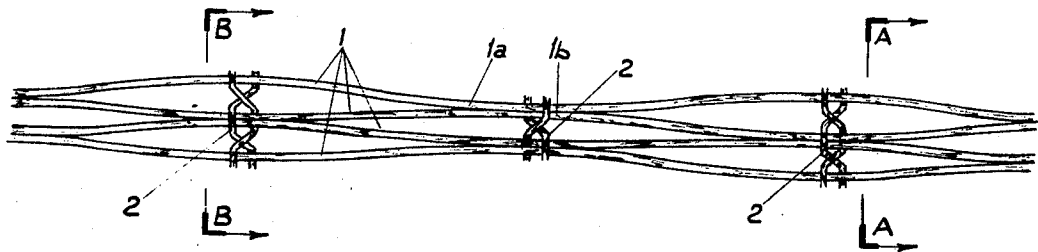


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[33] **Republic of South Africa**
[31] **68/6695**

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Attorney—Shoemaker and Mattare	

[54] **WOVEN MATERIAL PARTICULARLY FOR USE IN
SUN BLINDS**
7 Claims, 7 Drawing Figs.
[52] U.S. Cl. **160/231,
52/343**
[51] Int. Cl. **E06b 9/10**
[50] Field of Search **160/231,
237; 52/342, 343, 660—669, 616, 656**

ABSTRACT: A material suitable for use in making rollup-type sunblinds comprising narrow adjacent slats woven together by means of flexible binding extending at right angles to the lengths of the slats, the slats being positioned such that the side surfaces thereof are at roughly right angles to the surfaces of the woven material and the edges of the slats face the surfaces of the woven material.



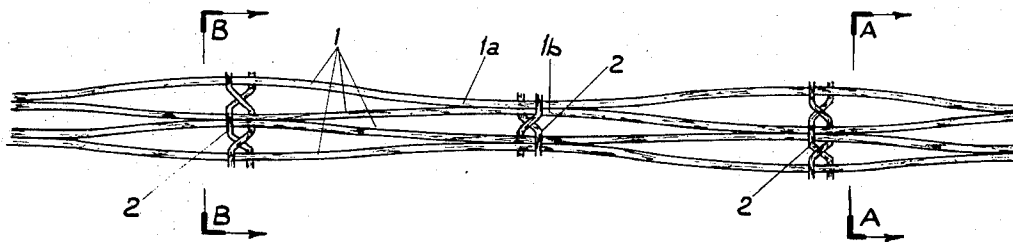


FIG. 1

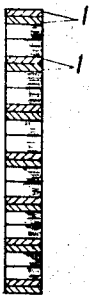


FIG. 2

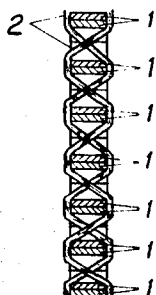


FIG. 3

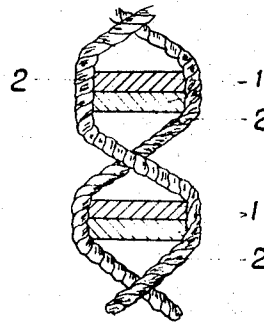


FIG. 4

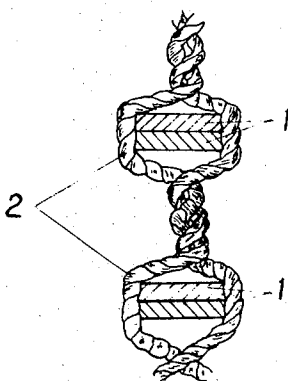


FIG. 5



FIG. 6

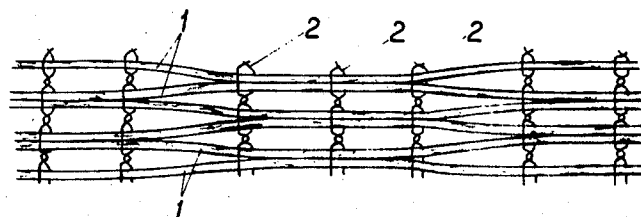


FIG. 7

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WOVEN MATERIAL PARTICULARLY FOR USE IN SUN BLINDS

This invention relates to a material comprising woven adjacent slats which may be used in making roll up types of sunblinds.

With today's trend for increasingly large and numerous windows the problem of solar heat and glare control has increased proportionally.

There are many devices available to counteract this problem, such as curtains, venetian blinds, roller blinds of fabric, bamboo, plastic, wood, etc. With the exception of venetian blinds all these devices reduce visibility as well as airflow through the material in proportion to the protection afforded, whilst venetian blinds are not generally attractive or pleasing to the eye.

It is basically the object of this invention to provide a material which may be used as a rollup type of blind but which nevertheless will allow airflow therethrough as well as reasonable vision whilst effectively shielding direct rays from the sun, and permitting ample ingress of light.

In accordance with this invention there is provided a material comprising narrow adjacent slats held in fixed spaced relation by woven flexible binding extending generally at right angles to the lengths of the slats, with the sides of the slats located at an appreciable angle to the side surfaces of the composite material and the edges of the slats accordingly facing towards said side surfaces of the material.

A further feature of the invention provides for the slats to be woven by the binding in abutting pairs with the pairs held in fixed spaced relation by the binding, and for individual members of a pair to be bound to individual members of the next adjacent pair thereof at spaced intervals along the length of the slats.

The material generally consists of slats as weft, and of a warp. The slats may be wood, plastic, metal or any other suitable material, and of a width, thickness and shape most suited for the desired effect. The warp can be of any suitable binding material. Each pair of binding threads can be crossed, or twisted once or several times between the slats, depending on the desired width of the gaps between the slats. If thin, narrow slats of white translucent plastic are closely woven with a warp of thin thread the result is a blind fabric which is almost invisible but which provides maximum protection and hardly reduces the visibility, airflow and light influx through the material. By using slats with bevelled edges the side surfaces thereof will be at a slant to the side surfaces of the blind material which then provides greater protection from the sun at times other than noon or thereabouts.

Preferred forms of the invention will now be described by way of example, reference being made to the accompanying drawings in which:

FIG. 1 is an elevation of an area of woven material,

FIG. 2 is a cross-sectional view along line A-A in FIG. 1,

FIG. 3 is a cross-sectional view along line B-B in FIG. 1,

FIG. 4 is an enlarged sectional view of a pair of bound slats,

FIG. 5 is similar to FIG. 4 and shows an alternative arrangement of the binding,

FIG. 6 is a cross section similar to FIG. 2 but showing an alternative formation of the slats, and

FIG. 7 is an elevation of an area of woven material in which the binding is arranged differently from that shown in FIG. 1.

In one preferred form of the invention shown in FIG. 1 the material for making a sunblind comprises narrow wooden slats 1 which may have a thickness of, for example, between one-quarter and one-half their width.

The slats 1 are woven in abutting pairs indicated by numerals 1a and 1b by spaced pairs of plastic or other suitable flexible filaments 2 which are either crossed between each pair of slats (as shown in FIG. 4) or twisted one or more times between each pair (as shown in FIG. 5 and FIG. 7). The assembly is such that each pair of filaments between them wrap each pair of slats, and the crossed or twisted portions of the filaments act to hold the pairs of slats in fixed spaced relation.

The pairs of filaments 2 extend generally at right angles to the lengths of the slats and the pairs of filaments are suitably spaced to maintain uniform spacing of the slats across the whole area of the material.

The pairs of slats are located with the edges of the slats facing outwardly and the sides thus extending in planes at right angles to the side surfaces of the composite material as shown in FIGS. 2, 3, 4, and 5.

The positioning of the slats with their edges facing the side surfaces of the composite material is achieved by weaving the binding in such a manner that a pair of slats is bound together at intervals with one slat of this pair bound to one slat of the next pair between these intervals.

The slats therefore form a zigzag pattern between the pairs of binding filaments and thus eliminate any tendency of the slats to position themselves other than with their edges facing the side surface of the composite material.

If two or more pairs of adjacent binding filaments are arranged to bind the same two slats into a pair these slats will cross the gap to the adjacent pair of slats only where the adjacent pair of binding filaments binds one slat of this pair into a pair with one slat of the adjacent pair. Ornamental effects can be created this way.

One such variation is shown in FIG. 7 where three pairs of adjacent binding filaments are used to bind each pair together before a member of that pair is bound to a member of the adjacent pair.

By bevelling the edges of the slats they may be located so that the sides of the slats are positioned at an angle other than a right angle to the side surfaces of the composite material this variation being shown in FIG. 6. In both cases a venetian blind effect is obtained.

It is to be mentioned that material as above described in the examples is woven with the slats as weft and binding as warp.

The slats may be made of any desired opaque or translucent strip material including plastic and metal, and the widths and thicknesses of the slats and also the types and thicknesses of the bindings may vary widely depending on requirements, which may include appearance, degree of ventilation, degree of shielding, degree of vision, and prevention of ingress of insects.

It will therefore be appreciated that both fine and course material may be woven to form blind material having the advantages of a venetian blind but with the above mentioned additional advantages.

What I claim as new and desire to secure by Letters Patent is:

1. A rollup-type sunblind comprising a composite material having a plurality of individual narrow adjacent slats held in fixed spaced relation by woven flexible binding extending at generally right angles to the lengths of the slats, with the sides of the slats located at an appreciable angle to the side surfaces of the composite material and the edges of the slats accordingly facing towards said side surfaces of the composite material, said slats being bound by said flexible binding into abutting pairs thereof with individual slats of one pair bound to adjacent individual slats of other pairs at spaced intervals along the lengths of the slats.

2. A sunblind as claimed in claim 1 in which the side surfaces of the slats are located at right angles to the side surfaces of the composite material.

3. A sunblind as claimed in claim 1 in which the side surfaces of the slats are inclined at an angle of less than 90° to the side surfaces of the composite material and the edges of the slats are bevelled such that they are parallel to the surfaces of the composite material.

4. A sunblind as claimed in claim 1 in which the slats are held in spaced relation to each other at spaced intervals along their length by crossing the binding elements of a pair thereof between adjacent slats.

5. A sunblind as claimed in claim 1 in which the slats are held in spaced relation to each other at spaced intervals along their length by twisting the binding elements of a pair thereof between adjacent slats.

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6. A sunblind as claimed in claim 5 in which the pairs of slats are held in spaced relation to each other at spaced intervals along their length by crossing the binding elements of a pair thereof between adjacent pairs of slats.

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7. A sunblind as claimed in claim 5 in which the pairs of slats are held in spaced relation to each other at spaced intervals along their length by twisting the binding elements of a pair thereof between adjacent pairs of slats.

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