

UNITED STATES PATENT OFFICE.

CHAUNCEY L. MITCHELL, OF WESTBOROUGH, ASSIGNOR OF ONE-HALF HIS
RIGHT TO WILLIAM HECKLE, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN FLOCKED FABRICS FOR HATS, BONNETS, &c.

Specification forming part of Letters Patent No. 120,084, dated October 17, 1871.

To all whom it may concern:

Be it known that I, CHAUNCEY L. MITCHELL, of Westborough, in the county of Worcester, in the Commonwealth of Massachusetts, have invented certain Improvements in the Manufacture of Flock-Fabrics, of which the following is a specification:

As flock-fabrics are now made, for the most part, India-rubber cement is spread upon common cloth. Upon the rubber the flock is distributed, and the whole is then suitably finished. The office of the rubber in the process is to hold the flock, and to make the fabric impervious to water; and of the cloth to serve as a foundation for the rubber. These fabrics are susceptible of a smooth and handsome finish, with a surface not unlike vellum or fine felt, and are adapted to many useful purposes; but as they are incapable of receiving and retaining the shapes desired to be given to articles formed upon blocks or with dies, by reason of their limber or yielding nature, they have not been, to any great extent, used in the manufacture of hats or other like articles, while many of their qualities are particularly suited to such use; and the object of my invention is to make such fabrics more to such use. The nature of my invention consists in improvements in the manufacture of these flock-fabrics, by which I make them capable of receiving and permanently retaining the shapes given to articles made therefrom by hatters' blocks, or any forms used in the hatters' or other kindred trades.

Instead of the cloth now used in the manufacture of flock-fabric, and upon which the rubber or other cement is spread, I spread the cement directly upon a foundation stiffened by size, or other suitable stiffening-matter, such as buckram "foundation muslin," so called, or paper-pulp laid upon the muslin; or upon a foundation of felt or other material, made susceptible,

by such stiffening-matter, of receiving without fracture and retaining shapes given to it by blocks or dies. This improved fabric may be made to assume any of the shapes desirable in hats or other head-coverings, or other like articles, by softening the underlying foundation until it becomes plastic, and then pressing it over blocks or forms, or in dies or molds, until it is again stiff and dry. The usual and best way is to employ heat with pressure. When the fabric is made with rubber or other water-proof cement it will be obvious that the foundation may be softened with water or steam without injury to the fabric; and I employ them for that purpose when the stiffening-size is soluble in water. I have found that a hat, cap, or bonnet of this fabric can be thus pressed into any of the ordinary shapes of such articles without difficulty, and will retain the shape so given to it. The same is true when the stiffening-matter in the foundation of the fabric is insoluble in water, but is susceptible of being made pliable by heat, and of becoming again stiff when cold. As a new article of manufacture this improved flock-fabric, made as above described, has qualities not before possessed by any manufacture, and differs essentially from the flock-fabrics made prior to my said improvement.

I claim as my invention—

As an article of manufacture, a flock-fabric made by fixing the flock with India-rubber cement directly upon buckram or other material, in the piece, made susceptible, by its stiffening-material, of being molded into form upon dies without fracture, substantially as and for the purposes described.

CHAUNCEY L. MITCHELL.

Witnesses:

WM. ASPINWALL,
WM. STANDISH.

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