

UNITED STATES PATENT OFFICE.

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FELT FABRIC TO IMITATE SEAL-SKIN.

SPECIFICATION forming part of Letters Patent No. 242,084, dated May 24, 1881.

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To all whom it may concern:

Be it known that we, JOHN T. WARING, of the city of Boston, in the county of Suffolk and State of Massachusetts, and ALFRED C. BRUSH, of the city, county, and State of New York, have invented a certain new and useful Improvement in Felt Fabrics to Imitate Seal-Skins, of which the following is a specification.

This invention consists in cloth having a body composed of fur alone, or a mixture of fur with wool or other fibrous material felted, and having a nap raised from the same body and homogeneous therewith. This cloth when made of a very fine quality of fur, such as that of the Russian hare, and suitably dyed, very closely resembles fur-seal skin in its appearance. Such cloth may also be made to imitate other fur-skins. The body of this cloth may be formed in various ways—as, for instance, by first causing the deposit of fur fiber, or fiber composed of fur mixed with wool or other material, in a layer of uniform thickness upon a flat stationary table, the face of which is made of wire-gauze or other open-meshed cloth or reticulated or perforated material, through which air is drawn downward by an exhaust-fan or other air-exhausting apparatus. The body thus formed is then moistened with water, and subjected to the “hardening” and “sizing” operation commonly practiced in the process of felting hat-bodies or felt cloths, by which the fibers become felted together; but at suitable intervals during the felting process or between successive stages thereof, and while the body is wet or moist, one face of it is subjected to the action of wire cards, teasels, and brushes, for the purpose of raising the surface fibers in the form of a nap, in the same manner as nap is raised on woven cloths. These teaseling and brushing operations may be repeated as often as desirable during the process of felting, and also after the completion of felting. Between these teaseling or brushing operations the nap may be subjected to one or more shearing operations, to reduce it to as nearly as desirable uniform length.

Instead of obtaining the body of fur or of a

mixture of fur and wool or other fiber upon a table, as above described, it may be obtained upon the periphery of a large hollow rotating perforated or reticulated cylinder, which may be arranged either vertically or horizontally, and through the perforated or reticulated periphery of which air is drawn by an exhaust-fan, as it is through the cones upon which fur hat-bodies are formed. The cylindrical body of fur thus obtained may be hardened and sized or felted in the same way commonly practiced in the felting of hat-bodies, the body so formed being afterward made into a sheet by cutting it longitudinally on one side, either after hardening and before sizing or after the completion of felting, and being subjected to the teaseling and brushing or napping operations hereinabove described with reference to the body formed upon a flat perforated or reticulated table.

Another way of forming the body is to obtain the deposit of a layer of fur or fur and other fiber upon a traveling cloth or apron composed of wire-gauze or other suitable open reticulated or perforated fabric, and having arranged below it or in suitable relation to it an exhaust-fan or other suitable exhaust apparatus, by which air is drawn through it. This cloth or apron may have arranged in suitable relation with it a vat or vessel containing water, into which the said cloth or apron, with the layer of fiber upon it, may pass, for the purpose of subjecting the layer of fiber to the preparatory moistening operation necessary for hardening the body to form the cloth. The layer of fiber thus obtained is to be felted and napped as hereinbefore described.

Instead of the layer or web, obtained as above described, being passed into water and hardened, as above mentioned, it may be deposited upon a table, and while moistened by steam be hardened under a “jigger.”

To manufacture cloth in imitation of fine fur-seal skin the finest quality of fur fiber should be used; but imitations of coarser kinds of fur-skins may be made of coarser kinds of fur fiber, or by mixtures of fur fiber with wool or other fiber.

This fur-felt cloth, having a nap raised from the fur body of the cloth itself, and homogeneous therewith, is believed to be a new article of manufacture.

5 What we claim as our invention is—

A cloth having a body composed of fur alone or fur and other fiber incorporated by felting, and having a nap raised from the felted body

itself and homogeneous therewith, substantially as herein described.

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Witnesses:

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