P. A. DAILEY.

Manufacture of Ornamental Felt-Fabrics.

No. 199,270. Patented Jan. 15, 1878.

Fig. 1.

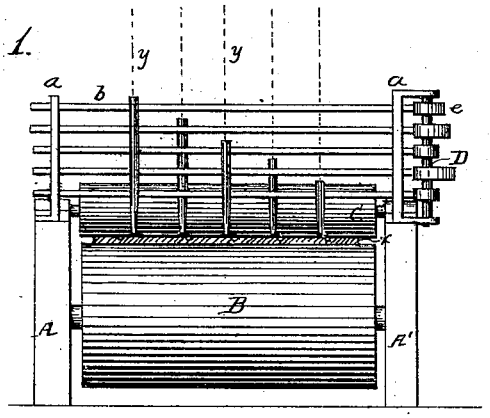


Fig 2.

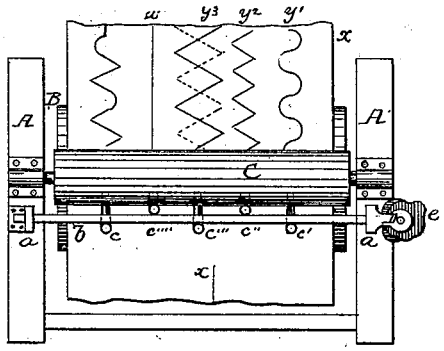


Fig. 4.

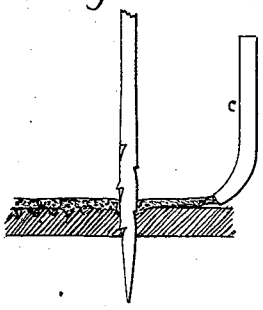
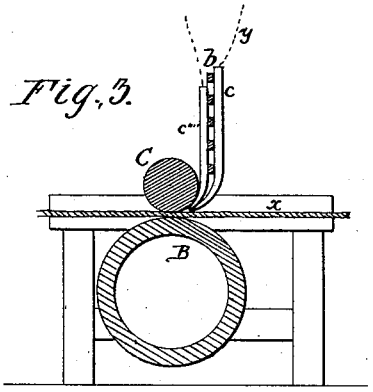


Fig. 3.



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UNITED STATES PATENT OFFICE.

PARLEY A. DAILEY, OF NEW YORK, N. Y.

IMPROVEMENT IN MANUFACTURE OF ORNAMENTAL FELT FABRICS.

Specification forming part of Letters Patent No. **199,270**, dated January 15, 1878; application filed June 28, 1877.

To all whom it may concern:

Be it known that I, PARLEY A. DAILEY, of the city, county, and State of New York, have invented Improvements in the Manufacture of Ornamental Felt Fabrics, of which the following is a specification:

My invention relates to the manufacture of that class of fabrics in which the ornamentation is produced by means of pattern-yarns laid upon the surface of a fabric in proper position to form the pattern, and are then felted or otherwise secured thereto; and my invention consists of an improved fabric and mode of producing the same, and of mechanism used therefor, as illustrated in the accompanying drawings, in which—

Figure 1 is an end elevation. Fig. 2 is a plan view of mechanism for carrying my invention into effect; Fig. 3, a sectional elevation; and Fig. 4 a view illustrating a manner of securing the threads.

A A′ are the side frames of the machine, supporting bearings in which turn the journals of the cylinder B and roller C, and between the latter passes the felt fabric *x*, to which the pattern-threads are to be applied.

In standards *a*, supported by or forming part of the frame, slide bars *b*, to each of which is attached a thread tube or guide, *c*.

On a vertical shaft, D, are secured a series of small pattern-wheels, *e*, arranged opposite the ends of the slides *b*, each of which bears against one of the wheels.

To each of the guides *c* is passed one of the pattern yarns or threads, *y*, which is conducted through the lower end of the guide to the fabric or bat of felt *x*, on the face of which it is laid, so as to pass with the latter beneath the roller C, by which it is pressed into the bat and caused to adhere firmly thereto, the bat and the threads being subsequently incorporated together by felting, or in any other suitable manner, as hereinafter described.

If the thread-guides remain stationary during the forward movement of the bat, the threads will be laid in straight lines *w* on the bat and a striped fabric will be produced. If, however, any lateral movement be imparted to the thread-guides, the position of the threads upon the face of the fabric will be varied, and there will be a corresponding variation in the pattern. Thus, if a slow reciprocating motion be imparted to the guide c^1, the thread y^1 will be laid in a waved position upon the bat. If the guide c^2 is reciprocated regularly, but with a quicker motion than the guide c^1, the threads will be laid in a zigzag course, as shown at y^2. If the guides c^3 c^4 are caused to reciprocate past each other, the threads will be laid as shown at y^3. Thus, by a suitable movement of the thread-guides above the traversing bat or fabric, the threads may be laid in any suitable position, so as to form any desired pattern, the roller C aiding the thread-carriers in properly depositing and retaining the threads.

It will be apparent that the motions described, or any suitable movements, will be imparted to the slides and carriers by means of the pattern-wheels *e*; but it should be understood that this arrangement of slides, guides, and pattern-wheels may be changed, and merely illustrates the principle of my invention, which consists in the use of a movable guide or guides, in combination with a traversing bat or fabric, for laying the threads in any desired position upon the latter. For instance, a pattern-chain or jacquard may be substituted for the pattern-wheels; or vibrating carriers, or perforated bars, sliding near the face of the bat, may be employed. In any event, the threads will be properly laid upon the face of the bat or fabric, in accordance with a predetermined pattern.

Where a woven fabric is substituted for the bat, the threads are laid in the desired lines, as before, to form the pattern, and are secured by punching them into the fabric by means of a needle, as shown in Fig. 4, in the same manner as two sheets are secured in the process described in Milton D. Whipple's patent, February 15, 1876, thereby producing an improved fabric ornamented by threads lying on and secured to the surface by portions forced from the threads into the body of the fabric. As the mode of operating such needles is fully set forth in said Whipple's patent, and constitutes no part of my invention, it is not necessary to set it forth more fully.

Without limiting myself to the mechanism shown, I claim—

1. The mode herein described of producing ornamental fabrics—that is, passing a fabric

or a bat of felt beneath a series of thread-carriers, by which threads are laid separately and loosely upon the surface of the bat in proper position to form the pattern, and then securing the two together, as set forth.

2. The combination, with the series of thread-carriers, arranged above a transverse sheet, to lay threads loosely thereon, of a pattern-wheel or chain, or the equivalent thereof, for controlling the lateral positions of the carriers, substantially as set forth.

3. The combination of the thread-carriers, regulating mechanism, and roller C, as specified.

4. The improved fabric, ornamented by threads, lying separately throughout their length on the surface, constituting the pattern, and secured by incorporation with the body of the fabric, as set forth.

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

P. A. DAILEY.

Witnesses:
SAML. B. BROWN,
GEORGE B. WATERMAN.