July 17, 1951 W. B. GROGAN 2,560,858

VENETIAN BLIND

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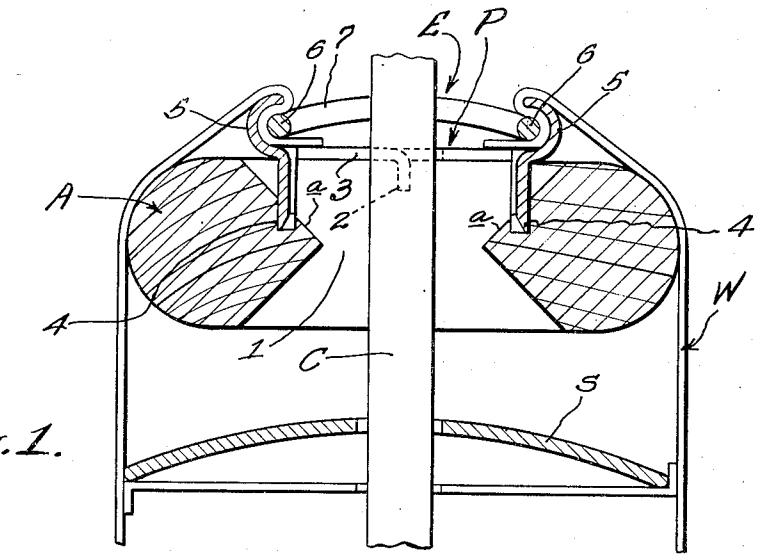
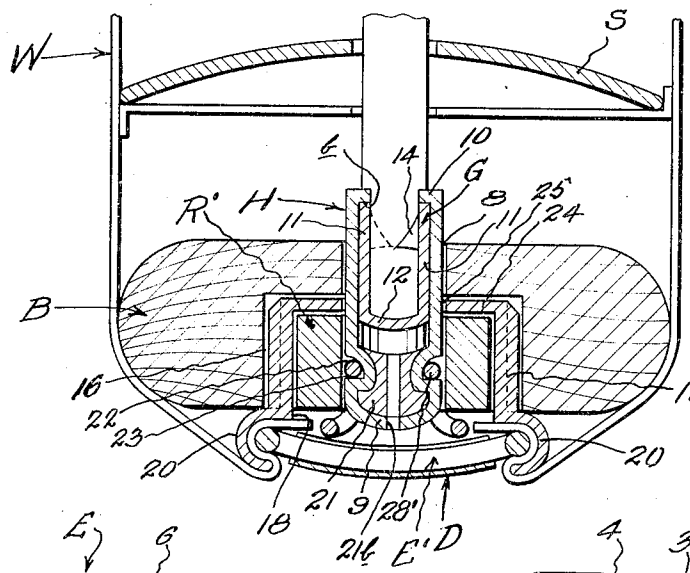


Fig. 1.



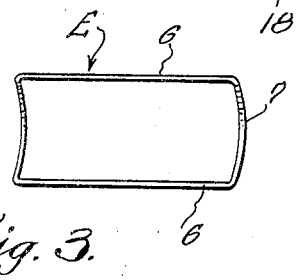


Fig. 3.

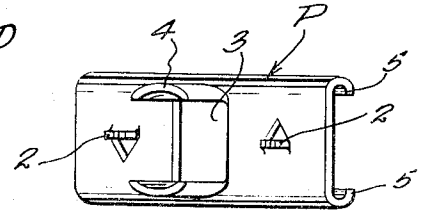


Fig. 2.

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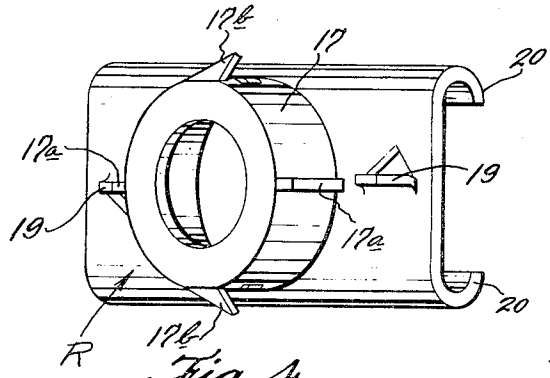


Fig. 4.

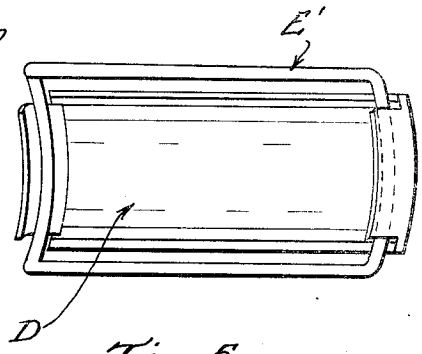


Fig. 5.

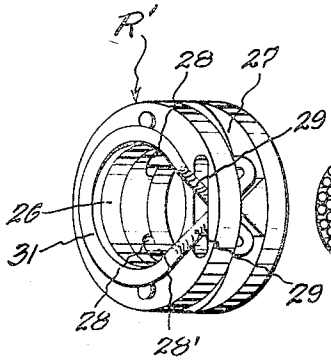


Fig. 9.

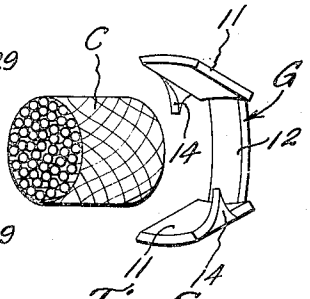


Fig. 6.

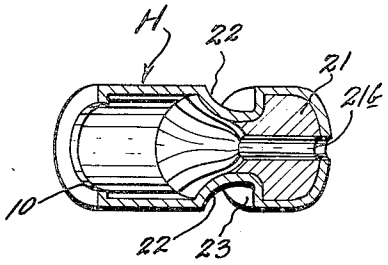


Fig. 7.

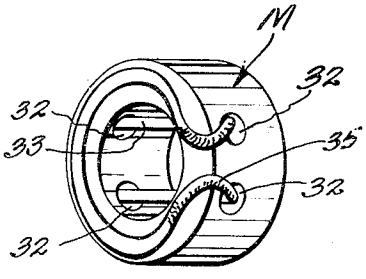


Fig. 10.

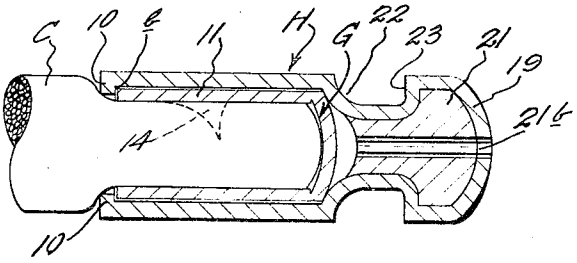


Fig. 8.

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VENETIAN BLIND

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Application October 13, 1947, Serial No. 779,555

1 Claim. (Cl. 160—178)

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This invention relates to Venetian blinds and it is primarily an object of the invention to provide an article of this kind with means whereby a quick assembly or disassembly may be effected whereby will be materially facilitated the cleansing and replacement of the several parts.

A still further object of the invention is to provide a Venetian blind wherein the tapes and slats may be conveniently removed and applied, not only for the replacement of damaged parts, but to permit substitution of parts of selective colors for re-decorative purposes.

A still further object of the invention is to provide in Venetian blinds means whereby a lifting cord may be effectively but detachably engaged with the bottom cross bar and wherein the webs for the slats may be detachably secured to the top and bottom bars.

With the above and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more particularly described and claimed.

In order that the invention may be the better understood, reference will be had to the accompanying drawings wherein like reference characters denote corresponding parts in the several views, and wherein

Figure 1 is a fragmentary view partly in vertical section and partly in elevation illustrating a Venetian blind in accordance with an embodiment of the invention;

Figure 2 is a view in perspective of a holding bracket as herein embodied for coaction with the top bar of the blinds;

Figure 3 is a view in plan of a holding spring element as herein embodied;

Figure 4 is a view in perspective of the bracket member herein included for attachment to the bottom bar of the blind;

Figure 5 is a view in perspective of the spring element and associated cover;

Figure 6 is a view in perspective of a grip element as herein embodied and unapplied, an associated end portion of a cord being shown in fragment;

Figure 7 is a view partly in perspective and partly in section of a holding or socket member unapplied;

Figure 8 is a sectional view taken lengthwise through an interlocked grip element and holding or socket member, an associated cord being shown in fragment;

Figure 9 is a view in perspective unapplied of a locking member with which the holding member coacts; and

Figure 10 is a view in perspective unapplied of a locking member constructed in accordance with another embodiment of the invention.

As illustrated in the accompanying drawings, A denotes the upper bar of a Venetian blind adapted for mounting in the usual way, and B denotes the conventional lower bar.

Each end portion of the top bar A in desired

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location is provided with a chamfered opening 1, through which freely passes in a well known manner a usual pulling or operating cord C. Disposed over this opening 1, is an elongated plate P, of a length to extend over the opening 1 and to permit the end barbs 2, struck therefrom, to penetrate the bar A, to maintain the plate P in position. The plate P has an opening or slot 3, disposed transversely thereacross and in register with the opening 1 and through which the cord C also freely passes.

Each of the opposite ends of the slot 3, is provided with the depending projections 4, struck from the plate P, in the production of the slot 3. The projections 4, penetrate the upper beveled face *a* of the opening 1, to provide further means for holding the plate P in place.

The side margins of the plate P, are defined by the upwardly disposed flanges 5, which extend lengthwise of the bar A, and the opposed faces of the flanges 5, in cross section are disposed on inbows to provide clamping jaws for extremities of the usual slat webs or straps W, which are held to the jaws by the clamping element E. As shown in the drawings, this element E, is substantially rectangular and comprises the elongated side clamping bars 6 having their extremities connected by the interposed arcuate spring bars 7 which assure the bars 6 having desired coaction with the flanges 5 and the interposed portions of the webs W.

The webs W coact in a well known manner with the slats S and for which reason a detailed description and illustration in connection therewith is believed unnecessary other than to state each of the slats S is separately and independently mounted.

The bar B, below an opening 1 of the upper bar A, is provided with an opening 8, which has freely and substantially snugly inserted therethrough an elongated holding or socket member H. This member H has one end 9 closed and such end is downwardly disposed when the member H is applied. The opposite or open end of the member H is defined by an inwardly disposed lip 10 which provides an inwardly facing shoulder *b* for the purpose hereinafter more particularly set forth.

Engaged with the lower extremity of the cord C is a grip element G comprising two side plates 11, having their lower adjacent ends connected by a cross piece 12. The plates 11, receive therebetween the lower extremity of the cord C, and when these plates are pressed tightly toward the cord, the teeth 14 will penetrate the cord C resulting in the secure attachment of the element G to the cord. It is to be particularly noted that the tooth 14 of one plate 12 is at the side of the plate opposite from the tooth of the other plate. This is important as a greater number of the fibers of the cord will be engaged without weakening the connection.

After the member G has been engaged with the cord, such member is forced into the mem-

ber H through the open end until the outer or free end edges of the plates 11 can engage the shoulder and thereby securely connect the cord C, with the member H.

The lower or under portion of the opening 8, of the bar B is materially enlarged as at 16, to provide a chamber in which is applied from below an upstanding collar 17 of required dimension which defines an opening 18, in the central portion of a rectangular plate R, which underlies the bar B and extends lengthwise thereof. The opposite end portions of the plate R have struck therefrom the barbs 19 which penetrate the bar B from below to maintain the plate R in position. The upstanding collar 17 has on opposite sides thereof outwardly pressed ridges 17*a* which engage the side of the opening 8 of the bar B to prevent the plate R from rotating. The opposite end portions of the collar 17 have struck therefrom the barbs 17*b* which penetrate the side of the opening 8 and prevent the accidental removal of the plate R from the bar B.

The plate R is provided along the opposite longitudinal margins with the outstanding flanges 20 disposed lengthwise of the bar B and which also have opposed faces disposed in inbows which provide jaws whereby the lower extremities of the webs W may be detachably held to the plate by the clamping element E', similar to the element E hereinbefore referred.

The bottom or closed end portion of the member H, is provided with a filler 21 of lead or other desired material to give added weight to said bottom or closed end portion. It is important to note that this filler 21 is provided with an opening 21*b* which acts as a drain and ventilator to prevent rust and corrosion of the element H, especially in certain high humidity climates. The closed end portion of the member G, inwardly of but in relatively close proximity to the closed end 9, is provided therearound with an annular groove 22 providing an inwardly or upwardly facing flat shoulder 23.

The outer marginal portion of the flange or collar 17 is defined by an inwardly disposed continuous flange 24 affording a central opening 25 of a diameter materially less than that of the opening 18 and with the opening 25 substantially central of the opening 18. When the plate R is applied, the flange 24 is innermost as illustrated in Figure 1, of the drawing.

Substantially snugly received from below within the chamber afforded by the collar 17 and flange 24 is a holding or retaining member R' having a central opening 26 into which snugly engages from above the member H with the shoulder 23 thereof upwardly directed or in a direction toward the opening 8. A portion of the periphery of the member R' is provided with a circumferentially disposed groove 27 through the base portion of which are provided spaced openings aligning with the space openings 28 in the opposite portion of the member R. The openings are spaced apart a distance less than the major transverse diameter of the member 8 but in excess of the mean diameter of the groove 22 of the member 8. Insertable through these openings 26 are the substantially parallel pins 28' which are received within the groove 22 and provide means for effectively holding the member H to the member R.

As illustrated in Figure 9, of the drawing, the pins 28' are in continuation of the crossed bars 29 which are directed through a chordal slot 30 divided in an end face of the member R and in

communication with the groove 27. These crossed bars 29 are substantially perpendicularly related to the pins 28' and are in continuation of a split ring 31 in a plane substantially parallel to the pins 28' and positioned closely adjacent to the member R and disposed around the opening 26 thereof.

As illustrated in Figure 10 of the drawing, the holding or retaining member M is provided with the opposed pairs of openings 32, with the openings of each pair spaced apart as hereinbefore noted with respect to the openings 26 of the member R. Insertable through the openings 32 are the pins 33 which are received within the groove of the member H to hold such member H against separation with respect to the member R. These pins 33 are substantially parallel to the plane of the open loop 34 overlying a face of the member M with adjacent ends of the pins 33 connected to the extremities of the loop 34 by the intermediate arms 35 substantially at right angles to the loop 34 and pins 33.

In the embodiment of the invention as illustrated in Figure 10, the member M is of one piece whereas in the form of the member R as particularly illustrated in Figure 9, such member comprises a number of overlying plates *a* held in desired assembly relationship by the rivets 36 or as otherwise preferred.

From the foregoing description it is thought to be obvious that a Venetian blind constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated.

I claim:

In a Venetian blind, an upper bar, a lower bar, said upper bar having a chamfered opening therethrough, a pull cord disposed through said opening and extending and secured to the lower bar, a plate positioned upon the upper bar and disposed over the opening, said plate having an opening registering with the opening of the upper bar and through which the pull cord is extended, projections depending from the plate at its margins and impinging the top side of the upper bar at opposite sides of the opening therein, upstanding clamping jaws carried by the plate at opposite sides of the opening in the same and extending lengthwise of the upper bar, slats interposed between the upper and lower bars, elongated webs at opposite sides of the slats and operatively engaged therewith, the upper portions of the webs overlying the opposed faces of the jaws, a clamping element interposed between the jaws and holding the webs at the jaws, and means for securing the opposite end portions of the webs to the lower bar.

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