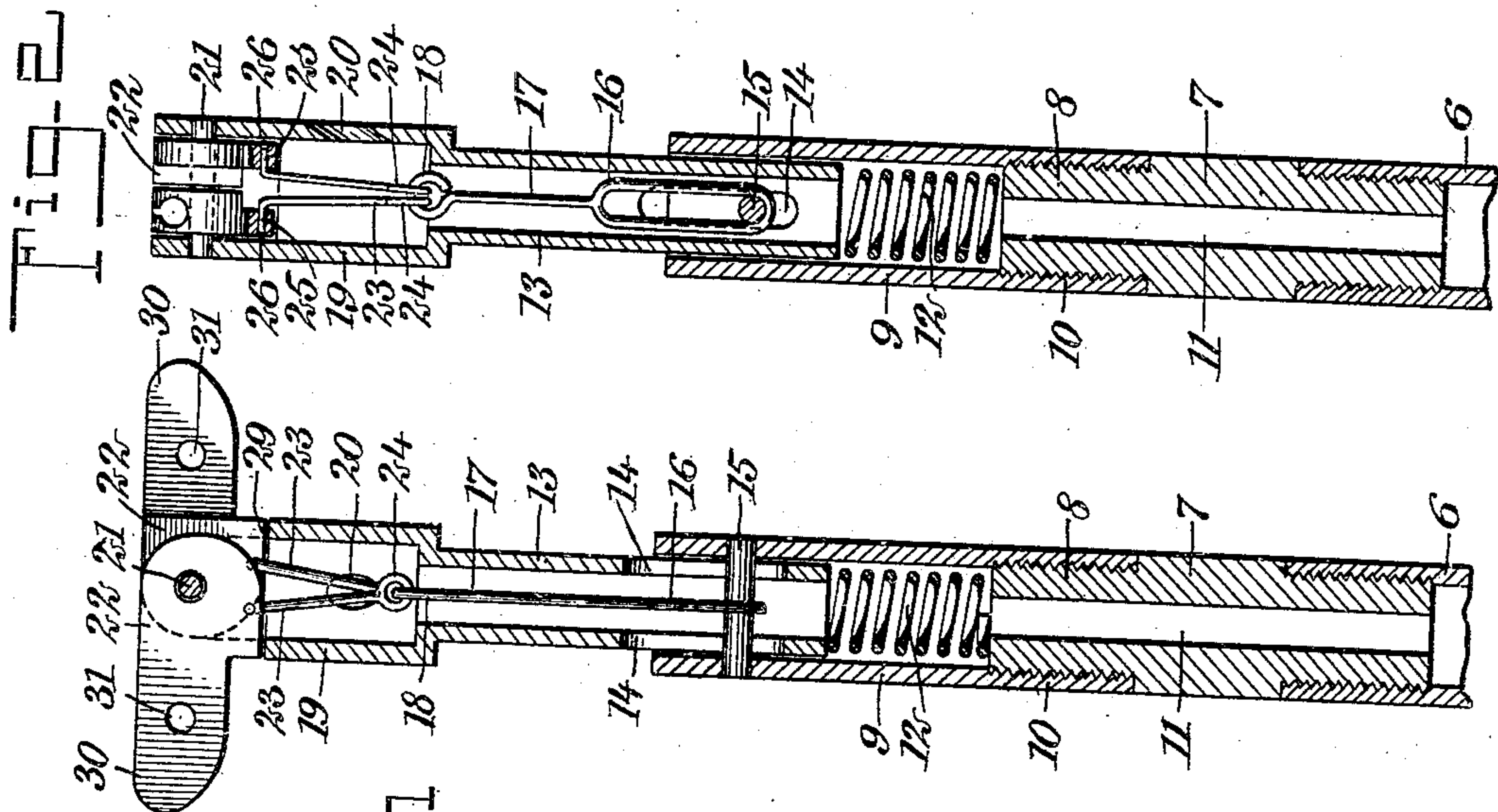
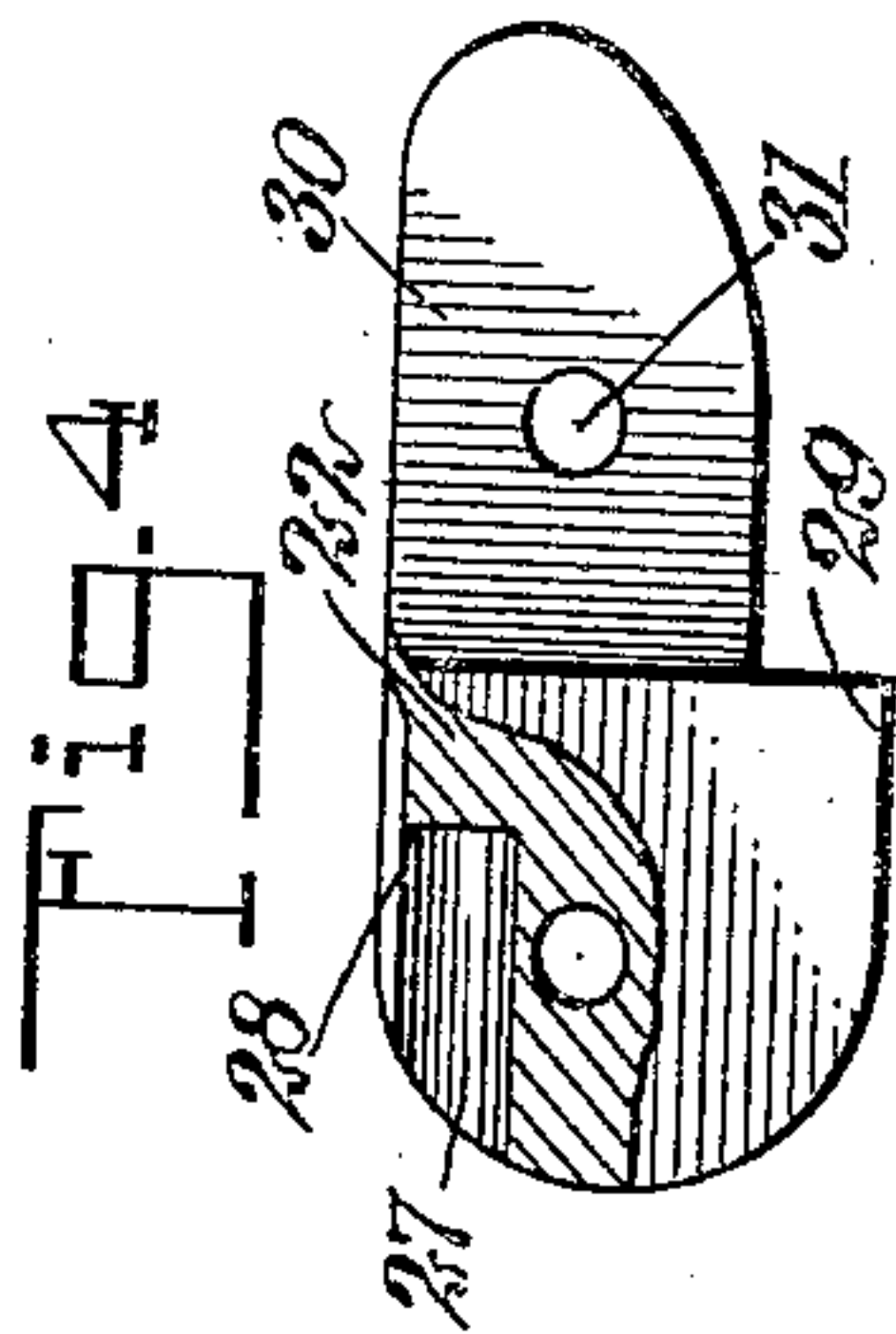
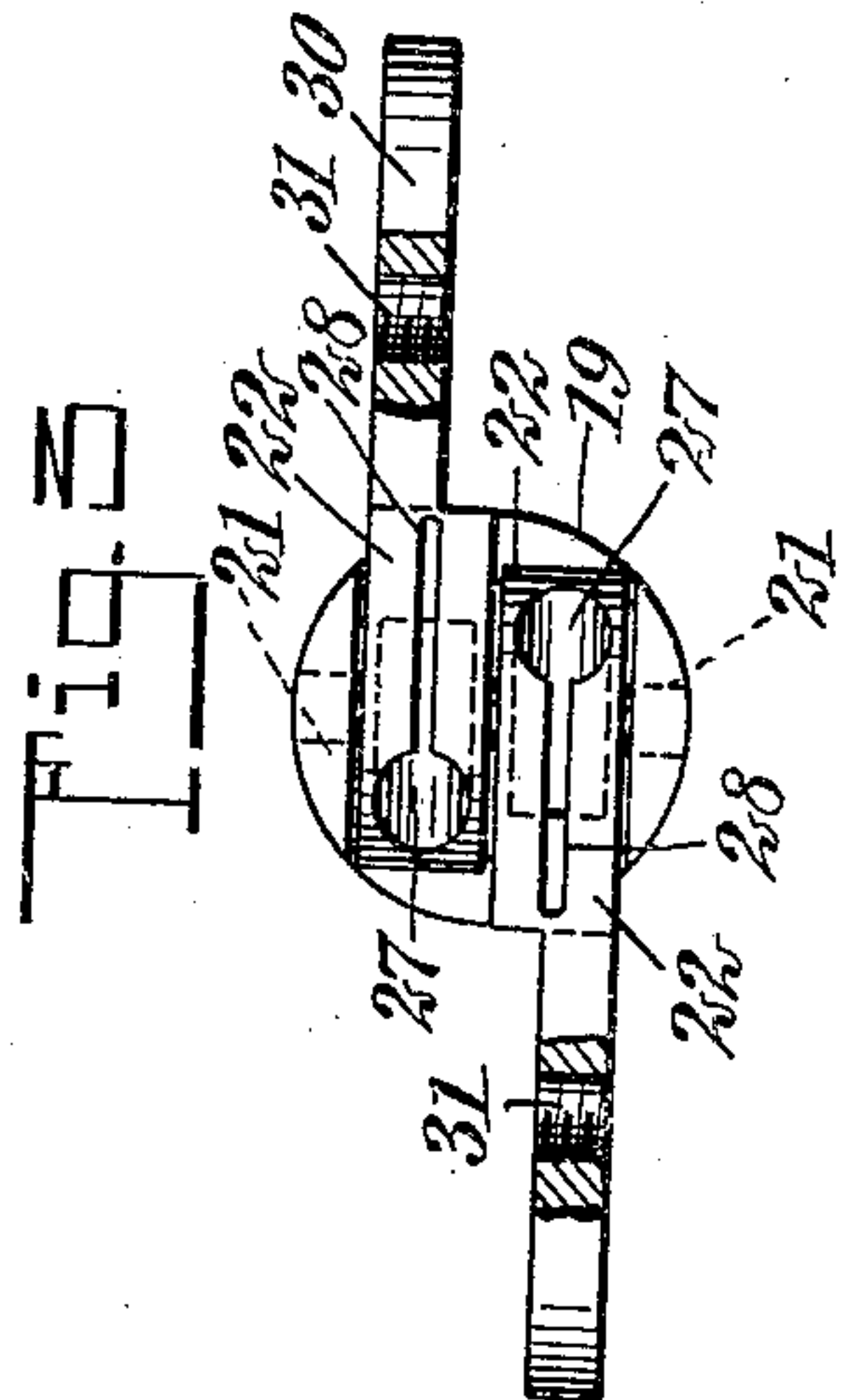


930,049.



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ATTORNEYS

UNITED STATES PATENT OFFICE.

ALBERT N. DAVIS, OF NEW YORK, N. Y., ASSIGNOR TO CHARLES K. VOLCKENING, OF
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MOUNTING FOR BOTTLE-WASHING BRUSHES.

No. 930,049.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed October 6, 1908. Serial No. 456,403.

To all whom it may concern:

Be it known that I, ALBERT N. DAVIS, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Mounting for Bottle-Washing Brushes, of which the following is a full, clear, and exact description.

My invention relates to mechanism used in connection with bottle-washing brushes, my more particular purpose being to produce a mounting provided with a spring-controlled mechanical movement for holding the brushes in good position for washing the bottle.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures, and in which—

Figure 1 is a longitudinal section through a ferrule and its accompanying parts, made in accordance with my invention; Fig. 2 is a section somewhat similar to Fig. 1, but taken in a plane at right angles to that corresponding to Fig. 1; Fig. 3 is an enlarged end view of the mounting complete, showing the brush arms occupying their respective normal positions; Fig. 4 is a detail of one of the brush arms partly broken away, so as to show a slot for holding the brush in position; and Fig. 5 is a longitudinal section showing my invention in a slightly different form, in this instance, the spring being upon the outside of the sleeve, whereas in Figs. 1 and 2, the spring is inside of said sleeve.

A tubular stem 6 is provided with a sleeve 7, having a reduced portion 8, and fitting upon the latter is a sleeve 9, having a portion 10 threaded internally for the purpose. The sleeve 7 is provided centrally with a bore 11. A spiral spring 12 rests upon the portion 8 of the sleeve 7 and is engaged by another sleeve 13, provided with slots 14. Extending through these slots is a pin 15, the length of which is commensurate with the diameter of the sleeve 9. A rod 17 is provided with a link 16, which encircles the pin 15. The upper end of the rod 17 is provided with an eye 18. The sleeve 13 is provided with an enlarged portion 19, this portion having an opening 20 extending obliquely outwardly, as will be seen from Figs. 1 and 2. A pin 21 is mounted upon the enlarged

portion 19, and journaled upon this pin are two brush arms 22. Two rods 23 are provided, respectively, with eyes 24, these eyes interlinking with the eye 18. These rods 23 are, respectively, provided with portions 25 turned outwardly and extending directly through the brush arms 22. The portions 25 are provided with heads 26, to prevent them from being too easily disengaged from the brush arms 22. Each brush arm is provided with an opening 27 and with a slot 28 merging thereinto for the purpose of enabling the brush, which is usually made of rubber, to be fitted permanently upon the brush arm. Each brush arm is further provided with a shoulder 29, for engaging the enlarged portion 19 of the sleeve 13, as will be understood from Fig. 1, and is also provided with an extension 30 having an opening 31 therein, whereby the brushes may be attached to the arms 22.

In the form shown in Fig. 5, a sleeve 32 is provided with an enlarged portion 33, the latter having an opening 34, through which water may be discharged. A spiral spring 35 encircles the sleeve 32 and presses against the enlarged portion 33 thereof. A pin 36 is mounted in a sleeve 36^a, extending diametrically across the same, this sleeve being screwed upon the reduced portion 8 of the sleeve 7. A link 37 encircles the pin 36 and extends upwardly therefrom, being integral with a rod 38 having an eye 39. This eye interlinks with the eyes 24 of the rods 23. A pin 40 extends diametrically through the sleeve 32 and also through the slots 41 in the sleeve 36^a, the ends of the pin being substantially flush with the outermost boundaries of the slots 41.

The operation of my device is as follows: Brushes (not shown) being mounted upon the brush arms 22, and the parts being arranged as indicated in the figures, the brush arms are held outwardly, that is, upwardly according to Figs. 1, 2 and 5, and inserted into the neck of a bottle, the tubular stem 6 now being caused to rotate and water being caused to flow through the tubular stem. This water makes its escape through the opening 20, and by the action of the brushes, in a manner well known in the art, the bottle is cleaned inside. It will be noted that in the form shown in Figs. 1 and 2, whenever the brush arms are held upwardly and their outer ends thus made to approach each other,

the upper ends of the rods 23 being pivotally connected with the brush arms adjacent to the lower edges thereof are moved outwardly, the pin 21 being brought down to a point nearly intermediate the upper ends of the rods 23. In doing this, the sleeve 13 compresses the spring 12, thereby exerting pressure upon the brush arms, this pressure being so directed as to force the arms outwardly or into the normal position indicated in Fig. 1.

In the form shown in Fig. 5, the action is practically the same as that just described in reference to Figs. 1 and 2. The spring 35 being on the outside of the sleeve 32 is more readily accessible however and more easily replaced, though the spring 12 in Figs. 1 and 2 is better protected from injury because of its position.

As may readily be seen from the above description, the spring 12 (or 35) has a double function; first, it enables the sleeve 13 to yield or move longitudinally in relation to the sleeve 9; second, it tends to spread the arms apart and to maintain them properly in condition for their work.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a mounting for bottle washing brushes, the combination of a sleeve and a tubular stem, a second sleeve fitting said first-mentioned sleeve telescopically, brush arms pivoted upon said second-mentioned sleeve, rods pivotally connected with said brush arms, another rod pivotally connected with said last-mentioned rods and provided with an eye, and a pin mounted upon said first-mentioned sleeve and extending through said eye, and means for affecting the position of the said first-mentioned sleeve relatively to said second-mentioned sleeve.

2. In a mounting for bottle washing brushes, the combination of a pair of sleeves movable one relatively to the other, one of said sleeves being provided with a pin extending diametrically through it, the other being provided with slots through which said pin extends in order to guide the movement of one of said sleeves relatively to the other, and further provided with an enlarged portion, brush arms pivotally mounted upon said enlarged portion, and connections from said brush arms to the pin carried by the other of said sleeves.

3. In a mounting for bottle washing brushes, the combination of two sleeves movable relatively to each other and fitting telescopically together, brush arms pivotally mounted upon one of said sleeves, connections from said brush arms to the other of said sleeves, means for supplying water through the innermost of said sleeves to said brush arms, and means for affecting the positions of said sleeves one relatively to the

other for the purpose of normally causing said brush arms to assume predetermined positions.

4. The combination of a pair of tubular sleeves fitted telescopically together, one of said sleeves being movable relatively to the other, brush arms pivotally connected with one of said sleeves, connections from said brush arms to the other of said sleeves for the purpose of causing said brush arms to rock when one of said sleeves is moved relatively to the other, a spring concentric to said sleeves and engaging the same for the purpose of pressing said brush arms apart, and means connected with one of said sleeves for the purpose of supplying water through the innermost of said sleeves to said brush arms.

5. The combination of a pair of sleeves fitting telescopically together and movable relatively to each other, a pair of brush arms mounted upon one of said sleeves, connections from said brush arms to the other of said sleeves for the purpose of moving said brush arms when one of said sleeves is moved relatively to the other, and a hollow member connected with the outermost of said sleeves and provided with a passage registering with the passage of the innermost of said sleeves for the purpose of supplying a liquid through the innermost of said sleeves to said brush arms.

6. The combination of a pair of tubular sleeves fitting telescopically together and movable relatively to each other, brush arms journaled upon one of said sleeves, connections from said brush arms to the other of said sleeves for the purpose of rocking said brush arms when one of said sleeves is moved relatively to the other, a spring engaging said sleeves for the purpose of affecting the positions of said brush arms relatively to the sleeve upon which they are mounted, and means for supplying a liquid through the innermost of said sleeves to said brush arm.

7. The combination of a sleeve provided with an enlarged portion and also provided with slots, brush arms journaled upon said enlarged portion and provided with shoulders disposed within said slots and engaging said enlarged portion, rods pivotally connected with said brush arms and provided with eyes, another rod engaging said eyes, another sleeve, a connection from said last-mentioned sleeve to said rod, and a spring engaging both of said sleeves for the purpose of controlling said brush arms.

8. The combination of a tubular member made in separate parts movable relatively to each other, brush arms mounted upon one of said parts and movable in opposite directions, and spring mechanism for enabling said separate parts to move relatively to each other when undue pressure is applied to them in the general direction of their length,

said spring mechanism being connected with said brush arm for moving said brush arms apart.

5 9. The combination of a tubular member, comprising separate parts fitted telescopically together, brush arms pivotally mounted upon one of said parts and adapted to swing in opposite directions, and means connected with said brush arms for the joint purpose
10 of enabling said parts to yield under pressure and of moving said arms apart.

10 10. The combination of a pair of tubular members movable relatively to one another, an arm journaled upon one of said tubular
15 members, a connection from said arm to the other of said tubular members in order to enable a movement of one of said tubular members relatively to the other to actuate said arm, and a spring for pressing said
20 tubular members in opposite directions.

11. The combination of a longitudinal member made in separate tubular parts fitted telescopically together for the purpose of directing the flow of a liquid, brush arms

mounted upon one of said parts alone, a 25 spring for forcing said parts in opposite directions, and connections from said brush arms to said part movable relatively to the part upon which said brush arms are mounted. 30

12. The combination of a tubular member comprising separate parts fitted telescopically together, brush arms pivotally mounted upon one of said parts and adapted to swing in opposite directions, a spring connected 35 with said separate parts for forcing the same in opposite directions, and connections controllable by pressure of said spring and extending from one of said parts to the other for the purpose of controlling said brush 40 arms.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERT N. DAVIS.

Witnesses:

WALTON HARRISON,
EVERARD B. MARSHALL.