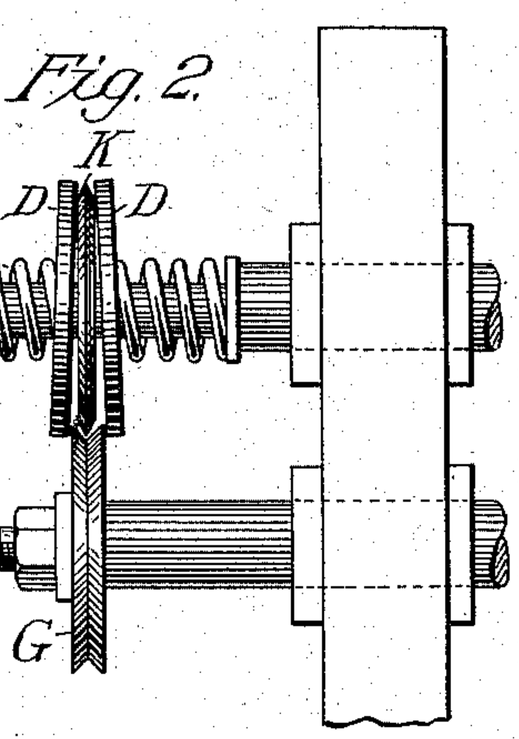


Fig. 8.

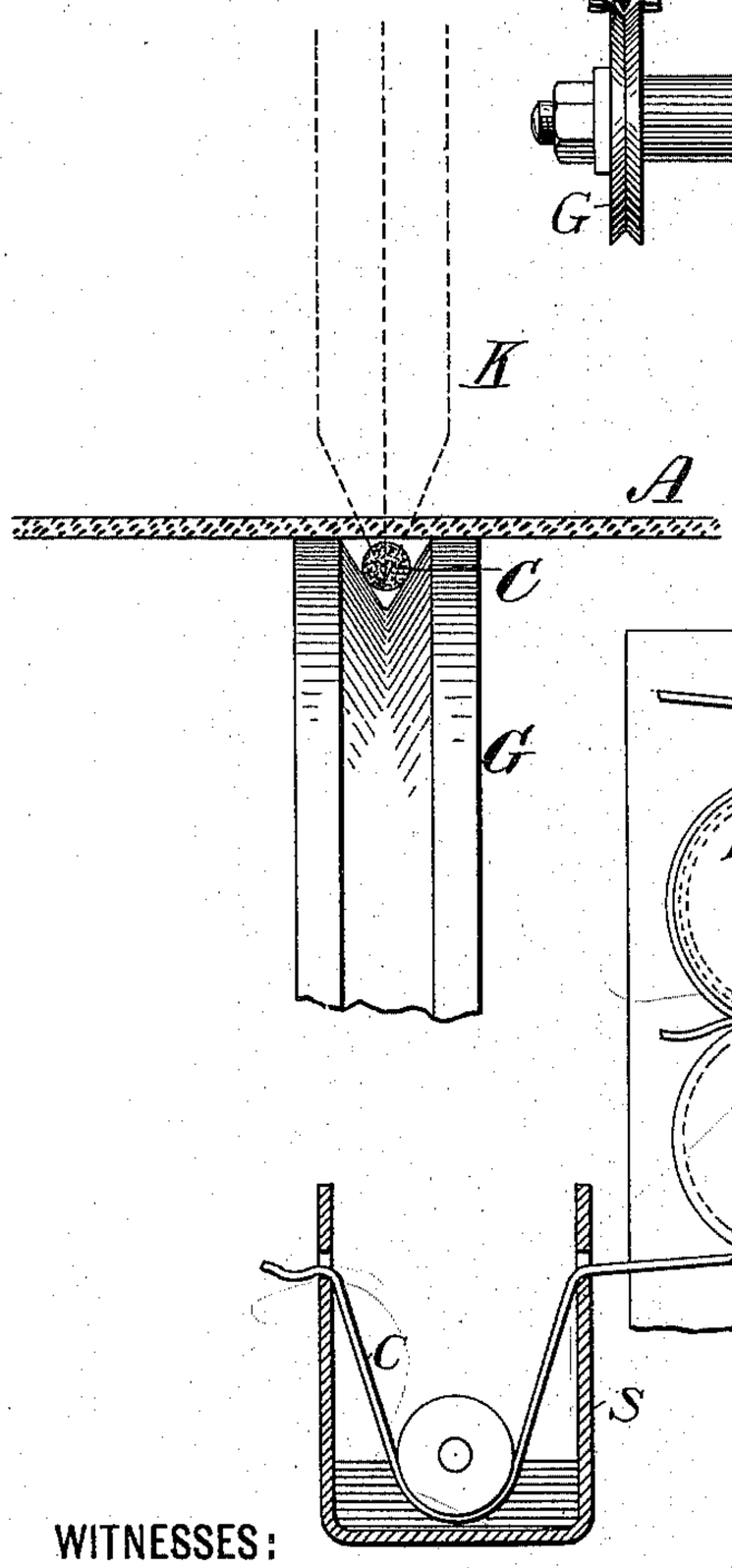


Fig. 9.

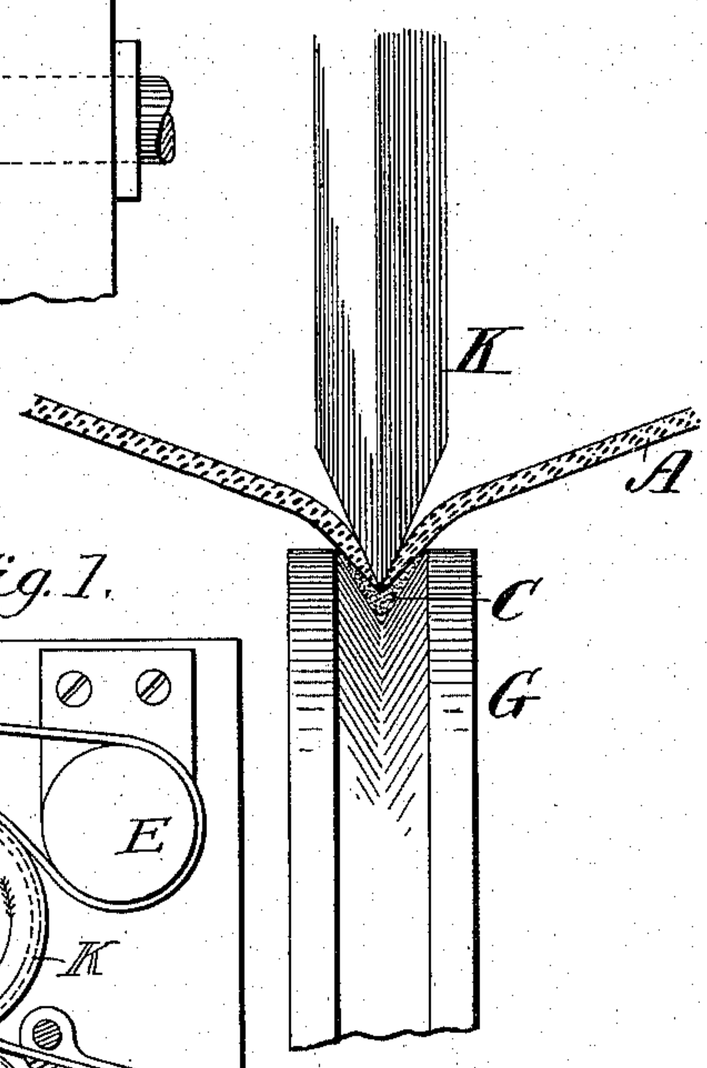
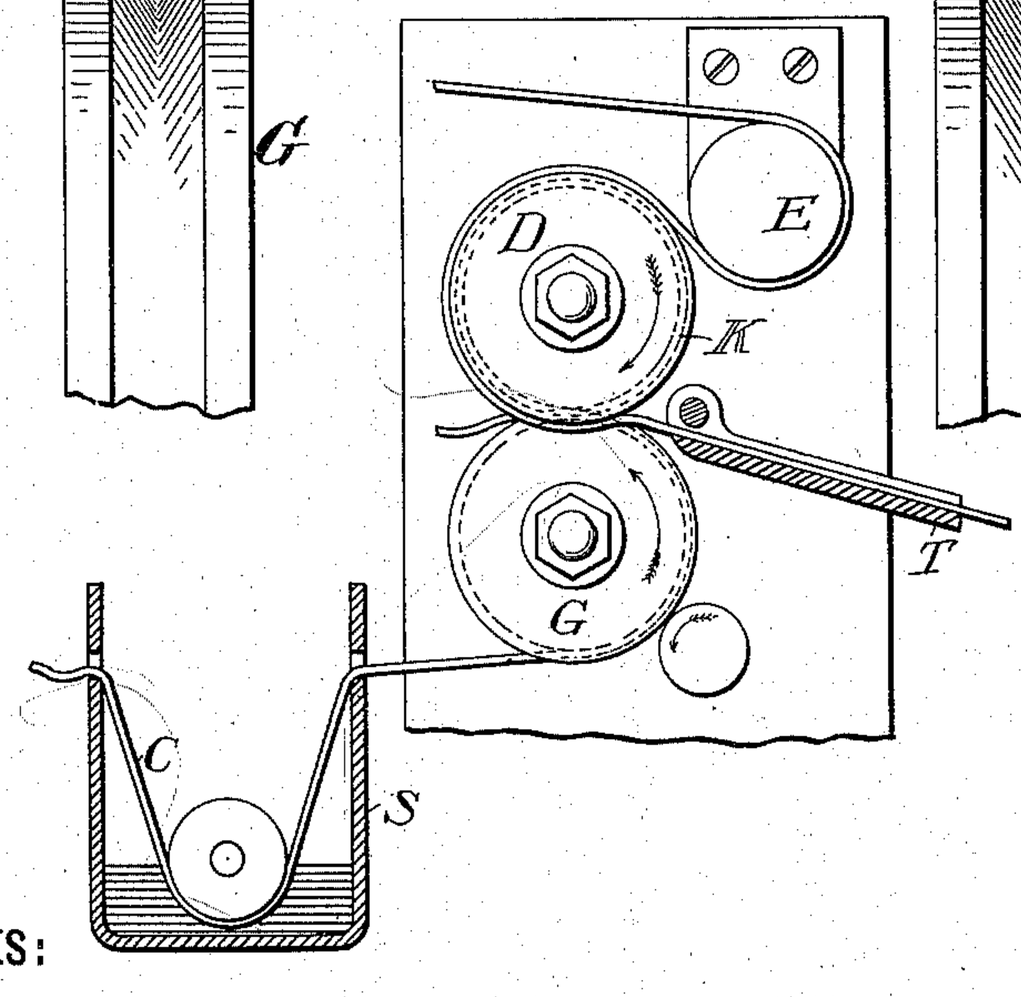


Fig. 1.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

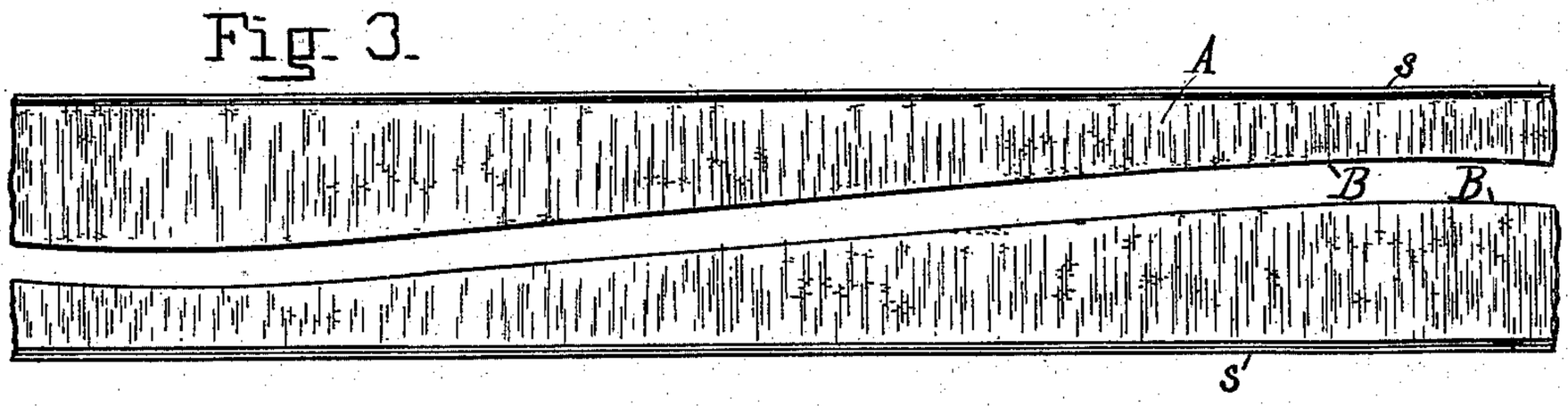


Fig. 4.

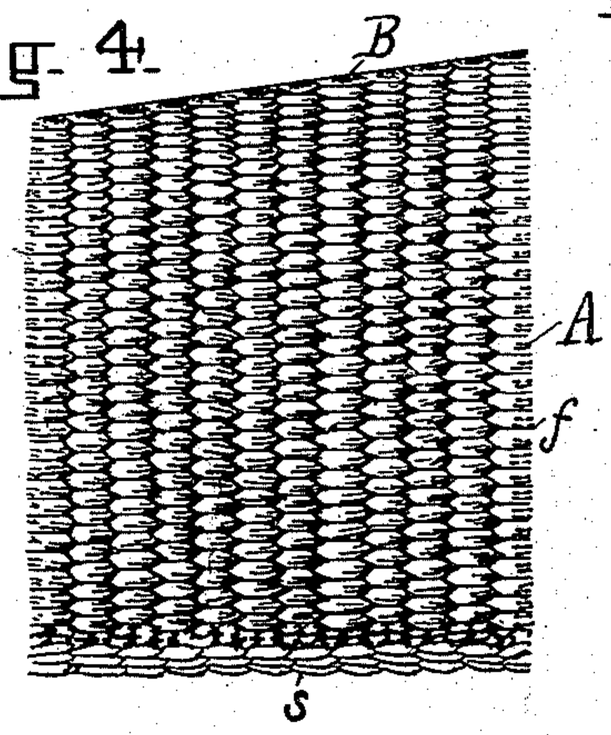


Fig. 5.

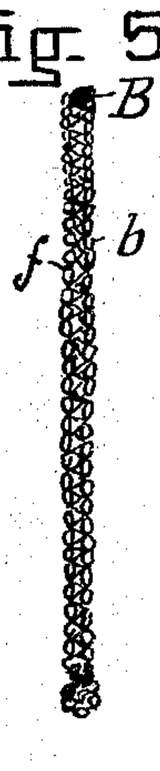


Fig. 6.

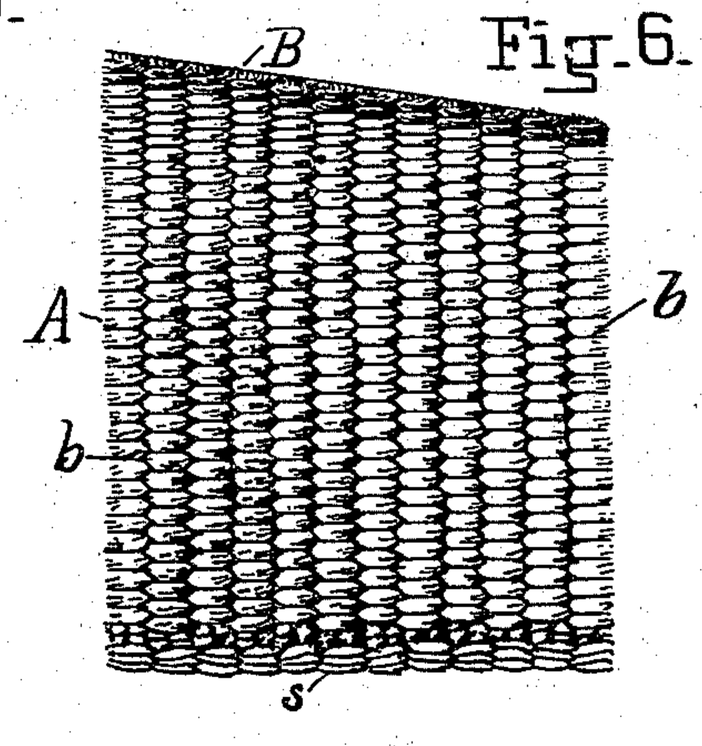
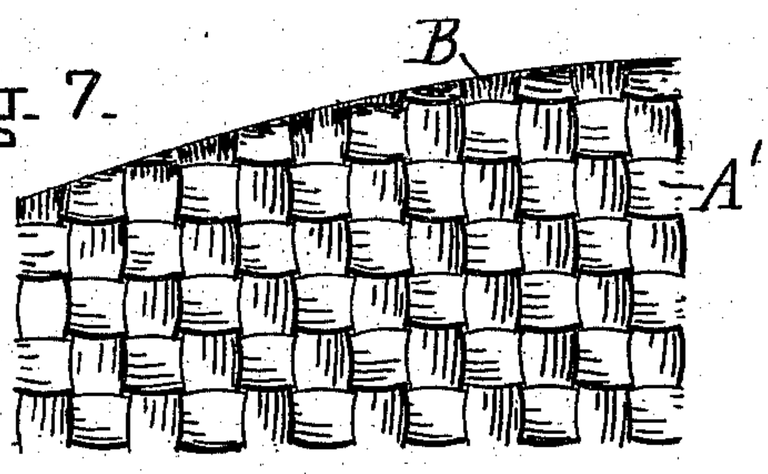


Fig. 7.



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by Thomas Ewing Jr
Attorney.

UNITED STATES PATENT OFFICE.

THOMAS W. BRACHER, OF NEW YORK, N. Y.

FABRIC AND METHOD OF PRODUCING FINISHED EDGES THEREON.

SPECIFICATION forming part of Letters Patent No. 567,948, dated September 15, 1896.

Application filed July 16, 1895. Serial No. 556,112. (No model.)

To all whom it may concern:

Be it known that I, THOMAS W. BRACHER, a citizen of the United States of America, residing in the city, county, and State of New York, have invented a certain new and useful Improvement in Finished Edges for Absorbent Materials and in the Method of Producing the Same, of which the following is a specification.

My invention has for its object to give a border or selvage to the severed edge of a fabric; and to this end I impregnate the fibers of the fabric at the edge with an adhesive material, the fabric being simultaneously compressed and severed, as fully set forth hereinafter, so as to form a compressed and finished edge approximating in appearance an ordinary selvage. This edge may be sinuous. The narrow strip of adhesive material may be sizing, cement, or glue, as, for example, shellac. The method is carried out by a suitable severing apparatus, in which means are provided for applying the adhesive material in advance of and at the time of severing. It is applied on both sides of the line along which the fabric is severed.

In the accompanying drawings, which form a part of this specification, Figure 1 is an end view of the apparatus for severing the fabric and applying the adhesive material. Fig. 2 is a front view of the same, the guide for the fabric being removed. Fig. 3 shows two parts of a ribbon severed along a sinuous line. Fig. 4 is an enlarged view of the face of the ribbon, showing the true selvage and the severed edge secured by adhesive material. Fig. 5 is a sectional view of the ribbon. Fig. 6 is a view of the section of ribbon shown in Fig. 4 from the back or side on which the adhesive material is applied. Fig. 7 is an enlarged view showing my improved edge on a piece of textile fabric woven with warp and weft threads of equal size and tension. Fig. 8 is an enlarged view of certain rolls, cord or yielding support intermediate these rolls and a fabric being presented to the rolls. Fig. 9 is a similar view except that it shows the yielding support and fabric as the same will appear when subjected to the severing action of the rolls.

The severing of the fabric is effected by means of two rolls, the upper of which is brought to a single edge and is the knife-roll K. Below it is the grooved roll G. At S is a box containing shellac, through which a fine cord or thread C passes and becomes moistened with shellac. The cord then passes half-way around the grooved roll, and is carried under the fabric which passes in between the grooved roll and the knife-roll from a guide T. The knife-roll cuts through the fabric and into the underlying cord in the grooved roll. At the same time the pressure squeezes the shellac out of the cord and into the fabric as it is drawn in between the rolls and severed.

On the spindle with the knife-roll and on each side are disks D D, which are pressed toward the rolls by springs P P. Their purpose is first to fold the fabric over the sharp edges of the grooved roll and then to form two grooves with the knife-roll in which the folded edges of the fabric can be pinched while the shellac sets. The fabric is carried around about three-fourths of the circle with the knife-roll, so that it can be kept pinched for a sufficient length of time. It is then delivered over a guide E. By removing the disks D D the fabric may be severed and the severed edges secured with adhesive material without folding the edges over.

Figs. 4, 5, and 6 show, respectively, front, sectional, and back views of a portion of ribbon A having my improved edge, the adhesive material B having been applied to the side *b* and the fabric cut from the side *f*. The true selvage of the ribbon is shown at *s*.

My invention, as above set forth, enables the formation of edges of the character specified on textile fabrics without regard to the contour of the edge. The selvage can follow on lines which are straight, oblique, or curved in any way that is desired. I am thereby enabled to produce ribbons and trimmings from goods woven in wide widths and to give these a great variety of forms. Ribbons, for example, when made in this way, can be curved or given undulating or sinuous edges, or made of variable widths for a great variety of purposes.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. A fabric having a selvage consisting of severed thread ends, impregnated with an

adhesive substance, said selvage being compressed and smooth along the line of such severed thread ends, substantially as specified.

2. The method of progressively producing a finished edge on a fabric, which consists in applying an adhesive substance to the said fabric along a narrow strip, simultaneously compressing and severing the fabric within the said adhesive strip to form a smooth finished and compressed edge, substantially as specified.

3. A ribbon or strip having one longitudinal edge straight and protected by a woven selvage, and the other longitudinal edge sinuous and protected by an adhesive material, substantially as specified.

4. A ribbon or strip having one longitudinal edge straight and the other longitudinal edge sinuous, the material of the ribbon or strip at one of said edges being impregnated with an adhesive material, substantially as specified.

THOMAS W. BRACHER.

Witnesses:
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JOHN C. THOMAS.