April 5, 1932. E. R. DOOLITTLE 1,852,234

TRAVERSE CORD SEPARATOR

Filed Jan. 19, 1931

Fig. 1.

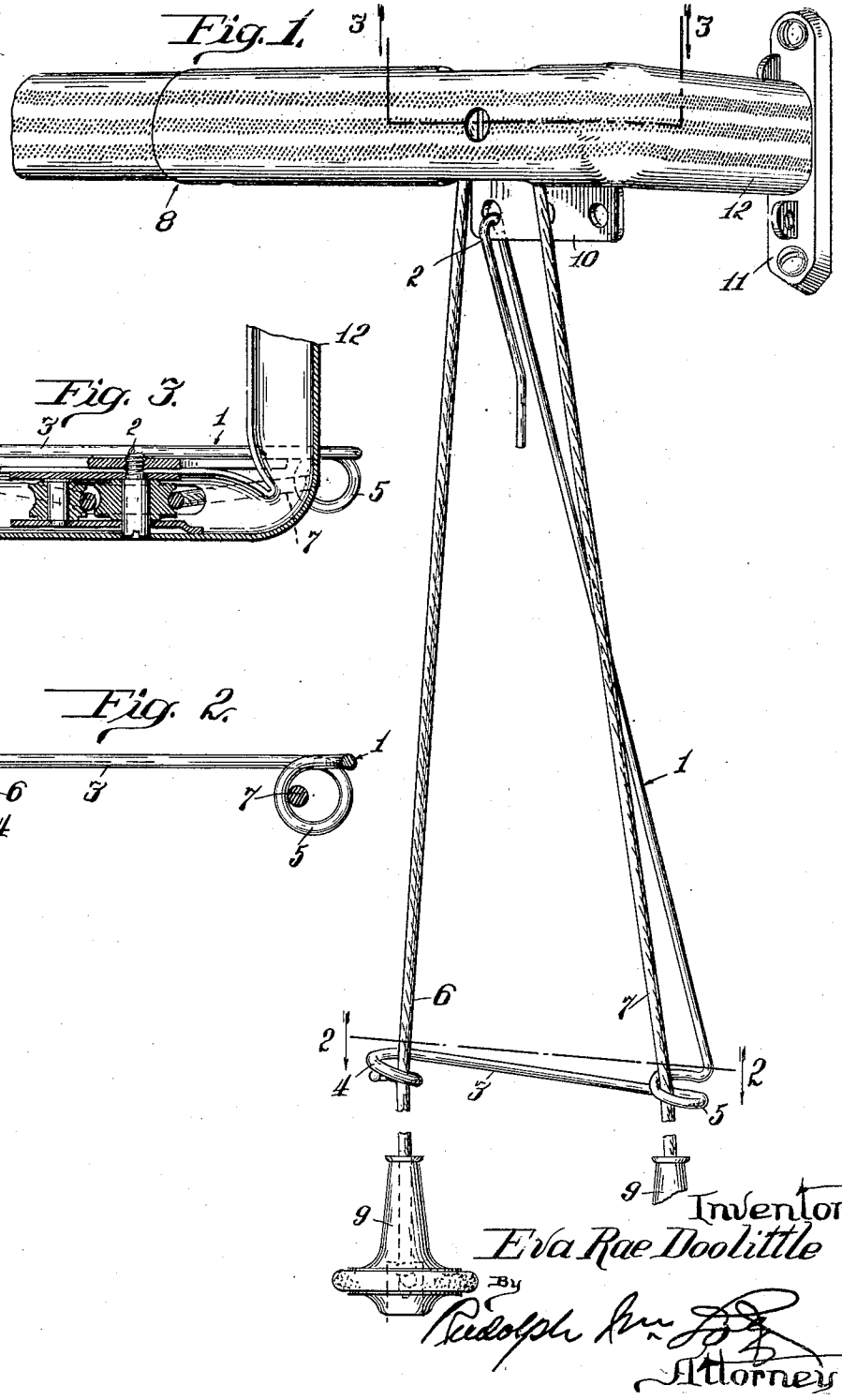


Fig. 3.

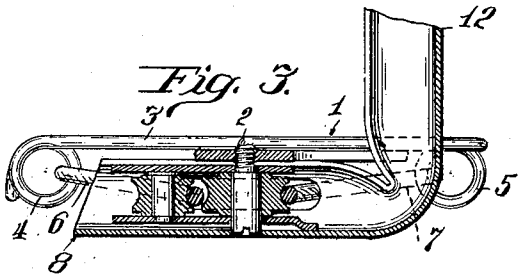
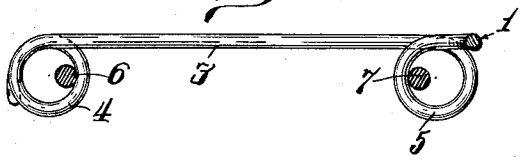


Fig. 2.



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UNITED STATES PATENT OFFICE

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TRAVERSE CORD SEPARATOR

Application filed January 19, 1931. Serial No. 509,710.

This invention relates to improvements in drapery suspension means and more particularly to means for preventing the twisting about each other of the draw or traverse cords connected with the slides mounted upon or within curtain rods and curtain poles for spacing curtains or draperies from each other and bringing them together, respectively.

In the art to which the invention relates, a traverse cord is trained over a pair of sheaves or pulleys mounted in or upon one end of a curtain rod or pole and usually disposed side by side or in other very close proximity to each other, said sheave or pulley at the other end of the curtain rod or pole and is connected at one end with the master carrier of the set carrying one drape or curtain of a pair, and being connected at a point between its ends with the master carrier of the set carrying the other drape or curtain of the pair.

Owing to the close proximity of the depending end portions of the traverse cords to each other, they invariably twist themselves about each other so that, in attempting to manipulate said cords, the operator must first see the relative positions of the customary weights disposed upon the extremities of the cords to ascertain which of the cords must be drawn down to adjust the curtains or draperies to a different relative position and, because of the resistance to operation resulting from the intertwining of said ends of the cords, is obliged to untwist them in order to operate said cord.

To overcome this objection, it has been quite customary to mount screw eyes in the window frame in suitably spaced relation at a point sufficiently high not to interfere with the necessary maximum vertical travel of the weights and, after removing the weights, thread the depending end portions of the cords through the eyes of said screws and then replace said weights.

This expedient is objectionable because of the injury to the window frame on the one hand and because the screw eyes are disposed out of vertical alignment with the sheaves or pulleys and tends to cause or does cause the cord to leave the grooves of said sheaves, and also increases the resistance to operation of the cord ends.

The main object of the present invention is to provide a very simple, cheap and efficient device with which the depending end portions of a draw or traverse cord are engaged and maintained in spaced relation to each other and which automatically responds to tension on one of either ends of the cord, as the latter is operated to effect relative movement of a pair of draperies, to cause said operated cord end to align itself throughout its length with the sheave or pulley of the curtain rod or pole over which said cord end is trained, thereby reducing frictional resistance to operation of said cord and, more especially, to prevent said cord end from becoming so angularly disposed with respect to the vertical plane of the grooves of the sheave over which it is trained as to cause it to become disengaged from said sheave.

A further object of the invention is to provide a draw or traverse cord separator which may be suspended from the curtain rod or pole or from a bracket supporting the same, or from a nail, hook or screw eye mounted in the window-frame without affecting its efficiency.

Another object of the invention is to provide cord guide formations in the device of this invention which will permit the depending cord ends to be threaded into the same without necessitating removal of the weights at the extremities of said draw or traverse cord.

In the accompanying drawings, I have illustrated a suitable embodiment of the invention.

In said drawings:—

Fig. 1 is a fragmentary perspective view of one end portion of a conventional type of flat hollow curtain rod equipped with a traverse cord and a traverse cord separator constructed in accordance with the invention, the said separator also being shown in perspective.

Fig. 2 is a plan section on the line 2—2 of Fig. 1.

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

The present invention comprises what may be termed a pendulum device which, in the embodiment illustrated, comprises a stem or shank 1 terminating at its upper end in a hook 2 by means of which the device is suitably pivotally suspended from a convenient supporting element, and equipped at its lower end with a lateral arm 3 provided at its outer and inner ends with suitable loop or eye formations 4 and 5, respectively, said eye formations being helical in the instance illustrated to permit the end portions 6 and 7, respectively, of the draw or traverse cord of the curtain rod 8 to be threaded into said loop or eye formations 4 and 5, respectively, without first detaching the weights 9 from said cord.

In the instance illustrated, the hook 2 engages in a perforation of the plate 10 constituting the carrier for the sheaves over which the draw cord is trained, the position of the hook 2 with respect to the arm 3 being such as will normally cause said arm 3 to be positioned substantially parallel with the face of the window casing to which the wall plate 11 of the supporting bracket for the side arm 12 of said curtain rod 8 is secured.

The device of the invention is illustrated as being made of a single piece of wire, this being a cheap and convenient expedient and providing a very lightweight structure which will respond very readily to tension on either of the cord ends for purposes of adjusting the curtains or draperies, said structure being adapted to swing over to one side or other of its normal position similarly to a pendulum, thus causing the eye formation thereof through which the cord end subjected to manual tension is trained to become substantially vertically aligned with the sheave over which the said cord end is trained and with the weight at the extremity of said end portion of the cord.

However, the main functions of the device are, first, to maintain the depending end portions of the cord spaced sufficiently far apart to prevent them from twisting about each other or, in the event that they should become twisted about each other during manual manipulation thereof, to cause them to become disengaged automatically from each other, and, second, to maintain said depending end portions of the cord substantially in the respective vertical planes of the sheaves over which they are trained, the swinging of the device as above described being of more or less secondary importance.

Obviously, the point of suspension of the device may be offset laterally from the vertical planes of the grooves of the sheaves from which said end portions of the cords are suspended as the weights of said cords are such as to maintain the latter sufficiently taut to swing and maintain the lower end portion of the device into position to bring the eye formations thereof into the vertical planes of the grooves of the said sheaves.

Obviously, any guide means equivalent to the eye formations of the device shown and described may be used and the structural features of said device changed and varied as desired, without departing from the invention as defined in the appended claims.

I claim as my invention:

1. A traverse cord separator for a drapery fixture equipped with a traverse cord and sheaves over which said cord is trained, said separator comprising a member suspended from said fixture and equipped at points below said fixture and spaced from each other with guide formations in which the depending end portions of said cord are adapted to engage, said guide formations being disposed substantially in alignment with the grooves of the sheaves from which the said end portions of the cord are suspended, said separator being capable of limited pivotal movement relatively to said fixture.

2. A traverse cord separator for a drapery supporting element disposed parallel with and spaced from a window casing and equipped adjacent one of its ends with a pair of sheaves over which a traverse cord is adapted to be trained and from which the end portions of said cord depend, said separator comprising a pivotally suspended member equipped in its lower end portion with guide formations spaced from each other and each operatively engaged with an end portion of said cord.

3. A traverse cord separator for a drapery supporting element disposed parallel with and spaced from a window casing and equipped adjacent one of its ends with a pair of sheaves over which a traverse cord is adapted to be trained and from which the end portions of said cord depend, said separator comprising a member pivotally supported at its upper end to swing on an axis parallel with the axis of rotation of said sheaves and equipped at its lower end with guide formations, each adapted to be operatively engaged with one of said end portions of said cord and normally disposed in a vertical plane substantially common to the grooves of said sheaves and below the latter.

4. A traverse cord separator for a drapery supporting element disposed parallel with and spaced from a window casing and equipped adjacent one of its ends with a pair of sheaves over which a traverse cord is adapted to be trained and from which the end portions of said cord depend, said separator comprising a pendulum member pivotally engaged with said element at its upper end to swing on an axis parallel with the axis of rotation of said sheaves and equipped in its lower end with a pair of spaced apart eye formations through which said respective

end portions of said cord are adapted to be threaded, said eye formations being normally disposed substantially in vertical alignment with the grooves of said sheaves.

In testimony whereof I have hereunto set my hand this 15th day of January, 1931.

EVA RAE DOOLITTLE.