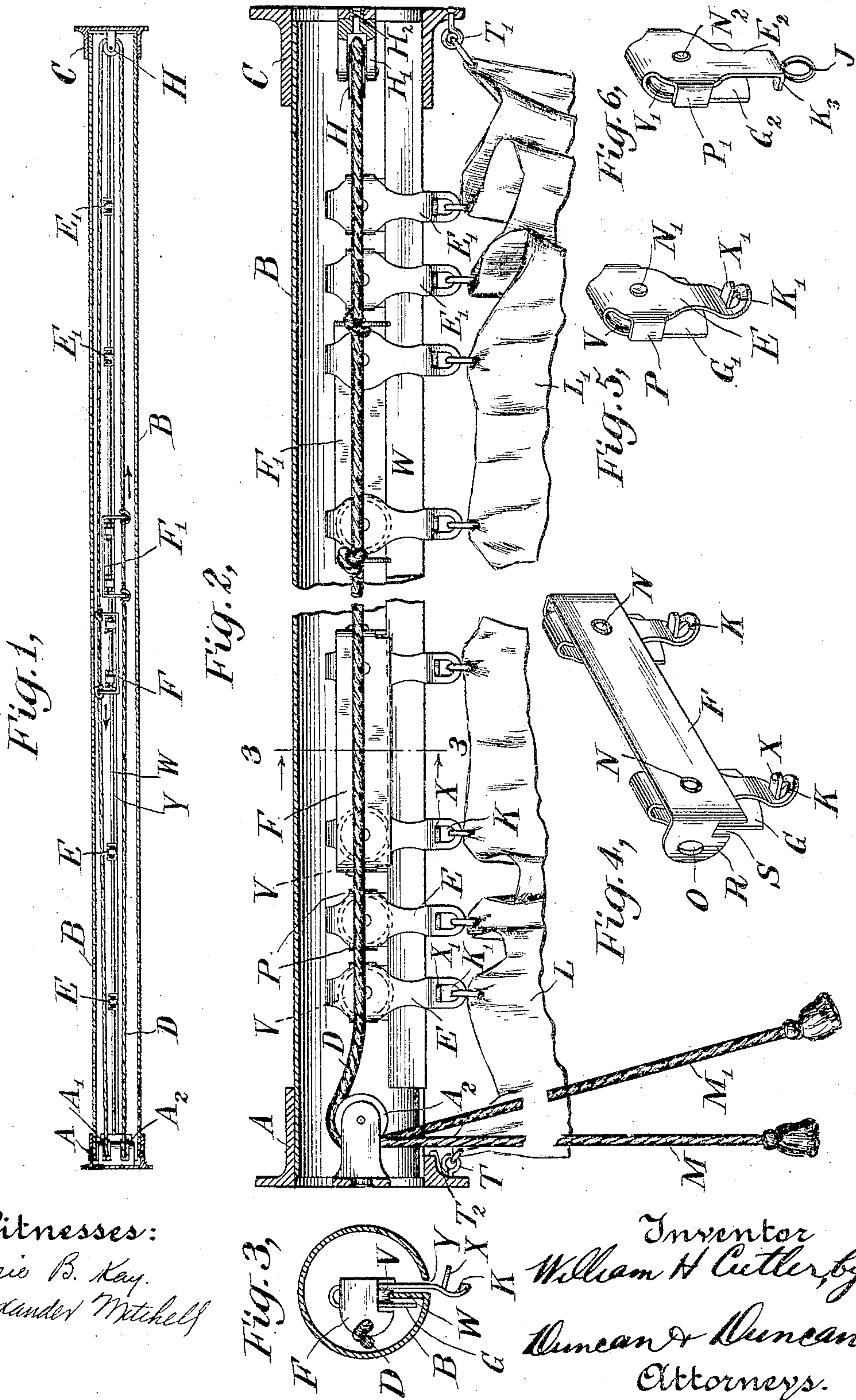


W. H. CUTLER.  
CURTAIN POLE.

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Witnesses:  
Jessie B. Kay.  
Alexander Mitchell

Inventor  
William H. Cutler, by  
Duncan & Duncan  
Attorneys.



# UNITED STATES PATENT OFFICE.

WILLIAM H. CUTLER, OF FREEPORT, NEW YORK, ASSIGNOR TO RINGLESS SUPPLIES COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

## CURTAIN-POLE.

SPECIFICATION forming part of Letters Patent No. 778,568, dated December 27, 1904.

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*To all whom it may concern:*

Be it known that I, WILLIAM H. CUTLER, a citizen of the United States, and a resident of Freeport, Long Island, county of Nassau, and State of New York, have invented certain new and useful Improvements in Curtain-Poles, of which the following is a specification, taken in connection with the accompanying drawings, which form a part of the same.

This invention relates to curtain-poles and attachments, and relates especially to tubular curtain-poles in which the means for suspending and operating the curtain are concealed within the pole.

In the accompanying drawings, in which the same reference characters refer to similar parts in the several figures, Figure 1 is a sectional plan view through a curtain-pole and mountings, illustrating one embodiment of this invention. Fig. 2 is a vertical sectional view showing the same on a larger scale. Fig. 3 is a transverse sectional view substantially on the line 3 3 of Fig. 2. Fig. 4 is an enlarged perspective view showing one form of carrier. Figs. 5 and 6 are similar views showing other forms of carriers.

As is seen in Fig. 3, the curtain-pole B is formed of sheet metal which is preferably bent into the tubular form indicated, so as to produce a carrier-slot T and the vertical in-turned track-flange W. This pole may be mounted in the sockets A and C at either end of the same, as indicated in Fig. 2, and a suitable cord-opening T<sup>2</sup> is preferably formed in one of the sockets A, so that the draw-cord may be readily operated. A similar cord-opening is formed in the pole at this point. The sockets are formed with a transverse rib extending across the same, as is indicated in Figs. 1 and 2, and a pulley-block H' is shown as secured to this rib in the socket C by the tubular rivet H<sup>2</sup>, which is preferably employed at this point and which allows the connection between these parts to be readily made. The reverse-pulley H is pivoted in this pulley-block to support the draw-cord. The draw-cord pulleys A' A<sup>2</sup> are mounted in a similar block secured to the socket A. These pul-

ley-blocks may of course be made of such proportions as to completely inclose the pulleys and to entirely prevent the displacement of the draw-cord during the operation of the device, such shrouded pulleys being of course well known in this art. Each of the sockets is provided with the socket-eyes T T' indicated, to which the end of the curtain may be secured, if desired.

The carrier shown in Fig. 5 is formed of a frame of sheet metal bent upon itself to substantially inclose the carrier-wheel V, which is pivotally mounted about the carrier-pivot N'. The frame is formed with the projections P on either side of the same, which when bent around into the position indicated in Fig. 5 form buffers to engage the adjacent carriers and to prevent any interference with the rotation of the carrier-wheel. The depending carrier end E passes on one side of the track-flange and the guide G' is on the other side, taking the position indicated in Fig. 3, so that the grooved tread of the carrier-wheel is maintained at all times in proper engagement with the track-flange and rides easily upon it. The proper alinement of the carrier with respect to the track is thus maintained under all conditions and excessive friction obviated. The carrier end E is preferably formed with the retainer X', which prevents the carrier from moving upward to an undesirable extent. This retainer is preferably formed by punching out a portion of the carrier end, simultaneously forming the securing-hole K' in the end of the carrier.

The carrier shown in Fig. 6 is preferably formed with the sheet-metal frame in which the carrier-wheel V' is mounted about the pivot N<sup>2</sup>. The ends P' form buffers in this instance, and the guide G<sup>2</sup> and the depending end E<sup>2</sup> act in a similar manner. The retainer K<sup>3</sup> in this instance is formed by bending the depending end E<sup>2</sup> laterally, as indicated, and the swiveled eye is secured thereto in this instance and is formed with the securing-hole J.

As is indicated in Fig. 2, a number of single carriers are employed; but it is, however, desirable in some cases to use draw-carriers



of different construction, these draw-carriers being preferably formed as indicated in Fig. 4, two single carriers of substantially the construction indicated in Fig. 5 being connected by the carrier-bar F, which is rigidly secured to both the carrier-frames by the pivots N or by any other desired means. The guides G are formed in this instance, and the depending carrier ends are provided with the retainers X and with the securing-holes K for a similar purpose. The carrier-bar is preferably formed at either end with the attaching-lug R, which is bent into the position indicated in Fig. 4, and the cord-hole O is formed in the lateral extension of this lug, which also serves as a buffer in engaging the adjacent carriers. These attaching-lugs are preferably provided with the track-slot S to allow the draw-carriers to operate properly on the track. These draw-carriers are made right and left, as indicated in Figs. 1 and 2, the carrier-bars being located on one or the other side of the carriers and the attaching-lugs extending in opposite directions, as indicated in Fig. 1.

In using this curtain-pole to operate a double curtain the curtain-sections L L' are secured to the socket-eyes in either case and the inner ends of the curtain-sections are secured to the securing-holes in the draw-carriers F F', while the upper edges of the curtain-sections are also secured at intervals to the securing-holes K' of the other carriers, so as to properly support the curtain at various points along the same. The draw-cord D is secured to the draw-carriers, as indicated in Figs. 1 and 2, passes over the reverse-pulley H in the socket C, over the draw-pulleys A' A'', and the ends M M' of the draw-cord pass through the cord-opening and hang down, so as to be readily operated. If the end M' of the draw-cord is pulled, the draw-carriers F F' will be moved in the directions indicated by the arrows in Fig. 1, separating them and drawing the curtain-sections apart from the middle and simultaneously drawing them to either end of the pole. Each draw-carrier is positively actuated by the draw-cord, and as it moves outward it comes into engagement with the adjacent carrier and pushes it along. The buffers on the carriers come into contact, so that the carriers are engaged one after the other and pushed along by the draw-carrier on either side of the curtain. The curtain may be closed in an obvious manner by operating the end M of the draw-cord D. This positively actuates both the draw-carriers F F', so as to bring them together, the connection of the curtain-sections with the other carriers pulling these carriers along at the proper time, so that the curtain is closed. If desired, of course, a single curtain-section may be operated. In such case one of the draw-carriers—for instance, F'—and the corresponding set of carriers secured to the same curtain-section would

be omitted, together with that section of the curtain. The other curtain-section would under these circumstances be extended and drawn in the desired manner by the draw-cord.

This curtain-pole is very desirable, because all of the operating parts, including the carriers and draw-cord, are concealed within and protected by the curtain-pole itself, which gives a very desirable appearance to the device and which prevents the operating parts from becoming displaced and from getting out of order.

It is of course apparent that many modifications may be made in this device by those familiar with this art. Variations may be made in the form and proportion of parts. Parts may be omitted and parts of this device may be employed in connection with other features without departing from the spirit of this invention. I do not, therefore desire, to be limited to the disclosure which has been made in this case; but what I claim as new, and what I desire to secure by Letters Patent, is set forth in the appended claims.

I claim—

1. In curtain-poles, a tubular pole formed with a vertically-inturned track-flange with a carrier-slot and cord-opening, sockets to support either end of said pole, ribs formed on said sockets and pulley-blocks secured to said ribs by tubular rivets, one of said sockets being formed with a cord-opening and having a plurality of draw-pulleys secured thereto, the other socket having a reverse-pulley mounted therein, carriers within said pole mounted on said track-flange, said carriers having frames formed with buffers on either end of the same, carrier-wheels having grooved treads pivoted in said frames, each of said frames being formed with a depending end, a retainer punched out from said end to form a securing-hole and a guide to engage said track-flange, right and left draw-carriers mounted on said track-flange, each of said draw-carriers being formed of a plurality of carrier-frames provided with pivoted wheels, secured together by a carrier-bar, said carrier-bar having laterally-extending attaching-lugs at its ends provided with cord-holes for draw-cords and a draw-cord passing through said cord-holes and secured to said draw-carriers to simultaneously move said draw-carriers in opposite directions.

2. In curtain-poles, a tubular pole formed with a track, draw-pulleys and a reverse-pulley mounted adjacent the ends of said track, carriers having carrier-wheels mounted therein and provided with buffers, guides and retainers to engage said track and pole and draw-carriers formed with a plurality of carrier-wheels and with carrier-bars with laterally-extending attaching-lugs and a draw-cord passing over said pulleys and secured to said draw-carriers.



3. In curtain-poles, a tubular pole formed with a track, carriers having carrier-wheels mounted therein and provided with buffers and with guides and retainers to engage said track and said pole and draw-carriers provided with a plurality of carrier-wheels to engage said track in tandem and with carrier-bars having laterally-extending attaching-lugs to coöperate with a draw-cord.

4. In curtain-poles, a tubular pole formed with an inturned track, a draw-carrier comprising a carrier-bar, frames secured to said carrier-bar and provided with guides, carrier-wheels having grooved treads mounted in said frames to engage said track in tandem, depending ends on said frames and retainers and securing-holes in said ends.

5. In curtain-poles, a tubular pole formed with an inturned track, a draw-carrier provided with a plurality of wheels to engage said track in tandem, guides, and retainers to engage said track and pole on the outside of the same.

6. In curtain-poles, a carrier, comprising a frame, a carrier-wheel having a grooved tread pivoted within said frame, buffers formed on either side of said wheel, a guide and de-

pending end on said frame, and a retainer and securing-hole formed in said end.

7. In curtain-poles, a draw-carrier comprising a carrier-bar formed with laterally-extending ends, a plurality of wheels mounted on said carrier-bar to engage a track in tandem and guides and retainers on said carrier-bar to maintain said wheels in alinement.

8. In curtain-poles, a tubular pole having an inturned track, a carrier, a carrier-wheel having a grooved tread mounted in said carrier to engage said track, and a guide and an end on said carrier extending on either side of said track, said end having means to prevent the upward displacement of said carrier.

9. In curtain-poles, a tubular slotted curtain-pole having an inturned track and a carrier mounted upon said track, said carrier comprising a frame, a carrier-wheel having a grooved tread pivoted within said frame, buffers formed on either side of said wheel, a guide and a depending end provided with a retainer on said frame.

WILLIAM H. CUTLER.

Witnesses:

JESSIE B. KAY,

ALEXANDER MITCHELL.