J. F. GREENE.

PROCESS OF EMBOSSING FELTED FABRIC.

No. 193,945. Patented Aug. 7, 1877.

Fig. 1.

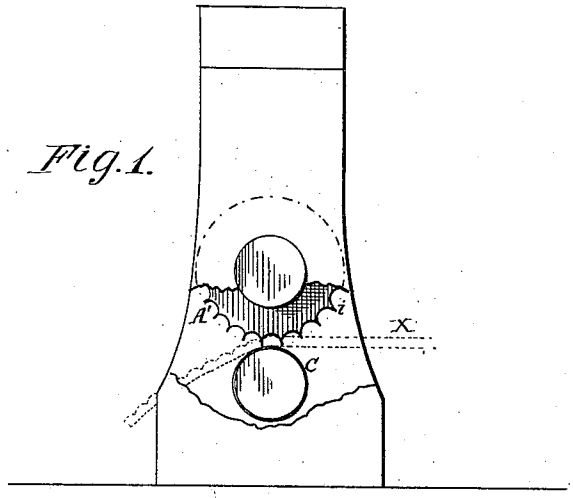


Fig. 3.

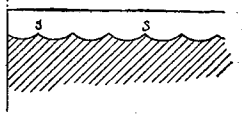


Fig. 2.

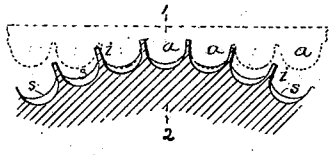
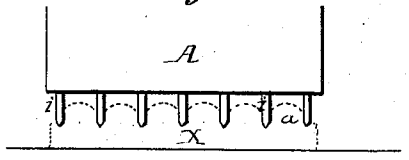


Fig. 4.



Attest:

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UNITED STATES PATENT OFFICE.

JOHN F. GREENE, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN THE PROCESSES OF EMBOSSING FELTED FABRICS.

Specification forming part of Letters Patent No. **193,945**, dated August 7, 1877; application filed May 24, 1877.

To all whom it may concern:

Be it known that I, JOHN F. GREENE, of Brooklyn, in the State of New York, have invented new and useful Improvements in the Manufacture of Ornamental Felted Fabrics, of which the following is a specification:

The object of my invention is an improvement in the manufacture of ornamental or filled fabrics, fully described hereinafter, which constitutes an available imitation of a Brussels, diagonal, or twilled fabric.

The further object of my invention is mechanism for producing the said fabric.

In the drawings, Figure 1 is a view illustrating the mechanism employed in producing my improved fabric; Fig. 2, a detached sectional view; Fig. 3, a longitudinal section on the line 1 2, Fig. 2; Fig. 4, a view illustrating a modification.

Heretofore felt fabrics in imitation of woven fabrics have been produced by first printing the felt, and then subjecting it to the action of rollers having Λ-shaped longitudinal ribs, which produce parallel indentations on the face of the goods, giving the same the appearance of reps. The fabrics thus made have not proved so available as is desirable, from the fact that the beveled faces of the ribs on the roller bear upon and condense the entire body of the fabric, which, in time, expands and obliterates to a great extent the indentations.

I have found that by the use of thin blades having parallel, or nearly parallel, sides, this difficulty is overcome, there being no surface presented to carry or press down the felt between the creases.

Various means of carrying this operation into effect may be adopted—for instance, a series of sharp-edged blades, *i*, may be attached to a reciprocating carrier, A, which rises and falls as the fabric X passes beneath the same. I prefer, however, to use a roller, A′, carrying radial blades *i*, having parallel, or nearly parallel, sides, and arranged above a parallel plane-faced roller, C, supported by suitable standards. As the blades pass into the fabric they condense those portions opposite their edges, and when they are withdrawn the intermediate portions *a*, which have not been condensed, expand laterally to a slight extent, and prevent the condensed portions from expanding, thus preserving the creases made by the blades, and producing a fabric in which compressed and uncondensed portions alternate in parallel lines, producing the desired ribbed effect.

Where it is desired to produce a blocked surface, as in Brussels carpet, transverse ribs *s* may be extended between the blades *i*, so as to produce transverse indentations, which impart the desired resemblance.

I claim—

1. The within-described mode of producing felt imitations of woven fabrics—that is, by compressing the printed felt fabric on parallel lines by thin blades having parallel, or nearly parallel, sides, leaving intervening uncompressed portions, as set forth.

2. The combination, with a roller or carrier, of thin radial blades having sides parallel, or nearly parallel, as set forth.

3. The transverse ribs or blades *s*, combined with the parallel thin blades *i*, as specified, for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN F. GREENE.

Witnesses:

S. L. ROWLAND,

CHARLES E. FOSTER.