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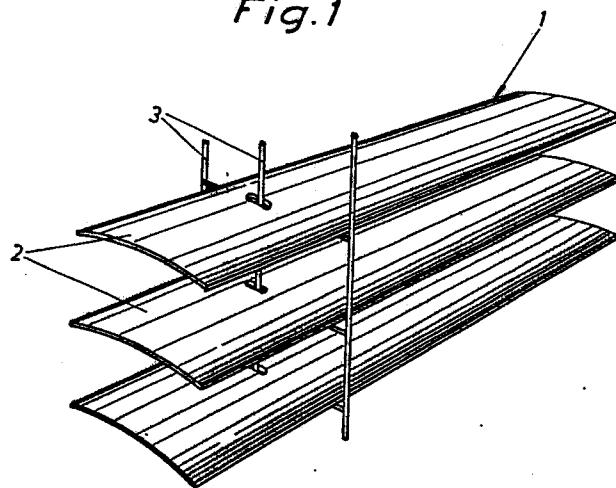
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(54) **Synthetic resin strip for the manufacture of profiled venetian blind slats and a method of manufacturing said strip.**

(57) A synthetic resin strip intended for use in the manufacture of profiled Venetian blind slats. The strip is formed with grooves (4) on its inner face in the areas thereof where, after the final treatment of the strip said inner strip face is to exhibit a bend.

The grooves are produced either directly in the extrusion process proper or they are cut out in the strip material after the extrusion.

Fig.1



Description

A Synthetic Resin Strip for the Manufacture of Profiled Venetian Blind Slats and a Method of Manufacturing said Strip.

The subject invention concerns a synthetic resin strip for the manufacture of profiled Venetian blind slats and a method of manufacturing said strip.

Prior-art Venetian blind slats made from synthetic resin suffer from the disadvantage that they can only be manufactured in certain predetermined lengths. Since such Venetian blind slats usually are produced on other continents than those where the main sales markets for the finished products are positioned the shipping costs are much too high and the delivery times too long for Venetian blinds of non standard dimensions.

One way to solve this problem has hitherto been to make the slats very long, for instance in lengths of 3 m, which are then cut and punched in factories in the country where they are sold. This is a very expensive solution, since material wastes of up to 35% are commonly experienced.

Venetian blind slats made from sheet aluminium are produced in the form of long strips, for instance in lengths of 500 m, which are wound onto rollers for storage and transport. When Venetian blinds of non-standard dimensions are on order, the slats are cut, punched and shaped from the pre-prepared sheet metal strip. This is a very advantageous method and attempts have been made to apply this method also to Venetian blind slats made from synthetic resin materials which are much less expensive than aluminium. However, these attempts have not been very successful since synthetic resin does not lend itself to shaping using cold working methods as easily as does sheet aluminium. For reasons of economy plastic resin slats can only be manufactured in continuous processes, which makes it impossible to submit each individual slat to a heat working treatment to impart the desired curved or profiled cross-sectional configuration to the slats.

Attempts have also been made to shape the slat strip in an extrusion process in which it is given the final cross-sectional shape and to wind the extruded strip onto rollers. However, the strip tends to take on the roller curvature and this method therefore does not produce finished blind slats that are completely straight. Since slat straightness is an indispensable requirement for the correct functioning of the Venetian blind this manufacturing method is not practically feasible.

The purpose of the subject invention is to provide a synthetic resin strip by means of which it is possible to manufacture strips for Venetian blind slats in long lengths which may be wound onto rollers and be subjected to cold working treatments to impart the final profiled configuration to the slat strips and thereafter be cut. The invention also concerns a method of manufacturing such synthetic resin strips.

The purpose is achieved in accordance with the teachings of the subject invention by forming said synthetic resin strips with lengthwise grooves by

means of which the strips, following the final profile-imparting treatment, will exhibit an inner bend.

In accordance with one advantageous embodiment of the manufacturing method the grooves are formed in the extrusion process by using an extrusion tool which is shaped with protrusions matching the grooves.

The invention will be described in closer detail in the following with reference to the accompanying drawings, wherein

Fig. 1 is a perspective view of a Venetian blind, and

Figs. 2 - 7 show various examples of positioning the grooves in accordance with the invention to impart various cross-sectional configurations to the Venetian blind slats.

Venetian blinds 1 essentially consist of a number of slats 2 which are interconnected by a number of operating strings 3, as appears from Fig. 1.

Fig. 2 illustrates the positions of the grooves 4 to produce the profiled cross-sectional shape of the slat shown in Fig. 3. In a corresponding manner Figs. 4 and 6 show the positions of the grooves to produce slats having the profiled cross-sectional configurations illustrated in Figs. 5 and 7, respectively.

By providing grooves 4 in accordance with the invention on the inner face of the curvature obtained in the cold working treatment the inherent post-treatment tensions in the synthetic resin strips are reduced. These tensions tend to make the strip resume its original shape, but owing to the grooves the risk that the slats 2 will resume the flat shape that they exhibit before the cold working treatment is entirely eliminated.

It should also be pointed out that the invention is not limited to the embodiments described in the foregoing but that a variety of modifications are possible within the scope of the appended claims. For example, the slats could have a cross-sectional profile differing from the ones shown in Figs. 3, 5 and 7.

Claims

1. A synthetic resin strip for the manufacture of profiled Venetian blind slats having a linear cross-sectional shape to allow the strip to be wound onto storage rollers, **characterized** in that following the final treatment of the strip, the inner face thereof will exhibit a bend, and that lengthwise grooves (4) are made in said strip in the areas of the inner face, where said strip exhibits said bend.

2. A method of manufacturing a synthetic resin strip for the manufacture of profiled Venetian blind slats having a linear cross-sectional

tional shape to allow said strip to be wound onto storage rollers as claimed in claim 1, the method being **characterized by** forming said grooves (4) by means of a tool adapted for the purpose of forming said grooves.

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3. A method as claimed in claim 2, **characterized** in that an extrusion die is used as said tool, said extrusion die formed with protrusions matching said grooves (4).

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4. A method as claimed in claim 2, **characterized in** that knives are used as the groove-shaping tool, said knives being used to cut out said grooves (4) in said strip after the extrusion thereof.

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Fig.1

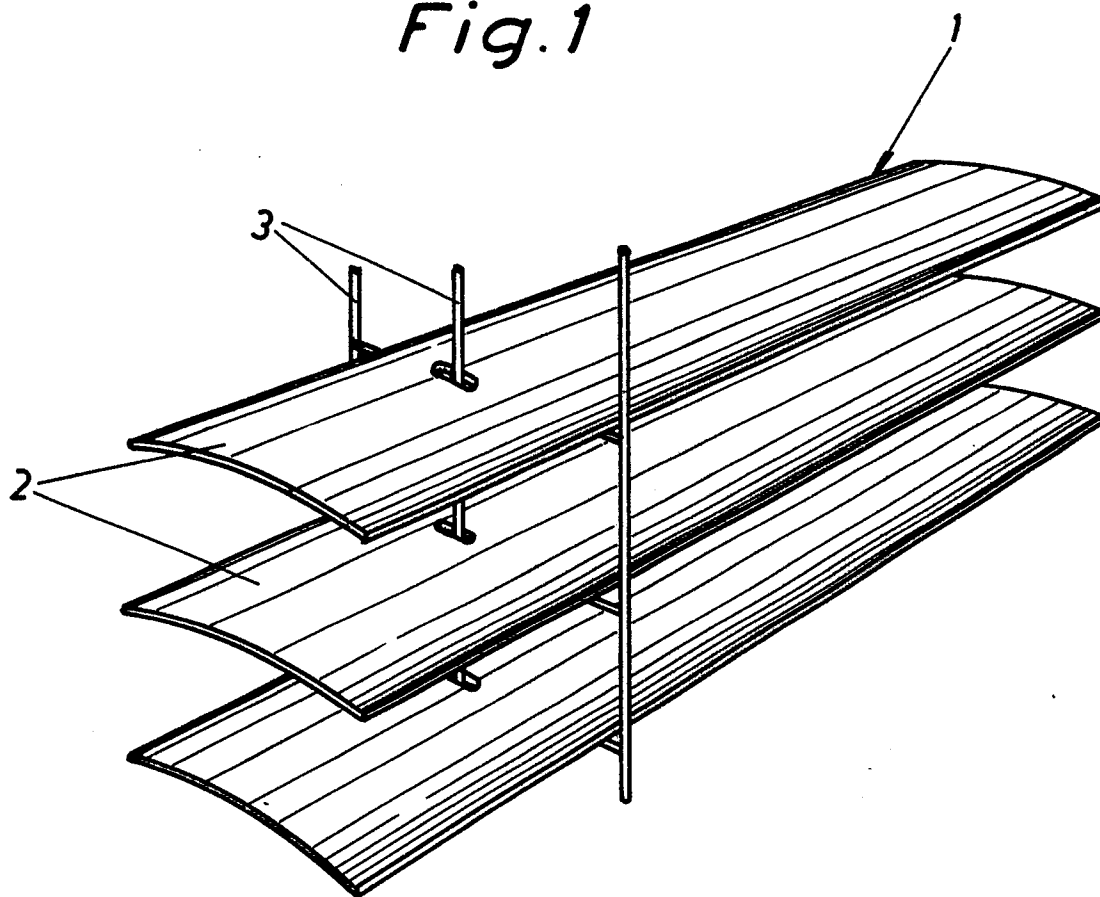


Fig.2

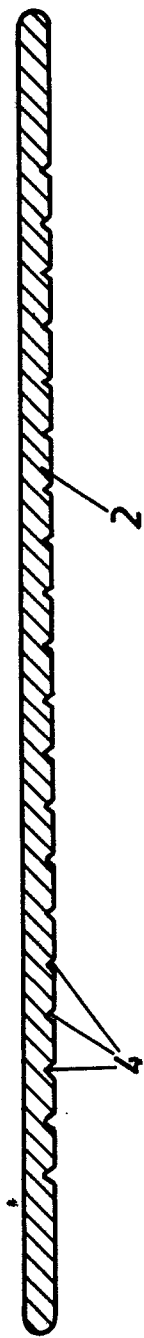


Fig.3



Fig.4

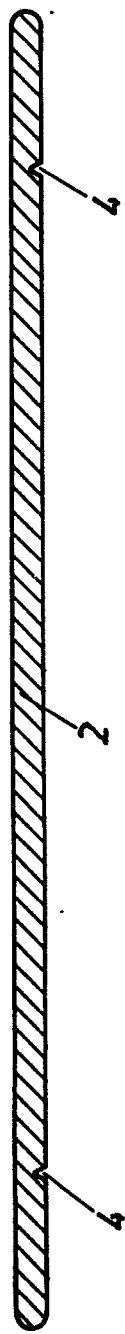


Fig.5



Fig.6

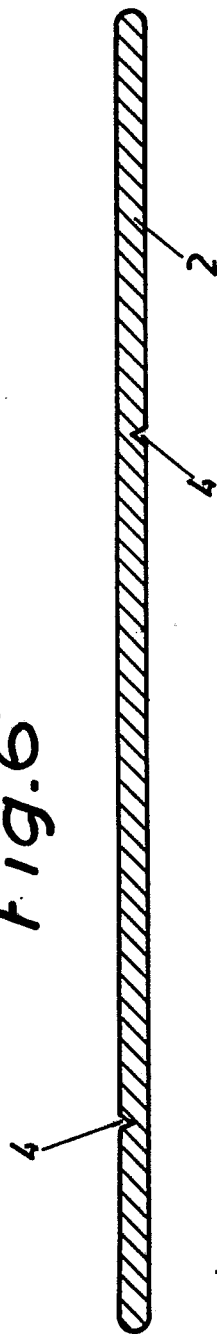


Fig.7

