March 8, 1927. 1,620,340

S. FREUDENBERG

PILE TEXTILE FABRIC

Filed Oct. 22, 1925

Fig. 1

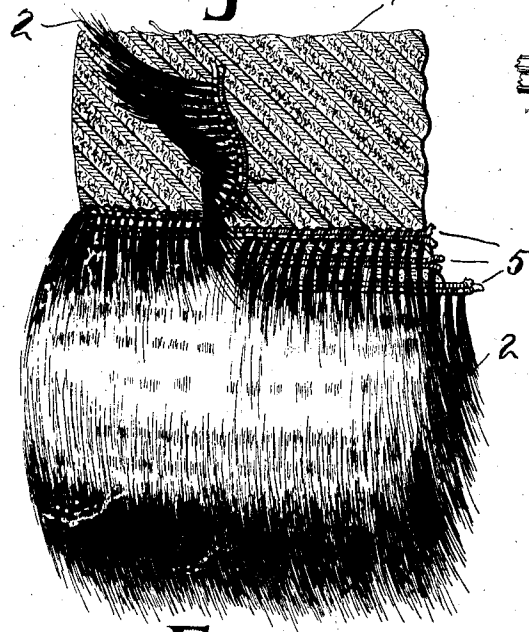


Fig. 5

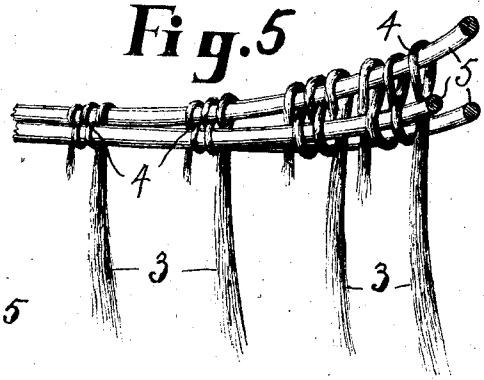


Fig. 4

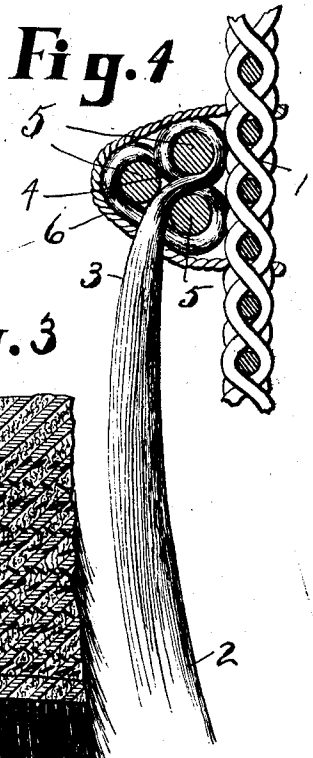


Fig. 2

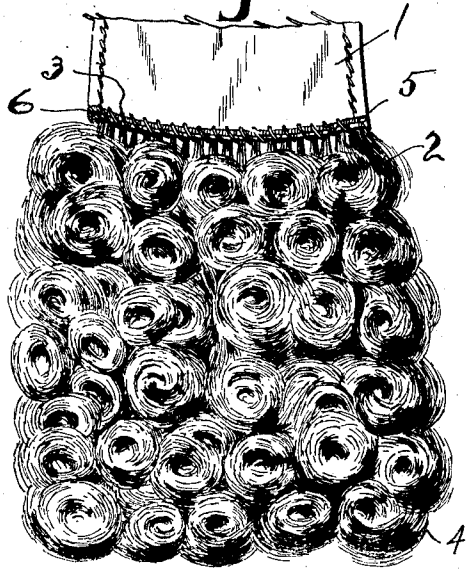
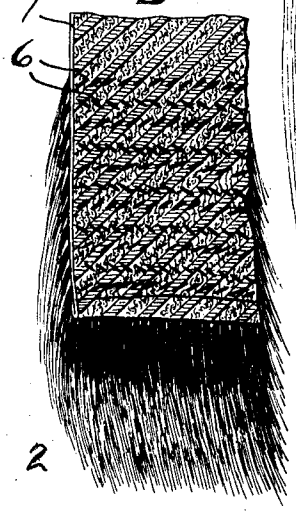


Fig. 3



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UNITED STATES PATENT OFFICE.

SARAH FREUDENBERG, OF BROOKLYN, NEW YORK.

PILE TEXTILE FABRIC.

Application filed October 22, 1925. Serial No. 64,176.

This invention relates to improvements in the textile art, and is of particular utility in the production of textile fabrics having a pile formed of human hair, although I contemplate the use of my improvements in any field for which they are adapted by their nature.

An important object of the invention is to provide for the formation of a fabric in which human hair is incorporated in such a manner as to yield the effect of the most expensive fur-bearing skins, and is equally capable of embodiment in the formation of garments, or any trimmings therefor, and in the production of various ornaments, but is free from certain objections to the use of such furs.

For example, my novel fabric is free from odors characteristic of animal skins, and is more sanitary for that reason and for the additional reason that it does not interefere with a desirable ventilation through the meshes of the fabric, as do the skins of animals. It is also free from the weakness of structure which is inherent in furs by reason of the weakening of the attachment which the hair of animals suffers under the action of chemicals and mechanical strains accompanying the preparation of the skins, so that the garment, or trimming formed of my novel fabric is much more durable than any fur.

It is more flexible, and it can be washed and cleansed in a manner that would soon destroy fur, especially furs of a character possessing the fineness which is an important characteristic of my novel hair fabric, the latter possessing a lustre which cannot be secured in any known fur.

Another object of the invention is to provide a hair fabric which will present a pile arranged in layers to afford a smooth surface, or can be curled to give the beautiful effects characteristic of expensive furs, and which will be free from any tendency to mat, tangle, or kink.

A further object of the invention is to produce a fabric at low expense, as compared with fur, by utilizing hair which would otherwise be considered as waste.

These and other features of the invention will be made to appear in the accompanying drawings and specification, and will be pointed out in the claims.

In the drawings,

Fig. 1 is a view of a fabric in the formation of which my novel process has been carried into effect, the same being shown in perspective, the pile components being shown as straight.

Fig. 2 is a similar view of a curled pile fabric similarly formed.

Fig. 3 shows part of the rearward surface of the fabric, in perspective, illustrating the attaching means.

Fig. 4 is a view in section, on an enlarged scale, showing the mode of incorporating the hair in such a strand.

Fig. 5 is a detail of a strand being formed.

In the illustrated embodiment, referring to Fig. 1, the reference character 1 designates the foundation of the fabric, which may conveniently be constituted of a textile fabric of any suitable character, such as cloth of cotton, wool, silk or other suitable material, and the reference character 2 designates the pile, formed of hair, preferably of human beings, although any form of animal hair, silk or the like may be utilized.

The pile may be secured in place in any suitable fashion, but I prefer to form the same as a strand, substantially in the manner shown in Figs. 5 and 4, and this may be accomplished conveniently by inter-twining or weaving the individual hairs or elements of the pile as shown at 4 in Fig. 4, using for the strand several substantially parallel threads 5.

The strand so formed may then be secured to the foundation 1 as by the stitches indicated at 6, and in the illustrated embodiment the strand is thus stitched across the fabric, forward and backward, until a fabric of the desired area and shape is produced, using as many strands as may be necessary for that purpose.

The hair may be straight, or may be curled at any suitable stage in the process, and the completed fabric exhibits the effect characteristic of an expensive natural fur, as shown in Figs. 1 and 2, either curled or straight.

To avoid the tendency, which hair possesses, to kink, mat, or tangle, when the hair

is woven in such a manner that both the points of the hair and the root ends thereof extend freely from the foundation, I prefer to apply the elements of hair in such a way that the free ends are all constituted by the points of the hair, or if the hair is cut into relatively short lengths, it is desirable to attach these elements in such a way that the severed ends furthest from the points are inter-twined with the strand or the foundation, so that the points, or ends nearest the points, are free. When thus formed, the resulting fabric is free from the undesirable tendency to kink, tangle or become matted, and retains its original soft and elastic structure and feel.

The hair elements may be formed of what is ordinarily considered as waste hair, in relatively short lengths, and thus the expense thereof is reduced to a minimum, although I do not limit myself to elements of any specific length, nor to the use of waste, and in general I do not limit myself otherwise than as set forth in the claims, read in connection with this specification.

I claim:—

1. In the process of making a hair fabric, the steps which comprise securing individual hairs to an extended strand by twining the ends of the respective hairs remote from their points around the component threads of said strand, leaving the points free, and then incorporating said strand with a backing of fabricated material with said hairs extended therefrom in closely associated relation to constitute a pile fabric.

2. A fabric comprising a backing of fabricated material and a pile formed of strand elements secured thereto and including a multiplicity of individual hairs, each having the end remote from its point intertwined with a strand element and the point end free, whereby said fabric constitutes a fur having a natural hair pile and a fabricated backing free from animal skin.

3. A strand element for fabricating fur composed of natural hair, said strand element comprising a multiplicity of individual hairs each having the end remote from the point intertwined with the component threads of the strand and the other point end free.

Signed at Brooklyn, in the county of Kings and State of New York, this 9th day of October, 1925.

SARAH FREUDENBERG.