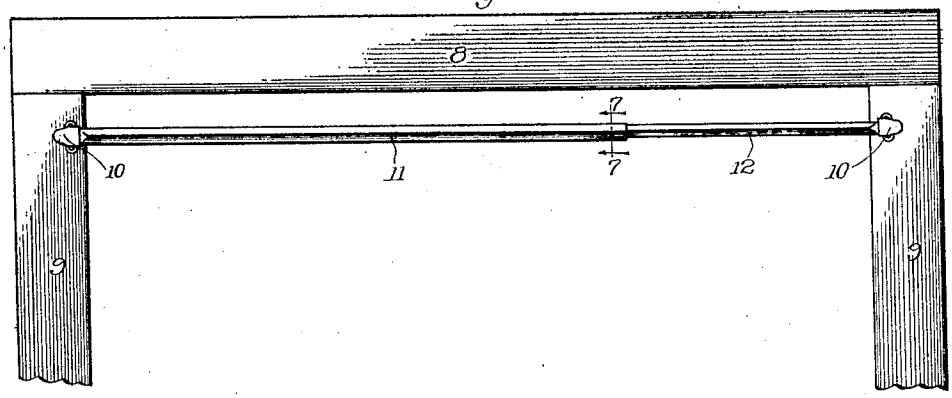
J. H. BOYE.

CURTAIN ROD.

APPLICATION FILED APR. 16, 1920.

1,349,042. **Patented Aug. 10, 1920.**

Fig. 1.



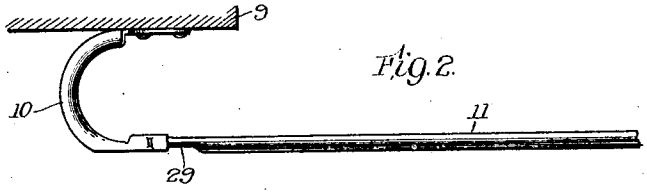


Fig. 2.

Fig. 3.

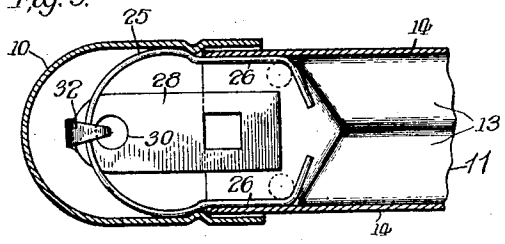


Fig. 5.

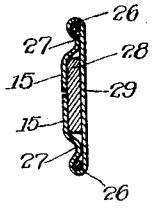


Fig. 4.

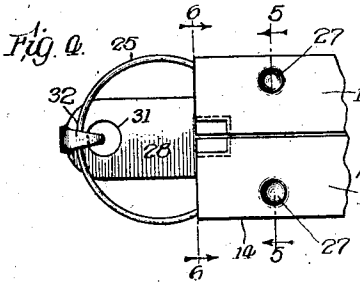


Fig. 7.

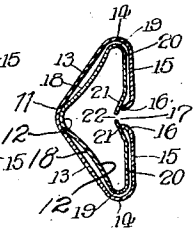
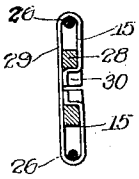


Fig. 6.



Witness:

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Attys.

UNITED STATES PATENT OFFICE.

JAMES H. BOYE, OF CHICAGO, ILLINOIS, ASSIGNOR TO JAMES H. BOYE MANUFACTURING COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

CURTAIN-ROD.

1,349,042. Specification of Letters Patent. Patented Aug. 10, 1920.

Application filed April 16, 1920. Serial No. 374,314.

To all whom it may concern:

Be it known that I, JAMES H. BOYE, a citizen 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-Rods, of which the following is a specification.

This invention relates to improvements in curtain rods; and has reference more particularly, first, to an improvement in the form of the rod itself designed to afford greater strength and stiffness in the horizontal plane of the rod than is obtainable with the so-called hollow flat rods at present extensively used; and second, to provide a stiffening and locking device for a spring wire loop which I have heretofore used in the ends of the curtain rods to detachably lock the latter in the supporting brackets of the curtain fixture.

That feature of the present invention which relates to an improvement in the form of the rod itself embodies, to a certain extent, the structural principle of the rod disclosed and claimed in my pending application, Serial No. 349,854, filed Jan. 7, 1920. In the said application, I have disclosed a telescoping rod of the flat type wherein the rear walls of the two telescoping rods are centrally slotted longitudinally and formed with inturned oblique marginal portions or flanges, the marginal portions of the inner rod bearing upon the marginal portions of the outer rod, and the front walls of the rods being substantially flat and lying in contact with each other. This construction affords a telescoping rod of great rigidity in a vertical plane and one wherein the telescoping sections slide easily upon each other with little friction. One object of the present invention is to provide a rod of this general type which shall preserve the rigidity in a vertical plane and the easy sliding quality, and at the same time afford greater strength and rigidity in the horizontal plane of the rod.

Another object of the present invention, which has to do with curtain fixtures of the general type disclosed in my former Letters Patent No. 1,229,874, dated June 12, 1917, is to provide a combined guard and lock for the spring wire loop which forms a locking extension of the rod for engagement with a supporting bracket of the fixture.

In the accompanying drawing, I have illustrated the features hereinabove generally described, and referring thereto—

Figure 1 is a front elevation of the upper portion of a window casing, showing my improved curtain rod mounted thereon;

Fig. 2 is a top plan view of the left portion of Fig. 1;

Fig. 3 is an enlarged vertical section through one of the end brackets and the end of the curtain rod which fits therein, showing in rear elevation the spring wire loop in the end of the curtain rod and the combined guard and lock therefor;

Fig. 4 is a rear elevation of the same end of the curtain rod shown in Fig. 3, with its spring wire loop and combined guard and lock;

Fig. 5 is a cross-section on the line 5—5 of Fig. 4;

Fig. 6 is a cross-section on the line 6—6 of Fig. 4; and

Fig. 7 is an enlarged cross-section through the two telescoping rod sections.

Referring to the drawing, 8 indicates the top and 9 the side members of an ordinary window frame or casing, on which latter are mounted curtain fixture brackets 10. Supported by and between the brackets 10 is is my improved curtain rod comprising the telescoping rod sections designated generally by 11 and 12. As best shown in Fig. 7, the larger rod section 11 is of generally triangular form in cross-section comprising a front wall 13 which is bent to present a broad horizontal V-shape in cross-section, rounded upper and lower edge walls 14, and flat wall sections 15 having the inwardly turned oblique free margins 16; all of said parts being folded and bent to the shape shown from a single sheet metal blank. The inturned margins 16 do not touch each other, but form between them a central narrow longitudinal slot 17 in the rear wall of the rod.

The smaller rod section 12 has substantially the same shape as the larger section 11, but is sufficiently smaller in transverse dimensions to telescope within the latter. It is also folded and bent to form from a single sheet metal blank, and comprises the broad horizontal V-shaped front wall 18, rounded upper and lower edge walls 19, and flat rear wall sections 20 having the inwardly turned oblique free margins 21; the free

edges of the latter being spaced apart and forming between them a central narrow longitudinal slot 22. It will be observed, by reference to Fig. 7, that the portion of the inner rod section 12 that lies within the outer rod section 11 is not in surface contact with the latter throughout its entire extent, but bears thereon only at the apex or ridge of its front wall and at its inwardly turned marginal portions or flanges 21 which engage with the edges of the inwardly turned marginal portions or flanges 16 of the outer rod section; the transversely acting elasticity of the two rod sections maintaining the front walls 13 and 18 in contact at their central apex or ridge portions and likewise the flanges 21 and 16 in contact.

This construction affords sufficient friction between the two rod sections to prevent them from sliding inwardly or outwardly by gravity when mounting the curtain on the rod or mounting the latter on, or dismounting it from, its supporting bracket 10; and at the same time it renders the rod adjustable to the required length under a light pull or push. The described construction also prevents sagging, since the elastic pressure contact of the flanges 21 and 16 is continuous throughout the telescoped portions of said rod sections, and one component of this pressure acts in a vertical direction to opposed relative movement or yield of the rod sections in such vertical direction. Furthermore, the nesting of the apex of the inner rod section within the apex of the outer rod section also opposes any sagging tendency. Furthermore, the two sections will readily telescope, even though either or both of them be slightly bent or bowed in a front and rear direction owing to the elasticity of the rear wall sections 15 and 20 which are free to yield outwardly under pressure of the flanges 21 of the inner rod section on the flanges 16 of the outer rod section. Again, the inturned margins or flanges 16 and 21 stiffen and strengthen the rod in the directions of both its vertical and horizontal transverse axes, while the V-shape of the front wall affords much greater stiffness to the rod in a horizontal or front and rear direction than a flat or slightly convex front wall.

Referring next to that feature of the invention which relates to the end structure of the curtain rod, 25 designates a spring wire loop generally similar in structure and function to that shown in my former Letters Patent No. 1,229,874, above referred to, which is entered at its stem or shank portions 26 within the outer end of each rod section 11 and 12, the loop being clamped in operative position by indenting the metal on the rear side of the rod as shown at 27 in Figs. 4 and 5 some distance inwardly from the end of the rod. This spring wire loop 25 snaps into the holding socket of the end bracket 10 in the manner shown in Fig. 3. In some instances I provide a similar spring wire loop on the inner end of the smaller rod section 12 for greater stiffness, although this is not necessary in the present rod construction. It has been found that where the rod is accidentally dropped endwise onto the floor, or the spring wire loop 25 accidentally strikes an obstruction, it frequently becomes bent laterally so that it will not fit the bracket without being bent back to normal shape. In some instances also, this spring wire loop, where insufficiently anchored by the mashing down of the metal, will pull out of the rod. I have devised a simple means for curing both of these faults, and this consists, in the instance shown, of a flat metal strip 28, which can economically be made from the waste or scrap left over from the punching and shaping of the brackets 10. This strip 28 is entered between the front and rear walls of the rod, the V-shaped front wall being flattened down at the end as shown at 29 in Figs. 2, 5 and 6, and the strip is formed with a hole 30 into which the metal of the rear wall of the rod is mashed down, as clearly shown in Fig. 6, thus anchoring the strip 28 in the end of the rod. The outer end of the strip 28 is formed with a hole 31 (Fig. 3) and with a narrow tongue 32 at its tip which is curled over the extreme outer end of the spring wire loop 25 and passed into the hole 31. By this device the spring wire loop 25 is securely locked against accidental withdrawal, and, in the event that the rod falls or strikes on end, the blow is taken by the outer end of the strip 28, and the wire loop is guarded against the bending effect of such a blow. The strip 28 thus serves as both a lock and a guard for the spring wire loop.

This combined guard and lock also improves the action of the spring wire loop 25 in this way. By reason of its locking effect, the metal of the rod does not require to be mashed down on the stems or shanks 26 of the loop throughout the entire extent of the latter as has heretofore been done. Instead of this, the stem or shank portions 26 can, as shown in Fig. 6, be allowed considerable in and out springing play between the front and rear walls of the rod, thereby giving to the projecting portion of the loop greater transverse elasticity for interlocking coöperation with the socket of the bracket.

While I have illustrated and described practical and preferred embodiment of the improved features making up my present invention, it should be understood that the exact forms and structures so shown and described are illustrative only of the principles involved in the invention, the scope

and particular subject-matter of the latter being set forth in the appended claims.

I claim—

1. A telescoping curtain rod, comprising inner and outer rod sections each of substantially triangular form in cross-section and having a flat longitudinally split rear wall and a front wall of a board horizontal V-shape in cross-section.

2. A telescoping curtain rod, comprising inner and outer rod sections each of substantially triangular form in cross-section and having a flat longitudinally split rear wall with inwardly turned margins and a front wall of a broad horizontal V-shape in cross-section; said sections, when telescoped, lying in contact substantially only at the marginal portions of their rear walls and the apexes of their front walls.

3. The combination with a curtain rod, of a spring wire loop secured to and projecting from an end of said rod, and a combined guard and lock for said spring wire loop secured at its inner end to said rod and at its outer end to the outer end of said loop.

4. The combination with a curtain rod, of a spring wire loop secured to and projecting from an end of said rod, and a metal strip of greater stiffness than said loop secured at its inner end to said rod and at its outer end embracing the outer end of said loop.

5. The combination with a curtain rod, of a spring wire loop secured to and projecting from an end of said rod, and a flat metal strip of greater stiffness than said loop secured at its inner end to said rod, said strip having at its outer end a hole and a projecting tongue bent around said loop and with its tip entering said hole.

6. The combination with a hollow curtain rod, of a spring wire loop projecting from an end of said rod and having its stem portions anchored within said rod some distance inwardly from the end of the latter, and a wire loop stiffening and locking member anchored at its inner end within the end of said rod and at its outer end secured to the outer end of said loop.

7. The combination with a hollow curtain rod, of a spring wire loop projecting from an end of said rod and having its stem portions anchored within said rod some distance inwardly from the end of the latter, and a flat metal strip anchored at its inner end within the end of said rod and at its outer end embracing the outer end of said loop, and serving as both a stiffening and locking member for the latter.

JAMES H. BOYE.