Nov. 9, 1926.

C. W. KIRSCH

1,606,581

SHEAVE CARRIER FOR ENDS OF CURTAIN RODS

Filed August 6, 1925

2 Sheets-Sheet 1

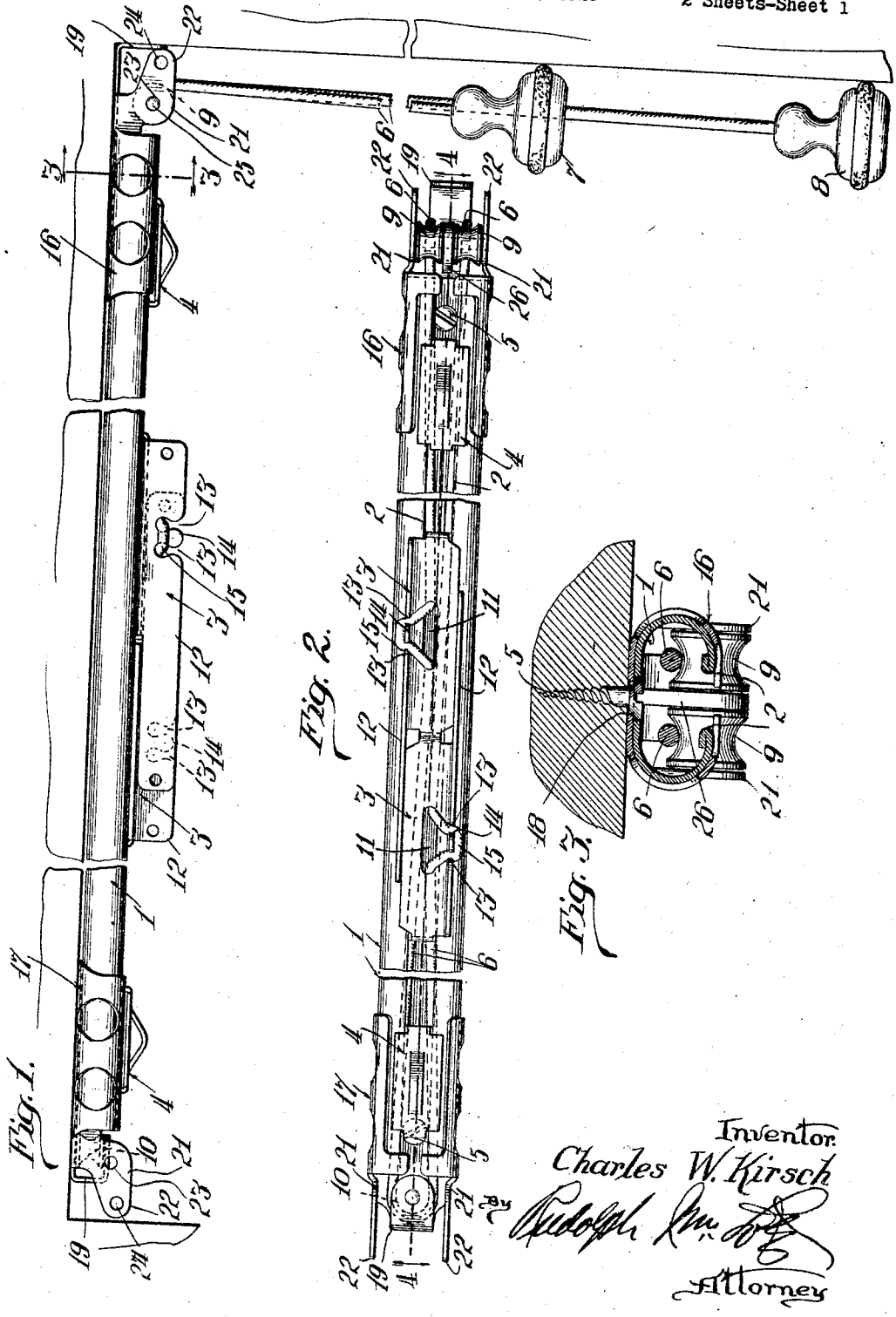


Fig. 1.

Fig. 2.

Fig. 3.

Inventor
Charles W. Kirsch
By Rudolph Kuhn
Attorney

Nov. 9, 1926.

C. W. KIRSCH

1,606,581

SHEAVE CARRIER FOR ENDS OF CURTAIN RODS

Filed August 6, 1925

2 Sheets-Sheet 2

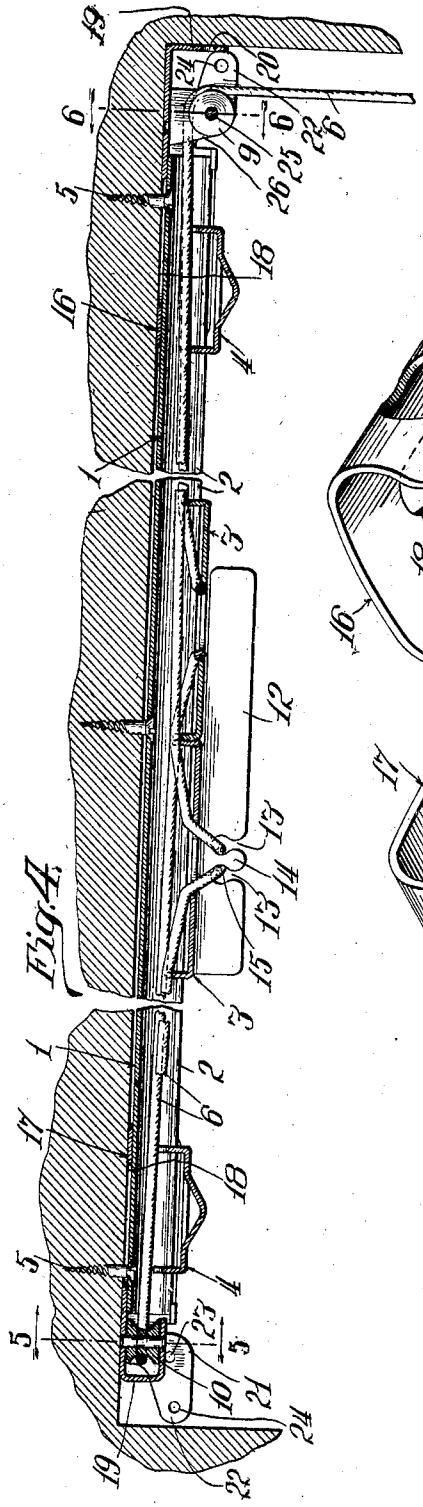


Fig. 4.

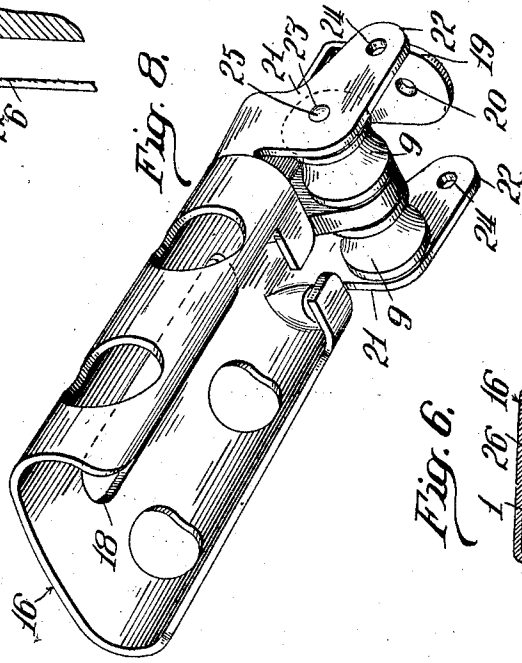


Fig. 8.

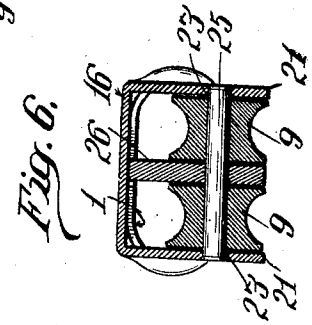


Fig. 6.

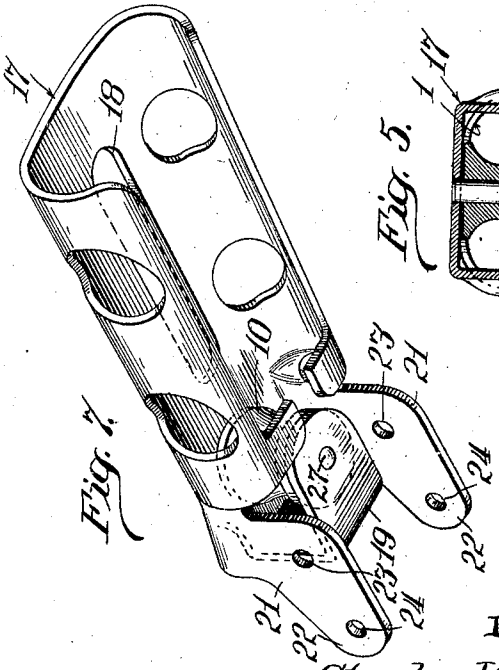


Fig. 7.

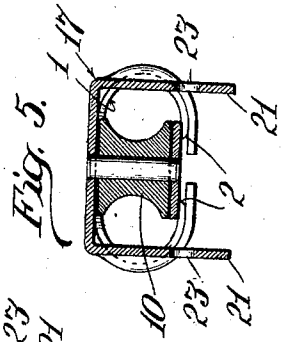


Fig. 5.

Inventor

Charles W. Kirsch

By Rudolph Sinz

Attorney

Patented Nov. 9, 1926. 1,606,581

UNITED STATES PATENT OFFICE.

CHARLES W. KIRSCH, OF STURGIS, MICHIGAN.

SHEAVE CARRIER FOR ENDS OF CURTAIN RODS.

Application filed August 6, 1925. Serial No. 48,484.

This invention relates to curtain and drapery rods and more particularly to hollow, longitudinally slotted rods of this type, adapted particularly to be mounted upon the top wall of a window-casing, door-casing or passageway and which are equipped with drapery carriers or slides for the suspension of so-called "pull-string" draperies which are adapted to be separated and brought together for admitting or shutting off light and air from windows and opening or obstructing door and passage-ways.

The present invention relates more particularly to the sheave carriers for rods of this type and to the drapery carriers or slides and has for its object to provide sheave carriers which are telescopically associated with the ends of the rod and so dispose the sheaves as to cause the cord trained over all of them to be disposed, except as to its depending end portions, substantially entirely within the rod.

A further object of the invention is to provide a sheave carrier which is so constructed that it may be very easily adapted to receive a pair of sheaves rotatable on a horizontal axis or a single sheave rotatable on a vertical axis.

A further object of the invention is to provide drapery carriers for rods of the type aforesaid and equipped with sheaves disposed to effect housing of the main portion of the cord within the rod, which are equipped with means for attaching the cord thereto without requiring knotting of the latter and wherein said means are so disposed as to obviate projection of the cord from the slot of the rod.

The invention is fully illustrated in the accompanying drawings, wherein:—

Fig. 1 is a view in side elevation of a curtain or drapery rod equipped with devices constructed in accordance with my invention, the same being shown as mounted in the top of a window-casing or the like.

Fig. 2 is a bottom plan view of the rod.

Fig. 3 is a transverse section on the line 3—3 of Fig. 1.

Fig. 4 is a central, vertical, longitudinal section on the line 4—4 of Fig. 2.

Figs. 5 and 6 are sections on the lines 5—5 and 6—6, respectively, of Fig. 4.

Figs. 7 and 8 are perspective views of the respective sheave carriers for opposite ends of the rod.

The rod 1 is of the conventional flat or C-shaped type provided with a continuous longitudinal slot. The latter is bordered by flanges 2 upon which the drapery carriers 3 and 4 are supported. In the wall of the rod opposing the slot there are perforations for the passage of screws 5 for securing the rod to the top wall of the casing.

The drapery carriers 3 are known as master-slides or master-carriers and are secured to the upper corners of the meeting edges of the pair of draperies or curtains which are also secured along their upper edges to the carriers 4.

The carriers 3 are adapted to be secured to the cord 6 between the ends of the latter as hereinafter described. Said cord 6 has two depending end portions each of which carries a weight, the latter being indicated at 7 and 8, respectively, said end portions depending from the pair of sheaves 9 over which the cord is trained. These sheaves are disposed at one end of the rod 1 and are rotatable on a horizontal axis while the sheave 10 at the other end of the rod is rotatable on a vertical axis, the cord being also trained over said sheave 10. The latter is of a diameter slightly exceeding the width of the slot of the rod, the sheaves 9 and 10 being relatively disposed so that the cord, when taut, will extend substantially parallel with the flanges 2 and substantially midway between the latter and the top wall of the rod or, in other words, substantially axially of the curved side walls of said rod.

That portion of the cord 6 extending from one of the sheaves 9 to the sheave 10 is secured to one of the master-carriers 3 and that portion of the cord passing from the other sheave 9 to the sheave 10 is secured to the other carrier 3. The said respective portions of the cord always travel in opposite directions so that upon lowering the weight 7, for example, the meeting edge-portions of the curtains or drapes will move apart and upon lowering the weight 8 they will approach each other.

Each of the carriers 3 includes a body-plate which is provided with a longitudinal slot 11 between its ends and with a flange 12 along one side edge. The said flange is provided with two recesses 13 bordering a projection 14 all disposed opposite the slot 11, the recesses 13 having slightly contract-

ed mouth portions. The cord is drawn in a loop 15 through the slot 11 and said loop passed over the projection 14, the cord being forced through the contracted mouths of the recesses 13 to prevent disengagement of the loop from the projection 14. The edges over which the loop 15 passes are all sharp and act to resist slippage so that there is no lost motion between the cord 6 and the carriers 3.

The sheaves 9 and 10 are carried by members 16 and 17, respectively, which are identical and formed with the same dies except as hereinafter described. Each thereof includes a body portion of a shape similar to that of the rod 1 and of a size to snugly telescopically receive an end portion of the latter. Said body portion is provided with a longitudinal slot 18 for the passage of one of the screws 5 and permitting of adjustment of the member 16 or 17 on the rod to a limited extent. The top wall of each of said members projects at one end beyond the side flanges thereof and terminates in a downwardly extending end-flange 19 provided with a perforation 20. The projecting end portion of said top wall is also provided with downwardly extending side flanges 21 having extension portions 22 the extremes of which oppose the side edges of the flange 19. Said flanges 21 and extension portions 22 are provided with perforations 23 and 24, respectively, the former being adapted to receive the pivot pin 25 carrying the sheaves 9. A spacing plate 26 secured to the projecting end portion of the top wall by welding or other suitable means, projects between the sheaves 9 and is provided with a perforation to receive the pin 25.

The member 17 is devoid of the plate 26 and has the projecting end portion of its top wall bent between its ends to cause the flange 19 to extend parallel with said top wall and bring the perforation 20 into alignment with a perforation in said projecting portion of said top wall. The sheave 10 is disposed between the latter and said flange, the pivot pin 27 of said sheave being mounted in said perforations.

Before mounting the rod 1 on the casing, the carriers 3 and as many of the carriers 4 as may be required, are mounted on the rod and the members 16 and 17 mounted on the ends of the latter. The cord 6 is either then passed through the rod and trained over the sheaves or, preferably, this is done before the carriers are disposed upon said rod by passing the cord over the sheave 10 and then inserting it into the rod through the slot in the same and then passing the end portions of said cord over the sheaves 9. This can be easily accomplished without mounting the members 16 and 17 on the rod or by temporarily mounting the same and then removing one thereof and inserting the carriers and replacing the demounted member.

The rod is then mounted on the casing, the weights 7 and 8 secured to the ends of the cord and properly positioned with respect to each other. The master-carriers 3 are then moved to the middle of the rod and the loops 15 drawn through the slots 11 by means of a suitable device such as a buttonhook, said loops being then engaged with the projections 14.

The curtains or drapes are then secured to the carriers 3 and 4 and the outer upper corners thereof secured to the extension portions 22 of the flanges 21 by means of the perforations 24.

I claim as my invention:—

1. Sheave carriers for the opposite ends of a hollow curtain rod each including a sleeve portion for telescopic engagement with the said rod, and an extension portion, the latter comprising a middle portion and a pair of parallel side flanges, a pair of sheaves rotatably disposed between said side flanges of one of said carriers for rotation on an axis perpendicular to said side flanges, at least one of said carriers having an end flange having a free end portion projecting between its side flanges and extending parallel with its middle portion, and a sheave disposed between the latter and said free end portion of said end flange for rotation on an axis parallel with said side flanges.

2. Sheave carriers for the opposite ends of a hollow curtain rod each including a sleeve portion for telescopically engaging with the said rod, and an extension portion, the latter comprising a middle portion and a pair of parallel side flanges, a pair of sheaves rotatably disposed between said side flanges of one of said carriers for rotation on an axis perpendicular to said side flanges, at least one of said carriers having an end flange having a free end portion projecting between its side flanges and extending parallel with its middle portion, and a sheave disposed between the latter and said free end portion of said end flange for rotation on an axis parallel with said side flanges, the latter having perforations for permitting the outer, upper corner portions of draperies to be secured thereto.

3. Sheave carriers for the opposite ends of a hollow curtain rod each including a sleeve portion for telescopic engagement with the said rod, and an extension portion, the latter comprising a middle portion and a pair of parallel side flanges, a pair of sheaves rotatably disposed between said side flanges of one of said carriers for rotation on an axis perpendicular to said side flanges, at least one of said carriers having an end flange having a free end portion projecting between its side flanges and extending parallel with

its middle portion, and a sheave disposed between the latter and said free end portion of said end flange for rotation on an axis parallel with said side flanges, the latter including perforated extension portions constituting the extreme outer ends of said carriers to which the upper, outer corners of draperies may be secured.

4. A frame for a sheave carrier for the end of a hollow curtain rod through which a cord for operating drapery carriers is adapted to pass, comprising a sleeve portion for telescopically engaging an end portion of the rod, a wall of said sleeve portion extending beyond one end of the latter and provided with parallel side flanges between which a pair of sheaves may be mounted, and an end flange, said side flanges equipped with perforations to receive a pin for carrying said sheaves, said projected wall portion adapted to be bent between its ends to cause said end flange to extend parallel with the inner end portion of said projected wall-portion, the latter and said flange provided with aligned perforations to receive a pivot pin for a sheave adapted to be disposed between said last-named wall portion and said flange, a pair of said frames being provided for opposite ends of the rod and one thereof equipped with a pair of sheaves between said side flanges and the other thereof with a single sheave disposed between said end flange and said last-named wall portion, the several sheaves being disposed to present their annular grooves in alignment with the hollow of the rod.

5. A pair of sheave carriers for the opposite ends of a hollow curtain rod, each consisting of a single piece of sheet-metal presenting a sleeve portion for telescopically engaging an end portion of the rod, and a sheave containing portion disposed outwardly of said sleeve portion, said sheave containing portion including a middle portion and a pair of parallel side flanges, a pair of sheaves disposed between the side flanges of one of said carriers for rotation on an axis prpendicular thereto, an end flange on the other carrier having a free end portion extending parallel with the middle portion, a single sheave mounted between the latter and said free end portion of said flange for rotation on an axis perpendicular to the axis of rotation of said first-named sheave, all of said sheaves disposed to oppose the hollows of the sleeve portions.

6. A pair of sheave carriers for the opposide ends of a hollow curtain rod, each consisting of a single piece of sheet-metal presenting a sleeve portion for telescopically engaging an end portion of the rod, and a sheave containing portion disposed outwardly of said sleeve portion, said sheave containing portion including a middle portion and a pair of parallel side flanges, a pair of sheaves disposed between the side flanges of one of said carriers for rotation on an axis perpendicular thereto, an end flange on the other carrier having a free end portion extending parallel with the middle portion, a sheave mounted between the latter and said free end portion of said flange for rotation on an axis perpendicular to the axis of rotation of said first-named sheave, all of said sheaves disposed to oppose the hollows of the sleeve portions, the side flanges of both carriers including perforated outwardly projecting extension portions to which the upper, outer corners of draperies may be secured.

7. A pair of sheave carriers for the ends of a hollow curtain rod, each of said carriers comprising an end portion constituting a sleeve for telescopic connection with the curtain rod and a sheave carrying end portion, the latter disposed to constitute the extreme end portions of a curtain or drapery rod with which said sleeve portions are engaged, and sheaves rotatably mounted in said last-named end portions of said carriers with their grooves disposed in alignment with the hollows of said sleeve portions to thereby permit a cord trained over all of said sheaves to pass through the curtain rod without contact with the walls of the latter when said cord is taut.

CHARLES W. KIRSCH.