United States Patent

Ambrose

[15] **3,665,880**

[45] **May 30, 1972**

[54] UPHOLSTERY EDGE ROLL

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[73] Assignee: **Northern Fibre Products Company**, Birmingham, Mich.

[22] Filed: **Aug. 14, 1970**

[21] Appl. No.: **63,756**

[52] **U.S. Cl.** **112/417**

[51] **Int. Cl.** **B32b 7/08**

[58] **Field of Search** 112/422, 417; 161/101, 170

[56] **References Cited**

UNITED STATES PATENTS

1,748,094	2/1930	Wolfson et al.	112/417
2,237,580	4/1941	Sackner	112/417
3,059,313	10/1962	Harmon	161/170 X
2,724,431	11/1955	Boersma	112/422
2,810,645	10/1957	Houghton	161/170 X
3,459,631	8/1969	Hamilton et al.	161/170

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[57] **ABSTRACT**

An edge roll formed of an elongated core made of soft paper folded and compressed into a generally cylindrical cross-sectional shape, and a wrapper formed of a narrow ribbon of greater width than the circumference of the core, and made of a thin, non-woven, hairy, synthetic plastic yarn fabric, with the wrapper closely surrounding the core and having its opposite long edge portions bent into face to face contact and extending radially to the core, with a line of stitches arranged parallel to and closely adjacent to the core, securing said edge portions together to form an attaching flange.

1 Claim, 5 Drawing Figures

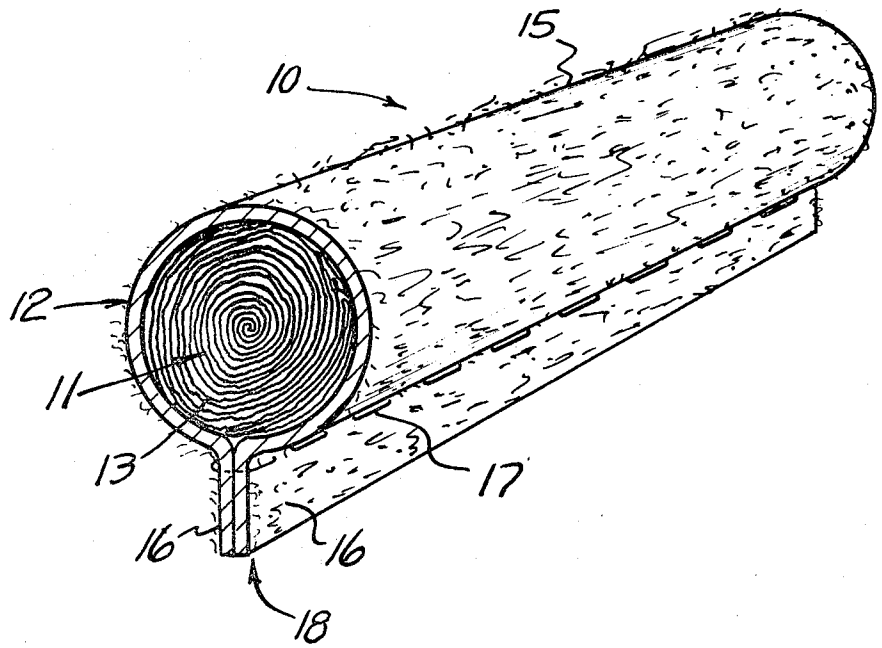


FIG. 1

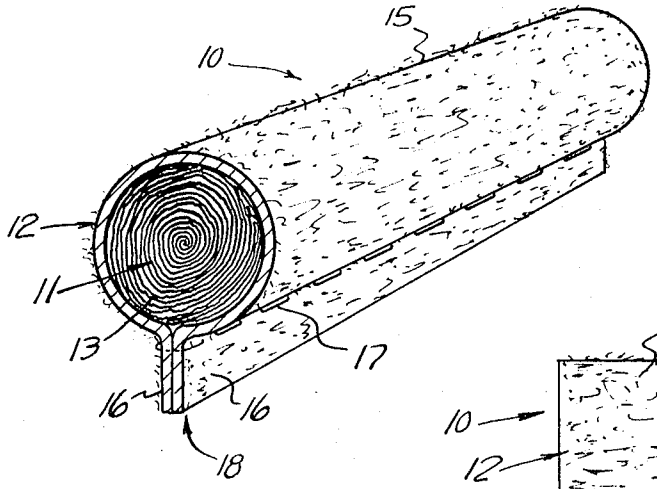
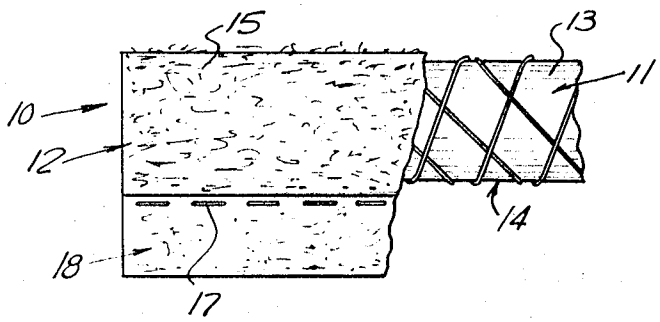


FIG. 2



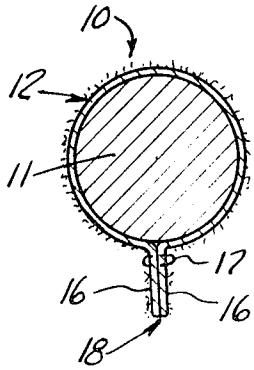


FIG. 3

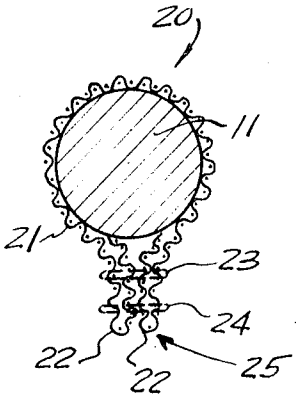


FIG. 4

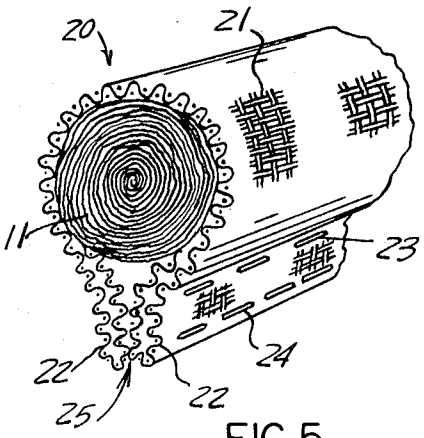


FIG. 5

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UPHOLSTERY EDGE ROLL

BACKGROUND OF INVENTION

The invention herein relates to an improvement in upholstery edge rolls or welt strips of the type shown, for example, in U.S. Pat. No. 2,724,431 granted to Boersma on Nov. 22, 1955. In this type of edge roll, a cylindrically shaped core is formed of folded and compressed soft paper which is then surrounded by a fabric wrapper.

The core may be formed in the manner described in my prior U.S. Pat. No. 3,482,483 granted Dec. 9, 1969.

Conventionally, the core is surrounded by a burlap or jute woven fabric which surrounds the core and by means of stitching provides a radially extending continuous attachment flange. In use, the upholsterer surrounds the roll with upholstery fabric and utilizes the attachment flange for stitching the upholstery fabric to the roll and vice versa.

The conventionally used burlap or jute type of fabric has been adopted primarily because it is inexpensive as well as of sufficient strength to maintain the roll in its correct cross-sectional form. However, this type of fabric has a number of severe disadvantages, such as its bulk, the requirement that its edges be hemmed due to reveling of the edges, it sometimes tends to have an odor and/or contain residual oils or the like which can stain the surrounding upholstery fabrics and it tends to stretch out of shape when applied to the core as well as when the roll is flexed during assembly of an upholstered piece of furniture.

In using an edge roll to make up an upholstered piece, a considerable amount of friction is required between the roll surface and the upholstery cloth in order to properly hold the upholstery cloth in place and prevent wrinkling, etc. Thus, attempts to find better wrapper materials which eliminate some of the above problems, have generally been unsuccessful. Particularly, the substitution of inexpensive plastic cloths which are similar to burlap or jute woven cloths in appearance has not been satisfactory since such cloths have generally been smooth or of low friction, thus not meeting one of the necessary specifications of this type of roll.

Hence, the invention herein relates to an improvement in the roll wrapper which permits the use of inexpensive, synthetic plastic materials which eliminate the foregoing difficulties while at the same time meeting the necessary requirement for the end production.

SUMMARY OF INVENTION

The invention herein relates to improving edge rolls made of soft paper cores by forming the wrapper out of a thin, non-woven, synthetic plastic yarn fabric such as polypropelene, with the fabric being characterized by having its exposed surface being loosely matted to form a hairy-like finish, with the fabric being otherwise stretch resistant and ravel-free so that its free edges may be left unbound and unhemmed resulting in a less bulky attachment flange to which the upholstery fabric may be secured.

These and other objects and advantages of this invention will become apparent upon reading the following description, of which the attached drawings form a part.

DESCRIPTION OF DRAWINGS

FIG. 1 is a perspective view of a short length of the edge roll herein.

FIG. 2 is an elevational view, with the wrapper partly cut away, of a section of the edge roll.

FIG. 3 is an end view of the edge roll, but with the core shown in cross-sectional lines for simplicity of illustration.

FIG. 4 is a view similar to FIG. 3 but showing the conventional or prior art edge roll, and,

FIG. 5 is a perspective view of the prior art type edge roll.

DETAILED DESCRIPTION

Referring to FIGS. 1-3, the improved edge roll **10** comprises a core **11** and a wrapper **12**. The core is preferably formed of soft paper which is folded and compressed into an elongated, generally cylindrical shaped rod **13**. This is surrounded by an open mesh braid **14** and may be of the type described in my above mentioned U.S. Pat. No. 3,482,483.

The wrapper **12** is formed of an elongated ribbon made of a random oriented, non-woven fabric formed of short lengths of synthetic plastic monofilament or yarn, such as of polypropelene, the yarn lengths being secured together by a suitable binder. Appropriate binders for this purpose are conventional and known to those skilled in the art.

The fabric has at least its outer or exposed surface loosely matted so that many free edges of the yarn extend therefrom to form loose hairs **15** which give the surface a hairy-like finish. The surface is quite similar to the type of surface on a cashmere type material.

The ribbon is of sufficient width to circumferentially surround the core and at the same time have its opposite, long edges form edge flange portions **16** arranged in face to face contact and secured together by a line of stitches **17** arranged parallel to the core and close to the core surface. Otherwise, the flange portions are free of securement to each other. Thus, the edge flange portions together form a double ply attachment flange **18** to which upholstery fabric may be stitched.

Alternatively, the flange portions **16** may be secured together with a suitable adhesive, as for example applied in a line similar to the location of the stitch line **17**.

PRIOR ART EDGE ROLLS

By way of better explaining the differences between the improved edge roll herein and the prior art, FIGS. **4** and **5** illustrate a conventional or prior art edge roll **20** wherein the core **11** is surrounded by a woven burlap wrapper **21** whose free edges are double bent or hemmed into edge flange portions **22**. These are stitched together by an upper stitch line **23**, closely adjacent to the core, and a lower stitch line **24** which is necessary because of the bulk or four ply thickness which forms the attachment flange **25**. The double bent edge flange portions are necessary because of the tendency of the loosely woven burlap material to unravel at the edges. This results in the need for extra material to make up the hemming which both increases the cost of the product as well as making it more difficult to secure upholstery fabrics to the attachment flange due to its four ply thickness.

In contrast, the two ply attachment flange **18** of my improved edge roll is quite thin, not bulky, and is easy to stitch to upholstery fabric. In addition, the hairy finish surface of my improved edge roll provides the necessary friction and slip resistance to prevent unwanted shifting or wrinkling of the upholstery fabric, and to interlock with the yarn of the upholstery fabric.

Having fully described an operative embodiment of this invention, I now claim:

1. An upholstery edge roll comprising an elongated core formed of soft paper folded and compressed into a generally cylindrically shaped cross-section, and a wrapper formed of a narrow, elongated ribbon, completely surrounding the core along its full length, with the opposite long edges of the ribbon forming narrow, continuous flange portions bent radially of the core and arranged in substantially face to face contact to form a double thickness attaching flange, and with a line of stitching, arranged parallel to and closely adjacent to the core, securing said flange portions together and securing the wrapper around the core;

said ribbon being formed of a thin, uniform thickness sheet of non-woven fabric made of short lengths of randomly oriented fine stretched polypropylene yarn, with said fabric being of a non-raveling nature and being stretch resistant, but flexible;

and with the face of the fabric which is exposed when the ribbon is wrapped around the core being loosely matted to provide free loose ends of yarn forming a flexible, hairy-like finished surface thereon, with fine hairs extending a distance outwardly of said surface for frictionally and mechanically interlocking with the surface of an upholstery fabric wrapped around the roll.

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