

# UNITED STATES PATENT OFFICE.

FRANCIS BRIGHAM, WILBUR F. BRIGHAM, AND S. MYRON HEWITT, OF HUDSON, AND WILLIAM F. PRUSHA, OF MARLBOROUGH, MASS.

## IMPROVEMENT IN WATER-PROOF CLOTH.

Specification forming part of Letters Patent No. **209,450**, dated October 29, 1878; application filed October 23, 1878.

*To all whom it may concern:*

Be it known that we, FRANCIS BRIGHAM, WILBUR F. BRIGHAM, and S. MYRON HEWITT, of Hudson, in the county of Middlesex and State of Massachusetts, and WILLIAM F. PRUSHA, of Marlborough, in the county of Middlesex and State of Massachusetts, have invented a certain new and useful Water-Proof Cloth; and we do hereby declare the following to be a full and exact description of the same, which will enable others skilled in the art to which our invention appertains to make and use the same.

The object of this invention is to produce a light, thin, fine, and exceedingly flexible article of woven goods, which shall be water-proof, and shall have in texture and design the appearance of watered silks and other very thin figured woven cloth goods; to which end our invention consists in the thin, delicate, water-proof cloth embossed or marked with figures in imitation of silks and other light thin woven goods, substantially as we will now proceed to describe.

As the foundation of our invention, we take the thin water-proof "gossamer" goods which are composed of a very fine delicate woven texture, covered on one side with a thin coating of rubber composition, or its equivalent. These goods are manufactured by us under certain patents in which we own interests, and are already known in the market by the name of "water-proof gossamer goods," and other appropriate names, and therefore need no further description herein.

Heretofore all such goods have been made without figures or ornamentation except the plain surface of water-coating material on one side and the plain texture of the cloth on the other side.

In carrying out our invention we employ one or more pairs of rolls, one roll of each pair

being of metal, and having the desired figure or design upon its surface in relief, and the other roll of a firm inelastic material, such as paper, and having the corresponding design *in intaglio*. We run the said goods through between such rolls, adjusting the rolls in such manner and with such pressure that they will produce the required figure or figures on both sides of the cloth, the mark or figure being made strong and clear on the water-proof side, and somewhat lighter and more indistinct on the reverse side, thus giving the mark the appearance of having been woven into the fabric itself.

The object in using an inelastic bed-roll with the design in its surface, instead of an elastic bed-roll, is that the fabric is indented on the cloth side as well as on the water-proof side, though in a less degree, and the embossings on the water-proof side are thereby strengthened and rendered more permanent.

This mode of procedure produces an especially beautiful imitation of watered silk, the grain of the cloth being clearly brought out, and the water-marks showing properly on both sides.

Having thus described our invention, we claim—

The gossamer water-proof cloth herein described, having marks in imitation of silks and other thin cloths stamped or rolled upon the goods so as to leave a strong impression on the water-proof side and a weaker one on the reverse side, substantially as described.

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Witnesses:

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