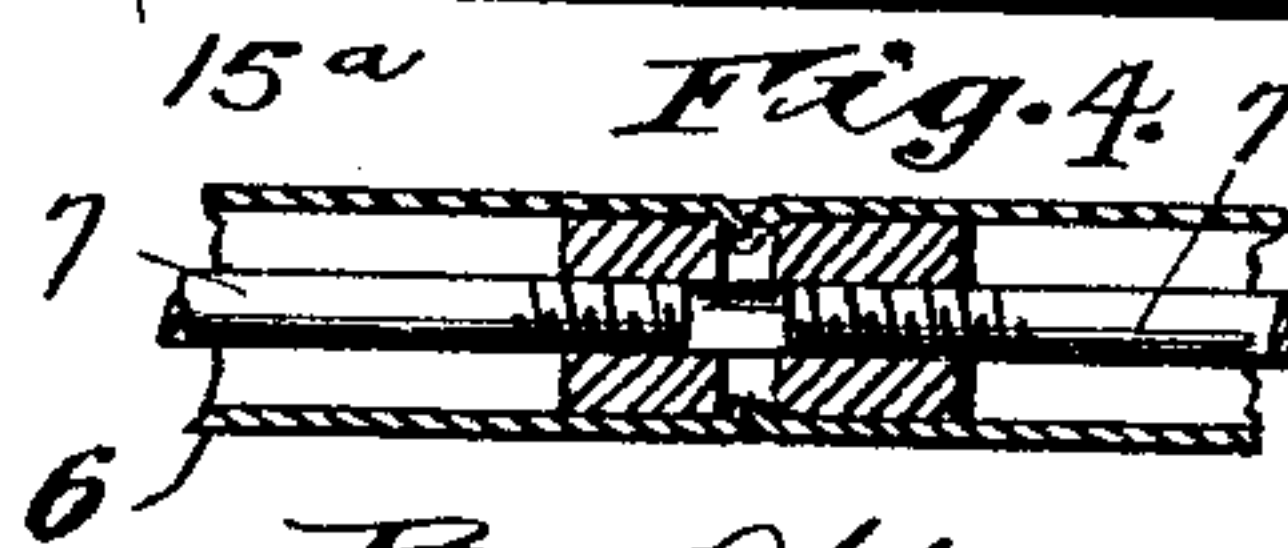
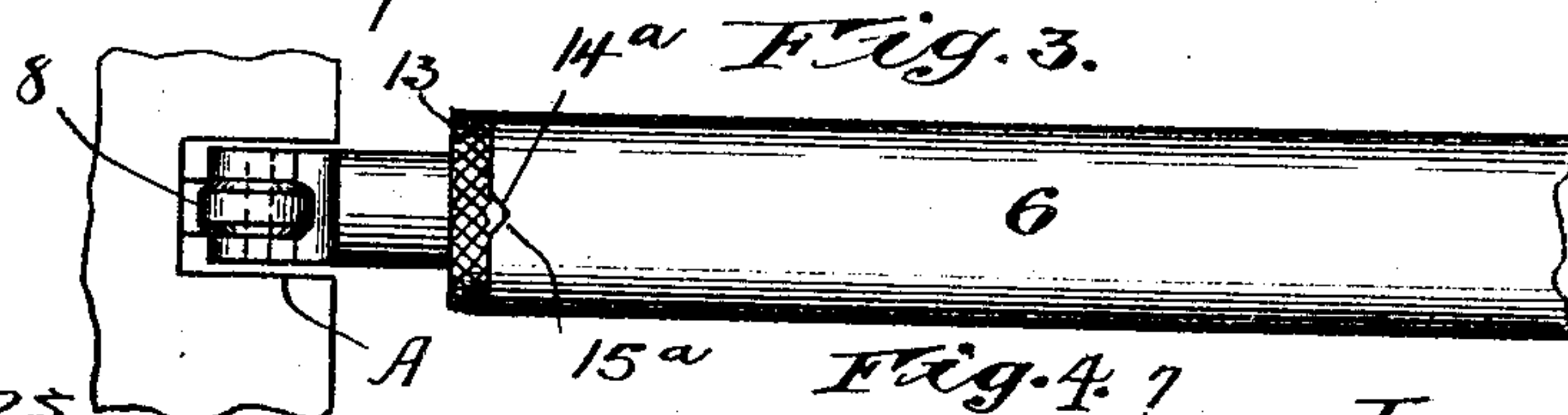
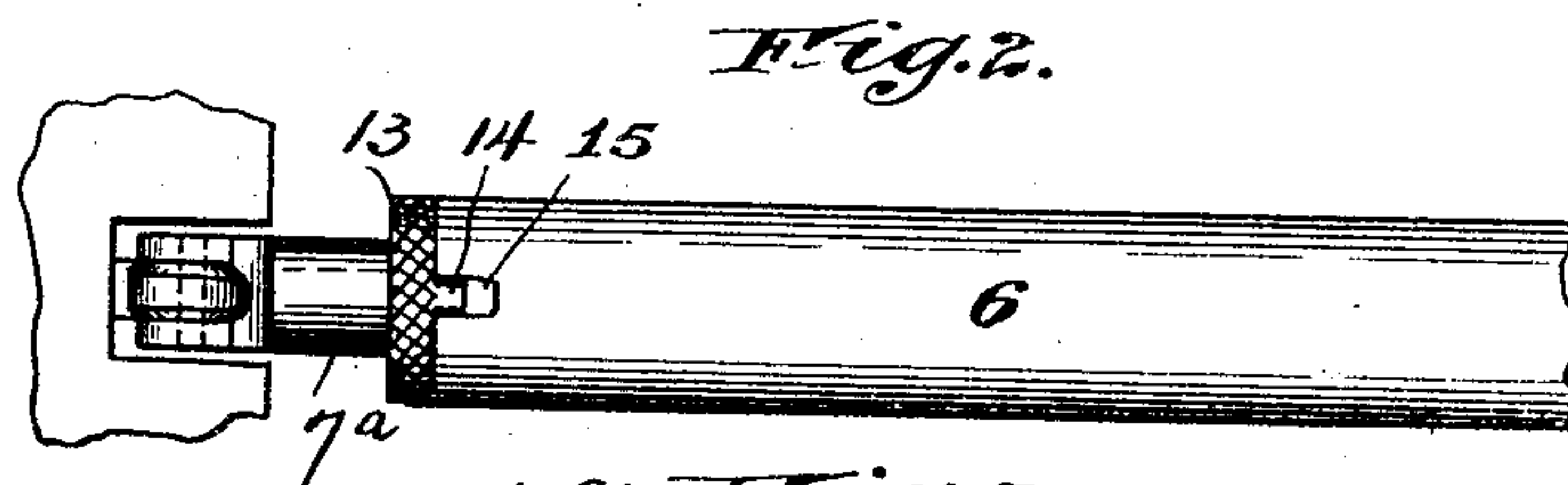
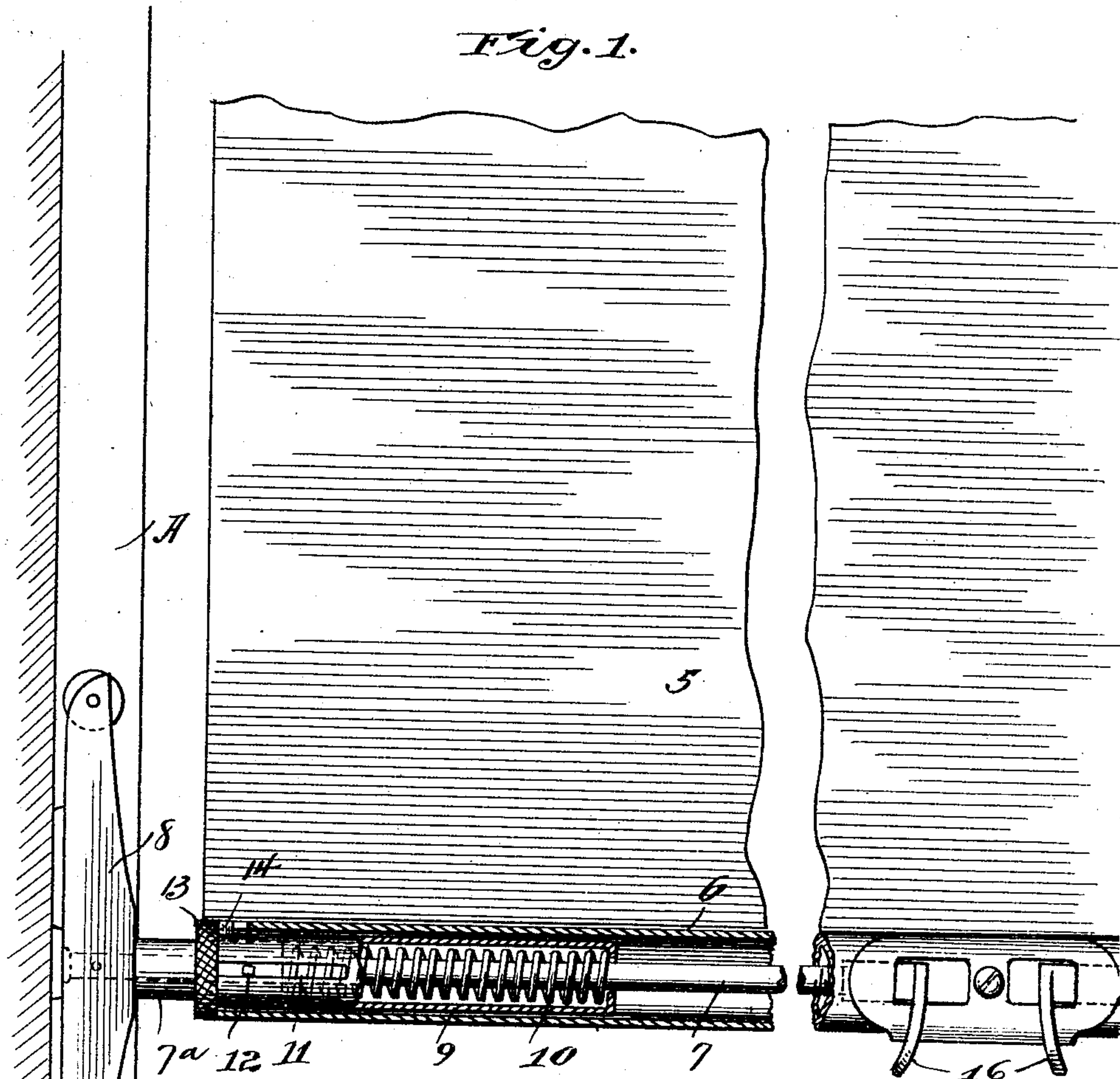


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G. H. FORSYTH.
CURTAIN OR SHADE HOLDER.
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UNITED STATES PATENT OFFICE.

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CURTAIN OR SHADE HOLDER.

SPECIFICATION forming part of Letters Patent No. 782,839, dated February 21, 1905.

Application filed June 8, 1903. Serial No. 160,650.

To all whom it may concern:

Be it known that I, GEORGE H. FORSYTH, 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 or Shade Holders, of which the following is a specification.

My invention relates to that type of curtain or shade holders wherein the tubular stick mounted in the lower margin of the curtain or shade carries the friction devices consisting of a friction-head for engaging the frame of the window at each end of the stick, said heads being carried upon rods sliding within the stick and pressed outwardly into frictional engagement with the window-frame by springs arranged within the stick and bearing upon the rods, which latter are usually made retractable by means of pendants or pinch-handles connected with the inner ends of the rods and projecting through slots in the stick. Owing to variations in the distances between the bottoms of the grooves in the sides of the window-frame, which variations exist in windows which are intended to be of the same size, it becomes necessary to provide means whereby the friction-heads may be adjusted into proper operative relation to the window-frame. It is further desirable to provide such a construction as will permit this adjustment to be made after the fixture has been applied to the window, and, further, it is desirable to lock the parts together after they have been adjusted.

The object of my invention is to attain these desirable ends and in such manner that the fixture can be readily applied to the window-frame and the adjustment thereafter made.

In the drawings, Figure 1 shows in elevation a fragmentary portion of a curtain or shade having my improved holding device applied thereto with parts thereof in section to disclose the interior mechanism. Fig. 2 is a top plan view of the holding mechanism in place in the grooves with the curtain omitted and illustrating a construction in which the adjusting means is positively locked against movement. Fig. 3 is a view similar to Fig. 2, but illustrating a modification of the lock-

ing means, which are not positive, but afford a safeguard against accidental or unintentional adjustment; and Fig. 4 is a modification showing the pendants omitted.

Referring to the drawings, 5 designates the curtain or shade, carrying in its lower margin the usual tubular shade-stick 6.

7 designates a rod disposed centrally within the tubular stick 6, and 7^a a sleeve fixed thereon. The friction-head 8 is loosely mounted on the extremity of the rod which protrudes beyond the sleeve, and this head travels in the groove A in the side of the window-frame to which the device is applied.

9 designates a tubular member extending for a considerable distance within the end of the shade-stick, the inner end of which tubular member is closed except for an aperture sufficiently large to permit the rod 7 to slide therethrough. Within the tube 9 and encircling the rod 7 is a coil-spring 10, one end of which abuts against the closed end of the tube, while the opposite end abuts against the inner end of the sleeve 7^a.

11 designates a longitudinal slot extending for some distance in the end portion of the tube 9, which slot coöperates with a pin 12, projecting from the sleeve 7^a.

13 designates a milled or knurled collar formed with or made fast to the outer end of the tube 9, and this collar is provided with a tooth 14, extending inwardly of its inner annular face and coöperating with a recess 15 in the end of the shade-stick 6, as shown in Figs. 1 and 2. The collar 13 is preferably so positioned as to project somewhat beyond the side margin of the curtain, as shown, for greater facility in getting at the same for purposes of adjustment, as hereinafter described.

The inner end of the rod 7 is screw-threaded for a considerable distance, according to the desired extent of longitudinal adjustment of the head, and engages an internal thread in the shank of the pendant 16.

It is of course understood that the parts above described are duplicated at the opposite side of the shade.

The pendants might be omitted and the rod made to have a threaded engagement with a

plug or other threaded member within the tube, or other means may be provided for holding the end of the rod after adjustment. Such a modification is illustrated in Fig. 4.

5 From the foregoing it will be seen that the tension of the spring 10 is exerted to force the tube 9 inwardly and the rod 7 and head 8 outwardly. The inward movement of the tube 9 is resisted by the engagement of the collar 13 with the end of the shade-stick, while the outward movement of the rod 7 and head 8 is limited by the engagement of the pendant 16 with the outer end of the slot, through which it plays, or with an equivalent holding or limiting means. Now in order to adjust the distance between the two heads on opposite ends of the shade-stick it is necessary only to grasp the collar 13 and move the same against the compression of the spring sufficiently to withdraw the tooth 14 from the recess 15 and then turn the collar, and thereby the rod 7, in one direction or the other, according as the stick is to be shortened or lengthened, it being observed that the rotation of the collar 13 and tube 9 is imparted to the rod 7 through the pin-and-slot connection 12 11. In this manner the shade-stick may be considerably shortened above its normal length when in operative position, whereby the heads may be readily entered within the grooves of the frame. That done, either or both of the collars 13 may be retracted and rotated, as described, in the proper direction to elongate the stick and carry the heads into proper relation to the grooves. While the rod is being turned, the head 8 remaining in the guide-groove is prevented from turning; but owing to the loose connection between the rod and head the turning of the former is permitted. This loose connection is well known in this art and is shown in the patent to Forsyth and Forsyth, No. 559,446, dated May 5, 1896.

45 In Fig. 3 the tooth or projection on the collar 13 (designated by 14^a) has a beveled and pointed form rather than a squared form, and coöperates with a similarly-shaped recess 15^a in the shade-stick. As a result of this construction the collar 13 can be turned upon the application of sufficient torsional force without first retracting it. This last-described construction is ample to prevent accidental and unintentional adjustment and at the same time is easier and simpler to manipulate than the construction of Figs. 1 and 2.

55 It is obvious that numerous changes in the detail construction and arrangement of the parts herein described might be made within the principle and purview of the invention. I do not, therefore, limit myself to such detail features, except to the extent that they are made the subject-matter of specific claims.

65 While the operation of the mechanism above described involves a rotative movement in adjusting the heads, and therefore necessitates

a pin-and-slot or equivalent connection between the rod 7 and the sleeve 9, it is obvious that other equivalent means might be employed for changing the effective length of the rod independent of its sliding movement, and therefore, while some of the claims herein made are based upon a construction requiring this rotative movement for adjusting the head, it is not intended that the broader claims shall be so limited.

I claim—

1. In a shade-holding mechanism, the combination with a tubular shade-stick, and a movable friction-head having a stem or shank provided with a threaded part extending within said shade-stick, of a threaded member non-rotatable within said shade-stick and coöperating with the threaded part of said shank or stem, and means capable of manipulation without withdrawing the friction-head from operative position to create a relative rotation between said threaded members to thereby adjust the friction-head toward and from the adjacent end of the shade-stick, substantially as described.

2. In a shade-holding mechanism, the combination with a tubular shade-stick, and a retractable friction-head having a stem or shank provided with a threaded part extending within said shade-stick, of a threaded member non-rotatably fixed within said shade-stick and coöperating with the threaded part of said shank or stem, a tubular member slidably mounted within said shade-stick and non-rotatable with relation to the stem or shank, a spring within said tubular member so disposed as to force the latter and the shank or stem of the friction-head in opposite directions, and a collar on the outer end of said tubular member abutting the end of the shade-stick and capable of rotation when the curtain-fixture is in place to thereby adjust the head to the groove, substantially as described.

3. In a shade-holding mechanism, the combination with a hollow shade-stick, and a retractable friction-head having a stem or shank provided with a threaded part extending within said shade-stick, of a threaded member non-rotatably mounted within said shade-stick and coöperating with the threaded part of said stem or shank, a collar non-rotatably mounted on said shank and abutting the adjacent end of the shade-stick, through which the shank may be turned to effect longitudinal adjustment of the head, substantially as described.

4. In a shade-holding mechanism, the combination with a hollow shade-stick, and a retractable friction-head having a stem or shank provided with a threaded part extending within said shade-stick, of a threaded member non-rotatably mounted within said shade-stick and coöperating with the threaded part of said shank, a sleeve surrounding said shank and slidably but non-rotatably connected relatively thereto and provided at its outer end

with an annular enlargement or collar abutting the outer end of the shade-stick, said collar and end of the shade-stick being provided with cooperating parts for locking them when in contact against relative rotation, and a spring within said sleeve tending to force the latter and the friction-head apart, substantially as described.

5 5. In a curtain-fixture, the combination with a curtain-stick, of a longitudinally-sliding spring-actuated rod therein, a friction-head mounted on the outer end of said rod, and the latter having a threaded connection at its inner end whereby it may be adjusted lengthwise of the stick, a sleeve on said rod adapted to interlock with the stick, a spring normally holding said members locked, and a sliding connection between the sleeve and the rod whereby the rod is held against rotation when the

sleeve is engaged, and the sleeve may be disengaged and the rod rotated to effect the adjustment, substantially as described. 20

6. In a curtain-fixture the combination with a curtain-stick, of a spring-pressed head loosely mounted at the end of the stick, means located without the stick for adjusting the head longitudinally of the stick, and means for locking the adjusting means. 25

7. In a curtain-fixture the combination with a curtain-stick, of a spring-pressed head loosely mounted at the end of the stick, means located without the stick for adjusting the head longitudinally of the stick, and spring-actuated means for locking the adjusting means. 30

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