Dec. 30, 1947. F. A. BEST 2,433,333

WINDOW CHANNEL

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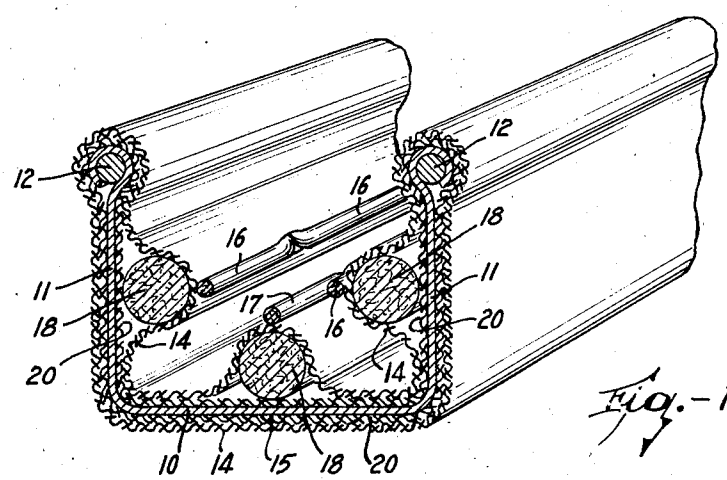


Fig.-1

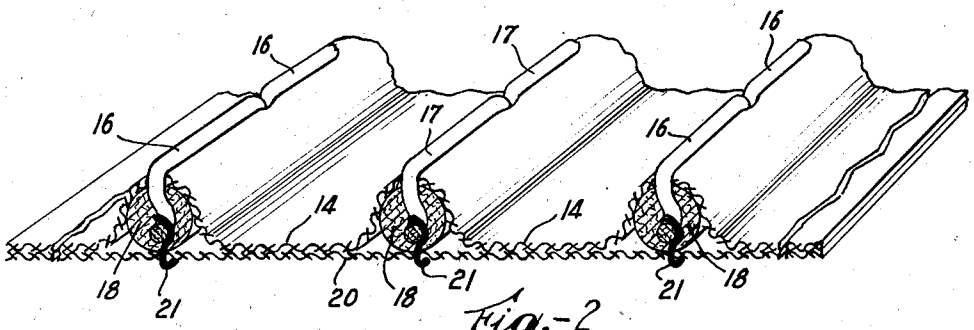


Fig.-2

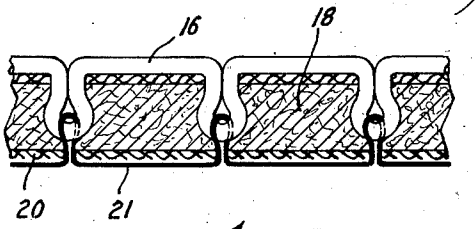


Fig.-3

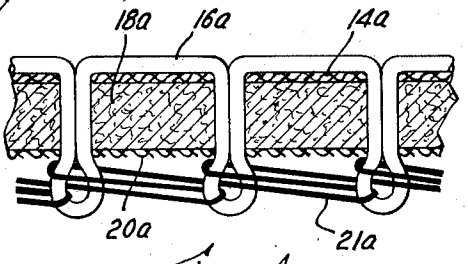


Fig.-4

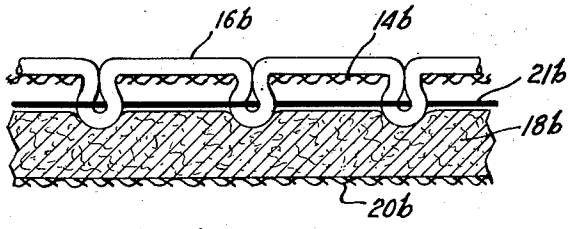


Fig.-5

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WINDOW CHANNEL

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9 Claims. (Cl. 296—44.5)

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This invention relates to improvements in window channel, such as is used for the reception and guidance of the slidable window panes of vehicle bodies and the like.

The invention has more particular relation to the covering or lining of such a channel, the invention having for its primary object the provision of a channel having a simple and improved covering or lining for the core thereof, said covering or lining being of inexpensive form and adapted for application to said core at low cost.

A more specific object of the present invention is the provision of a channel having a core covering or lining which includes suitably spaced rows of woolen threads, filaments or cords for contact with the window pane which the channel receives and guides in use thereof, said woolen threads, filaments or cords being carried by inexpensive sheet material so that the cost of the covering or lining is quite low.

Further objects of the present invention, and many of its practical advantages, will be referred to in or will be evident from the following description thereof, reference being had to the accompanying drawings, in which

Fig. 1 represents in cross section and in perspective one form of window channel embodying the present invention;

Fig. 2 is a similar view of the channel covering or lining laid out in flat or developed form;

Fig. 3 is a longitudinal sectional elevation through one of the ribs of the covering or lining;

Fig. 4 is a similar view showing a slight modification; and

Fig. 5 is a similar view showing yet another modification.

Before the invention here involved is specifically described, it is to be understood that it is not limited to the specific details of construction and/or the specific arrangement of parts herein illustrated or described, as the invention obviously may take various forms. It also is to be understood that the phraseology or terminology herein employed is for purposes of description and not of limitation, the scope of the invention being denoted by the appended claims.

For clarity and simplicity of illustration, all views of the drawings show the window channel or its parts considerably enlarged and somewhat exaggerated. The channel shown includes a core of any suitable material, such as sheet metal, and bent to provide a base 10 and a pair of generally parallel side walls 11, the outer or free longitudinal edges of which are here rolled around re-enforcing wires 12.

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The covering or lining for said core comprises a layer 14 of any suitable sheet material, such as cheap cotton fabric, for example, the layer being here shown as of sufficient width to completely enclose or envelop the channel core and the longitudinal edges of said layer being here shown as meeting along the lower surface of the core base 10, as at 15. Within the channel core, the layer 14 is provided with suitably located longitudinally extending rows of woolen material for contact with the window pane which the channel receives and guides in use thereof. Preferably and as here shown, the woolen material is in the form of threads, filaments or cords, arranged in successive stitches of any suitable type.

In the embodiments of the invention here illustrated, there are two side rows 16 of such woolen stitches, for contact with the lateral faces of the window pane, and a bottom row 17 of such woolen stitches, for contact with the edge of the window pane, although said bottom row may be omitted, if desired.

To locate the rows of woolen stitches on the crests of inwardly extending, longitudinally disposed ribs or the like, for more effective contact with the window pane, the covering or lining layer 14 has here associated therewith, in the longitudinal zone of each of its rows of stitches, a rope-like element 18. These rib-forming elements 18 underlie the layer 14 and may be and preferably are secured to such layer by the rows of woolen stitches. Any suitable material may be utilized for the formation of the rope-like elements 18, such as cotton roving or padding or even paper or paper-like material, in some twisted form, for example, may be used, if desired.

If desired and as here shown, the core covering or lining may also include a base layer 20 of any suitable sheet material, such as cheap cotton fabric or the like, with the consequent disposition of the rib-forming elements 18 between the two layers, as shown. Although the base layer 20 may have any desired width, it is here shown as being of such width as to enable its longitudinal edges to coincide with those of the outer layer 14 when the two layers are in their superposed relation, a relationship which can be maintained by the use of any suitable means.

In the embodiment of the invention illustrated in Figs. 1 to 3 inclusive, the relatively heavy woolen threads 16 and 17 pass through the outer layer 14 of the covering material and into the rib-forming elements 18. Cooperating with such

threads are relatively light threads 21 (the bobbin threads of the stitching operation) which pass through the base layer 20 of the covering material and into the rib-forming elements 18 for single lock stitch connection with the woolen threads 16 and 17. In the embodiment of the invention illustrated in Fig. 4, the woolen threads (a single side thread 16a being shown) pass through both layers 14a and 20a of the covering material and through the rib-forming elements 18a therebetween. In this form of the invention therefore, the bobbin thread 21a lies below the base layer 20a of the covering material with a double lock stitch connection with the woolen threads, although such stitching, in both these embodiments of the present invention, is sufficient to maintain in assembled relation the several parts of the core covering or lining, additional means may be and preferably is used to maintain in contacting relationship those portions of the two covering layers which lie on opposite sides of each rib-forming element, such as an adhesive or other equivalent means.

The woolen stitches here utilized may be of any suitable form, but preferably are of such nature as to present to the window pane, where they are exposed on the crest of each of the inwardly extending ribs or projections of the covering or lining, a series of closely spaced, longitudinally extending portions of fairly large diameter. In each of the present embodiments of the invention, the woolen threads, filaments or cords constitute the needle thread of a machine lock stitch, the bobbin thread thereof being a much smaller thread, as shown.

In Fig. 5, a single lock stitch is again shown, but in this form, the woolen needle thread 16b merely passes through the outer layer 14b, its locking thread 21b being thus disposed directly therebelow. For the connection to each other of the two layers 14b and 20b of this covering or lining, and for the maintenance therebetween, in properly spaced relation, of the rib-forming elements 18b, any suitable means may be utilized, such as an adhesive, other stitching or the like.

In all embodiments, of course, the covering or lining is suitably secured to the channel core, such as by an adhesive, as is usual.

From the foregoing description of the invention here involved, it will be evident that the core covering or lining of the present channel is of simple and inexpensive form, as but little woolen material is required for the rows of stitches which contact the window pane. To those skilled in the art to which the present invention relates, other features and advantages of such invention will be evident from the foregoing description of several embodiments thereof.

What I claim is:

1. A window channel of the character described, comprising an elongated core having a base and a pair of side walls, and a lining for said core comprising a layer of flexible material, a plurality of rope-like elements underlying said layer and longitudinally disposed along said core side walls, thereby providing the channel with longitudinally disposed, inwardly extending side wall ribs or projections, and woolen material in the form of a row of stitches extending along the crest of each of said side wall ribs or projections for contact with the lateral faces of the window pane which the channel receives and guides in use thereof, the stitches of each row extending through said layer of flexible material and into the rope-like element adjacent thereto.

2. A window channel of the character described, comprising an elongated core having a base and a pair of side walls, and a lining for said core comprising a layer of flexible material, a plurality of rope-like elements underlying said layer and longitudinally disposed along said core side walls, to thereby provide the channel with longitudinally disposed, inwardly extending side wall ribs or projections, a relatively heavy strand of yarn for each of said side wall ribs or projections, each of said yarn strands for at least a major portion of its length being disposed along the crest of a side wall rib or projection for contact with a lateral face of the window pane which the channel receives and guides in use thereof, and an attaching thread for and interlocked with each of said yarn strands and underlying for at least a major portion of its length said layer of flexible material.

3. A window channel of the character described, comprising an elongated core having a base and a pair of side walls, and a lining for said core comprising a layer of flexible material, a plurality of rope-like elements underlying said layer and longitudinally disposed along said core side walls, to thereby provide the channel with longitudinally disposed, inwardly extending side wall ribs or projections, a relatively heavy strand of yarn for each of said side wall ribs or projections, each of said yarn strands having sections thereof longitudinally disposed along the crest of a side wall rib or projection for contact with a lateral face of the window pane which the channel receives and guides in use thereof, the portions of each of said strands between the longitudinally disposed sections thereof extending through said fabric layer and constituting strand attaching portions, and an attaching thread for each of said yarn strands, the thread for each yarn strand being interlocked with the attaching portions of said yarn strand and underlying said layer of flexible material.

4. A window channel of the character described, comprising an elongated core having a base and a pair of side walls, and a lining for said core comprising a layer of flexible material, a plurality of rope-like elements underlying said layer and longitudinally disposed along said core side walls, to thereby provide the channel with longitudinally disposed, inwardly extending side wall ribs or projections, a relatively heavy strand of yarn for each of said side wall ribs or projections, each of said yarn strands having sections thereof longitudinally disposed along the crest of a side wall rib or projection for contact with a lateral face of the window pane which the channel receives and guides in use thereof, the portions of each of said strands between the longitudinally disposed sections thereof extending through said fabric layer and into a rope-like element and constituting strand attaching portions, and an attaching thread for each of said yarn strands, the thread for each yarn strand extending into a rope-like element and being interlocked with the attaching portions of said yarn strand.

5. A window channel of the character described, comprising an elongated core having a base and a pair of side walls, and a lining for said core comprising a layer of flexible material, a plurality of rope-like elements underlying said layer and longitudinally disposed along said core side walls, to thereby provide the channel with longitudinally disposed, inwardly extending side wall ribs or projections, a relatively heavy strand of yarn for each of said side wall ribs

or projections, each of said yarn strands having sections thereof longitudinally disposed along the crest of a side wall rib or projection for contact with a lateral face of the window pane which the channel receives and guides in use thereof, the portions of each of said strands between the longitudinally disposed sections thereof extending through said fabric layer and through a rope-like element and constituting strand attaching portions, and an attaching thread for each of said yarn strands, the thread for each yarn strand being interlocked with the attaching portions of said yarn strand and underlying a rope-like element.

6. A window channel, comprising an elongated core having a base and a pair of side walls, and a lining for said core comprising inner and outer layers of flexible material, a plurality of rope-like elements between said layers and longitudinally disposed in laterally spaced relation to provide the channel with an inwardly extending rib or projection along each of its side walls, the inner and outer layers of the flexible material being in contact except where they are separated by said rope-like elements, and a relatively heavy strand of yarn for each of said side wall ribs or projections, each of said yarn strands having at least sections thereof longitudinally disposed along the crest of a side wall rib or prejection for contact with a lateral face of the window pane which the channel receives and guides in use thereof.

7. A window channel, comprising an elongated core having a base and a pair of side walls, and a lining for said core comprising inner and outer layers of flexible material, a plurality of rope-like elements between said layers and longitudinally disposed in laterally spaced relation to provide the channel with an inwardly extending rib or projection along each of its side walls, the inner and outer layers of the flexible material being in contact except where they are separated by said rope-like elements, a relatively heavy strand of yarn for each of said side wall ribs or projections each of said yarn strands having sections thereof longitudinally disposed along the crest of a side wall rib or projection for contact with a lateral face of the window pane which the channel receives and guides in use thereof, the portions of each of said strands between the longitudinally disposed sections thereof extending through said inner layer of flexible material and into a rope-like element and constituting strand attaching portions, and an attaching thread for each yarn strand, interlocked with the attaching portions thereof, and underlying in part the inner and outer layers of flexible material.

8. A window channel, comprising an elongated core having a base and a pair of side walls, and a lining for said core comprising inner and outer layers of flexible material, a plurality of rope-like elements between said layers and longitudinally disposed in laterally spaced relation to provide the channel with an inwardly extending rib or projection along each of its side walls, the inner and outer layers of the flexible material being in contact except where they are separated by said rope-like elements, a relatively heavy strand of yarn for each of said side wall ribs or projections each of said yarn strands having sections thereof longitudinally disposed along the crest of a side wall rib or projection for contact with a lateral face of the window pane which the channel receives and guides in use thereof, the portions of each of said strands between the longitudinally disposed sections thereof extending through said inner and outer layers of flexible material and through a rope-like element therebetween and constituting strand attaching portions, and an attaching thread for each yarn strand, interlocked with the attaching portions thereof, and entirely underlying the inner and outer layers of flexible material.

9. A guiding strip for a slidable window pane, comprising an elonagted core, and a covering for at least one face of said core, said covering comprising a layer of flexible material, a rope-like element underlying said layer and providing the core with a longitudinal rib or projection, a relatively heavy strand of yarn having at least sections thereof disposed along the crest of said rib or projection for contact with a lateral face of the window pane, and an attaching thread for said yarn strand, interlocked therewith, and underlying at least in part said layer of flexible material.

FRANK A. BEST.

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