March 19, 1963 R. A. SALICK 3,081,614

PROCESSING OF STRIPS OF FUR OR PILE FABRICS

Filed April 4, 1960

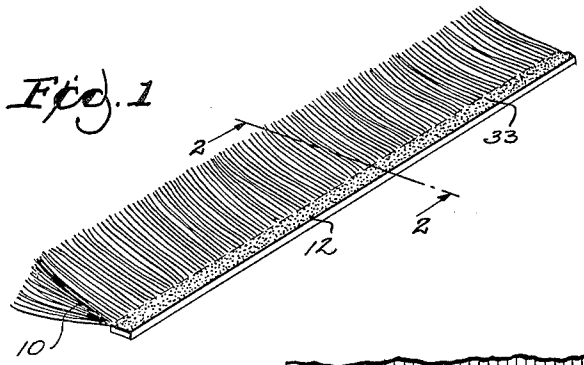


Fig. 1

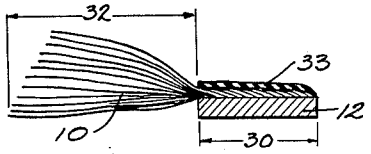


Fig. 2

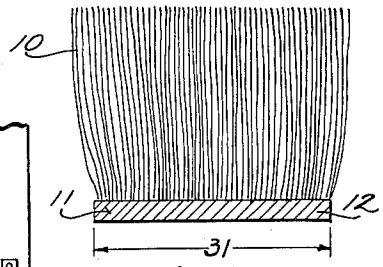


Fig. 3

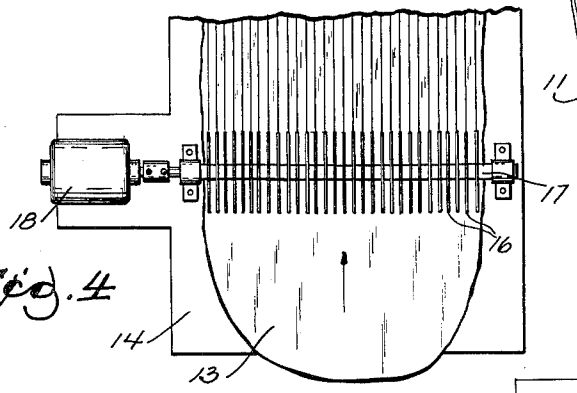


Fig. 4

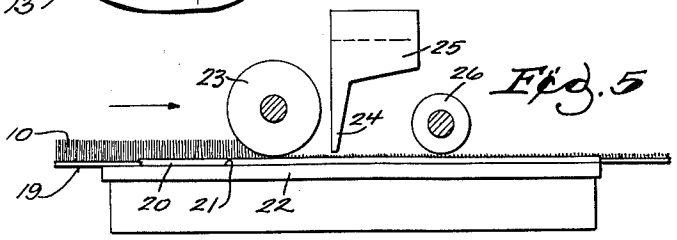


Fig. 5

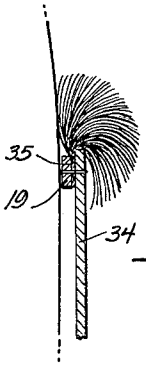


Fig. 6

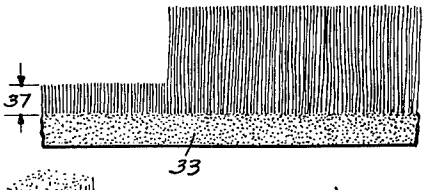


Fig. 7

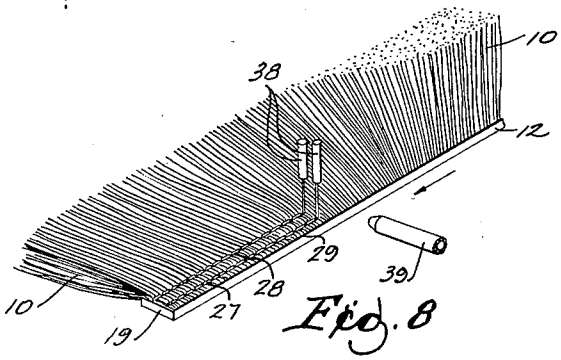


Fig. 8

INVENTOR.
RALPH A. SALICK
BY Emory J. Wutschel
ATTORNEY

United States Patent Office 3,081,614
Patented Mar. 19, 1963

3,081,614

PROCESSING OF STRIPS OF FUR OR PILE FABRICS

Ralph A. Salick, Merton, Wis.
(Rte. 1, Box 264, Hartland, Wis.)

Filed Apr. 4, 1960, Ser. No. 19,723
4 Claims. (Cl. 69—22)

This invention relates generally to furs or piled fabrics and a process for manufacturing treated strips of the same.

A general object of the invention is to provide a new article of manufacture, namely, narrow strips of fur or pile fabric in which the fur hair or pile is permanently laid in a plane parallel to the surface of the hide or base material.

Another object of the invention is to provide a new article of manufacture in the form of narrow fur or fabric strips especially suitable for decorative effects on clothing and the like.

Another object of the invention is to utilize narrow strips of fur or pile fabric in which the fur or pile is realigned and secured in a plane coinciding with the plane of the skin or base surface supporting the same.

According to this invention, an improved article of manufacture is created which is capable of numerous diversified applications. The invention is comprised of the use of narrow strips of fur or pile fabric having hair or pile, upsetting such hair or pile from an upright position substantially perpendicular relative to the skin or fabric base to a uniformly aligned position coinciding with the plane or the skin or fabric base surface. By so doing, all of the hair or pile in the width of a given strip is upset and secured to lie against the face of the skin or fabric in a manner to extend from one of the side edges of the skin or fabric. This will permit the strips to be utilized for trim on clothing, boots, shoes, headwear, and the like, whereupon it is desirable to sew or cement the skin or fabric trim strip. The fur hair or pile on the manufactured strip will of necessity have a greater degree of concentration or density than that found on the untreated strip of fur or fabric. Securement of the fur hair or pile is effected through the application of a mastic, such as latex and the like, or by sewing or other means.

The foregoing and other objects of the invention, which will become more fully apparent from the following detailed description, may be achieved by the apparatus herein described in connection with the accompanying drawings, in which:

FIGURE 1 is an enlarged view of a strip of fur skin treated in a manner to upset the hair to a position extending uniformly beyond the side edge of the strip;

FIGURE 2 is a sectional and enlarged view of the skin strip taken substantially on the line 2—2 in FIGURE 1;

FIGURE 3 is a view of the same fur skin strip shown in FIGURE 1 but wherein the individual hair extend upwardly in a plane perpendicular to the surface of the skin as occurs in animal fur in its natural state or in a manufactured pile fabric.

FIGURE 4 is a view of a cutting device designed to cut fur skins into strips of predetermined width;

FIGURE 5 is a view of another device required to accomplish the manufacturing process including means to upset the hair or pile, applying pressure to insure increased density, and thereafter immediately coating the surface of the skin with a mastic coating and thereby locking said hair or pile in the desired upset position.

FIGURE 6 depicts the manner in which the manufactured strip may be secured to cloth material as a decorative edging on articles of clothing, gloves, footwear, and the like;

FIGURE 7 exemplifies the manner in which the extending fur hair or pile may be uniformly trimmed to provide a manufactured strip in which the hair or pile is of identical length, and an untrimmed portion showing the length of the hair or pile as normally resulting; and

FIGURE 8 depicts a second method for processing fur strips, namely, the application of an air stream followed by double sewing to effect uniform layment of the hair or pile.

The use of strips of genuine shearling skin, fur or fabric having attached hair or pile for edging on clothing, boots, weatherstripping and many other purposes has increased considerably. In order to further increase the use of such strips, a new and novel method of preparing continuous lengths of such strips whereby all hairs are uniformly upset to lie in a plane substantially parallel to the face of the skin or fabric backing material will hereinafter be fully disclosed and described.

As shown in FIGURE 3, the hair 10 on shearling strips 11 embedded in a backing skin or hide 12 extend laterally from the surface of the skin; this is the normal condition in natural fur skins or in pile fabric materials. While such strips have been used extensively for decorative edging on articles of clothing and the like, the problem of neatly securing the strip to the edge of fabrics has generally presented a problem since the hair at the seamed edge tend to pack or mat during sewing. This undesirable occurrence is eliminated when strips are manufactured in accordance with the teachings disclosed herein.

The proposed method permits the use of comparatively narrow strips of skin in the range of one-eighth inch or over. Consequently, many feet of shearling strips can be obtained from a single animal skin. As shown in FIG. 4, an entire animal skin 13 is laid on a table 14 and fed under a plurality of rotary knives 16 uniformly spaced on an arbor 17, which, in turn, is driven by an electric motor 18. When the skin is fed into the rotating cutters or knives 16, a plurality of strips of uniform width are obtained. Such strips are then secured endwise in a well known manner to provide a continuous strip which can be readily utilized in further practicing my novel method of processing strips. The method disclosed herein is equally applicable to either natural fur or pile fabrics.

As shown in FIG. 5, a continuous strip 19 is longitudinally fed along a guide track 20 secured to the surface 21 of a table 22. The strip 19 is disposed in a manner that the fur hair or pile 10 project upwardly in their natural arrayment while the back face of the skin or fabric rests on the table surface. As the strip 19 is fed along the guide track, the hairs are engaged by an upsetting roller 23 which operates to uniformly upset each of the hairs in the strip from the normally upright position, sidewise and downwardly until uniformly disposed in a plane coinciding substantially with that of the backing. The upsetting of the hair or pile 10 could also be effected by other means such as the use of air nozzles (not shown) disposed to direct a stream of air downwardly and tangentially to the edge of the strip. Directly behind the roller 23, a distributing nozzle 24 attached to a tank 25 serves to deposit a narrow strip of liquid mastic or adhesive, such as latex, in a continuous uniform ribbon over the upset hairs or pile. A spreader roller 26 rotatably disposed directly behind the mastic distributor 24 serves to spread the mastic in a thin uniform layer over the face of the continuous strip 19. Thus, each hair on the backing is laid and secured in a manner that all hair extend uniformly beyond one of the side edges of the strip 19, as shown in FIG. 2.

The animal hair or pile could also be secured by means of high speed sewing; this method is generally depicted in FIG. 8. Immediately preceding a sewing ma-

chine needle head 38, an air nozzle 39 is positioned to direct a continuous air stream angularly against the hair or pile 10 and thereby unidirectionally upset the hair or pile to a plane substantially corresponding to the face of the strip 19. Sewing directly behind the air stream serves to secure the hair or pile in position. Dependent on the length of the hair or pile 10 and the width of the strip 19, one or more rows of stitching may be required for this purpose. As depicted in FIG. 8, two rows of stitching 27 and 28 are used; one row of sewing or stitching is generally disposed immediately adjacent the strip edge 29. Stitching insures compactness of the hair and operates to secure the hair or pile in a dense uniform manner throughout the entire length of the strip.

A careful study of the processed or reconstituted shearling strip 19 shown in FIG. 2 will disclose that even though the width of the backing 12, as indicated by the arrow 30, is half the width of the strip shown in FIG. 3, as indicated by the arrow 31, the effective decorative fur or pile face of the two strips exemplified is identical. The reason is that the processed strip utilizes the full length of the hair 10 to present a face of a width indicated by arrow 32. The effective decorative face of such a strip is naturally dependent on the length of the hair of the particular animal fur or the length of the pile of a particular fabric. Since the width of a strip manufactured according to the teachings of my invention need not be wider than absolutely necessary to provide ample room for stitching, cementing, or securement to an adjoining material, a considerably greater number of strips can be cut from a given size animal skin or material. Such strips may also be manufactured from scrap cuttings or pieces normally remaining from certain fur or fabric manufacturing processes.

The enlarged showing enables one to discern that all of the hair 10 have been upset to a position whereby they extend over the lefthand side edge of the strip backing 12, as viewed in FIG. 2. The thin uniform layer of latex used on the surface of the backing to secure the hair or pile is indicated by the numeral 33. Each hair is permanently secured in a manner to prevent return to its original upright position.

The aforedescribed methods of processing or reconstituting the hairs on a shearling strip permits the manufacture of a continuous strip 19 at the high rate of speed and with the assurance of absolute uniformity throughout an entire production run. A length of such a strip is shown in FIG. 1. The upsetting of the hair in this manner also serves to provide a density of hair in the finished strip far greater than that occurring in natural furs or manufactured pile fabrics.

As shown in FIG. 6, the finished strip 19 can be used for decorative edging on clothing in a manner to reduce wadding or excess thickness to an absolute minimum. For example, when the strip 19 is sewed to the edge of a piece of cloth or material 34 such as is used in coats, suits, hats, and other articles of clothing, and the like, very little, if any, wadding will occur at the point of overlap 35. This is particularly important when such decorative strips are utilized in better quality clothing. With all of the hair secured in a uniform position crosswise of the length of the strip an entirely new decorative effect is obtained. Further, this arrangement enables the exposed edge of the backing 12 to be completely and permanently hidden from view even after extended use and wear. It should be noted that the hair on the strip 19, as viewed in FIG. 6, are brought into direct contact with an adjoining surface, such as the human arm or leg, to additionally aid in cutting off the passage of air and thereby insure warmth and comfort.

For certain specialized uses of the processed strip, it may be necessary to trim the hairs or pile 10 to a uniform length. As shown in FIG. 7, the fur hairs may be uniformly cut to a predetermined length as indicated by the arrows associated with the numeral 37. When the hairs are uniformly trimmed, an entirely different decorative motif results, and, consequently, such trimmed strips are likewise readily usable in decorating clothing and the like. In addition, when the hairs are cut very short, the strip is readily adaptable for use as weatherstripping, or the like. The weatherstripping thus obtained can be readily secured or cemented to door or window frames in a manner to engage a movable door or window member and effectively prevent the passage of air therebetween. Since the fur is of animal origin, such weatherstripping is considerably more durable than any artificially processed weatherstrip.

From the foregoing explanation of the method utilized to produce a new and novel article of manufacture, namely, a processed strip, it is apparent there has been provided a means for utilizing extremely narrow pieces of fur hides or pile fabric and processing them in the aforestated manner to create an unusual and distinctive appearing strip readily usable for decorative edging on clothes and the like. In addition, the uniform trimming of hairs on the strip affords a new form of weatherstripping having superior qualities over the types heretofore manufactured. It should be apparent, however, that the strip undoubtedly has many additional new and novel uses, and that the method of manufacture may be varied considerably to produce a substantially identical article of manufacture. Although a particular method and article have been shown and described in considerable detail as exemplary of the manner in which the invention may be practiced, it should be apparent to those skilled in the subject art that various modifications of the invention herein shown and described may be effected without departing from the spirit and scope of the invention as defined in the subjoined claims.

The principles of this invention having been now fully explained in connection with the foregoing description, I hereby claim as my invention:

1. A process for permanently upsetting fur hair or pile which comprises the upsetting of the hair or pile to a position uniformly extending in a direction substantially perpendicular to an edge of the skin, and the utilization of securing means to fixedly retain the hair or pile in such upset position.

2. The method of upsetting pile projecting from a fabric backing which comprises cutting the backing into strips of predetermined width, upsetting the pile to a uniform position parallel to the surface of the backing and perpendicular to an edge of the backing, and the application of securing means to the surface of the backing to fixedly retain the pile in such upset position.

3. As an article of manufacture, a strip of fur skin or pile fabric of substantially uniform width, the fur hair or pile forceably upset to a position whereat the hair or pile are compacted against the surface of the skin or fabric and perpendicular to a side edge thereof, and the application of sewing substantially longitudinal of the strip to secure the hair or pile in such upset position whereby a decorative edging material is created.

4. As an article of manufacture, a fur skin or pile fabric cut into strips of predetermined width, the fur hair (pile) being forceably upset to a position whereat the hair (pile) are densely compacted against the face of the skin (fabric) and perpendicularly disposed to a side edge thereof, a securing means disposed to fix the hair (pile) in the upset position, and hair (pile) trimmed to a uniform length, whereby uniformly dense weatherstrip material is created.

No references cited.