

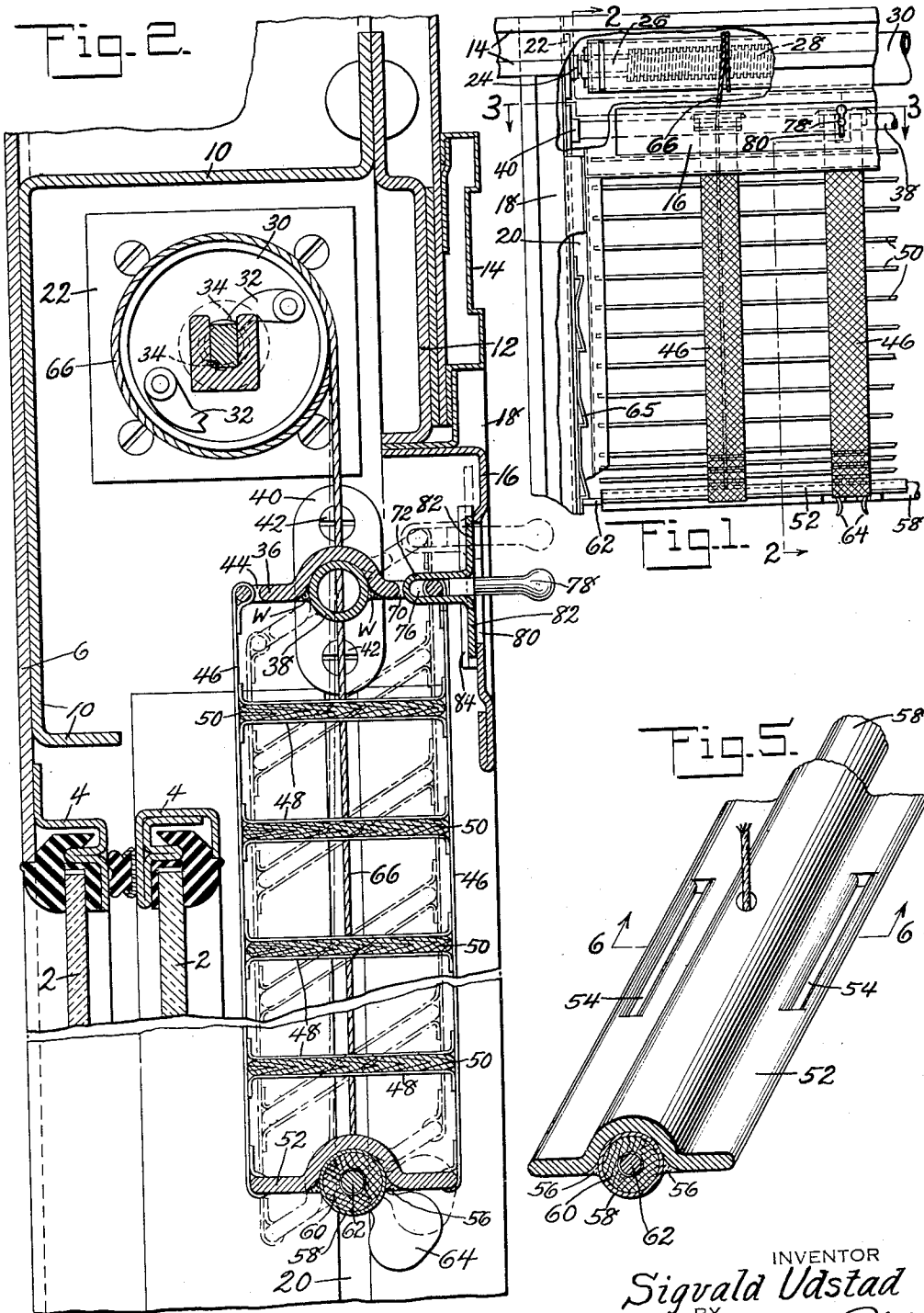
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S. UDSTAD
VENETIAN BLIND

2,164,556

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2 Sheets-Sheet 1



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2 Sheets-Sheet 2

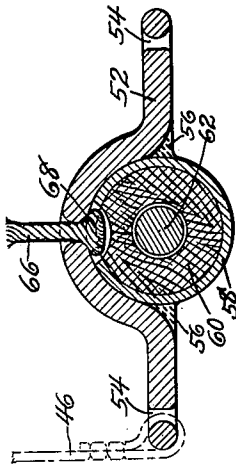


Fig. 6.

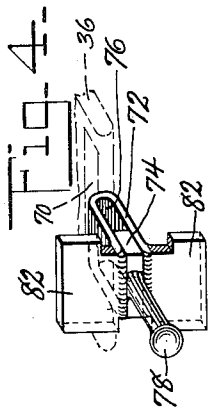
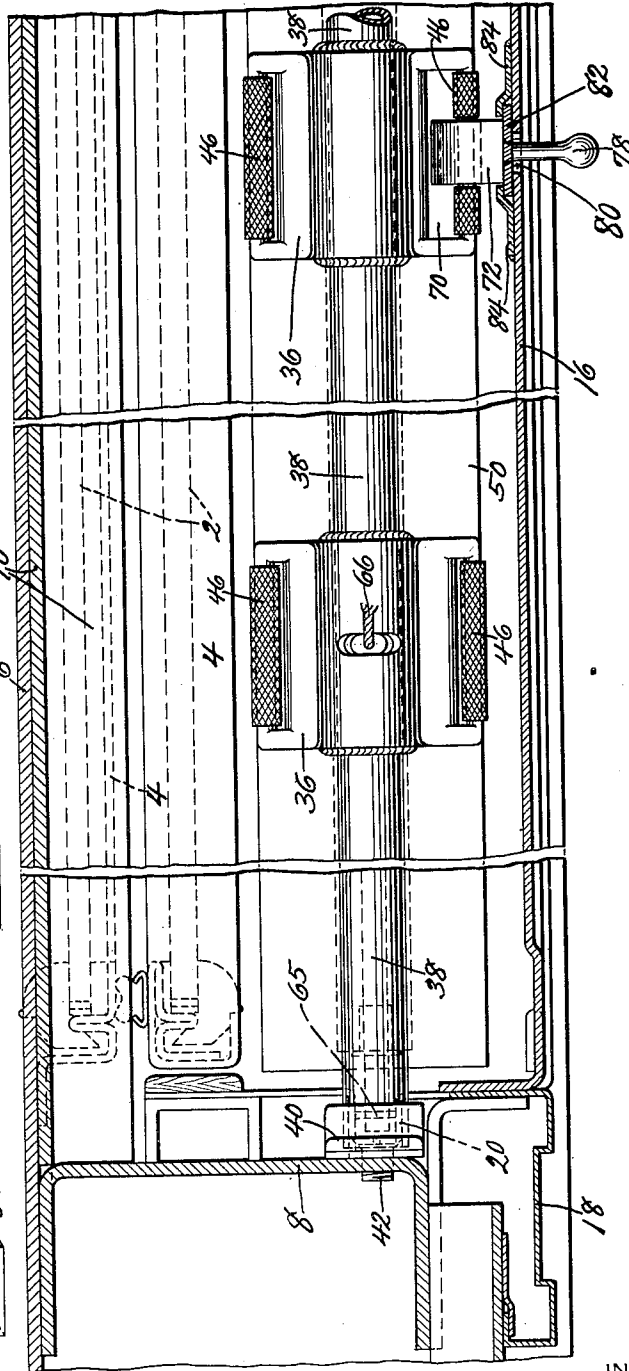


Fig. 4.

Fig. 3.



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VENETIAN BLIND

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2 Claims. (Cl. 156—17)

This invention relates to Venetian blinds in general and in particular to Venetian blinds for use in railway or other passenger carrying vehicles.

5 Venetian blinds, as is well known, usually comprise a plurality of spaced slats connected together by web members; the slats being raised or lowered by means of cords. In the usual Venetian blind the slats are adapted to be tilted by means of cords or the like but this arrangement is wholly unsuited in public conveyances such as railway cars or the like in which the tilting of the blinds would be effected by passengers. In view of this, one object of the present invention is to provide a Venetian blind construction in which pull cords for adjusting the positions of the slats are eliminated and easily accessible slat tilting means are provided for effecting adjustment of the slats, which means are simple in construction and, further, are durable in operation.

10 A further object of the invention is the provision of a Venetian blind the slats of which may be tilted by means of an inconspicuous slide operator.

15 These and other objects of the invention will be apparent to those skilled in the art from a study of the following description and accompanying drawings, in which:

20 Figure 1 is a partial elevational view of the improved blind applied to a vehicle with parts thereof broken away to more clearly show the structure;

25 Fig. 2 is an enlarged sectional view taken substantially on line 2—2 of Fig. 1;

30 Fig. 3 is an enlarged sectional view taken substantially on line 3—3 of Fig. 1;

35 Fig. 4 is an enlarged perspective view of the slide operator for tilting the slats;

40 Fig. 5 is an enlarged perspective view of a portion of the bottom rail, and

45 Fig. 6 is a sectional view taken substantially on line 6—6 of Fig. 5.

Referring now to the drawings in detail, it is seen that the improved blind is mounted in the car structure in much the same manner as is the present day roller curtain. The portions of the car structure shown are representative of general car construction and as shown the windows 2 are carried by suitable frames 4 at least one of which abuts the vehicle side wall 6. The window opening is formed, insofar as shown, by the side posts 8 and window header 10, the latter of which, due to its peculiar shape and the attachment of top rail 12, forms a pocket admirably

suited to receive the blind operating mechanism. This mechanism will occupy the space now occupied by the conventional curtain and without any substantial change in existing car construction. The window opening is trimmed on the interior by the customary top member 14 and 16 and the post or pier members 18, while the sides are finished in some suitable manner to provide curtain guide grooves 20, all of which is conventional and need not be altered to permit application of the improved blind.

The blind itself consists of the slat unit and the connected raising mechanism. This raising mechanism is very similar to the present curtain roller and consists of attaching plates 22, one at least of which has a projecting socket member 24 adapted to receive the substantially rectangular end of rod 26. One end of coiled torsion spring 28 is connected to this rod, while the other end is secured to the drum or cylindrical roller 30 which is rotatably mounted upon the rod and provided with pivoted dogs 32 adapted to engage ratchet 34 formed on the rod adjacent the rectangular portion. The rod may extend completely through the drum to support the other end thereof or the drum may be provided with a pivot providing the necessary support.

The slat unit consists of short top support members 36 preferably formed of metal having a curved central portion overlapping a pipe or rod 38 welded to the bar as at W and extended to provide a pivot for the unit supported in bearing brackets 40 secured to the window framing by screw or bolt means 42. These short support members are formed with slots 44 adjacent either edge through which webbing strips 46 are looped and secured and these strips have fastened thereto cross strips 48 adapted to receive and properly space the slats 50. The lower ends of the webbing strips are secured to the lower bar 52 by being looped through the slots 54 formed adjacent the edges of the lower bar. The lower bar is very similar to the top support member with the exception that it is substantially the same length as the width of the window opening and is welded as at 56 to a tube 58, the ends of which are substantially flush with the bar ends. This tube is provided with a tubular filler member 60 forming a bearing for slide rods 62 which extend each way from substantially the longitudinal center of the tube. These slide rods are provided adjacent their inner ends with finger grips 64 and at their outer ends with projections which engage the stepped means 65 (Fig. 1) located within the guide grooves 20 and these projec-

tions are urged outwardly against the stepped means by means of coil springs (not shown).

In order to raise the slats the cords or cables 66 are provided having one end secured to the drum or roller 30 with the other end secured as at 68 (Fig. 6) to the bottom bar, while the intermediate portions pass freely through openings in the slats 50 and top pivot member 36. These cables are located in such a position as to be concealed by the web strips.

The top pivot member is provided with an enlarged slot 70 preferably located adjacent one edge of one of the short support members and through which a looped member 72 is passed after which a plug of metal 74 is welded in place, thus securing the looped member upon the support member and pivot member but providing a free space 76 permitting relative sliding movement of the member and top support member. The plug of metal has formed therewith or attached thereto an operating handle 78 which is adapted to pass through slot 80 cut in the trim member 16 and this unit or slide operator is held in its proper position by means of flanges 82 of the looped member, being slidably held against the trim by removable means 84. It is thus seen that this slide operator may slide vertically relative to the car trim and in doing so will raise and lower one edge of the top bar with the relative movement between the slide operator and the top bar being permitted due to the space 76.

To operate the blind it is only necessary to squeeze the finger grips 64, thus releasing the projections from the stepped means and permitting a raising or lowering of the bottom bar. In case the slats are to be lowered a steady pull is all that is necessary, while if the slats are to be raised a slight lowering movement to release the dogs 32 followed by a quick upward movement is necessary. To tilt the slats it is only necessary to move the slide operator handle 78 which forms a very inconspicuous part of the car trim.

It is thus seen that a Venetian blind has been

provided which can take the place of the customary curtain on existing cars with a minimum change in structure yet one in which all unsightly operating cords are eliminated. In practice the webbing strips are made as narrow as consistent with proper appearance and the center strip shown in Fig. 1 is eliminated.

While the device has been described more or less in detail, it is obvious that various changes may be made by persons skilled in the art and all such changes are contemplated as fall within the scope of the following claims.

What is claimed is:

1. A Venetian blind for vehicle structures having window openings bounded by side members and window trim comprising in part, a slat unit including a top slat pivotally secured to the side members in a substantially concealed position behind the window trim, said unit including also a plurality of intermediate slats and a bottom slat flexibly suspended from said top slat, means connected to said top slat for controlling the angular position of said slats, said means comprising a rigid member projecting through the window trim for operation from the vehicle interior, and guides on the inner side of said window trim slidably retaining said means for movement in a substantially vertical plane.

2. A Venetian blind for vehicle structures having window openings bounded by side members and window trim comprising in part, a slat unit including a top slat pivotally secured to the side members in a substantially concealed position behind the window trim, said unit including also a plurality of intermediate slats and a bottom slat flexibly suspended from said top slat, slide means mounted in guides on said window trim projecting therethrough for movement from the vehicle interior, said slide means being connected to said top slat for relative movement therebetween whereby operation of the slide means will effect tilting of the slats.

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