

Feb. 9, 1926.

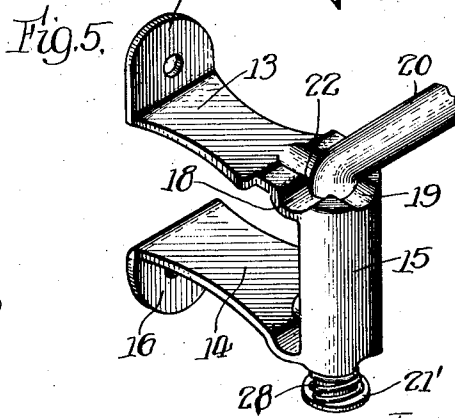
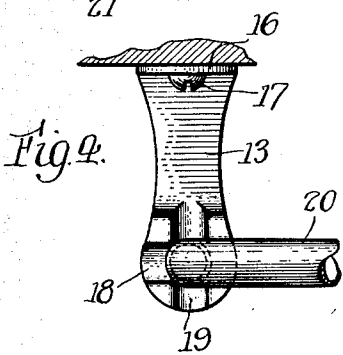
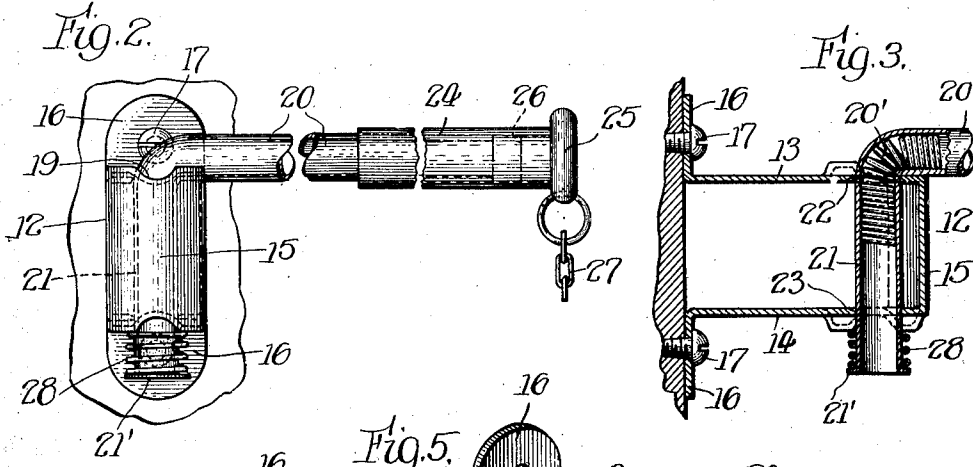
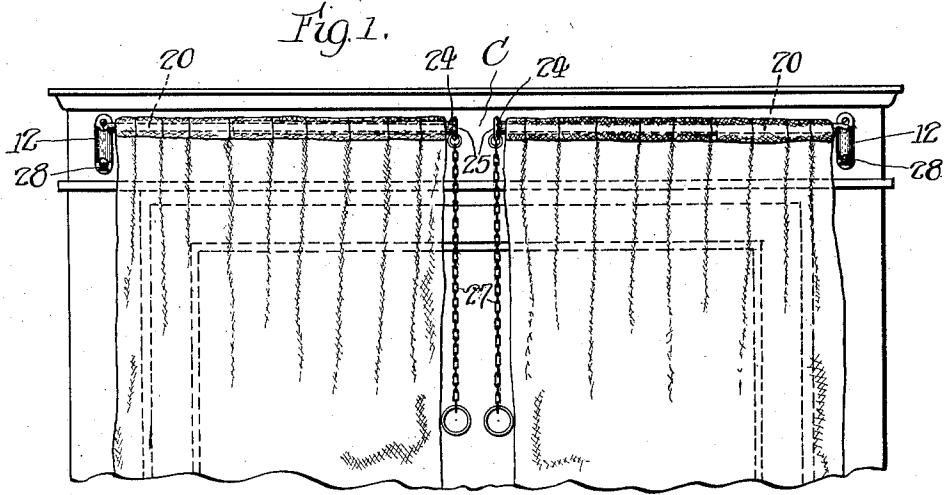
1,572,845

G. A. EFFORD. ET AL.

CURTAIN SUPPORT

Filed August 24, 1923

2 Sheets-Sheet 1



Witness:  
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2 Sheets-Sheet 2

Fig. 6.

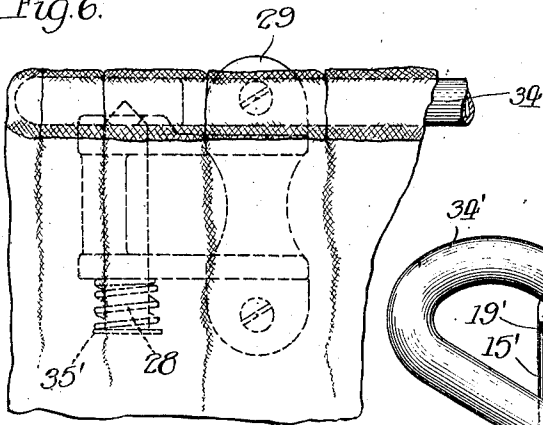


Fig. 8.

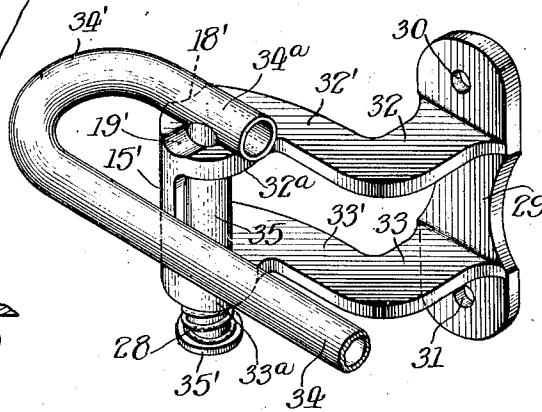


Fig. 7.

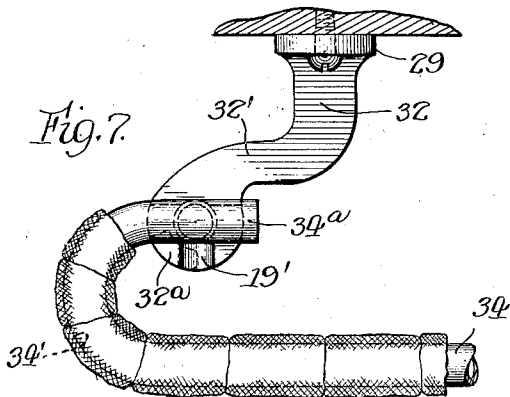


Fig. 9.

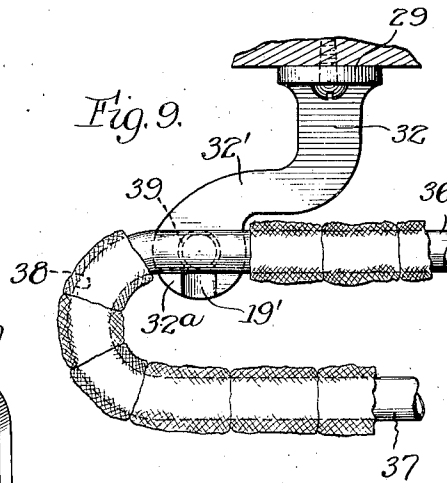
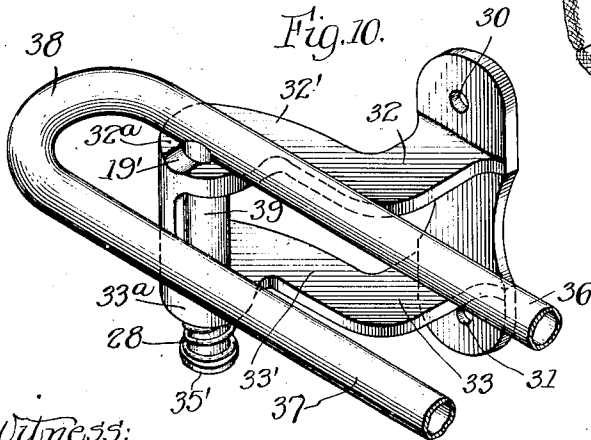


Fig. 10.



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# UNITED STATES PATENT OFFICE.

GRACE A. EFFORD AND NELS S. ERICKSON, OF CHICAGO, ILLINOIS, ASSIGNORS, BY  
MESNE ASSIGNMENTS, TO URBANE L. BARRETT, OF MASON CITY, IOWA.

## CURTAIN SUPPORT.

Application filed August 24, 1923. Serial No. 659,049.

*To all whom it may concern:*

Be it known that we, GRACE A. EFFORD and NELS S. ERICKSON, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Curtain Supports, of which the following is a specification.

This invention relates to curtain supports of the hinged or swinging type such as is typically illustrated in Letters Patent to Grace A. Efford No. 1,435,110 dated November 7, 1922.

One object of the present invention is to provide a curtain support of the hinged, outwardly swinging type, wherein the arm or rod which supports the curtain will always be maintained in a true horizontal position and downward bending or sagging of the same, which presents an unsightly appearance, will be avoided; this being particularly desirable in curtain supports comprising a pair of swinging rods or arms hinged to the respective sides of the window casing and at their inner ends meeting at the transverse center of the window casing. Another object of the invention, ancillary to the above-stated object, is to provide an improved hinge bracket for the curtain rod with improved means for locking the spindle or pintle of the rod in said bracket under the downward pressure of a spring which maintains the pintle or spindle in a true vertical position and consequently maintains the rod itself in a true horizontal position, and also holds the rod firmly in a locking seat on the bracket. A further object of the invention is to provide an improved form of curtain rod and hinge bracket therefor by which the bracket will be normally concealed by the curtain or an over-drape and by which also, when the curtain is swung to partly or fully opened position, the material of the curtain will not be folded or pinched between the rod and the bracket, but can swing around more or less behind the forwardly projecting portion of the bracket.

A further object is to provide an improved reinforced tubular curtain rod having an integral hinge-pintle.

Other objects and attendant advantages of the invention will be apparent to persons skilled in the art as the same becomes better understood by reference to the follow-

ing detailed description taken in connection with the accompanying drawings, in which we have illustrated several practical and approved embodiments of our invention and wherein—

Fig. 1 is a front elevation of the upper portion of a window casing and window equipped with our improved curtain holder;

Fig. 2 is an enlarged front elevation of one of the rods, broken out, and its hinge bracket;

Fig. 3 is a vertical section through the bracket, with the rod shown at right angles to the plane of the window casing;

Fig. 4 is a top plan view of Fig. 2, with the rod broken off;

Fig. 5 is a perspective elevation of the bracket and hinged end of the rod;

Fig. 6 is a front elevation showing a modified form of bracket and rod;

Fig. 7 is a top plan view of the parts shown in Fig. 6;

Fig. 8 is a perspective elevation of the bracket and hinged end of the rod shown in Figs. 6 and 7;

Fig. 9 is a top plan view of a duplex rod adapted to support both the curtain and an over-drape in connection with a bracket such as is shown in Figs. 6, 7 and 8; and

Fig. 10 is a perspective elevation of the bracket and rod shown in Fig. 9.

Referring first to Figs. 1 to 5 inclusive, 12 designates as an entirety the bracket in which the curtain rod is hinged at its outer end, said bracket as herein shown being a metal stamping and comprising upper and lower horizontal arms 13 and 14, respectively, a vertical brace or strut 15 connecting the forward ends of the arms 13 and 14, and outwardly bent flanges or base plates 16 which are apertured for the passage of screws 17 by which the bracket is secured to the window casing C. By reference more particularly to Figs. 3, 4 and 5 it will be observed that the outer end portions of the arms 13 and 14 are provided with a pair of intersecting shallow depressions 18 and 19 which form seats and yieldable locks for the curtain rod adjacent to the spindle of the latter; the seats 18 engaging the rod when the latter is in fully closed and opened position and the seat 19 engaging the rod when the latter is partially opened or disposed at a right angle to the plane of the window casing.

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The rod itself is preferably a round tubular member comprising a horizontal arm 20 and an integral depending pintle or spindle 21 which is snugly fitted in upper and lower bearings 22 and 23 formed in the bracket arms 13 and 14 respectively coincidentally with the intersections of the seats 18 and 19. The horizontal arm 20 is preferably provided with a telescoping extension member 24, as usual in extensible curtain rods, and the outer end of this member is preferably equipped with a knob or button 25 having a shank 26 tightly driven into the end of the extension member 24. The knob 25 is apertured to receive the upper link of a depending chain 27 by which the rod and curtain may readily be swung toward and from the window.

The pintle 21 of the curtain rod extends to some distance below its bearing 23 in the bracket and is formed on its lower end with an outwardly swaged flange 21' which constitutes an abutment for the lower end of a stiff coil spring 28 that encircles the lower projecting end of the pintle and at its upper end abuts against the under side of the lower arm 14 of the bracket. This spring, which constitutes an important feature of the present invention, acts to draw the curtain supporting arm 20 of the rod hard down into its seat 18 or 19, thereby making the locking action more secure, but its principal utility lies in the fact that it effectively checks any rising and slight tilting or canting movement of the spindle 21 in its bearings under the weight of the curtain rod and curtain and maintains the spindle vertical and consequently the curtain rod horizontal. The upward thrust of the spring on the lower arm of the bracket and the consequent downward thrust of the rod on the upper arm of the bracket plus the weight of the rod and curtain would naturally tend to bend the outer ends of the bracket arms toward each other and thus tend to produce a binding of the spindle in its bearings, but this is effectively resisted and prevented by the vertical brace or strut 15 which connects the forward ends of the two bracket arms, and which is preferably made curved in cross-section, as shown, to afford greater resistance to bending strains than a flat strut.

It may here be noted that the formation of the locking seats in the lower arm of the bracket is not functionally essential, but has the advantages of enabling the bracket to be mounted either end up and in a measure stiffens and strengthens the end portions of the bracket arms which are somewhat weakened by the openings forming the spindle bearings. Where a rectangular bend is imparted to a straight tubular metal rod such as that herein shown, it is practically impossible to avoid partial flatten-

ing of the rod and cracking of the metal at the elbow during the bending operation unless some means be provided to maintain the cross-sectional form of the rod at the bend. We have found that the integrity of the cross-sectional form of the rod at and adjacent to the bend may be maintained by inserting into the rod in the region where the bend occurs a flexible mandrel tightly fitting the internal wall of the rod; and a practical and satisfactory form of such mandrel comprises a tightly wound spiral spring 20', shown in Fig. 3, which is permitted to remain within the rod after the same has been bent to strengthen and reinforce the bend.

Referring to Figs. 6, 7 and 8, we have therein shown a form of bracket and rod mounting embodying the structural principles and advantages above described in connection with Figs. 1 to 5 inclusive, including the spring 28 for maintaining the rod in true horizontal position and the brace or strut connecting the outer ends of the bracket arms to oppose bending of the latter toward each other. In this embodiment of the invention, however, the specific forms of both the bracket and the rod are somewhat different from those shown in Figs. 1 to 5, the main purposes of these differences being to provide a construction wherein the curtain may be so hung as to conceal the bracket and wrinkling or crimping of the outer edge portion of the upper end of the curtain due to pinching of the same between the rod and the bracket may be avoided. This bracket, which is preferably made as a casting, comprises a single base-plate 29 formed with upper and lower holes 30 and 31 for the attaching screws and a pair of parallel upper and lower arms comprising forwardly extending rear portions 32 and 33 and laterally and outwardly directed extensions 32' and 33' thereof which terminate at their free ends in forwardly projecting bearing portions 32<sup>a</sup> and 33<sup>a</sup> apertured to form spindle bearings of the rod and transversely grooved to form locking seats 18' and 19'. The end portions 32<sup>a</sup> and 33<sup>a</sup> of the bracket arms are rigidly spaced and connected by the integral brace or strut 15'.

34 designates the curtain rod which in this case is formed with a rearwardly curved elbow portion 34' that is disposed in a horizontal plane and extends beyond the forward end of the bracket and terminates in a free end portion 34<sup>a</sup> lying parallel with the main portion 34 of the rod. To the lower side of the terminal portion 34<sup>a</sup> is welded or otherwise secured the pintle 35 which has its bearings in the free ends of the bracket arms and is provided on its lower downwardly projecting end with the swaged flange 35' forming an abutment for the lower end of the spring 28.

In this form of rod the hem or pocket of the curtain is extended around the curved portion 34', as shown in Figs. 6 and 7, whereby the bracket is concealed by the curtain; and it is manifest that when the curtain rod is swung outwardly, even to a position 180° from the closed position shown in Fig. 1; the marginal portion of the curtain suspended from the curved portion 34' simply swings into and occupies the space behind the offset portions 32' and 33' of the bracket arms, without being pinched and thus wrinkled or torn.

Figs. 9 and 10 illustrate, in combination with the bracket shown in Figs. 6, 7 and 8, a form of rod designed to support a curtain and a side drape. Here 36 designates the portion of the rod which carries the curtain and 37 that portion from which the over-drape is suspended, the outer ends of the two rod sections being integrally joined by a semi-circular bend 38, over which the outer marginal portion of the upper end of the over-drape is carried, as clearly shown in Fig. 9. In this case the spindle 39 is connected to the curtain supporting section 36 of the rod just inwardly of the bend 38. Manifestly the same advantages are preserved in this form of duplex rod as have been set forth in connection with Figs. 6, 7 and 8, the curved section 38 of the rod, when the latter is swung to partly or fully opened position, swinging around behind the offset portions of the arms of the bracket and thus avoiding pinching, wrinkling or crimping of the over-drape.

It is believed that the novel structural features, mode of manipulation, and advantages of our improved curtain support will be apparent from the foregoing description without further elaboration. Manifestly detail changes in form and construction of the parts may be resorted to without involving any departure from the principle of the invention or sacrificing any of the advantages thereof. Hence, we reserve such variations and modifications as fall within the spirit and purview of the appended claims.

We claim—

1. In a curtain support, the combination of a bracket provided with a vertical bearing, a tubular curtain rod formed with a tubular vertical pintle mounted in and projecting below said bearing, the lower end of said pintle having an outwardly swaged flange, and a coil compression spring encircling the projecting portion of said pintle and stepped at its lower end on said flange and at its upper end abutting against the lower end of said bearing.

2. In a curtain support, the combination of an invertible sheet-metal bracket having an attaching base, parallel horizontal upper and lower arms formed with alined bearing apertures and transverse rod seats in their

free ends, a vertical strut member connecting the free end portions of said arms, a curtain rod formed with a vertical pintle mounted in said bearing apertures and projecting below said lower arm, and a thrust spring bearing at its lower end on the lower end of said pintle and at its upper end abutting against the under side of said lower arm.

3. In a curtain support, the combination of an invertible sheet-metal bracket having an attaching base, parallel horizontal upper and lower arms formed with alined bearing apertures and transverse rod seats in their free ends, a vertical transversely curved strut member integrally connecting the free ends of said arms forwardly of said bearing apertures, a tubular curtain rod formed with a tubular vertical pintle mounted in said bearing apertures and projecting below said lower arms, the lower end of said pintle having an outwardly swaged flange, and a thrust coil spring encircling the projecting portion of said pintle and stepped at its lower end on said flange and at its upper end abutting against the under side of said lower arm.

4. In a curtain support, the combination of a bracket having an attaching base and a forwardly projecting arm with a laterally extending forward portion apertured at its free end to form a vertical bearing, and a curtain rod having a curved elbow portion disposed in a horizontal plane and extending beyond the free end of said arm and a vertical pintle disposed inwardly of said curved elbow portion and engaged with the bearing aperture of said arm.

5. In a curtain support, the combination of a bracket having an attaching base and parallel horizontal forwardly projecting upper and lower arms having laterally extending forward portions formed at their free ends with alined vertical bearing apertures, and a curtain rod having a curved elbow portion disposed in a horizontal plane and extending beyond the free ends of said arms and a vertical pintle disposed inwardly of said curved elbow portion and mounted in the bearing apertures of said arms.

6. As a new article of manufacture, a hollow round curtain rod formed with an integral rectangularly bent pintle, and provided with an internal coil spring constituting a reinforcing mandrel located within the bend connecting the rod and pintle.

7. As a new article of manufacture, a round tubular swinging curtain rod formed with a hinge pintle at one end, a knob having a shank tightly fitted within the other end of said rod, said knob formed with a transverse aperture through its peripheral portion, and a depending chain having its uppermost link engaged with said aperture.

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