

No. 630,609.

Patented Aug. 8, 1899.

M. KAEFER.
BOTTLE WASHING BRUSH.

(No Model.)

(Application filed Mar. 22, 1899.)

Fig. 1.

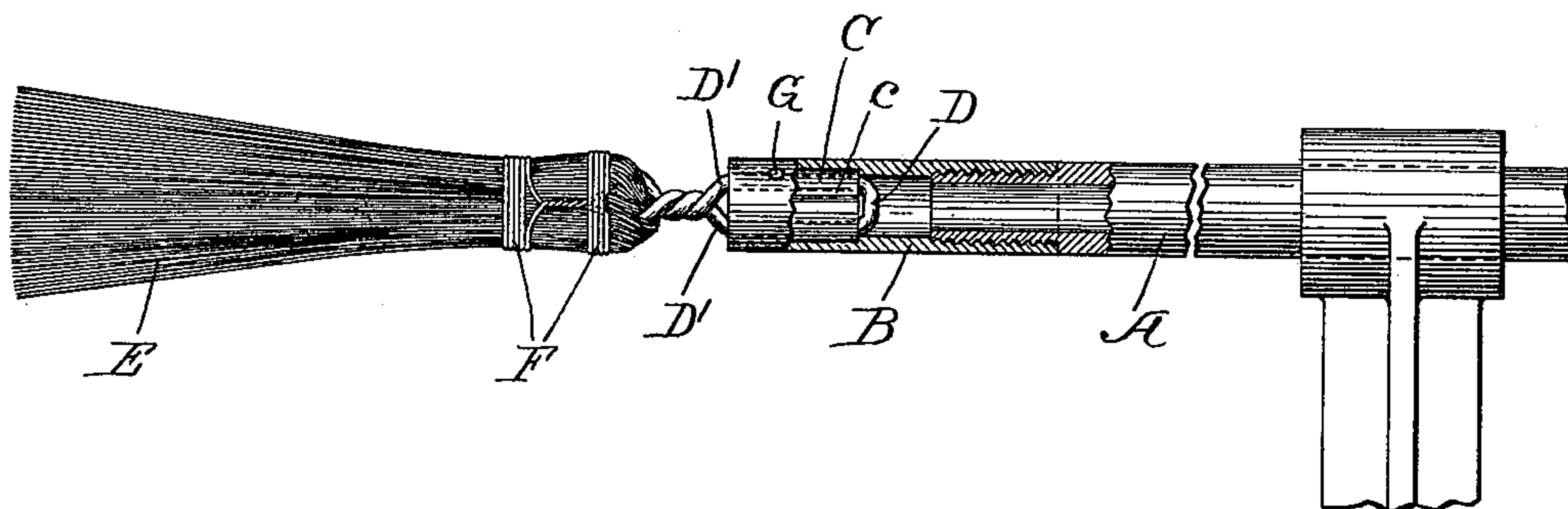


Fig. 2.

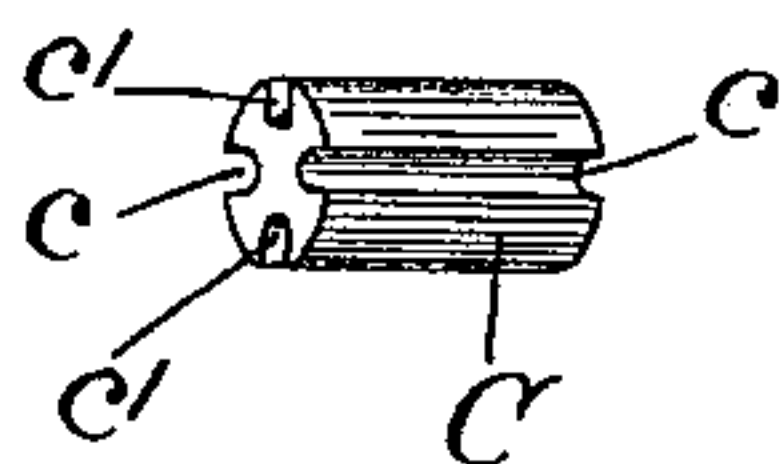
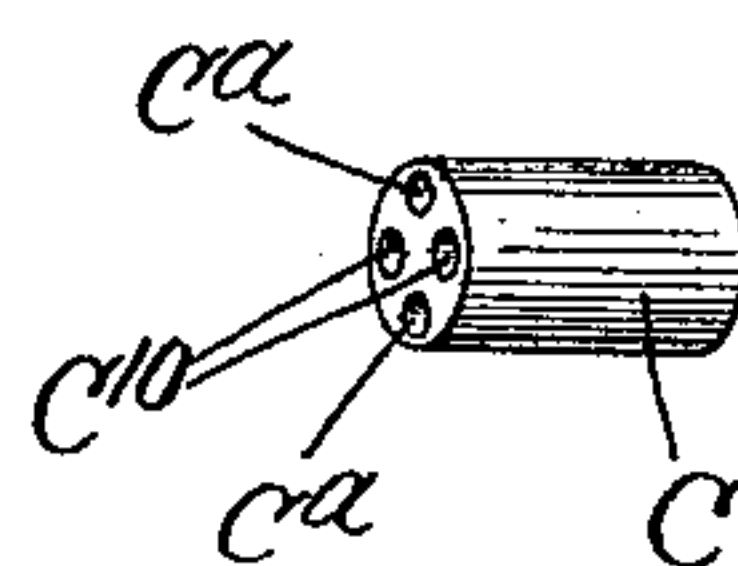


Fig. 3.



Witnesses.

Edward T. Wray.

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UNITED STATES PATENT OFFICE.

MATHIAS KAEFER, OF CHICAGO, ILLINOIS.

BOTTLE-WASHING BRUSH.

SPECIFICATION forming part of Letters Patent No. 630,609, dated August 8, 1899.

Application filed March 22, 1899. Serial No. 710,050. (No model.)

To all whom it may concern:

Be it known that I, MATHIAS KAEFER, 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 Bottle-Washing Brushes, which are fully set forth in the following specification, reference being had to the accompanying drawings, forming a part thereof.

This invention relates to brushes which are designed to be attached to revolving shafts and inserted through the neck of the bottle to be cleansed, water being supplied through the shaft and the bristles being spread to reach the sides of the bottle and the water distributed to the inner surface of the bottle by centrifugal action as the brush is rotated.

It consists in the improved method of securing the bristles in such manner as to allow the access of the water through the shaft to the brush and produces a construction so cheap that the entire device can be discarded when the brush is worn out.

In the drawings, Figure 1 is a partly-sectional side elevation of my improved brush, the same being shown attached to the tubular shaft by which it is rotated. Fig. 2 is a perspective view of the apertured plug in which the bristle-holding wire is secured and through which the water reaches the brush. Fig. 3 is a perspective view of a slightly-modified form of the plug.

A is the tubular shaft, mounted in suitable bearings and arranged to be rotated and supplied with water by means not shown.

B is a tubular stock or stem for my improved brush, the same being interiorly threaded and screwed onto the exteriorly-threaded end of the shaft A, so that it constitutes a detachable extension of the shaft.

C is a wooden plug having a plurality of longitudinal apertures, which, preferably, are in the form of superficial grooves, extending longitudinally, as shown in Fig. 2, but which may be in the form of drilled holes, as seen in Fig. 3.

D is the wire for securing the bristles E. It is folded or bent to form two arms D' D'

of equal length, and these two arms are inserted through two opposite apertures *c c*, Fig. 2, or *c^a c^a*, Fig. 3, of the plug C, so that the loop or bend of the wire extends over one end of the plug, and at the end are then twisted together and suitably engaged with the bristles, which are further secured in any familiar manner, as by wrapping exteriorly with fine wire thread. The plug, with the wire thus striding one end, is forced into the tubular stock B, the plug being made of suitable size to fit tightly even when dry. A pin G is preferably driven into the plug through a puncture in the tube to prevent the plug from turning when the wire is twisted to engage the bristles. The remaining apertures *c' c'*, Fig. 2, or *c¹⁰ c¹⁰*, Fig. 3, in the plug admit the water from the tubular shaft to the head of the brush.

I claim—

1. A bottle-washing brush comprising a tubular stock, a plug having longitudinal apertures, a wire folded and extending its branches through two of said apertures and striding one end of the plug, the plug being inserted in the end of the tubular stock, the remaining apertures affording egress for the water, and the end portions of the wire protruding from the stock, and the bristles suitably secured to the protruding end portions of the wire.

2. A bottle-washing brush, comprising a tubular stock, a longitudinally-grooved plug adapted to be inserted in the end thereof, a wire folded and striding the plug and lodged in two of its grooves, the remainder affording passage for the water, the plug with the striding-wire being inserted in the end of the tubular stock and the bristles secured to the protruding ends of the wire.

In testimony whereof I have hereunto set my hand, at Chicago, Illinois, this 28th day of February, 1899.

MATHIAS KAEFER.

Witnesses:

CHAS. S. BURTON,
EDWARD T. WRAY.