

UNITED STATES PATENT OFFICE.

HENRY A. FOWLER, OF NORTHBRIDGE, AND JOHN H. LINGLEY, OF WORCESTER, ASSIGNORS OF ONE-THIRD TO SAMUEL FOWLER, OF NORTHBRIDGE, MASSACHUSETTS.

CURTAIN-ROD.

SPECIFICATION forming part of Letters Patent No. 466,940, dated January 12, 1892.

Application filed May 8, 1890. Serial No. 350,978. (No model.)

To all whom it may concern:

Be it known that we, HENRY A. FOWLER, a citizen of the United States, and a resident of Northbridge, in the county of Worcester and State of Massachusetts, and JOHN H. LINGLEY, a citizen of the United States, and a resident of Worcester, in the county and State aforesaid, have invented a new and useful Improvement in Curtain-Rods, of which the following is a specification, reference being had to the accompanying drawings, forming a part of the same, and in which—

Figure 1 represents one of our improved rods as held against the opposing sides of a casing. Fig. 2 is a view of the same with the sliding ends shown in central longitudinal sectional view. Fig. 3 shows a similar sectional view of one of the sliding ends upon a larger scale, and Fig. 4 is a longitudinal central view of a modified form of the sliding end.

Similar letters refer to similar parts in the different figures.

Our invention relates to a curtain-rod intended to be held between the opposing sides of a door or window casing by the friction of the ends upon the casing, and the construction of the device by which this friction is secured is clearly shown in the accompanying drawings, in which—

A A denote the sides of a door or window casing.

B is a rod forming the central section of our improved rod, and can be of metal or other material, as wood or of wood covered with metal, or it can consist of a piece of tubing. Upon each end of the central rod B we place the telescopic sliding tubes C C, with their inner ends ground or turned down to an edge in order to allow the rings or the hem of a curtain to slide freely over them. The outer ends of the sliding tubes C C are compressed or reduced in diameter by compression or upsetting.

On the reduced outer ends of the sliding tubes C C are placed the tips D D, which are either tubular in form, as represented in Fig. 4, or flaring or bell-mouthed, as represented in Fig. 3, the special form of the tip itself being immaterial. Within the tip D and rest-

ing upon the ends of the sliding tubes C are the disks E, and upon the disks E are placed the rubber disks F F. Springs G G are inclosed within the sliding tubes C, the outer diameter of the springs being larger than the internal diameter of the sliding tubes C at their reduced ends C' C'. The springs are large enough to require considerable pressure to cause them to enter the ends C' C', and they are held in place by the pressure of the spring against the inner surface of the sliding sleeves at their reduced ends C' C' and kept from falling out of the tubes when they are removed from the ends of the rod B. The opposite ends of the springs G G rest against the ends of the rods B, and as the entire length of the curtain-rod with the ends as applied is longer than the space between the sides of the casing, so that when it is applied to the casing the springs G G are compressed, their tension exerts a pressure against the sides of the casing, which serves to hold the rod firmly in position. The ends C' C' are sufficiently contracted in diameter to prevent the spring G from being pushed through the end of the tube C and crowding the disks E and F out of the tip D as the spring G is being compressed by the sliding motion of the tube C on the rod B in the operation of applying the curtain-rod to the window-casing. The compression of the tube C is thus made to serve a double purpose: in holding the spring G from falling out of the tube C when the tube is removed from the rod B and also in preventing the end of the spring from being pushed through the end of the tube and against the disk E as the spring is compressed against the end of the rod B. This latter purpose can obviously be secured by turning over the end of the tube C, thereby contracting the opening and forming an internal flange by which the end of the spring will be held from contact with the disk E, or the end of the tube C, which is held in the tip D, can be indented, so as to reduce its internal diameter and hold the outer end of the spring from longitudinal movement while it is being compressed.

While we have shown and described a rod B provided with a sliding sleeve at each end

of the rod carrying a tip and actuated by springs, and which we deem a preferable form of construction, we do not confine ourselves to the use of a sleeve at each end.

5 We do not herein claim, broadly, the use of a sliding end with a spring whose tension is exerted to press the ends against the sides of the casing, as such a construction was made the subject of the application of Fowler,
10 Lingley, and Dodge, Serial No. 317,492; but What we do claim as our present invention, and desire to secure by Letters Patent, is—

1. In a curtain-rod, the combination, with a rod B, of a tube C, having one end inclosing and sliding on said rod and having its
15 opposite end reduced in diameter, a spring inclosed in said tube and held from longitudinal movement by said reduced end of the tube, and a shell or tip carried by the reduced
20 end of the tube and adapted to bear

against the window-casing, substantially as described.

2. In a curtain-rod, the combination, with a rod B, of a sliding tube C, having its end C' reduced in diameter, a spring inclosed in
25 said tube and held from longitudinal movement by said reduced end of the tube, a shell or tip D, inclosing the end C', a metallic washer E, bearing against the end C' of the tube, and a semi-elastic washer F, held in
30 said shell and resting on said metallic disk, substantially as described.

Dated at Worcester, in the county of Worcester and State Massachusetts, the 1st day of May, 1890.

HENRY A. FOWLER.
JOHN H. LINGLEY.

Witnesses:

RUFUS B. FOWLER,
H. M. FOWLER.

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