June 15, 1965 W. A. CONRAD 3,188,663

UPHOLSTERY CONSTRUCTION

Filed Nov. 13, 1962 2 Sheets-Sheet 1

FIG. 2

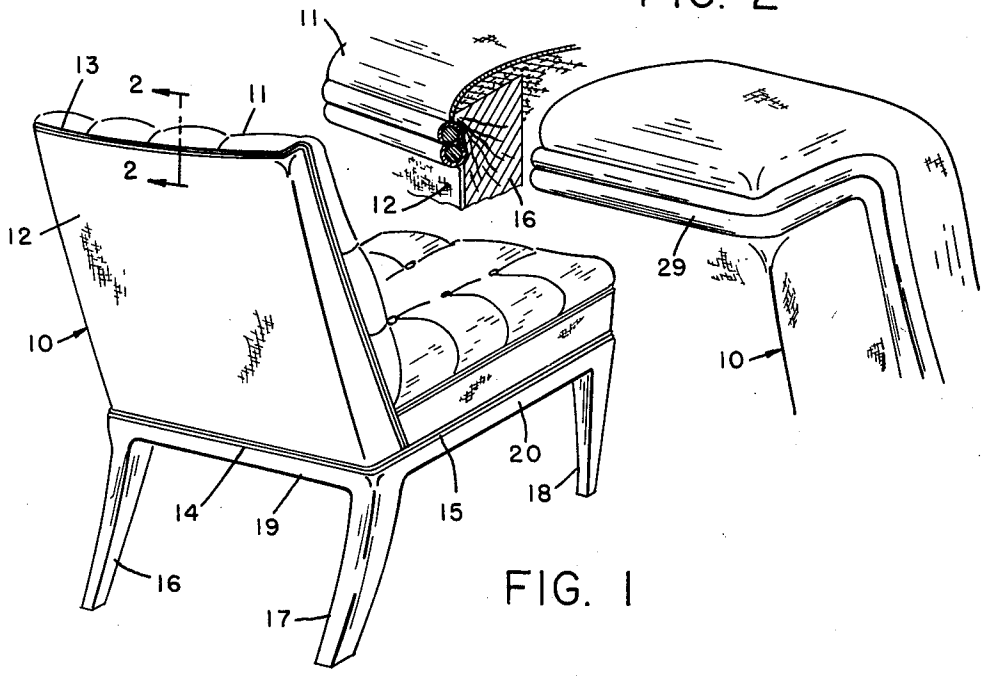


FIG. 1

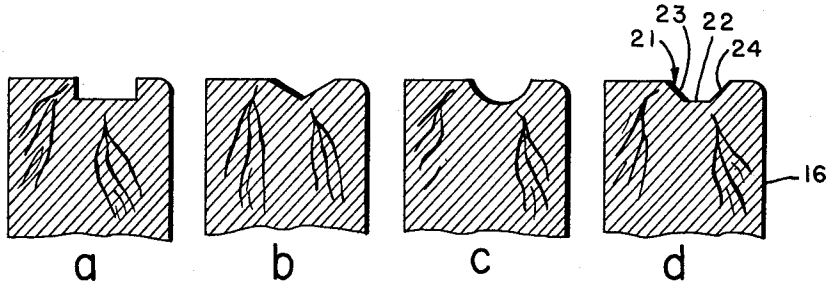


FIG. 3

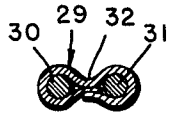


FIG. 4

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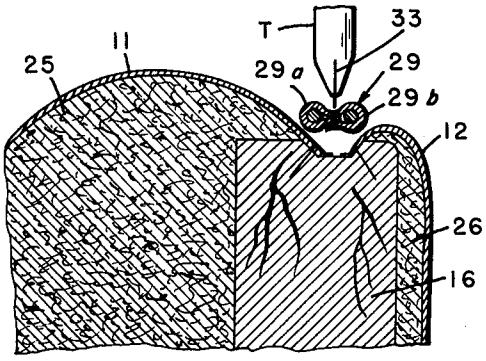


FIG. 5

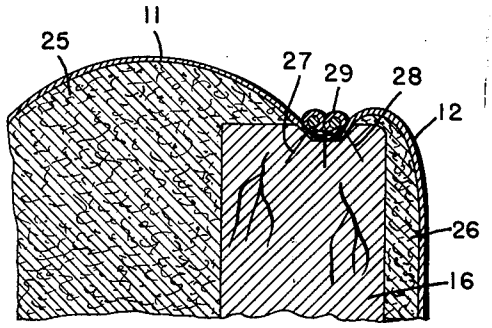


FIG. 6

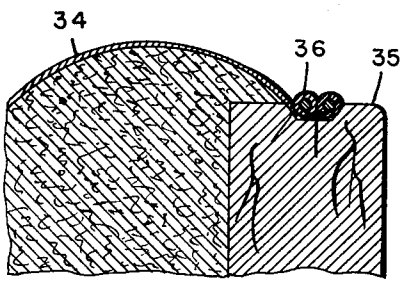


FIG. 7

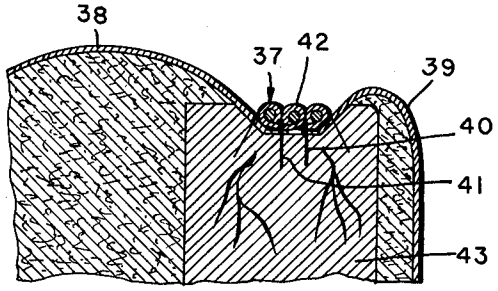


FIG. 8

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3,188,663

UPHOLSTERY CONSTRUCTION

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Filed Nov. 13, 1962, Ser. No. 237,233
1 Claim. (Cl. 5—353.2)

This invention relates to the construction of upholstered articles, and has been developed primarily in conjunction with the manufacture of furniture. A continually-recurring problem to the upholsterer is the concealment of a junction between two sections of covering material. Where the back and side pieces meet at the frame of a chair, for example, it is conventional practice to tack the two pieces in place. The exposed edges of fabric and the parallel rows of tacks are then covered with a decorative tape commonly referred to as "gimp" or "welt." This strip is usually either glued in place, or secured by a large number of closely-spaced decorative nails. Both of these procedures take considerable time and skill.

The present invention provides a trim procedure to replace the conventional practice at a great saving of labor. A particular type of trim strip is used, together with a conformation of the frame, to cause the strip to close over and conceal the fastenings holding it in place. The strip itself is not new, but acquires an entirely new utility through this invention. The several features of the invention will be analyzed in further detail through a discussion of the particular embodiments illustrated in the accompanying drawings. In the drawings:

FIGURE 1 is a perspective view of a chair constructed according to the present invention.

FIGURE 2 is an enlarged fragmentary sectional view of the area indicated at 2—2 of FIGURE 1.

FIGURE 3 illustrates a series of modified and alternative forms of configuration for the frame elements usable in conjunction with this invention.

FIGURE 4 is a cross section of the decorative strip, or "welt," preferred for this invention.

FIGURE 5 illustrates the initial position in applying the decorative trim strip according to the present invention.

FIGURE 6 illustrates the fully-installed position of the strip at the conjunction of two portions of fabric.

FIGURE 7 illustrates a modified installation at positions where a fabric terminates on a frame, leaving the wood on the frame exposed for decorative purposes.

FIGURE 8 illustrates a further modification of the invention, using a triple-lobe trim strip.

The chair indicated at **10** in FIGURE 1 is one of an endless number of possible designs of a type presenting the general problem of trimming the junction between the front cover **11** and the back cover **12** along the edge indictated at **13**. This same condition, in the illustrated chair design, extends down along the sides of the back of the chair, and is present in the form shown in FIGURE 7 along the bottom of the back at **14** and along the sides on the seat at **15**. Referring to FIGURE 2, the wooden rail **16** forms the upper horizontal component of the frame of the chair, which also includes the rear legs **16** and **17**, the front legs **18**, front and back rails **19**, and side rails **20**. Exposed portions of these are normally provided with decorative finishes according to the style and design of the particular piece of furniture.

The junction shown in FIGURE 2 is prepared as shown in FIGURES 5 and 6. The rail **16** is provided in advance with a groove of a configuration selected from the various patterns shown in FIGURE 3, the pattern indicated at FIGURE 3*d* being preferred. The groove generally indicated at **21** is formed with a flat bottom **22** and inclined sides **23** and **24**. The front and back covers **11** and **12** are brought together and tacked to the inclined sides **23** and **24**, respectively, after the installation of padding material indicated at **25** and **26** according to conventional procedures. Rows of tacks indicated at **27** and **28** will remain along the exposed edges of the two sections of cover material, and the decorative welt strip **29** is applied to conceal this junction.

The preferred cross sectional configuration of the strip **29** is indicated in FIGURE 4. Usually, such a strip will have parallel cores of paper material as shown at **30** and **31**, surrounded by a piece of covering which will blend with the remainder of the covering material of the article of furniture on which the strip is installed. The edges of the covering may be adhesively joined together on the underside, or a central row of stitching may be applied at the point indicated at **32** to maintain the cross section of the strip until it is installed. In either case, the width of the strip and the dimensions of the grooves **21** are selected so that the sides of the grooves will cause the two lobes **29***a* and **29***b* of the strip to come together over fastenings which are driven down through the central area **32**. Standard staples as shown at **33** in FIGURE 5 may be inserted in this position; and the driving of them into the FIGURE 6 position will not only secure the strip **29**, but will bring the opposite lobes together over the central portion so that the fastenings are concealed. The flexibility of the welt strip will permit the tool T to drive the staples **33**, and enter between the lobes as it does so. Withdrawal of the tool is accompanied by closure of the lobes together. FIGURES 7 and 8 are essentially similar to FIGURE 6, except that the arrangement shown in FIGURE 7 involves the concealment of only the edge of fabric and row of fastenings associated with the cover **34**. The exposed portion of the frame rail **35** would be provided with a decorative finish, in such an arrangement. The double welt strip **36** is similar to the welt **29**. In FIGURE 8, the triple welt strip **37** is used to conceal the junction between the cover panels **38** and **39**, and rows of staples shown at **40** and **41** are driven on opposite sides of the central lobe **42** of the strip. The side lobes of the strip **37** are brought together by the action of the groove in the frame rail **43** so that the fastenings **40** and **41** are concealed in the same manner as shown in FIGURE 6. In all cases, the standard U-shaped staples are driven with the backs parallel to the length of the strip.

The particular embodiments of the present invention which have been illustrated and discussed herein are for illustrative purposes only and are not to be considered as a limitation upon the scope of the appended claim. In the claim, it is my intent to claim the entire invention disclosed herein, except as I am limited by the prior art.

I claim:

In combination with an article which includes a frame, and also includes cover material with an edge portion, a fastening structure comprising: means forming a groove

on said frame for reception of said edge portion, said groove having a bottom wall and side walls diverging therefrom; securing means retaining said edge portion in said groove; strip material comprising parallel multiple welts having an aggregate width exceeding that of said bottom wall secured to said frame with fastenings driven between said welts and into the bottom wall of said groove whereby the welts of said strip material are disposed adjacent the side walls of said groove, and resulting movement of said strip material into said groove by said fastenings against said side walls moves said welts towards one another to cover said fastenings.

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