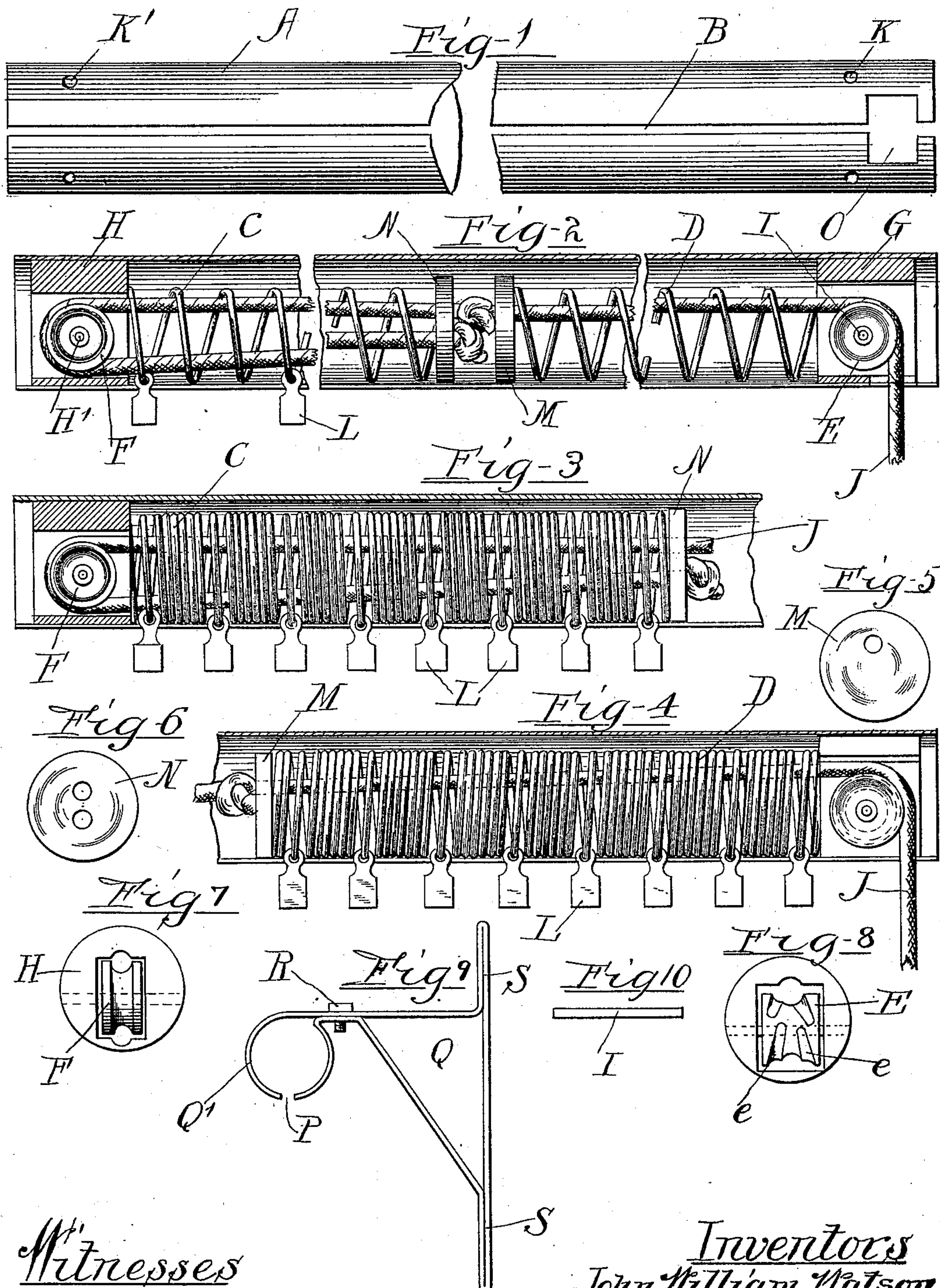


(No Model.)

J. W. & G. L. WATSON.
CORNICE POLE.

No. 601,453.

Patented Mar. 29, 1898.



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CORNICE-POLE.

SPECIFICATION forming part of Letters Patent No. 601,453, dated March 29, 1898.

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To all whom it may concern:

Be it known that we, JOHN WILLIAM WATSON and GEORGE LINDSAY WATSON, citizens of the United States of America, residing at No. 251 Eighty-first street, South Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Cornice-Poles, of which the following is a specification.

Our invention relates to improvements in cornice-poles or supports for curtains, draperies, canopies, portières, and the like of that class in which the pole has the form of a slotted tube, within which is located a spring, and which is provided with hangers or sliding supports for attachment to the curtain, which hangers extend through the slot of the tube into the interior of the same and are engaged with the coils of the spring, so that when the spring is compressed or expanded endwise the said hangers and the draperies supported thereby are uniformly brought together or spread apart.

The invention consists in the matters hereinafter described, and pointed out in the appended claims.

Our invention may be more readily understood by reference to the accompanying drawings, in which—

Figure 1 is a view from beneath of a slotted tube which forms the body of the curtain-pole. Fig. 2 is a longitudinal sectional view of the same, showing the operative parts therein. Figs. 3 and 4 show, separately, the left and right hand ends of the pole with the springs therein compressed. Fig. 5 is a face view of a sliding washer or follower which acts against the right-hand spring. Fig. 6 is a view of a similar sliding follower for the left-hand spring. Fig. 7 is a face view of a casting which is inserted in the left-hand end of the tube, together with a pulley which is mounted in said casting. Fig. 8 is a similar view in elevation of a casting for the right-hand end of the tube and a stop-pulley which is mounted in said casting. Fig. 9 is a view in side elevation of a bracket employed to support the tubular pole. Fig. 10 is a side view of one of the pins by which the castings

are secured within the tube and on which the pulleys are mounted.

Now, referring to the several features illustrated in the said drawings, it being understood that similar letters refer to the same parts throughout the several figures, the same are constructed as follows:

A indicates a tube which is provided with a longitudinal slot *b*, extending from end to end thereof, in its lower side, or that which faces downwardly when the tube is in operative position. In one end of said tube A is inserted a block or casting G, in which is mounted a pulley E, said casting being provided with a recess, (seen in Fig. 8,) in which the said pulley is mounted, and having the cylindric outer surface, by which it is adapted to fit within the end of the tube. Said casting G is secured in the tube by means of a pin I, which passes through holes K K in the tube and through the said casting, said pin I also forming the pivot or bearing for the pulley E. Within the opposite end of the said tube is located a similar block or casting H, which is also made cylindric on its exterior surface to fit within the tube and is secured therein by means of a pin I', which passes through holes K K' in the tube and through said casting. In the casting H is a central recess, within which is located a pulley F, the same being mounted on the pin I', which is suitably located to form the journal for the said pulley.

Within the tube A are located two spirally-coiled springs C D, of which the spring C is located at the left-hand end of the tube and the spring D is located at the right-hand end thereof. The spring C bears or rests at its outer end against the inner surface of the casting H, while the spring D similarly bears or rests against the inner surface of the casting G.

M and N are two sliding plates or followers which are interposed between the inner or adjacent ends of the spring, the plate M being in contact with the inner end of the spring D, while the follower N is in contact with the inner end of the spring C. A series of hangers L L extend through the slot B of the tube and are engaged at their upper ends,

by means of suitable eyes or loops thereon, with the coils or convolutions of the springs C and D. Said hangers are spaced equally on the springs and are adapted for attachment in any suitable manner to the curtains or draperies which the pole is intended to support, and it follows that when the springs are expanded or contracted within the tube the hangers will be moved or slid along through the slot thereof and will be uniformly brought together or spread apart as the springs are contracted or expanded. Obviously when the springs are fully expanded the hangers will stand at uniform distances apart throughout the entire length of the tube, and when the springs are contracted in the outer ends of the tubes the said hangers will be closely grouped at such outer ends.

Fig. 2 of the drawings shows the hangers uniformly spaced, while Figs. 3 and 4 illustrate them as closely grouped at the opposite ends of the tube.

An actuating-cord J serves to operate both springs C and D. For this purpose said cord is attached at its extremity to the follower N, passes therefrom to the left-hand end of the pole, where it is trained around the pulley F, then passes backwardly through a hole in the said follower N to the follower M, to which it is secured, and from said follower M it is carried to the pulley E, around which it is trained and from which its free end hangs to a point within reach of a person standing on the floor of the room in which the pole is located. The cord J is shown as attached to the follower N by means of a knot at the end of the cord, arranged to bear against the inner face of said follower, while attachment of said cord to the follower M is similarly effected by the simple expedient of a knot in the portion of said cord between the two followers. Obviously, however, the same result would be obtained by attaching the cord in other ways to said followers, and in practice the cord need not be a continuous one, as the portion thereof which passes around the pulley F may extend only from the follower N to the follower M and may be attached at its ends to the two followers, while the section of the cord which passes over the pulley F may be attached to said follower M and extend from the same to the said pulley E, from which its free end depends.

The tube A contains a space or opening O, through which the cord J passes in its descent from the pulley E, the casting G having an opening corresponding with the said opening O for the passage of said cord. The pulley F at the left-hand end of the tube is a plain pulley provided with the usual groove for the cord J. The said pulley E at the right-hand end of the tube is, however, differently constructed, being provided with two spirally-arranged or oblique grooves *e e*, so arranged with respect to the casting G that when the cord is carried into either of said oblique grooves it will be clamped against the adja-

cent surfaces of the casting, the space between said casting and the outer ends of said grooves (which approach the side edges of the pulley) being considerably narrower than the thickness of the operating-cord J. When said cord rests in the central part of the pulley E, as is the case if strain be applied vertically thereto, it will run upon the pulley in the usual manner; but if the depending part of said cord be moved or shifted laterally it will be thrown out of the central groove, or away from the center of the pulley, into one of the oblique grooves, whereupon in the turning of the pulley it will be clamped between the same and the casting G. The oblique grooves are so arranged or directed, however, that the cord will be thus caught or clamped only when the cord is pulled or drawn upwardly by the action of the springs in expanding, and it follows that when the operator has contracted the springs by pulling downwardly on the cord he may at any time clamp the cord and prevent any further movement thereof by throwing said cord into one of the oblique grooves in the manner above described.

By reason of the construction described of the two pulleys, the followers, and the cord it will be clear that when the depending end of the cord is pulled downwardly the follower N will be moved toward the left, while the follower M is moved toward the right, the end portion of the cord acting outwardly on the follower N as said cord is drawn around the pulley F at that end of the tube and the follower M being also moved outwardly as the cord is drawn around the pulley E at the opposite end of the tube. A downward pull on the said cord therefore serves to compress the two springs in opposite directions and to carry their inner ends toward the outer ends of the tube. The compression of the springs in opposite directions of course results from the use of the pulley F as a means of giving reverse movement to the parts of the cord which operate upon the two springs.

The device described therefore affords a simple and convenient means of operating two curtains which are supported on the hangers L beneath the pole, it being obvious that when the cord J is pulled downwardly one curtain will be drawn to the right and the other simultaneously to the left. Moreover, the springs serve to maintain the curtains normally closed or drawn together, so that by pulling downwardly on the operating-cord the curtains are spread apart, and the cord may be locked or clamped to hold the curtains at any desired point in their movement by shifting the depending end of the cord, so that it may engage one of the oblique grooves on the pulley E, as hereinbefore described. As the hangers are uniformly spaced and will be attached at uniform intervals to the curtain suspended therefrom, the curtains will always hang uniformly and will be contracted or expanded to a uni-

form extent. If the curtains be open and it shall be desired to close them, a slight downward pull on the cord J will release the same from the pulley E, and the springs may then
 5 be allowed to expand, thereby permitting the curtains to be closed to their full or any desired extent.

In order to provide a means for supporting a slotted tube or pulley of the character described, we have provided a special form of bracket, such as is seen at Q in Fig. 9. The said bracket is provided at its outer end with a ring-shaped part Q', which embraces the opposite sides of the tube, but which is provided with an opening P, corresponding in
 15 position with the slot B in the tube A. Said opening P obviously permits the free passage past said bracket of the hangers L. The said bracket is shown as made or bent from a single strip of metal and having double end portions S, in which will be formed holes (not shown) for nails or screws, by which the bracket may be attached to a window-frame or wall. The upwardly-bent end portion of
 25 the strip forming said bracket is secured to the horizontal part of the downwardly-bent portion by means of a holding screw or bolt R, while the extremities of the said upwardly and downwardly bent parts embrace, respectively, the inner and outer portions of the tube. The employment of a bracket made with an opening P, as above described, is of great advantage, because it enables the brackets to be located at any desired points length-
 30 wise of the pole without preventing the proper operation of the curtain supporting and moving devices.

We claim as our invention—

1. The combination with a longitudinally-slotted tube, of two spiral springs arranged therein in alinement with each other, a sliding follower in contact with the inner end of each of said springs, pulleys at the opposite ends of the tube adjacent to the outer ends of
 45 said springs and a single operating-cord for both springs which is attached at one end to one of the followers, passed through the

spring engaged by said follower and around the pulley adjacent to the outer end thereof, returned through said spring, passed through
 50 an aperture in said follower and attached to the follower of the other spring and passed through the last-mentioned spring with the free end thereof drawn around the pulley at the opposite end of said last-mentioned spring,
 55 said first-mentioned pulley being of less diameter than the internal diameter of the adjacent spring whereby the cord extending around the same and the adjacent pulley may be passed freely through said spring.

2. The combination with a slotted tube, of two spiral springs therein arranged in alinement with each other, hangers engaging the springs, pulleys at opposite ends of the tube, and a single operating-cord for both springs
 65 passing over both pulleys; that one of the pulleys from which the free end of the cord hangs having a spiral groove and the tube having a clamping-surface opposite the groove, whereby the cord may be clamped and held
 70 from movement under the action of the spring.

3. The combination with a slotted tube, of two spiral springs therein arranged in alinement with each other, sliding apertured followers in contact with the inner ends of the
 75 springs, pulleys at the opposite ends of the tube, a single operating-cord attached at one of its extremities to one of said followers and between its ends to the other follower, said cord passing around the pulley at one end of the tube and being inserted through a hole in the follower to which its extremity is attached
 80 and then carried over the pulley at the opposite end of the tube; the pulley with which the free end of the cord is engaged having a spiral groove, and the tube having a clamping-surface opposite said groove whereby the cord may be clamped to hold the cord from movement under the action of said springs.

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