

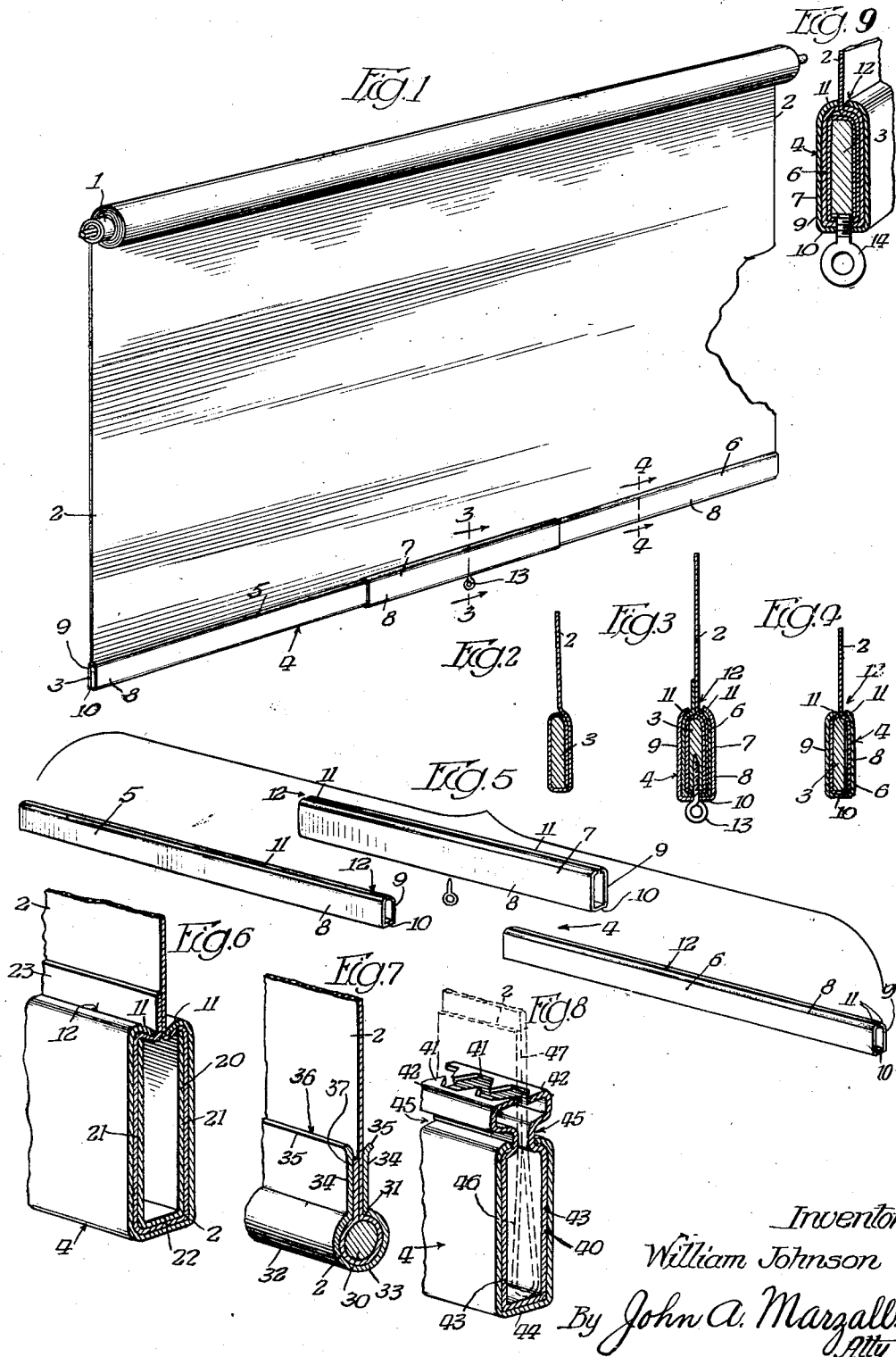
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WINDOW SHADE ATTACHMENT

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WINDOW SHADE ATTACHMENT

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This invention relates to shades in general, and particularly to window shades made from fabric or fibrous material fastened to a spring roller of the conventional type.

Window shades, particularly of the less expensive type, crack or crease or wrinkle during use, especially at the lower end, as that end constantly or generally projects from the roller as the shade is very seldom completely rolled. Moreover, severe wear occurs at the extreme bottom end where the usual wood cross slat is arranged. This cross slat is ordinarily retained in position by a pocket formed by folding the shade material upon itself, and stitching the material. If the shade material is to be replaced, or the shade renovated such as by turning the material end for end, or if the worn lower end is cut off, a new pocket must be provided for the slat. Suitably stitching the material to provide the required pocket and to render the shade presentable from an appearance standpoint is difficult and a tedious task, which cannot be done ordinarily by the local retail dealer or by the purchaser. It is therefore, desirable that some means be provided to obtain the full use of the unworn portion of the shade, or to permit new material to be applied readily, or use the old material reversed, without the necessity of reverting to the painstaking method of sewing a slat receiving pocket. Consequently, it is the primary object of the present invention to provide means of simple construction, and of low cost to which a bottom rigid member may be applied whereby the lower end of the shade material may be secured easily, quickly and effectively without the use of tools or a special sewing operation, and still present a neat and ornamental appearance.

Another object of the invention is the provision of new and improved means in the form of a tubular member, preferably telescopically arranged, to accommodate shades of different widths, and capable of being readily and easily applied to existing shades as a repair part, or to new or other material substituted for the worn or replaced material, or for new shades entirely.

A further object is the provision of new and novel means, preferably made of metal, and in the form of telescoping or overlying ferrules or sleeves, to replace the conventional wooden stick or slat and eliminate the conventional pocket but still secure the end of the shade material in rigid fashion and present a neat and ornamental appearance.

A still further object of the invention is the provision of a member adapted to encase the end of the shade which is supported by a member of

an improved type, or of the conventional wood stick type, the encasing member holding the parts in proper position when slid in place, there being means provided also for affecting the parts in rigid position, as well as the provision of means for permitting easy attachment of the shade operating cord.

A still further object of the invention is the provision of a window shade bottom bar which is relatively inexpensive to make and of such simplicity in construction that the local hardware store or blind dealer can furnish all the necessary parts to make a complete shade without resorting to the laborious effort of sewing in a pocket.

A still further object is the provision of a new and novel arrangement and construction of parts positioned and fabricated in a selected manner to permit quick and easy application or removal thereof to the fabric and still present a made to order or tailored appearance.

Numerous other objects and advantages of the invention will be apparent throughout the progress of the following specification.

The accompanying drawing illustrates certain selected embodiments of the present invention and the views therein are as follows:

Fig. 1 is a detail perspective view of a window shade of the roller type and embodying the invention;

Fig. 2 is a transverse sectional view showing the manner in which the shade material may be wound or placed about a bottom bar or stick;

Fig. 3 is a detail sectional view on the line 3—3 of Fig. 1;

Fig. 4 is a detail sectional view on the line 4—4 of Fig. 1;

Fig. 5 is an extended or exploded view of certain telescoping parts constituting one form of bottom bar;

Figs. 6 to 8 inclusive are modified forms of devices embodying the invention and capable of being used advantageously to perform the desired function and;

Fig. 9 is a view similar to Fig. 3 but showing a modified form of screw-eye member.

The window shade shown in Fig. 1 may comprise any form of supporting head 1 which, in the present embodiment, is illustrated as a conventional roller having the shade material 2 rolled thereon in the usual manner. The lower end of the shade material 2 is adapted to have its bottom end wound around a bottom slat or stick 3 which, in conventional practice, is ordinarily slidably received in a pocket formed by doubling the material upon itself and then stitch-

ing it together a predetermined distance from the bottom edge.

The present invention contemplates the elimination of the conventional pocket, but in some instances retains the use of the bottom slat or stick 3, or some substitute therefor in connection with a sleeve member 4. After the shade material 2 has been properly or adequately wound about, or otherwise fastened to the stick 3, as shown in Fig. 2, a rigid member 4 in the form of a sleeve or ferrule 4 may be slid endwise thereabout, as shown in Figs. 3 and 4. The member 4 is preferably in the form of a tubular rod telescopically fastened together to permit adjustment whereby the member may be used on shades of various widths. One form of the telescoping rod 4 may comprise end sections 5 and 6 telescopically received in a central section 7, Figs. 1 and 5.

Each of the sections, 5, 6 and 7, of the telescoping hollow rod or sleeve 4 is in the form of a channel having side legs 8 and 9 integrally connected by a bottom piece 10. The upper ends of the legs 8 and 9 are bent inwardly towards each other to form flanges 11, which terminate short of their free ends to provide a longitudinal slot 12, through which the shade material 2 may pass. The parts or sections 5 and 6, having telescoping engagement with the part 7, provide for considerable adjustment whereby the bottom member 4 may be adjustable for use on window shades of various widths. The member 4 has a smooth, neat outside appearance, and because of its ease of application and simplicity can be applied quickly and readily to window shades without resorting to any pocket building operation. A shade to be repaired or renovated, such as by cutting off the soiled or worn bottom part, or by turning the shade end for end, may be done practically instantly by winding the shade material about the stick and then sliding the member 4 in place thereover. In actual practice the center section is applied first and the end section set in place with the inner ends of those sections receivable in the center section. If desired, the center section 7 may be provided with an opening therethrough to receive the usual screw-eye 13 which screws up into the wooden stick 3. Instead of using the ordinary screw-eye 13 a blunt-pointed screw-eye 14, Fig. 10, may be used. This latter screw-eye does not screw into the stick 3 but has threaded engagement with the central part 7 so that when the screw-eye 14 is tightened it will press the stick 3 against the intumed wings 11 and lock the stick within the tube member 4. The usual cord having an end ring or tassel, may be fastened to either of the screw-eyes 13 or 14 in the usual manner. In cases where the shades are of a standard width, the member 4 may be made in one piece instead of being telescopic.

The bottom bar or slat construction shown in Figs. 1 to 5 and 9, provides a tubular member to receive the usual wooden bottom slat with the shade material wound thereabout. The tube may be made of several members telescopically mounted, or it may be made as a single piece. The shade material is properly supported at the bottom, and because of the neatness and simplicity of the tubular bottom bar 4 the general appearance of the shade is improved. The fastening means 13 and 14 cause the slat 3 to be rigidly mounted, and because of the shape and construction of the tubular bottom member ease of application and removal is insured.

Fig. 6 discloses a similar construction, but an inner member 20 is substituted for the conventional wooden slat 3. The shade material 2, Fig. 6, is wound about the relatively U-shaped member 20 which has spaced legs 21, 21 connected together by an integral base portion 22. After the shade material has been placed around the member 20, the outer tubular member 4 is slipped over in the same manner as described with respect to Figs. 1 to 5. The member 20 may be made of relatively springy material and provided with the necessary characteristics so as to maintain proper relationship with the outer tube 4. Also, the member 4 shown in Fig. 6, may be made up of the several sections 5, 6, and 7, as shown in Fig. 5. If desired, the material 2 may extend upwardly through the slot 12 a short distance as indicated at 23, Fig. 6. Moreover, the member 20 may be made V-shaped instead of U-shaped as shown.

The bottom bar construction shown in Fig. 7 may comprise a circular rod or stick 30 of wood or other material about which the shade material 2 is looped as indicated at 31. A bottom bar 32 in the form of a hollow tube is adapted to be slipped over the rod 30 to hold the shade material to the rod and to provide an easy detachable bottom bar. The bar has a lower substantially circular bottom portion 33 from which integral side legs 34, 34 project upwardly. The ends of the legs 34 flare outwardly as indicated at 35 to permit ease of installation. The tube 32 which may be either a single tube or in telescopic sections is relatively springy to hold securely the rod 30 and the shade material in place. The tube 32 is applied in position by sliding it endwise over the rod, and when in place clamps the material on the rod 30, the material extending through the slot 36. The legs 34 are capable of being spread to allow easy application of the tube 32 over the stick 30 and the material 2. In actual practice it has been found desirable to keep the free end 37 of the material 2 short of the upper ends of the legs 34 as clearly shown in Fig. 7.

A modified form of construction is shown in Fig. 8 wherein an inner tube 40 is provided to grip the material 2 by means of teeth 41 formed on the upper turned ends 42. These ends are bent from the side walls 43 of the tube 40 and are integrally connected by a bottom piece 44. The sides 43 are indented to provide longitudinal grooves 45 to receive the intumed flanges 11 of the tube 4 which is slipped over the inner tube 40. The inner tube 40 may be made in one or more sections but preferably not telescoping. The material from which the inner tube 40 is made may be springy normally to hold the teeth 41 apart to permit easy insertion of the shade material 2, while the outer tube 4 also made of springy material, is for the purpose of keeping the jaws 41 in biting relationship with the material. The material 2 may be inserted into the tube 40 in the form of a loop 46 with its free end 47 extending above the top so as to provide a double thickness of material where the teeth engage. It has been found advantageous that the outer tube 4 be of a single length of material, although short spaced parts of the tube would suffice but probably would detract from the appearance.

The constructions shown in Figs. 1 to 9 employ an outer tube which is used in conjunction with an inner member such as the members 3, 20, 30, or 40.

The invention therefore provides a shade bot-

tom slat which can be instantly applied and removed and, being ornamental, greatly enhances the appearance of the shade. The bottom bar structures herein shown, while particularly adapted for repairs to existing shades, are equally applicable for new shade constructions. Each of the bottom bar devices is capable of being easily and readily applied, and the construction employed permits repairs to be made to the shade with the minimum amount of effort and at low cost. The structures are particularly advantageous because they can be kept in stock as stock items by the local dealer or the purchaser who may apply them without effort and in the minimum length of time.

Changes may be made in the form, arrangement and construction of the parts without departing from the spirit of the invention or sacrificing any of its advantages, and the right is hereby reserved to make all such changes as fairly fall within the scope of the following claims.

The invention is hereby claimed as follows:

1. A window shade comprising a length of shade material, a fold in the lower end of said material, and means for gripping the folded end of said shade material independently of the use of slats or the like comprising a hollow expansible member having a slot for receiving the folded end of the shade material, and a bottom bar member received over the hollow member and providing for squeezing the hollow member to hold the shade material to the hollow member.

2. A window shade comprising shade material having a folded portion at its lower end, a slat mounted in said folded portion, a hollow sheet metal tube slipped endwise thereover to provide a bottom bar therefor, said tube being made in a plurality of sections having telescoping engagement with each other to provide for adjusting the length of said bottom bar to shades of different widths, said bottom bar having an aperture therein, and a fastening member extending through said aperture and threadedly engaging the slat.

3. A window shade comprising shade material having a folded portion at its lower end, a slat mounted in said folded portions, a hollow sheet metal tube slipped endwise thereover to provide a bottom bar therefor, said tube being made in at least two sections having telescoping engagement, said bottom bar having an aperture therein, and a fastening member threadedly engaging the material of the bottom bar about the aperture and engaging the slat to lock the slat in position inside the bottom bar.

4. A bottom bar for window shades comprising an inner expansible member, an outer member over the inner member to collapse the same, and inwardly extending teeth on the inner member, said teeth being adapted to grip shade material having a lower end extending therebetween.

5. A window shade comprising a strip of shade material, a hollow member having a longitudinal slit therein, teeth extending inwardly of said slit to provide shade material gripping means, and a second member cooperating with said first hollow member to press said teeth into shade gripping position.

6. A bottom bar for window shades comprising a sheet metal inner member having spaced legs, teeth extending inwardly from said legs, said legs being adapted to receive shade material therebetween to be gripped by said teeth, and a second member over the first member to press the legs towards each other.

7. A bottom bar for window shades comprising a hollow sheet metal member having free ends, inwardly extending teeth on each of said free ends, said free ends being adapted to have shade material extend therebetween and gripped by said teeth and means for urging said teeth towards each other comprising a telescoping member received on said sheet metal member and providing for pressing said free ends together.

8. A bottom bar for window shades comprising a hollow expansible member having a slot for receiving one end of a length of shade material, and a bottom bar member for engaging and pressing the hollow member to hold the shade material therein, said bottom bar member comprising a plurality of sections having telescopic engagement with each other for adjusting the length of the bottom bar member to shades of different widths.

9. A window shade comprising a length of shade material, a substantially U-shaped member having its upper ends spaced a substantial distance apart, the lower end of said shade material being wrapped around the outer surface of said member, and a bottom bar slidably received over said first member and the shade material wrapped therearound, said bottom bar having inwardly and downwardly inclined legs extending over and inwardly of said spaced apart ends of the U-shaped member to thereby bend the shade material over the tops of said ends and downwardly with respect thereto to securely grip said shade material in the bottom bar.

10. A bottom bar for a window shade comprising a central tubular portion and other elongated tubular portions slidably supported thereby to adjust the length of the bar, each of said portions being longitudinally slotted to receive an end of the shade material, and means to retain said portions in contact with an end of the shade material.

11. A bottom bar for a window shade comprising a central tubular portion and other elongated tubular portions supported thereby and slidable relative thereto to adjust the length of the bar, each of said portions being longitudinally slotted to receive an end of the shade material, and a member located within said tubular portions adapted to have an end of the shade material wrapped therearound, whereby said tubular portions are retained in contact with the shade material.

12. A bottom bar for window shades comprising a sheet metal inner member having spaced legs, teeth extending inwardly from said legs, each of said legs having a seat on the outer side thereof, said legs being adapted to receive shade material therebetween to be gripped by said teeth, a second member receivable over the first member to press the legs towards each other, and inwardly extending flanges on said second member adapted to engage over said seats.

13. A bottom bar for window shades comprising a sheet metal inner member having spaced legs, teeth extending inwardly from said legs, each of said legs having an inwardly recessed portion providing a seat on the outer side of the leg, said legs being adapted to receive shade material therebetween to be gripped by said teeth, a second member receivable over the first member to press the legs towards each other, and inwardly extending flanges on said second member adapted to engage over said seats.