

J. E. POLLARD.
Felted Fabrics.

No. 147,165.

Patented Feb. 3, 1874.

Fig 1.

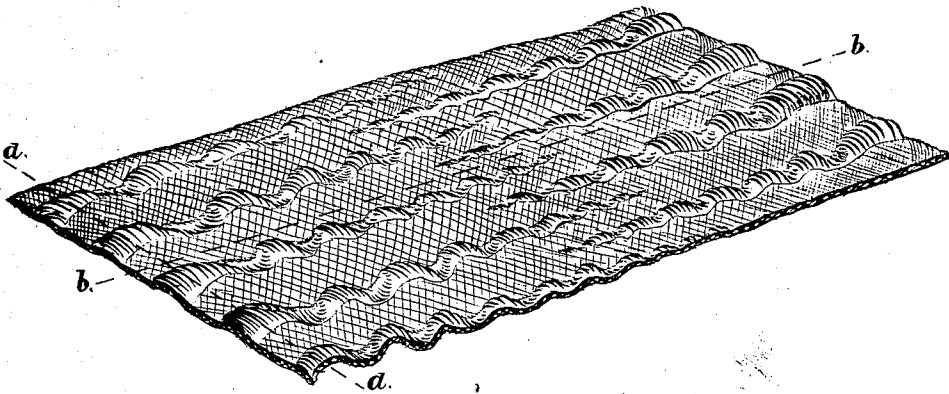


Fig 2.

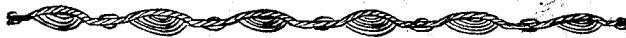


Fig 3.



Witnesses

Alfred Rodman

Edward F. Wilder

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James E. Pollard

UNITED STATES PATENT OFFICE.

JAMES E. POLLARD, OF NORFOLK, MASSACHUSETTS.

IMPROVEMENT IN FELTED FABRICS.

Specification forming part of Letters Patent No. **147,165**, dated February 3, 1874; application filed September 23, 1873.

To all whom it may concern:

Be it known that I, JAMES E. POLLARD, of Norfolk, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Felted Fabrics; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings which form part of this specification, in which—

Figure 1 is a perspective view; Fig. 2, a section through line *a a*; and Fig. 3, a section through line *b b* of Fig. 1.

This invention consists of felt cloth made to imitate a quilted fabric, and is especially applicable as material for felt skirts. This fabric is produced by taking felt cloth, as made by any suitable process, and passing it between heated calender rolls, one of which, at least, is grooved, or engraved by any suitable design, and the feeding-rolls which feed the cloth to the heated rolls are made to vibrate, so as to give a jerking motion to the cloth as it passes to the heated rolls. The effect of this operation is to loosen the fibers at that part where it is not firmly grasped by the hot rolls, and to give a puff or swell in the cloth, so that it resembles a quilted fabric. The apparent color is also changed at these parts, so as to give a resemblance to a fabric of a different shade. The parts which are firmly grasped by the prominent parts of the rolls have a smooth polish, while those portions which pass under

the depressions in the heated rolls have a dull luster, and, with the jerking of the vibrating feeding-roll, give a disturbed condition to the fibers, and produce a resemblance to quilting.

The apparatus suitable for forming this kind of cloth I have described in another application of even date with this, and therefore need not be more particularly described, as in this application I claim only the improved fabric which is produced by the working of said machine.

In the drawing, the raised portions show those parts which pass over the depressions in the heated rolls, and the vibrating of the feed-roll gives the waved appearance to these portions.

Instead of simple grooves in the heated roll, I may make checks, screw-formed grooves, or any other device, so as to give great variety to the surface of the fabric. The corrugations and raised portions also give stiffness to the fabric in much the same manner that quilting would.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

The improved felt fabric herein described, having a portion of its surface smooth, by means of hot rolls, and a portion raised and shirred or buckled, so as to give an imitation quilted fabric, as described.

JAMES E. POLLARD.

Witnesses:

ALFRED RODMAN,
EDWARD F. WILDER.