

UNITED STATES PATENT OFFICE.

JAMES WANSBROUGH, OF SOUTHWARK, ENGLAND.

IMPROVEMENT IN MANUFACTURE OF HYDROFUGE FABRICS.

Specification forming part of Letters Patent No. 22,596, dated January 11, 1859.

To all whom it may concern:

Be it known that I, JAMES WANSBROUGH, of the Grove, Guildford street, Southwark, in the county of Surrey, in that part of the United Kingdom of Great Britain and Ireland called England, waterproofer, have invented new and useful Improvements in the Manufacture of Water-Repellant Fabrics with Artificial Faces, for which I desire to obtain Letters Patent of the United States, of which the following is a specification.

My invention consists in giving to water-repellant fabrics an artificial face or finish different from that of the fabric itself, so as to resemble woolen cloth or such other materials as are capable of being worked into flock or other fine division; and a peculiar feature of my said invention is the saturating of the cloth with a solution of india-rubber or other gum, either separately or in combination, after the flock or other finely-divided substance has been placed thereon, and then subjecting the fabric, if desired, to a steaming process, in the manner hereinafter described.

In order to explain my said invention, I now proceed to describe the best means I am acquainted with for carrying the same into practical effect, together with the manner in which the process is to be and may be performed according to it.

The fabric which I employ to form the basis of the water-repellant material may, if necessary, be of any woven or textile material inferior to that which the face of the material, when finished, is to resemble. The fabric is then placed over rollers and strained as tight as possible in any convenient manner, so as to obtain as near as may be a level surface; and having done this I proceed to cover the surface thereof with a solution of india-rubber in the manner usually practiced for rendering fabrics water-repellant, and I continue to cover it with the solution until it is made water-repellant, taking care to let each coating of the solution dry before the next is put on, excepting the last coating; or instead the base cloth or fabric may be coated between calenders in the usual manner, and in either case, while the solution is in a plastic or adhesive state, I shake over it either cotton, woolen, or silk

flock or other substance in a finely-divided state, and of the color which it is desired to have the fabric. The fabric is then passed between pressure-rolls in order to set the flock, &c., more firmly, after which I spread a coating of thin solution of india-rubber or other gum over the fabric, and again pass the fabric between pressure-rolls, in order the more perfectly to fasten the flock, &c., to the surface of the fabric. I then, if the fabric is required to have a nap, subject the fabric to a steaming process by passing it over perforated steam pipes or cylinders, or by exposing it in a chamber into which steam is admitted, the object and effect of which is to raise the flock to give the appearance of a napped woolen surface. These goods may then, if desired, be vulcanized or cured in the usual manner, either in dry or steam heat. If an embossed surface is desired, this is obtained in the same manner as in other fabrics by the use of embossed cylinders.

Having now described the nature of my said invention, and in what manner the same is to be and may be performed, I would remark in conclusion that I do not claim the exclusive use of any of the materials, matters, or substances above mentioned and referred to; neither do I claim the coating or covering of a woven fabric with a flock material, as the same has already been done for many years, though without the desired result in point of durability and utility; but

What I claim, and desire to secure by Letters Patent, is—

1. Securing the flocks or other finely-divided substance, after it has been sifted or spread onto the surface and calendered, by applying to the surface thereof a solution of india-rubber or allied gum, substantially as described.

2. In combination with the method of securing the flocks, substantially as described, the subjecting of the same to a steaming process, substantially as and for the purpose specified.

JAMES WANSBROUGH.

Witnesses:

JOHN TALBOT PITMAN,
WILLIAM LAKE.