Aug. 15, 1933. G. M. KENNEY ET AL 1,923,024

BRACKET FOR CURTAIN RODS

Filed Feb. 14, 1933

Fig. 1

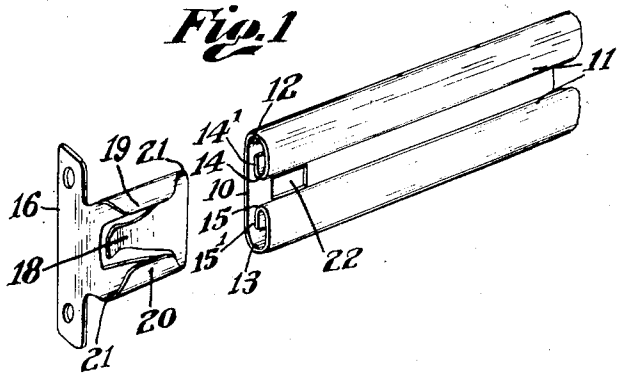


Fig. 2

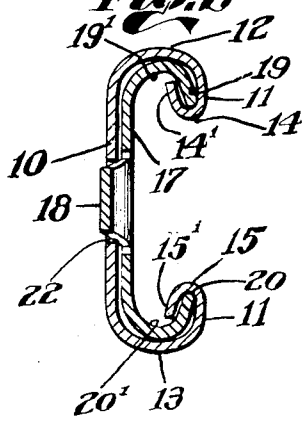


Fig. 3

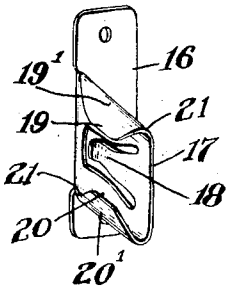
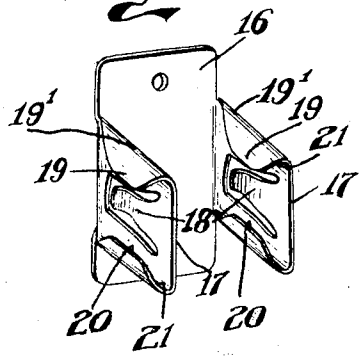


Fig. 4



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BRACKET FOR CURTAIN RODS

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Application February 14, 1933. Serial No. 656,754

4 Claims. (Cl. 156—22)

This invention relates to curtain rod brackets and particularly to a curtain rod bracket designed especially to support the new four arch tubing curtain rod shown in the application for patent of George M. Kenney, filed July 28, 1932, Serial No. 625,406, Patent No. 1,914,132 of June 13, 1933.

Such rod is a rod of new structure and result and its unique arrangement of open channel arches necessitates a bracket of equally new structure and result in order most effectively to support the same.

The ordinary curtain rod is a tube C-shaped in cross section and is supported at its ends by prong brackets adapted to be telescoped into the rod. Such brackets consist simply of an attaching base from which projects at right angles a flat prong having struck therefrom a spring locking tongue. In assembling, the frictional engagement of the spring locking tongue with the flat rear wall of the rod restrains the rod against accidental displacement.

In order to be effective at all, the rod must closely fit the bracket prong, since otherwise the rod will not be firmly supported and retained but will be free to rattle or become accidentally disengaged. Both rods and brackets, however, must be made in commercial quantities at the minimum manufacturing cost in order to meet the intensive competition in this popular type of rod, and consequently there is little or no opportunity for rigid inspection. It thus results that the rods and brackets do not always have that exactness of fit one within the other so necessary to insure rigidity of rod and bracket when assembled.

Inasmuch as the rod moreover is also tubular in form and is machine-made, it sometimes happens that during its manufacture a slight outward flare is unintentionally given at its ends where the greatest difficulty is experienced in holding it exactly to shape. This introduces at the outset a potential factor of error in the fit of rod and bracket, due to the tendency of the bracket prong when entering said flaring end further to increase such flare. Ordinarily, rod and bracket are assembled by driving the bracket prong home into the rod as by tapping it with a mallet. If the rod end and bracket prong do not accurately align with each other, the prong tends to spread the rod edges apart and otherwise distort or belly out the rod and thus make for looseness of fit. Even where the original fit of the rod and bracket is sufficiently exact for all ordinary purposes, the repeated action of assembling and disassembling the rod and bracket makes for distortion of the rod and resulting looseness of fit, particularly if as usually happens, the prong becomes slightly bent.

These factors, characteristic of the ordinary C-shaped rod and bracket, may likewise be present in our new four arch tubing rod, and inasmuch as such rod is essentially a combination of reversed open channel arches, any original manufacturing error is apt to be magnified in such a rod.

Aside from this, the cross sectional configuration of our new four arch tubing rod is such as not to lend itself readily to telescopic engagement with the ordinary flat prong of the ordinary C-shaped rod bracket.

Where our new four arch tubing rod is used with the old style flat prong bracket, there is no capacity for rigid interlock of bracket and rod, and this is true, regardless of original perfection of manufacture of the rod. Nor is there any capacity for combinative overlap of arch and prong tending to stiffen and reinforce the assembly as a whole, since the prong is a flat prong which is devoid of any mechanical element which could effectively cooperate with the open arches of the rod to secure this result. Instead, the friction of the spring locking tongue with the internal surface of the flat rear wall of the rod is depended upon solely to maintain the bracket and prong assembled.

To overcome these objections to the usual prong bracket, and especially to overcome them in a form of bracket which is best adapted for use with our new type four arch type tubing rod, we have devised our present invention.

Our bracket has been especially designed to cooperate with the mechanical reinforcing elements afforded by the open channel arches of our new four arch tubing rod whereby when bracket and rod are asembled, the resulting unit will be one of the greatest mechanical strength and rigidity, due to the coactive interlock and overlap of the rod and bracket elements. Our bracket has also been especially designed to avoid the danger of spreading the rod edges or otherwise distorting the rod when assembling the same with the bracket, due either to original manufacturing imperfections in either rod or bracket, or to improper alignment of the bracket prong and rod when driving home the prong into the rod. In our bracket the construction is such as to insure a corrective re-formation of rod edges, should they for any reason not align

with the prong, during the action of driving the prong home into the rod, the edges of the prong being themselves formed snugly to fit within the open channel arches of the rod and thus correctively guide and center the prong as it telescopes into the rod.

As illustrative of the principles involved, we show in the accompanying drawing a form of bracket which we have found well adapted for use with our novel four arch tubing rod. In such drawing:

Fig. 1 is a perspective view of one of our novel brackets in position to be driven home into one end of a four arch tubing rod such as that shown in the said Kenney application hereinbefore referred to, said rod being shown in fragmentary perspective.

Fig. 2 is an enlarged cross-section particularly illustrating the coactive interlock of rod and bracket prong when the parts are assembled, and

Figs. 3 and 4 are perspective views of the bracket detached, Fig. 3 showing a single prong bracket for a single rod, and Fig. 4 showing a double prong bracket for a double rod, it being understood that if triple rods are used, the bracket will have three prongs.

The four arch tubing rod presents the usual solid front wall 10 and slotted rear wall 11 joined to the front wall at top and bottom edges by the arched connecting portions 12 and 13. These arches 12 and 13 are in turn bent upon themselves to form the open channel arches 14 and 15 which terminate in the spaced oppositely extending flanges 14′ and 15′ all as more particularly set forth in said Kenny application Serial No. 625,406.

Our novel bracket in its simplest form comprises an attaching base 16 from which extends at right angles a rod penetrating prong 17 provided with the usual spring locking tongue 16.

Unlike the prior art brackets, however, the prong 17 is formed at its top and bottom edges with mechanical elements 19 and 19′ and 20 and 20′ which cooperate with the arch elements 14 and 15 of the rod to provide a rigidly interlocked assembly when the prong is driven home into the rod (see Fig. 2).

Such mechanical elements 19 and 19′ and 20 and 20′ may conveniently take the form of arch-like flanges, preferably beveled as at 21 at one or both ends, and extending longitudinally of the prong at each edge thereof. The arched positions 19′ and 20′ of said arched flanges conform generally to the curvature of the arches 14 and 15 of the rod and snugly interfit therewith when the prong is driven into the rod. So interfitted there is a mutual overlapping or support of arch on parts which makes for the maximum mechanical strength and rigidity. The arched flanges also act as guides to align the prong in assembling the rod and bracket and as mechanical corrective elements on the rod arches 14 and 15 to correct to some degree at least any inaccuracies therein as the prong is driven home into the rod.

As will be apparent from Figs. 1 and 2, the oppositely extending terminal flanges 14′ and 15′ of the channel arches 14 and 15 of the rod act as guides for the terminal edges 19 and 20 of the prong flanges in assembling the rod and bracket, and that the engagement of the respective flanges and arches is such as mutually to guide and hold the parts in interlocked relation. The length of the prong flanges is sufficient adequately to insure a rigid interlock for substantially the entire depth of penetration of the prong into the rod.

The rod is preferably provided with the usual locking slot 22 which receives the spring tongue 18 of the bracket prong when the parts are assembled.

In Fig. 4 we have illustrated a double prong bracket for use with a double rod. If a triple rod is used the bracket will be provided with three prongs.

Various other modifications in the construction and operation of our device may obviously be resorted to if within the spirit and scope of our invention without departing from the limits of the appended claims.

What we therefore claim and desire to secure by Letters Patent is:—

1. For use with a curtain rod having a flat front wall and a slotted rear wall connected at its top and bottom edges by arched connecting portions which at their free edges are bent to form open channel arches of reversed curvature to each other and to said arched connecting portions, a bracket comprising an attaching base and a projecting prong, said prong having its top and bottom edges formed with longitudinally extending arched flanges corresponding substantially in curvature to the curvature of the open channel arches of the rod and adapted to be overlapped by and interlocked with said rod channel arches when said prong is penetrated axially into said rod.

2. A bracket as claimed in claim 1, wherein said prong intermediate of said arched flanges is provided with a spring locking tongue.

3. For use with a curtain rod having a flat front wall and a slotted rear wall connected to said front wall by arched connecting portions and having the edge portions of said rear wall bordering the slot thereof bent towards the front wall as open channel arches terminating in spaced oppositely extending flanges, a bracket comprising an attaching base and a projecting prong, said prong having its top and bottom edges bent outwardly away from the plane of the prong as open arches which terminate in oppositely disposed longitudinally extending flanges, said arches corresponding substantially in curvature to the open channel arches of the rod and adapted to be overlapped by and interlocked with said rod channel arches when said prong is penetrated axially into said rod, said prong flanges in such penetration lying within the rod channel arches and said rod flanges enclosing said prong flanges and acting as guides therefor in assembling the rod and bracket.

4. A bracket for a tubular curtain rod, comprising an attaching base and a prong projecting therefrom, said prong having its top and bottom edges formed with longitudinally extending arched flanges adapted to afford extended bearings for the edges of a curtain rod into which said prong has been axially penetrated, said arched flanges being beveled back towards the prong at their ends.

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