

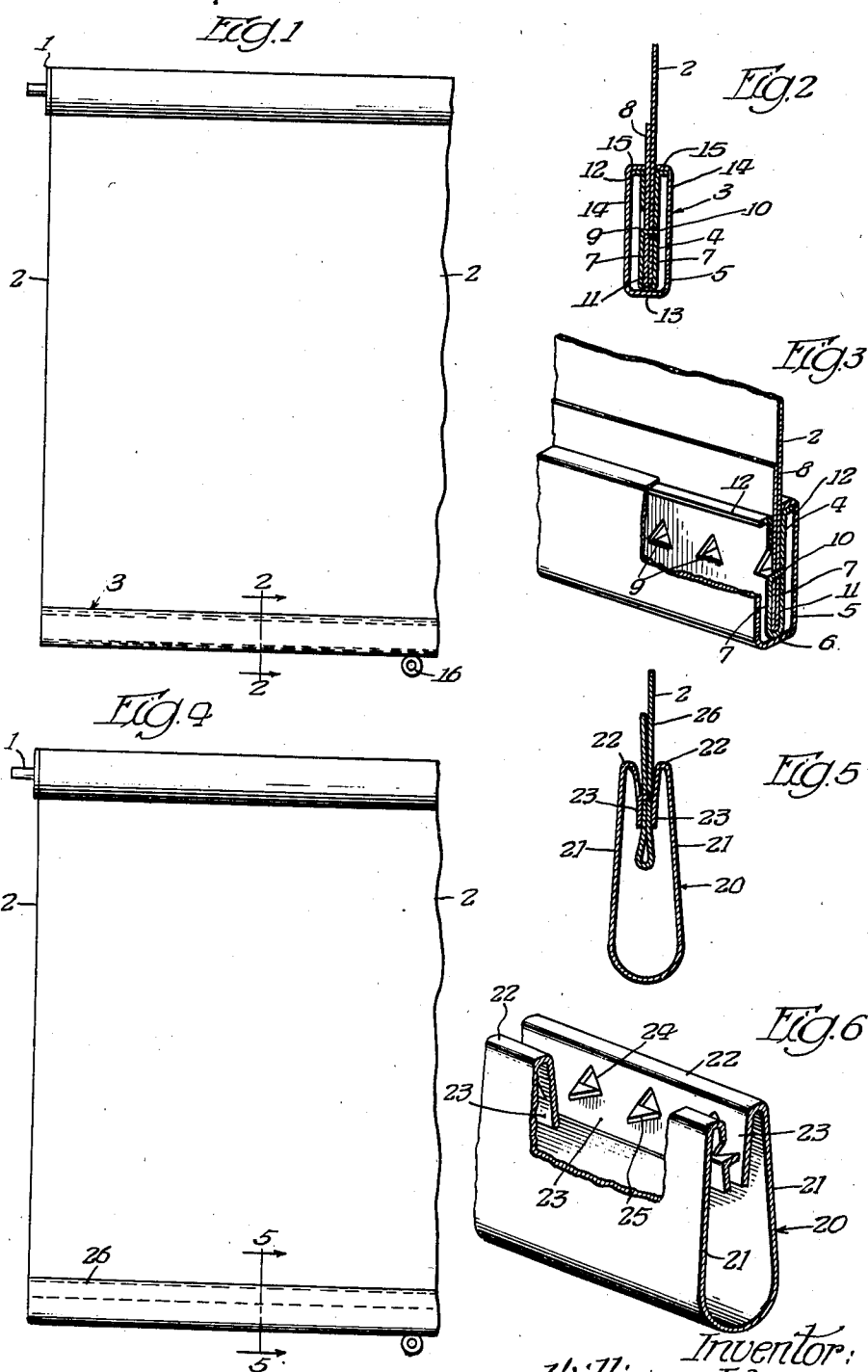
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WINDOW SHADE ATTACHMENT

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WINDOW SHADE ATTACHMENT

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5 Claims. (Cl. 160—398)

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.

This application is a division of applicant's 5 co-pending application Serial No. 343,360, filed July 1, 1940.

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.

An important object of the invention is the provision of new and improved means in the form of a tubular member, either telescopically or non-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 non-telescoping ferrules 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 further object of the invention is the provision of an improved bottom bar for window shades, the bottom bar having springy or resilient characteristics, either in the form of an integral member or a pressing ferrule to cause teeth provided on the bottom to bite or dig into the shade material so as to fasten the parts securely in place.

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 elevational view of a window shade and embodying the invention;

Fig. 2 is a detail sectional view on the line 2—2 of Fig. 1;

Fig. 3 is a detail perspective view of one form of an improved bottom bar, showing its application to the end of a window shade;

Fig. 4 is a detail elevational view of a window shade and embodying a modified form of the invention;

Fig. 5 is a detail sectional view on the line 5—5 of Fig. 4; and

Fig. 6 is a detail perspective view of the bottom bar, shown in elevation in Fig. 4 and in section in Fig. 5.

The window shade shown in Figs. 1 and 4 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. Conventional window shades have the lower end thereof formed into a pocket, into which a stick or bottom slat is arranged. The present invention contemplates the elimination of the conventional pocket and stick but, in some instances, may retain the use of the pocket and stick, or some substitute therefor, in connection with the use of the improved bottom bar of the invention.

In Figs. 1 to 3 there is shown a bottom bar 3 comprising an inner member 4 and an outer telescoping ferrule member 5. The member 4 comprises an integral section bent about itself, as indicated at 6, to provide spaced legs 7 between which the shade material 2, preferably folded on itself as indicated at 8, Fig. 3, is received. The body of the legs 7 is punched inwardly from opposite sides, as indicated at 9, Fig. 3, to provide in-turned teeth 10 which bite or dig into the looped end 11 of the shade material.

Flanges 12 are bent outwardly from the upper ends of the legs 7 and are adapted to receive and support the telescoping or encasing ferrule 5. When the ferrule 5 is applied in position, as shown in Figs. 1 to 3, the engagement of the inner side walls of the ferrule 5 will press against the outwardly turned flanges 12, tending to force the legs 7 inwardly and cause the teeth 10 to bite into the shade material. The ferrule 5 comprises a bottom 13, side walls 14, and in-turned flanges 15. The in-turned flanges are adapted

to rest upon the out-turned flanges 12 on the member 4.

To apply the bottom bar 3 to the end of the shade material 2, the shade material is put into the pocket between the spaced legs 7. The ferrule 5 is then slipped thereover, causing the flanges 12 to be pressed inwardly and causing the teeth 10 on the legs 7 to bite into the shade material.

A bottom ring 16 for the operating cord may be threadedly mounted in a threaded hole in the bottom 13 of the outer ferrule 5.

The inner member 4 is in the form of a V or U, with the integral legs 7 projecting outwardly from the sides. The teeth 10 bite into the material 2, and these teeth are punched inwardly from the sides 9. The normal tendency of the sides is to spread apart to permit easy insertion of the material, but when the outer tube 5 is applied, the inner surfaces 15 of the side walls 14 will press against the flanges 12 and squeeze the sides of the member 4 together, whereby the teeth 10 will bite into the material. The teeth 10 may be so arranged as to fit into recesses formed in the opposite sides, or the teeth may be constructed in such a manner as to have interfitting relationship.

The modified form of bottom bar shown in Figs. 4 to 6 comprises a looped, or U-shaped, member 20 having spaced sides or legs 21. The upper longitudinal edges of each leg 21 are bent inwardly, as indicated at 22, a short distance and then bent angularly downwardly to provide downwardly extending engaging legs 23. Each leg 23 is punched, as indicated at 24, to provide inwardly extending teeth 25 which are adapted to engage the bottom edge of the shade 2. The shade 2 may be looped about itself, as clearly shown in Fig. 5, to provide a two-ply construction, as indicated at 26 in Fig. 5. The material from which the bottom bar 20 is made is preferably resilient or springy material and may include metal, plastic, or any other material of a springy or resilient nature, or it may be some material which, when pressed, will retain its deformed position and condition. The bottom bar shown in Figs. 4 to 6 is adapted to have the shade material passed downwardly between the spaced legs 23 so as to grasp the shade material therebetween, the teeth 25 biting into the material. If the material from which the bottom bar 20 is made is of springy material, it is spread apart a predetermined distance to permit the shade to enter, whereupon the material, due to its resiliency, will grasp the end of the shade and cause the teeth 25 to bite therein. If the bottom bar 20 is not made of resilient material, it should be made of some material which will retain its shape when deformed. In the latter case the material is put in place between the spaced legs 23, at which time the bottom bar is pressed inwardly to cause the teeth to bite into the shade material and maintain itself in such engaging position.

The material from which the bottom bar 20 is made should be such that when the shade material is placed between the legs 23 the teeth will become embedded in the shade material and hold it in that position. When the shade material is once inserted it can not slip out of position because of the engagement of the teeth 25, and in order to keep the teeth from pulling through the material it may be doubled in the form of a loop to provide a two-ply construction.

The invention therefore provides a shade bottom 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 bottom bar for a window shade comprising an elongated substantially U-shaped member, the upper longitudinal edges thereof being bent toward each other for a short distance and then angularly downwardly, an end of the shade material being receivable between the resulting edges, and a plurality of teeth along each edge of said member adapted to be embedded in the shade material.

2. A bottom bar for window shades comprising an elongated substantially U-shaped member having spaced legs, the upper longitudinal edges of the spaced legs being bent to provide flanges, an end of the material of the window shade being receivable between the spaced legs, and a plurality of teeth on the member adapted to be embedded in the said shade material.

3. A bottom bar for window shades comprising an elongated substantially U-shaped member having spaced legs, the upper longitudinal edges of the spaced legs being bent to provide flanges, an end of the material of the window shade being receivable between the spaced legs, a plurality of teeth on the member adapted to be embedded in the said shade material, and a ferrule about the member to squeeze the legs together.

4. A bottom bar for window shades comprising a sheet metal inner member having spaced legs, teeth extending inwardly from said legs, a flange extending outwardly from each of said legs to provide 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.

5. A bottom bar for window shades comprising an inner member having spaced legs, teeth extending inwardly from said legs, a flange extending outwardly from each of said legs, said legs being adapted to receive material of the shade therebetween and to be gripped by said teeth, and a second member receivable over the first member and pressing each flange together to cause said teeth to become embedded into the shade material.

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