

Jan. 15, 1929.

1,699,276

J. H. BOYE

TELESCOPIC CURTAIN ROD

Filed Dec. 18, 1924

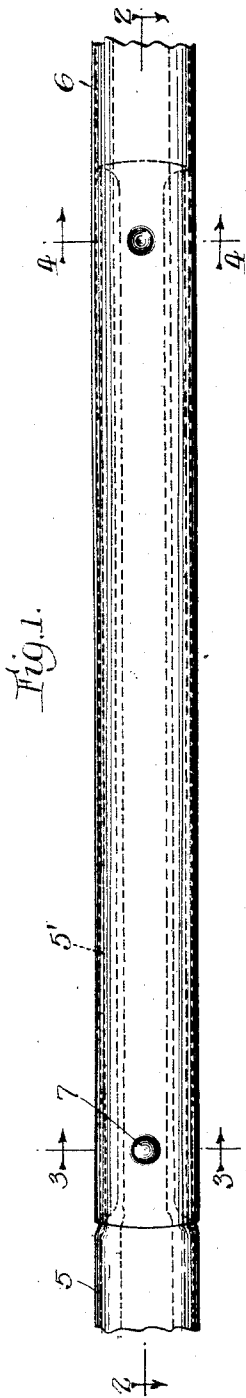
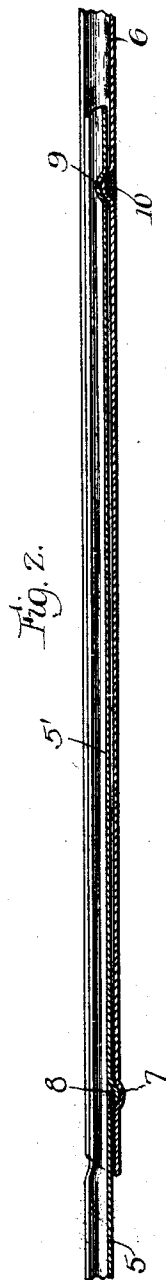


Fig. 4.

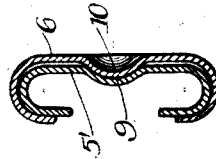


Fig. 3.

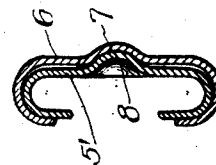
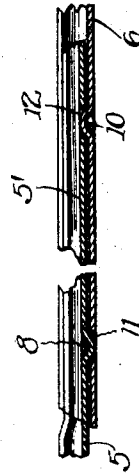


Fig. 5.



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Patented Jan. 15, 1929.

1,699,276

UNITED STATES PATENT OFFICE.

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TELESCOPIC CURTAIN ROD.

Application filed December 18, 1924. Serial No. 756,692.

This invention relates to the art of curtain fixtures, and more particularly to telescopic curtain rods. In the manufacture of such rods it is quite common to provide devices of various sorts to yieldably lock the telescoping members or sections of the rods in interengaged position, and prevent their accidental separation; and one object of my present invention is to provide a very simple, inexpensive, and highly efficient device for this purpose. Another object is to provide an improved locking device which shall be formed wholly in or upon the rods or rod sections themselves, without requiring the use of additions or attachments to produce the interlocking effect, and a further object of the invention is to provide an improved interlocking means capable of being brought into and out of engagement without marring the surface finish of the rods.

My invention, its operative principle and advantages will be readily understood by persons skilled in the art from the following detailed description, taken in connection with the accompanying drawings wherein—

Fig. 1 is a front elevation showing a pair of telescoping rod sections equipped with my improved locking device;

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

Figs. 3 and 4 are enlarged cross-sections taken on the lines 3—3 and 4—4, respectively, of Fig. 1; and

Fig. 5 is a longitudinal section, broken out between its ends, showing a modification.

Referring to the drawing, 5 and 6 designate a pair of curtain rod sections of the well-known "flat" type. These may represent the members of a two-part telescopic rod, or an end section and an intermediate coupling section of a three-part telescopic rod, or the two intermediate sections of a four-part telescopic rod; the particular style and make-up of the rod being immaterial so far as the present invention is concerned. In the example shown, the rod sections 5 and 6 are of uniform transverse section except that the portion 5' of the rod section 5 that enters the rod section 6 is narrowed sufficiently to slidably interfit with the latter so that, when the parts are assembled, the complete structure represented by the two sections is of uniform cross-sectional dimension substantially throughout its entire length.

Referring to the yieldable interlocking means, in the front wall of the outer section 6 slightly inwardly of the end of the latter is formed a round concave seat 7 created by offsetting the metal by a round nose punch from the inner side of the wall. A protuberance 8 is similarly formed on the front wall of the interfitting portion 5' of the rod section 5 a slight distance from the inner end or base of the reduced portion 5'. A slight distance inwardly from the outer end of the interfitting portion 5' or the section 5 a similar round concave seat 9 is formed in the front wall; and co-operating therewith is a similarly formed rearward protuberance 10 on the front wall of the rod section 6.

In assembling the sections 5 and 6 the reduced portion 5' of the section 5 is slidably entered into the outer section 6 and moved lengthwise of the latter until the end of the outer wall of section 6 encounters and rides over the protuberance 8 and, at the same time, the end of the outer wall of the reduced portion 5' encounters and rides over the protuberance 10. The transverse elasticity of the front walls of the two sections, together with the transverse elasticity of the rear flanges of the rods, enables the end portions of the two rods to ride over the protuberances 8 and 10 as described until the protuberance 8 comes into register with and snaps into the seat 7, and simultaneously the protuberance 10 comes into register with and snaps into the seat 9, whereupon the two sections are locked against separation under any ordinary or service influences tending to separate them, but manifestly may be separated by a pull equal to the thrust under which they are interlocked.

One advantage of the described construction lies in the fact that these locking devices can be very easily and quickly formed in the rod sections by a hammer-blow transmitted through a round nose punch, and no attachments or accessories to effect the yieldable interlocking of the sections are required. Manifestly, the two co-operating interlocking devices may be variously spaced on the interfitting rod sections but preferably will be located near the ends of the latter. Another important advantage lies in the fact that, in the act of sliding the two parts on each other the protuberance forming the seat 7, since it projects forwardly, does not

scrape over and mar the surface of the inner member 5', nor does the protuberance forming the seat 9, being rearwardly directed, scrape over and mar the rear surface of the outer section 6. The protuberance 8 slides with friction on the rear surface of the outer section 6 only for the short distance between the end of the section 6 and its seat formed by the protuberance 7; and similarly the protuberance 10 slides with friction on the outer face of the inner member 5' only for the short distance between the end of the latter and its seat formed by the protuberance 9. It is manifest that if the co-operating locking devices 7 and 8 and the co-operating locking devices 9 and 10 both projected toward the front or rear, either the rear surface of the rod section 6 or the front surface of the section 5' would necessarily be scratched and marred for the entire distance through which the parts are telescoped.

Instead of forming concave seats such as 7 and 9 for yieldable interlocking engagement with the protuberances 8 and 10, holes such as are shown at 11 and 12 in Fig. 5 may be punched or otherwise formed in the front faces of the rod sections 6 and 5' to seat the protuberances 8 and 10 to the same mechanical effect.

While I have herein shown the inner telescoping member 5' as formed by a reduced portion of a rod section 5 of uniform cross-

section with the rod section 6, it is manifest that the described interlocking feature is equally applicable to two rods or rod sections each of uniform diameter throughout, and one capable of telescoping within the other.

I claim—

1. A hollow flat curtain rod section formed on the outer side of its front wall with a seat and a protuberance at longitudinally spaced points thereon, in combination with a co-operating flat telescoping rod section formed at similarly spaced points on the inner side of its front wall with a protuberance and a seat adapted to yieldably interlock with the seat and protuberance respectively of said first-named section.

2. A hollow flat curtain rod section formed on the outer side of its front wall with a round concave seat and a round convex protuberance at longitudinally spaced points thereon and midway between its longitudinal edges, in combination with a co-operating flat telescoping rod section formed at similarly spaced points on the inner side of its front wall and midway between its longitudinal edges with a round convex protuberance and a round concave seat adapted to yieldably interlock with the seat and protuberance respectively of said first-named section.

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