Oct. 16, 1956 J. N. GRABER 2,766,892

DRAPERY CRANE WITH LEVELLING FEATURE

Filed July 21, 1954

Fig. 1.

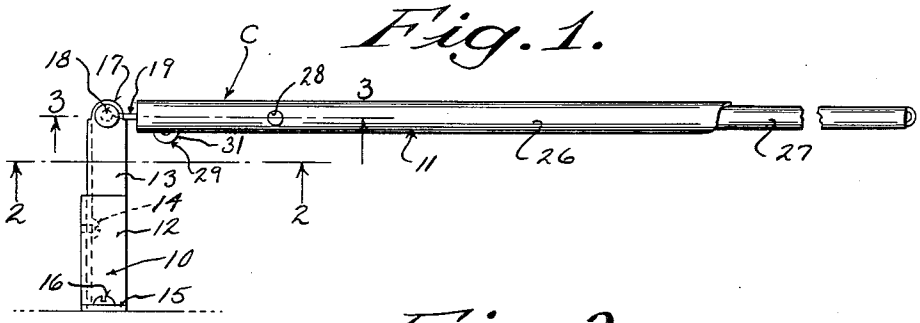


Fig. 2.

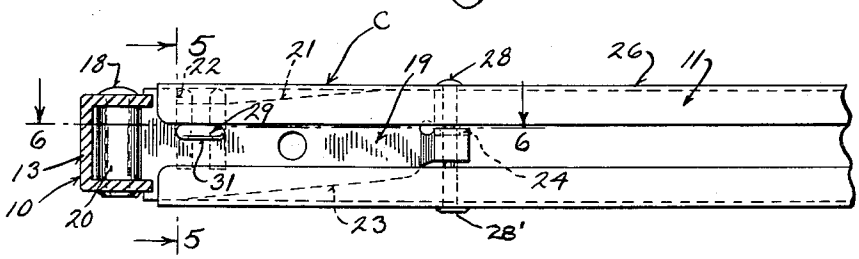


Fig. 3.

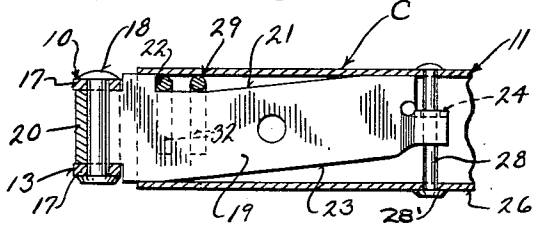


Fig. 5.

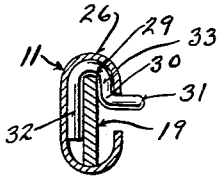


Fig. 4.

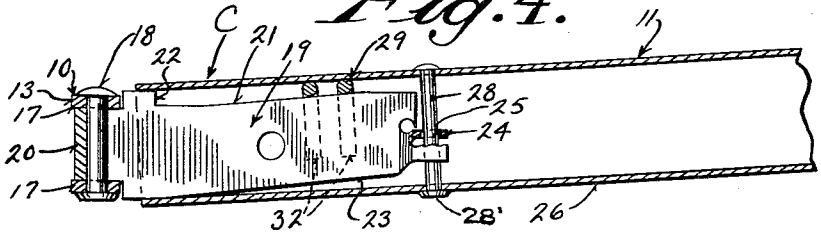
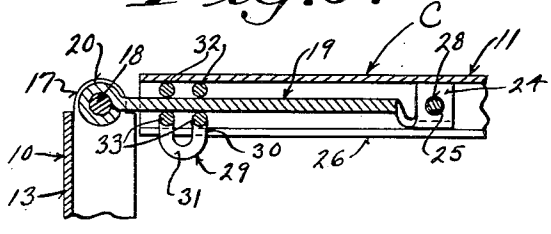


Fig. 6.



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DRAPERY CRANE WITH LEVELLING FEATURE

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This invention appertains to fixtures for supporting curtains, draperies and the like, and more particularly to a novel drapery crane.

Much difficulty is experienced in the use of drapery cranes, in that, after the crane is placed in position on the wall or window frame, as the case may be, and the drapery is suspended from the frame; the crane tends to sag under the weight of the drapery, giving an unsightly appearance.

Attempts have been made to overcome this difficulty by readjusting the bracket of the crane on the window frame or by adjusting the rod or arm of the crane on the bracket. The adjustment of the rod or arm on the bracket is preferred, in that adjustment of the bracket itself is difficult and such adjustment tends to mar the wall or window frame. However, all devices for adjusting the rod or arm on the bracket, with which I am familiar, are open to serious objections, both from the standpoint of the manufacturer and the user. The adjustments are difficult to actuate and require the use of a tool, such as a screw driver and cost of manufacture is high.

It is one of the primary objects of my invention to produce a drapery crane, in which the arm or rod can be readily moved up to a desired height or angle to the horizontal after the sag of the crane by the mere sliding of a member by the fingers longitudinally of the rod or arm for a short distance.

Another salient object of my invention is to provide a drapery crane embodying a bracket carried hinge leaf having a cam surface with the rod or arm fulcrumed on the leaf and engaged by a sliding fingerpiece mounted on the leaf for travelling movement over the cam surface to affect tilt of the arm or rod relative to the leaf and bracket.

A further important object of my invention is to provide a drapery crane with a levelling feature which will be easy to manipulate, one that will be durable and efficient in use and one that can be manufactured at a small cost.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts, as will be hereinafter more specifically described and claimed and illustrated in the accompanying drawing, in which drawing,

Figure 1 is a top plan view of one of my improved drapery cranes installed on a window frame, or the like;

Figure 2 is a vertical sectional view taken through the bracket of the crane on the line 2—2 of Figure 1, looking in the direction of the arrows and toward the inner face of the arm or rod, the view showing the levelling feature;

Figure 3 is a fragmentary detail vertical sectional view, taken on the line 3—3 of Figure 1, looking in the direction of the arrows and showing the levelling device in its normal position before any sag takes place;

Figure 4 is a view similar to Figure 3 but showing the adjustment of the fingerpiece, whereby to bring about upward tilt of the arm or rod;

Figure 5 is a detail transverse section through the hinge leaf and the rod or arm taken on the line 5—5 of Figure 2, looking in the direction of the arrows and illustrating more particularly the engagement of the fingerpiece with the rod and hinge leaf;

Figure 6 is a detail horizontal sectional view taken on the line 6—6 of Figure 2, looking in the direction of the arrows, the view showing the construction of the hinge leaf and the mounting of the fingerpiece thereon.

Referring to the drawing in detail, wherein similar reference characters designate corresponding parts throughout the several views, the letter C generally indicates my improved drapery crane and the same includes the supporting and attaching bracket 10 and the swinging arm or rod 11.

The bracket 10 can be made in various manners but preferably includes an inner section 12 and an outer telescoping section 13. Each of the sections 12 and 13 are of a U-shape in cross section, as best shown in Figure 2, and the sections are held in a preferred adjusted position in any desired way, such as by the use of a set screw indicated in dotted lines in Figure 1, by the reference character 14. The inner section 10 has formed thereon ears 15 for the reception of fastening elements 16, whereby the bracket can be rigidly secured to a window frame or the like. The outer end of the section 13 has formed thereon upper and lower ears 17 for the reception of a vertically disposed pivot pin 18. Mounted on the outer end of the section 13 for swinging movement in a horizontal plane is a hinge leaf 19, preferably formed from flat sheet metal. The inner end of the leaf is rolled to provide a hinge barrel 20, and this barrel is received between the hinge lugs 17. The hinge pin 18 extends through this barrel. The hinge leaf 19 is formed in a special manner in accordance with my invention and the top edge thereof is provided with an inclined cam edge 21. It is to be noted that this cam face extends upwardly toward the outer end of the leaf and that the cam face terminates abruptly at its inner end in a stop shoulder 22. The lower edge of the leaf 19 is also inclined upwardly toward the outer end of the leaf, as at 23, for a purpose which will later appear. Formed on the extreme outer end of the hinge leaf 19 is a laterally extending guide ear 24 which forms an important feature of this invention and this guide ear is provided with a guide opening 25.

Referring to the arm or rod 11, it can be seen that the same can also be made from inner and outer telescoping sections 26 and 27, and that each one of these sections are of a substantially C-shape in cross section. Means (not shown) can be provided for holding these sections in a preferred adjusted position to shorten or lengthen the arm or rod. The inner end of the rod receives the hinge leaf 19 and the rod or arm 11 and the hinge leaf 19 are held in their assembled position by a guide pin 28, which passes through the opening 25. The ends of the guide pin 28 are upset at 28' to hold the same rigidly in position on the rod or arm 11. As best shown in Figure 6, the opening 25 is of a greater diameter than the diameter of the guide pin, so that a loose play will be had between the pin and the guide ear 24 on the hinge leaf 19.

From the description so far, it can be seen that the rod can rock up and down on the hinge leaf and that the rod actually fulcrums at its inner end on the leaf.

Slidably carried by the hinge leaf 19 for movement longitudinally thereof is a fingerpiece 29, and while this fingerpiece can take various forms, I preferably fabricate the same from wire of a heavy gauge for the sake of

rigidity. A single length of wire can be utilized and the wire is bent into its desired form. The wire is first preferably bent into a U-shape to provide spaced parallel legs 30 connected by a bight portion 31. The legs are, in turn, then bent to provide inner and outer spaced portions 32 and 33 which straddle the upper edge of the hinge leaf and the bight portion 31 protrudes out of the rod 11 to form a fingergrip. Actually the fingerpiece conforms to the interior configuration of the rod and the fingerpiece snugly engages the inner surface of the rod and rests on the upper cam edge 21 of the leaf. As best shown in Figure 3, the fingerpiece 29 is normally positioned at the extreme inner end of the rod against the stop shoulder 22 and the rod then rests on the inner end of the leaf and the extreme upper edge of the leaf at its forward end. After the installation of the crane on a window frame or the like, and the drape is suspended from the arm 11, if sag or tilt takes place, it is merely necessary to slide the fingerpiece 29 outwardly on the cam edge 21 toward the guide pin 28. This sliding movement causes the fingerpiece to rise upwardly on the cam surface pressing up against the rod and this will tilt the rod on the leaf 19 at the inner end thereof. When the rod or arm 11 reaches its desired position, further sliding movement of the fingerpiece is stopped.

From the foregoing description, it can be seen that I have provided a very simple means of overcoming sag in a crane under influence of the weight of a drapery suspended therefrom.

Changes in details may be made without departing from the spirit or the scope of the invention, but what I claim as new is:

1. A drapery crane comprising a supporting bracket, a hinge leaf carried by the bracket having an upwardly inclined cam edge, a rod for supporting a drapery receiving the hinge leaf, means slidably connecting the outer end of the leaf to the rod, said rod being fulcrumed at its inner end on the leaf for tilting movement relative to the leaf and bracket, and means including a member slidable longitudinally of the leaf on said cam edge and engaging the rod for tilting said rod on the leaf.

2. A drapery crane comprising a supporting and attaching bracket, a flat hinge leaf carried by the bracket for swinging movement in a horizontal plane, a rod for supporting a drapery receiving said leaf and fulcrumed thereon for tilting movement, a guide pin rigidly carried by the rod, and said leaf having an apertured ear slidably mounted on the pin, the upper edge of the leaf being provided with a cam edge inclining upwardly toward its outer end and said guide pin, and a fingerpiece straddling said leaf and engaging the cam edge and the inner surface of said rod for tilting said rod on the leaf when the fingerpiece is slid outwardly on the leaf toward the pin.

3. A drapery crane as defined in claim 2, and the lower edge of said leaf being also inclined upwardly toward the outer end of the leaf.

4. A drapery crane as defined in claim 2, and said leaf having a stop shoulder at its inner end for limiting inward sliding movement of the fingerpiece.

5. A drapery crane comprising a supporting and attaching bracket, a flat hinge leaf carried by the bracket for swinging movement in a horizontal plane, said leaf having a cam surface on its upper edge inclining upwardly toward the outer end of the leaf, a laterally extending apertured guide ear on the forward end of the leaf, and a hollow drapery rod receiving said leaf, a guide pin rigidly carried by the rod with the apertured ear receiving the pin, and a U-shaped fingerpiece straddling the leaf for sliding movement on the cam surface thereof toward the outer end of the leaf and the guide pin, said fingerpiece having a fingergrip portion projecting outwardly from the inner face of the rod.

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