

No. 853,582.

PATENTED MAY 14, 1907.

B. GOHRBAND.
BOTTLE WASHER BRUSH.
APPLICATION FILED JAN. 26, 1906.

Fig. 1.

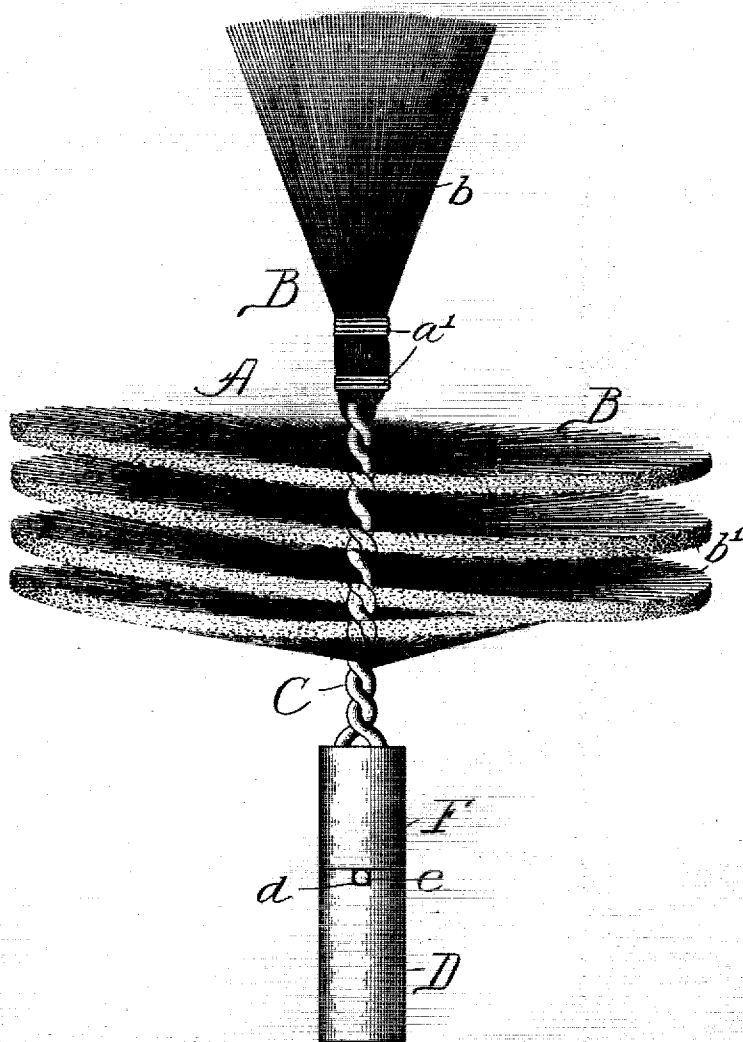
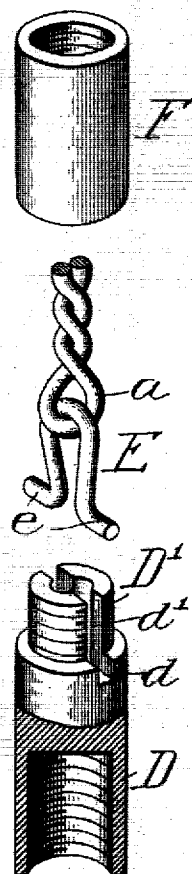


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

BERNARD GOHRBAND, OF CHICAGO, ILLINOIS, ASSIGNOR TO E. GOLDMAN & CO., INC., OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

BOTTLE-WASHER BRUSH.

No. 853,582.

Specification of Letters Patent.

Patented May 14, 1907.

Application filed January 25, 1906. Serial No. 297,811.

To all whom it may concern:

Be it known that I, BERNARD GOHRBAND, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Bottle-Washer Brushes, of which the following is a specification.

My invention relates to an improvement on the device forming the subject of Letters Patent Number 818,086, granted to me April 17, 1906, for improvement in bottle-washer brushes.

In the construction therein shown and described the brush is carried on a stem maintained during rotation in rigid axial position relative to the spindle which carries it, so that when the ends of the brush-fiber wear away by the use of the brush and its diameter thus decreases, the brush-fiber fails to contact with the surface of the inner side of the bottle to be scoured.

My object is to provide a brush, held in place on the spindle by the means set forth in the above-mentioned application, which shall be adapted to rotate with the spindle and swing about its axial center, thus augmenting the scouring function of the brush and prolonging its usefulness.

In the accompanying drawing, Figure 1 is a view in elevation, exaggerated beyond actual size, of a brush-device embodying my improvement; and Fig. 2, a perspective view, also exaggerated beyond actual size, showing the parts involved in my improvement in disassociated relation ready to be assembled for fastening the brush-head to a socket which is adapted to be fastened on the upper end of a brush-spindle.

A is the brush-head, comprising brush-fiber B and a stem C on which the brush-fiber is fastened. The stem is formed of a length of wire, bent upon itself to provide a loop or eye *a* with the ends twisted spirally together.

The brush-fiber is fastened to the stem between the spirally twisted sections of the wire. Between the ends of the brush-fiber it is bound, as by wiring at *a'*, about the stem to contract the upper section into a narrower bunch *b* presenting the brush-fiber at sharper angles to the stem for scouring the interior of the bottom of a bottle, while the lower bunch *b'* is more expanded, having the brush-fiber extending more nearly perpendicularly to the

stem for scouring the inner surface of the bottle-wall.

D is an internally-threaded socket or head adapted to be secured upon the upper end of the aforesaid rotatable and reciprocable spindle (not shown) of a bottle-washing machine. The upper end of the head D is provided with a diametrical recess *d* and has extending from it an externally screw-threaded neck *D'* split longitudinally to divide it into similar sections separated from each other by a slot *d'* coincident with and of the transverse width of the recess *d*.

E is a yoke of greater length than the neck *D'* engaging the eye *a* and provided with outwardly-turned feet *ee*. At F is represented a collar, preferably shown as a nut longer than the screw-threaded portion D of the spindle and adapted to screw upon the neck *D'*.

To assemble the parts, the stem is adjusted on the head D by introducing the yoke E through the passage or slot *d'* to seat the yoke at its feet *e* in the recess *d*. Thereupon the nut F is screwed upon the neck against the feet *e* in the recess thereby clamping the yoke in place. The confinement of the brush-head on the spindle is thus in the nature of a swivel-connection enabling the head to swing about the axial center of the spindle during its rotation. It will thus be seen that the wearing away of the ends of the brush-fiber does not impair the function of the brush as its flexible connection with the spindle causes the brush-fiber to contact with the interior side walls of the bottle to be scoured notwithstanding such wear. The construction, moreover, facilitates adjustment of the parts together and their separation.

What I claim as new and desire to secure by Letters Patent is—

1. In combination, a stem provided on one end with brush-fiber and on its opposite end with an eye, a spindle-end provided in its top with a recess and having a slotted neck extending from it, a yoke having its ends bent outwardly to present feet adapted to be inserted through said slotted neck and seat in said recess, and a collar on said neck clamping said feet in said recess, said yoke being loosely connected with the brush-stem at its eye to adapt the brush to swing freely, in rotating it, about the axis of the spindle.

2. In combination, a stem provided on

one end with brush-fiber and on its opposite
end with an eye, a spindle-end provided in its
top with a recess and having a slotted ex-
ternally-threaded neck extending from it, a
5 yoke having its ends bent outwardly to pre-
sent feet adapted to be inserted through said
slotted neck and seat in said recess, and a nut
of greater length than said neck screwed
upon the neck and clamping said feet in said
recess, said yoke being loosely connected 10
with said stem at its eye to adapt the brush
to swing freely, in rotating it, about the axis
of the spindle.

BERNARD GOIRBAND.

In the presence of—

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