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H. M. QUAKENBUSH
UPHOLSTERED FURNITURE

3,068,495

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FIG. 1

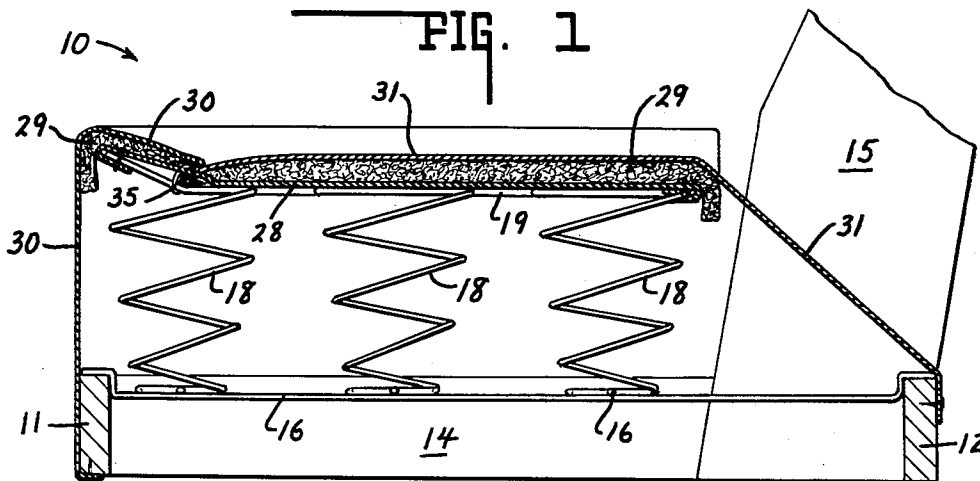


FIG. 2

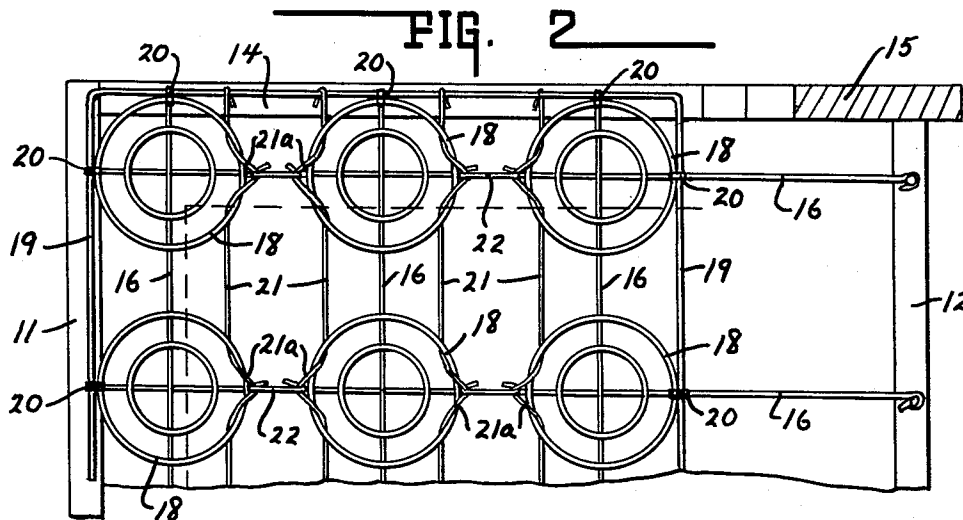
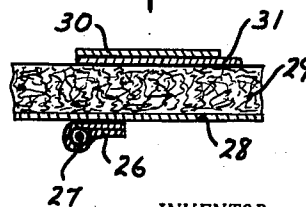


FIG. 4



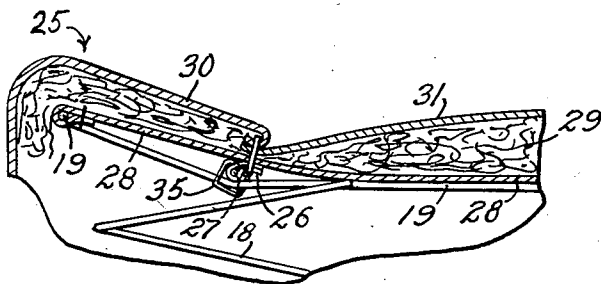
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FIG. 3



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UPHOLSTERED FURNITURE

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5 Claims. (Cl. 5—353.7)

The present invention generally relates to upholstered furniture and more particularly to a new and improved edge roll therefor which provides simplicity in the assembly thereof and an effective finished structure.

As is well known, various forms of edge rolls have been proposed and used in prior types of upholstered furniture. The principal function of the edge roll, however, remains the same, i.e. to provide a raised portion along the exposed edges of the top of the base section of upholstered furniture which is adapted to position and retain cushioning thereon. Although many of these prior edge rolls were formed on coil springs having the front or side portion of the uppermost convolution deformed upwardly, the ultimate manufacturing and assembly operation thereof was oftentimes unwieldy and complicated.

By virtue of the instant invention, the applicant has provided a novel edge roll for upholstered furniture which may be simply and conveniently assembled prior to the placement thereof on the base section of the upholstered unit. The edge roll may be assembled in one or more operational stages onto a hem formed on a wire base member, and the finished unit readily secured to coil springs in the base section by the use of common fastening means, such as well-known hog-rings, for example. Moreover, the applicant's novel edge roll is extremely versatile in that it may be advantageously and effectively used with any shape base section.

A principal object of the present invention, therefore, is to provide a new and novel edge roll for upholstered furniture which may be conveniently preassembled prior to the placement thereof for use.

Another object of the present invention is to provide a new and novel edge roll for upholstered furniture which may be readily assembled in a single manufacturing operation.

A further object of the present invention is to provide a new and novel edge roll for upholstered furniture having multi-layers preassembled onto a hem formed on a wire base member which is simply affixed to a supporting means thereunder through a common clamping device.

A further and more general object of the instant invention is to provide a new and novel edge roll for upholstered furniture which is simple to assemble, which is readily placed in position for use and which is highly effective during such use.

Other objects and a better understanding of the instant invention will become more apparent from the following description, taken in conjunction with the accompanying drawing, wherein:

FIG. 1 is a view in vertical section showing the applicant's novel edge roll in typical use on the base section of an upholstered unit;

FIG. 2 is a plan view of the base section for the edge roll of FIG. 1, with the edge roll removed therefrom;

FIG. 3 is an enlarged detailed view in vertical section, generally corresponding to the view of FIG. 1, showing the applicant's novel invention; and,

FIG. 4 is an enlarged fragmentary view in vertical section showing the edge roll forming the instant invention at the time of preassembly.

For the purpose of promoting an understanding of the principles of the invention, reference will now be made

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to the embodiments illustrated in the drawing and specific language will be used to describe the same. It will nevertheless be understood that no limitation of the scope of the invention is thereby intended, such alterations and further modifications in the illustrated device, and such further applications of the principles of the invention, as illustrated therein being contemplated as would normally occur to one skilled in the art to which the invention relates.

Referring now to the figures, the applicant's novel edge roll is shown in a typical position of use on a base section 10 of an upholstered furniture unit which has a front base rail 11, a rear base rail 12 and side base rails 14 secured together, with the bottom of back posts 15, to form a generally rectangular base frame. Disposed in latticed fashion between the front and rear base rails 11 and 12, respectively, and the side base rails 14, are a series of base wires 16 which are secured to the top surfaces of the base rails by conventional means, such as by tacking, for example.

Extending upwardly from the base wires 16 are conventional coil springs 18 which, in the preferred embodiment of the invention, increase in diameter in an upward direction. The coil springs 18 disposed along the outer edges of the base section 10, i.e. adjacent the front or adjacent the sides where there is no upholstered arm, each have the forward and/or side portions, respectively, of the uppermost convolution thereof deformed upwardly, all as well-known in the art. The uppermost convolutions of each of the coil springs 18 are secured to a tangential edge wire 19 through the use of clamping devices 20, thereby forming an upper framework for the coil springs 18 of the spring assembly. Increased stability for the overall spring assembly is further attained by the use of wires 21 which are deformed at 21a beneath and around an edge of the top of each of the coil springs 18, which deformed portions are hooked together by small sections of wire 22.

It should be understood that the aforescribed structure is conventional in the art and the discussion thereof herein is merely a basis for an understanding of the applicant's novel invention which, in the preferred embodiment, is used therewith, and specific detailed structure has been omitted for reasons of clarity.

Referring now particularly to FIGS. 1, 3, and 4, the applicant's new and novel edge roll 25 comprises, when assembled, multi-layers including, from bottom to top in the preferred embodiment and at the line of stitching, a hem 26 encircling a paper-covered wire member 27; an insulator layer 28, typically "silatex" material, for example, positioned on the top of the spring assembly of the upholstered unit, "silatex" being a hemp impregnated with latex rubber; a layer of padding material 29, such as cotton, for example; and, a decorative fabric 30 and a denim material 31 arranged so that the decorative fabric 30 overlies the denim material 31 in typical use, with all of the preceding components stitched together through the hem 26 to form an integral preassembled unit. The aforementioned components of the applicant's new and improved edge roll are secured and/or positioned with reference to the spring assembly in the base section 10 of the upholstered unit in a detailed fashion which is to be discussed more fully herebelow.

As already mentioned, the edge roll 25 forming the instant invention may be simply and effectively preassembled in one or more manufacturing operations, as desired. Noting particularly FIG. 4 which illustrates the relationship of the various components forming the edge roll 25 prior to the preassembly thereof, the hem 26 is looped about the paper-covered wire member 27 so that each side extending therefrom is substantially the same size. In practice, such a relationship can be

achieved by feeding the hem material, in the form of a tape, together with the paper-covered wire 27 through a guide or footing (not shown) on a standard sewing machine.

Disposed above the hem 26 is the insulator layer 28 which is of such length so that when positioned on the spring assembly, the free ends thereof may each be turned under the edge wire 19 and stitched back on itself. The padding material 29 is then disposed over the insulator layer 28, which padding layer 29 should be of sufficient length so that each free end thereof hangs downwardly partly over the sides of the spring assembly (see FIG. 1).

The edge roll 25 is then completed by the decorative fabric 30 and the denim material 31 which, when joined, are laid over the padding layer 29. The denim material 31 is of a length which permits the tacking thereof onto the back surface of the rear base rail 12, while the decorative fabric 30 is preferably of such length to permit it to be drawn forwardly, when in use, over the padding material 29, downwardly in front of the base section 10, and then tacked onto the under surface of the front base rail 11. The aforementioned layers forming the applicant's new and novel edge roll are then stitched together, at a line defining a throat, to make an integral unit which may be readily placed on the base section 10 of the upholstered unit during the manufacturing operation.

In typical use, the preassembled edge roll 25 is laid over the spring assembly in the base section 10 and fastening means, such as the well-known hog-rings 35, are used to secure it to wires forming the uppermost convolution of the coil springs 18. As should be apparent from FIG. 3, the hog-rings 35 encircle the paper-covered wire 27 and pierce the hem 26 extending therearound. The opposite ends and sides of the insulator layer 28 are then drawn in a reverse manner over the edge wire 19 and stapled together thereon. The denim material 31 is then drawn tightly back over the padding material 29 and attached to the back surface of the rear base rail 12, while the decorative fabric 30 is drawn forwardly over the padding material 29 on the deformed portions of the uppermost convolutions of the coil springs 18 and downwardly for attachment to the under surface of the front base rail 11.

It should be apparent that no stitching is visible with the use of this novel edge roll inasmuch as the decorative fabric 30 covers the stitched line when the edge roll is secured to the spring assembly during use. Moreover, it should be understood that securing the preassembled edge roll onto the spring assembly in the base section 10 of the upholstered unit may be achieved in alternate effective ways, including the stapling of the back edge of the insulator layer 28 onto the edge wire 19 first, followed by hog-ringing the paper-covered wire 27 onto a wire forming the uppermost convolution of each of the coil springs 18, and then stapling the forward edge of the insulator layer 28 onto the edge wire 19, with the decorative fabric 30 and the denim material 31 thereafter being secured for use as discussed hereabove.

Insofar as the preassembly of the edge roll 25 is concerned, it should be noted that this operation can be in a single step, as discussed hereabove, or in two or more steps. For example, in a two-step system of assembly, the decorative fabric 30 and the denim material 31 may first be stitched together, and the complete unit then integrated by the stitching operation discussed above. Moreover, it may also be desirable to omit the padding material 29 from the stitching operation, with this being placed in position later, where desired, without sewing therethrough. In the latter instance, the stitching for preassembly would combine the decorative fabric 30 and the denim material 31, which could already be stitched together, the insulator layer 28, and of course, the hem 26 formed on the paper-covered wire 27.

From the preceding, it should be apparent that the

applicant has provided a novel edge roll for use on upholstered furniture. The edge roll is susceptible to simple preassembly techniques, and may be then effectively positioned on the desired upholstered unit to thereby simplify the overall manufacturing operation. The edge roll may be united in one or more preassembly operations with equal effectiveness, while the ultimate use thereof is without any visible stitching.

It should be apparent that the edge roll described herein is susceptible to various changes within the spirit of the invention. For example, and as indicated hereabove, the padding layer 29 may be united with the edge roll during the preassembly operation or may be inserted when the edge roll is secured to the spring assembly in the base unit 10 of the upholstered article of furniture. Moreover, the hem 26 formed on the paper-covered wire 27 may extend toward the front of the upholstered furniture rather than the rear, as indicated in the figures. Although not disclosed in the drawing, it should be further understood that a wire, generally corresponding in function to the paper-covered wire 27, may be interspersed with the insulator layer, i.e., as by weaving, for example, for equally effective practice of the invention. Furthermore, it should be understood that the overall assembly of the edge roll onto the spring section is the same for the sides as for that aforedescribed. Thus, the above description should be considered illustrative and not as limiting the scope of the following claims.

I claim:

1. In upholstered furniture having a base framework formed by a front rail, a rear rail and side rails, and a spring assembly mounted on said base framework, an edge roll assembly comprising a base member disposed on said spring assembly at any desired position, a separate piece of material wrapped around said base member, an insulator layer overlaying said separate piece of material and said spring assembly, a padding layer overlaying said insulator layer, a base fabric disposed on said padding layer, and a decorative cover fabric disposed on a portion of said base fabric and extending over said padding layer towards said front rail of said base framework, said decorative cover fabric, said base fabric, said padding layer, said insulator layer, and said separate piece of material being stitched together at a line concealed beneath said decorative cover fabric to define the throat of said edge roll assembly.

2. The structure of claim 1 where the covered base member is secured to said spring assembly through means encircling said base member and piercing said separate piece of material wrapped therearound.

3. In upholstered furniture having a base framework formed by a front rail, a rear rail and side rails, and a spring assembly mounted on said base framework, an edge roll assembly comprising a base member disposed on said spring assembly at any desired position, a separate piece of material wrapped around said base member, an insulator layer overlaying said separate piece of material and said spring assembly, a padding layer overlaying portions of said insulator layer, a base fabric disposed on one portion of said padding layer, and a decorative cover fabric disposed on a portion of said base fabric and extending over another portion of said padding layer towards said front rail of said base framework, said decorative cover fabric, said base fabric, said insulator layer, and said separate piece of material being stitched together at a line concealed beneath said decorative cover fabric to define the throat of said edge roll assembly.

4. In upholstered furniture having a base framework formed by a front rail, a rear rail and side rails, and a spring assembly mounted on said base framework defined by rows of springs, the forward and upper portion of the front row of springs being deformed out of the plane defined by the tops of the other springs, an edge roll assembly comprising a base member disposed on said spring

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assembly at any desired position, a separate piece of material wrapped around said base member, an insulator layer overlaying said separate piece of material and said spring assembly, a padding layer overlaying said insulator layer, a base fabric disposed on said padding layer, and a decorative cover fabric disposed on a portion of said base fabric and extending over said padding layer and encircling said upwardly deformed portion of said front row of springs, said decorative cover fabric, said base fabric, said padding layer, said insulator layer, and said separate piece of material being stitched together at a line concealed beneath said decorative cover fabric to define the throat of said edge roll assembly.

5. The structure of claim 4 where said decorative

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cover fabric is secured to said front rail of said base framework after encircling said upwardly deformed portion of said front row of springs.

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