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F. W. MERRICK

1,745,902

WELT

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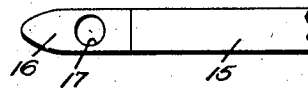
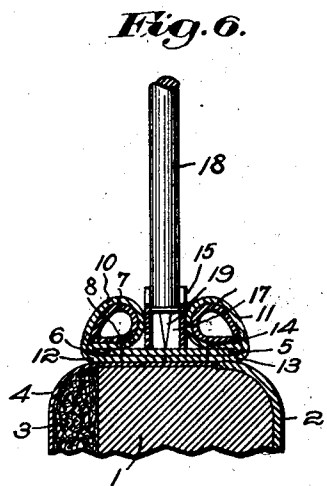
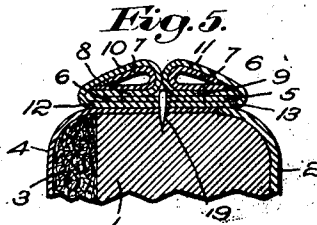
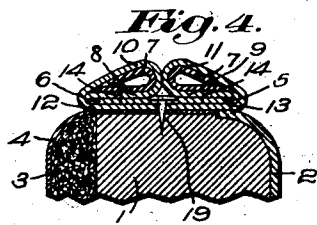
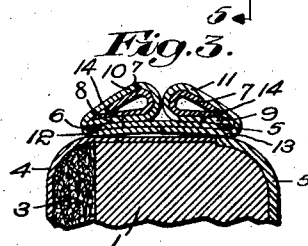
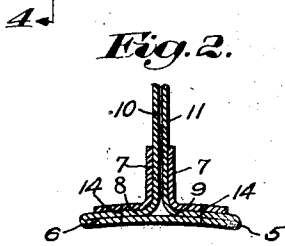
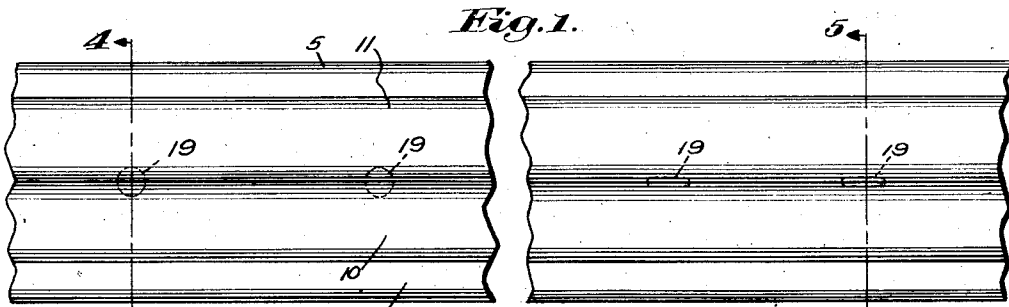


Fig. 7.



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UNITED STATES PATENT OFFICE

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WELT

Application filed December 4, 1925. Serial No. 73,255.

This invention aims to provide an improved finishing welt, particularly, though not exclusively, useful in finishing vehicle upholstery work.

10 In the drawings, which illustrate a preferred embodiment of my invention:—

Figure 1 includes a plan view of a portion of an installation showing the use of tacks or nails (in dotted lines) for securing the welt to the framework, and a plan view of a portion of an installation showing the use of staples (in dotted lines) for securing the welt in place;

15 Fig. 2 is a cross-section of the welt as it appears when being stitched;

Fig. 3 is a cross-section through the finished welt in position upon an upholstered framework before being secured thereto;

Fig. 4 is a section on the line 4—4 of Fig. 1;

20 Fig. 5 is a section on the line 5—5 of Fig. 1;

Fig. 6 is a section showing the folds of the welt spread apart, the tool for spreading the folds, a tack or nail ready to be forced through the welt to secure it to the framework and a portion of the tool for driving the tack into place; and

Fig. 7 includes a plan and a side elevation of a portion of the tool used in spreading the folds of the welt.

30 Referring to the drawings, I have shown a simple and inexpensive finishing welt of very fine appearance for covering the edges of upholstery and the like.

The upholstery installation selected for illustrative purposes, and shown in Figs. 1, 3, 4, 5 and 6, includes a wooden frame part 1, covered at one side by a metal covering 2, and at the other side by upholstery including padding 3 and fabric 4. The edges of the fabric 4 and the metal covering 2 are extended over the upper edge of the frame part 1 where they are covered by the finishing welt 5.

45 The finishing welt 5, as shown, is preferably as illustrated formed from a single sheet of flexible material, such as waterproof cloth or the like, folded so as to provide a base portion 6 and a plurality of folds reinforced or "filled" by preferably hollow stiffening members 7 enclosed therein.

The material which provides the folds preferably extends, as illustrated, inwardly from both longitudinal edges of the base 6 to the center, thereby providing folds 8 and 9 adjacent the base, as shown in Fig. 3, the material then extending in a curve upwardly and outwardly to provide upper folds 10 and 11 and the extreme edges of the material being wrapped over the edges of the base 6 and overlying the bottom face of the base 6 to form folds 12 and 13.

55 The welt is preferably formed by a suitable folding and stitching machine (not shown) to which the materials of the welt may be fed. The first operation (see Fig. 2) provides for forming the base 6 and folds 8 and 9, the remainder of the material being held above the center of the welt while the stiffening members 7 are fed into place upon the folds 8 and 9 and there sewn in place by suitable stitches 14 which extend through the base portions of the members 7 through the folds 8 and 9 and through the base 6 of the welt, all as shown in Fig. 2. The stiffening members are then bent into the proper shape when the upstanding material is folded to form the folds 10 and 11. Before that portion of the material which forms the folds 12 and 13 is folded under the base 6, an adhesive is applied thereto so that the folds 12 and 13 may adhere to the under side of the base 6. When the welt is complete, the stitches are completely concealed by the folds as shown in Fig. 2.

85 The completed welt presents a relatively stiffened body portion upon which is disposed longitudinal folds which normally touch or closely approach each other at the center of the welt, but which may be separated to permit tacks or nails to be entered through the body portion (Fig. 6) to secure the welt to the wooden frame 1 as shown in Figs. 4 and 5. The stitches 14 provide pivotal lines about which the inner portions of the longitudinal folds may be flexed and the inner faces of the doubled over stiffening members 7 may be flexed, the outer portions rolling outwardly as shown in Fig. 6. The fillers or stiffeners 7, which may be of cardboard, fiber-board or the like, are flexible 100

enough so that the folds will return to their normal position after the tacking or other welt-securing operation.

To facilitate the tacking operation, I may provide suitable tools for spreading the folds and for driving the tacks while the folds are spread. These tools include a spreading tool 15 (Figs. 6 and 7) having a tapered and somewhat pointed nose 16, and a tack, nail or staple-receiving hole 17 located in the nose of the tool. The tacking tool 18 is shaped at one end to fit into the hole 17 as shown in Fig. 6. In operation, the nose of the spreading tool may be advanced like a plow between the folds until a point is reached where a tack, nail or staple is to be inserted, then the tacking tool 18 is entered into the hole 17 (Fig. 6) and struck a blow to drive the fastening element 19 through the base of the welt and into the wooden frame part 1. As the nose 16 of the tool 15 moves along the welt, the folds open to permit tacking and then close in and conceal the fastening members, as shown in Figs. 1, 4 and 5.

The base of the welt may be arched (Fig. 3) so that when it is attached to the installation the body portion of the welt will be flattened against the support, thereby exerting a downward pressure upon the edges of the welt to make them lie snugly against the support as shown in Figs. 4 and 5. The arch effect is preferably obtained by arching the base portions of the stiffening members 7 before they are incorporated into the welt. Thus when the members 7 are sewn to the base 6, the base will also assume the curvature of the bases of the members 7, as shown in Fig. 2.

An important feature of the invention is the fact that the waterproof material (which is usually only coated on one side) is folded so that that side of the material which is coated is the only side which can be reached by water or moisture. The uncoated side of the material is not exposed to moisture at any side of the completed welt, nor in the groove between the opposed folds or flaps thereof. Thus I have provided a welt which will last longer than a welt having at least some of the uncoated side of the material located or exposed in such a manner that the moisture will act to decay and weaken the material.

By concealing the stitches, the welt is made more durable and is much neater in appearance than if the stitching were exposed, particularly at the upper face of the welt. The extended unbroken surface of the flaps or folds are of very pleasing appearance, giving the impression of quality superior to various welts heretofore used which, as a matter of fact, are considerably more expensive to produce.

While I have shown and described a preferred embodiment of my invention, it will be understood that considerable changes may be made without departing from the scope of my

invention, which is best defined in the following claims.

I claim:

1. A finishing welt comprising a base portion, folds extending toward the center of said base from the longitudinal edges thereof, outwardly extending folds continuing from the inner periphery of said first mentioned folds over the longitudinal edges of said base and terminating at the bottom face thereof, and securing means fastening said first mentioned folds to said base, said securing means being concealed by said second mentioned folds.
2. A finishing welt comprising a strip of flexible material folded to provide a base portion and longitudinal inner and outer folds, said folds being disposed at the upper face of said base portion at opposite sides thereof so as to provide spreadable portions normally tending resiliently to contact, said folds forming a continuation of said base portion with the outer edges of said inner folds adjacent the outer edges of said base portion and with the outer folds extending outwardly over the outer edges of the base portion and secured to the under side thereof.
3. A finishing welt comprising a strip of flexible material folded to provide a base portion and longitudinal inner and outer folds, said folds being disposed at the upper face of said base portion at opposite sides thereof so as to provide spreadable portions normally tending resiliently to contact, said folds forming a continuation of said base portion with the outer edges of said inner folds adjacent the outer edges of said base portion and with the outer folds extending outwardly over the outer edges of the base portion and secured to the under side thereof, and stiffening means enclosed by said folds for maintaining said spreadable portions in their normal position.
4. A finishing welt comprising a strip of flexible material folded to provide a base portion and longitudinal inner and outer folds, said folds being disposed at the upper face of said base portion at opposite sides thereof so as to provide spreadable portions normally tending resiliently to contact, said folds forming a continuation of said base portion with the outer edges of said inner folds adjacent the outer edges of said base portion and with the outer folds extending outwardly over the outer edges of the base portion and secured to the under side thereof, and stiffening means enclosed by said folds and sewn to said base by stitches, said stitches providing means about which spreadable portions, including said stiffening means, may be pivoted when spread apart.
5. A finishing welt comprising an arched base portion, longitudinally disposed hollow stiffening members having arched base portions, a plurality of folds enclosing said

stiffening members and securing means fastening said stiffening members and said base together to maintain the arch of said base portion, said securing means concealed by said folds.

5 6. A finishing welt comprising longitudinal stiffening members having arched base portions, a covering extending around said stiffening members, a base portion from
10 which said covering extends and stitches securing said base portion to the base portion of said stiffening members so as to arch said base portion.

15 7. A finishing welt comprising a pair of longitudinally disposed distortable members, a covering for said members presenting a base portion, folds extending from the longitudinal edges of said base beneath said members then upwardly and outwardly over said member and extending over the longitudinal
20 edges of said base and terminating at the under face thereof, and stitching passing through said members the folds under said members and the base of said covering to
25 permit said folds and members to return to their normal positions after being spread to permit fastening means to be passed through the base of said covering to secure the welt to a suitable support, said stitches being
30 concealed by the uppermost folds.

8. A finishing welt comprising a convex base portion adapted to be flattened when secured to a support, a plurality of reinforced resiliently spreadable folds above said base
35 portion and stitches passing through the under portions of said folds and said base to secure said folds to said base in normally closely engaging relation, said stitches being concealed within said welt.

40 9. A finishing welt comprising a base portion, folds extending toward the center of said base from the longitudinal edges thereof, outer extending folds continuing from the inner edges of said first mentioned folds over
45 the longitudinal edges of said base and terminating at the bottom face thereof, and securing means fastening said first mentioned folds to said base, said securing means being concealed by said second mentioned folds.

50 In testimony whereof, I have signed my name to this specification.

FRANK W. MERRICK.

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CERTIFICATE OF CORRECTION.

Patent No. 1,745,902.

Granted February 4, 1930, to

FRANK W. MERRICK.

It is hereby certified that error appears in the printed specification of the above numbered patent requiring correction as follows: Page 3, line 11, claim 6, for the word "portion" second occurrence read "portions"; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 18th day of March, A. D. 1930.

(Seal)

M. J. Moore,
Acting Commissioner of Patents.