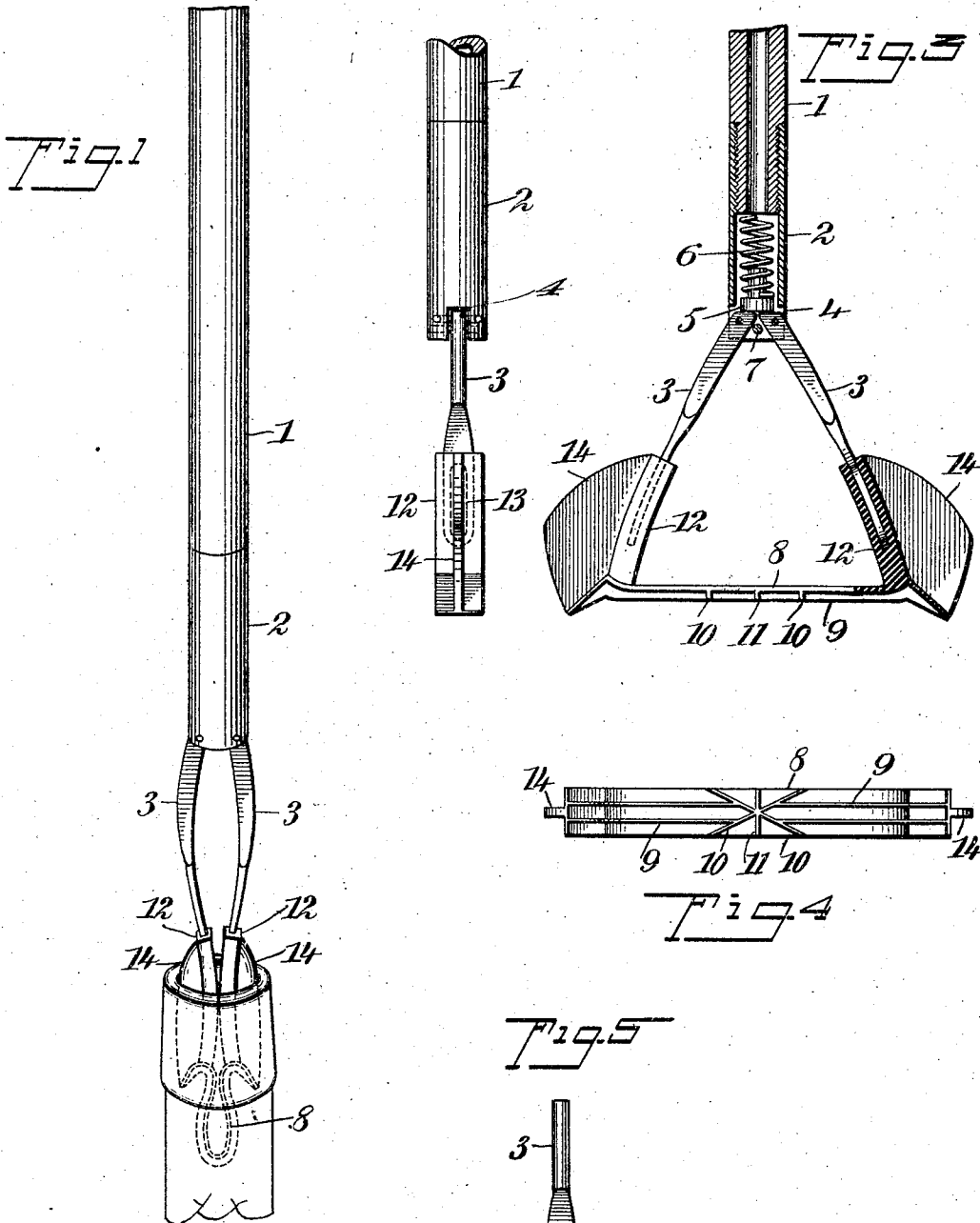


No. 787,706.

PATENTED APR. 18, 1905.

C. K. VOLCKENING.
BOTTLE WASHING BRUSH.
APPLICATION FILED DEC. 23, 1904.

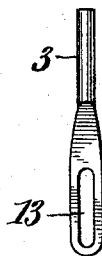
Fig. 2



WITNESSES:

J. A. Brophy
C. R. Ferguson

Fig. 5



INVENTOR

Carl K. Volckening

BY Mmmmm

ATTORNEYS

UNITED STATES PATENT OFFICE.

CARL K. VOLCKENING, OF NEW YORK, N. Y.

BOTTLE-WASHING BRUSH.

SPECIFICATION forming part of Letters Patent No. 787,706, dated April 18, 1905.

Application filed December 23, 1904. Serial No. 238,101.

To all whom it may concern:

Be it known that I, CARL K. VOLCKENING, 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 Bottle-Washing Brush, of which the following is a full, clear, and exact description.

This invention relates to improvements in brushes employed in bottle-washing machines and in which the brush proper consists of rubber; and the object of the invention is to provide a novel and simple means for expanding the brush so as to engage all parts of a bottle interior and thoroughly clean the same.

I will describe a bottle-washing brush embodying my invention and then point out the novel features in the appended claims.

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.

Figure 1 is a plan of a bottle-washing brush embodying my invention. Fig. 2 is a view at right angles to Fig. 1. Fig. 3 is a sectional view. Fig. 4 is an end view, and Fig. 5 is a detail showing one of the expanding fingers.

Referring to the drawings, 1 designates a spindle, which is tubular to permit the passage of water therethrough from a washing-machine to the interior of a bottle. Attached to the end of the spindle 1 is a ferrule 2, in which expanding fingers 3 are pivoted. The inner ends of the fingers 3 pass through slots 4, formed in opposite sides of the ferrule, and these inner ends engage with a plunger-head 5, seated in the end of a coiled spring 6, the opposite end of which engages with the end of the spindle 1. This spring serves to hold the brush carried by the fingers yieldingly against the interior of the bottle. A pin 7, extended through the ferrule between the fingers 3, will prevent the said fingers from swinging from one side to the other. In other words, the pin will serve to hold the fingers in their proper relation to the ferrule. The brush consists of a cross-strip 8 of soft rubber, having on its outer surface longitudinal ribs 9, crossed ribs 10, and a transverse rib 11. These several ribs when the brush is inserted will engage against the bottom of a bottle and by friction will thoroughly clean it.

At the end of the strip 8 are inwardly-extended socket members 12, also consisting of soft rubber, and in these socket members the ends of the fingers 3 are designed to engage. The parts of the fingers passing into the socket members are flattened and are provided with slots 13, which extend entirely through the fingers, so that the opposite walls of the socket members will expand into the slots and prevent the accidental disengagement of the brush from the fingers. On the outer side of the socket members are flexible-rubber wings 14, designed to engage with the inner side surfaces of the bottle when the brush is rotated therein or when the bottle is rotated relatively to the brush.

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

1. A bottle-washing brush comprising a spindle, a ferrule thereon, fingers pivotally connected to the ferrule, a spring arranged within the ferrule and engaging with the inner ends of the said fingers, and a rubber-brush material having socket members for receiving the outer ends of said fingers.

2. A bottle-washing brush comprising a spindle, a ferrule attached thereto and having opposite slots at its end, fingers having their ends extended through said slots and pivoted within the ferrule, a pin extended across the ferrule between said fingers, a spring-pressed plunger within the ferrule and engaging with the inner ends of said fingers and a rubber brush engaged with the fingers.

3. A bottle-washing brush comprising a spindle, a ferrule thereon, fingers having their inner ends extended into said ferrule and pivoted, a spring-pressed plunger in said ferrule and engaging with said inner ends, the outer ends of said fingers being flattened and slotted, and a rubber brush having socket members for engaging with said flattened ends and whereby opposite walls of the socket members may expand into said slots.

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

CARL K. VOLCKENING.

Witnesses:

JNO. M. RITTER,
C. R. FERGUSON.