

M. VEECK & C. E. REICHERT.
BOTTLE CLEANING OR WASHING BRUSH.
APPLICATION FILED FEB. 8, 1916.

1,206,273.

Patented Nov. 28, 1916.

Fig. 1.

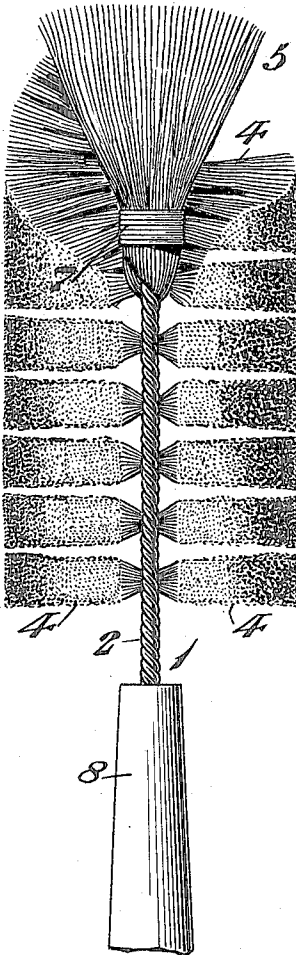


Fig. 2.

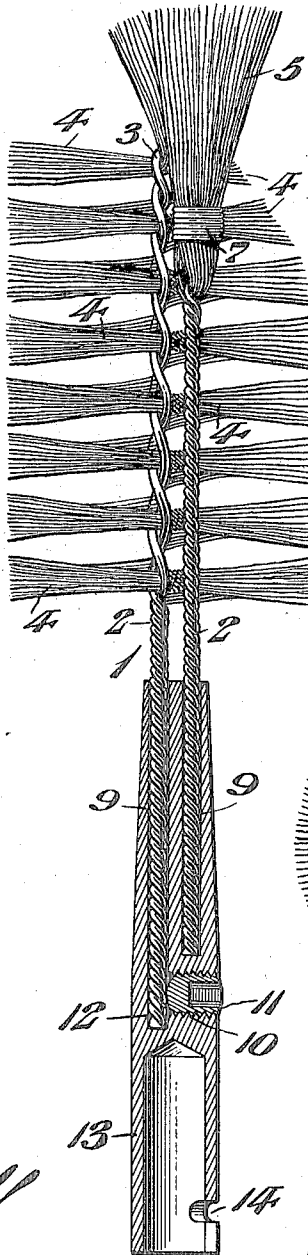


Fig. 3.

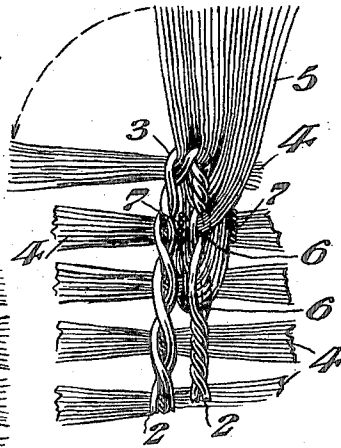
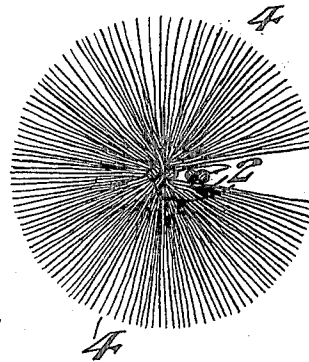


Fig. 4.



WITNESSES

H. G. Dietersch
L. Nouville

BY

INVENTORS
Max Veck
Carl E. Reichert
BY *Niederheim & Reinhardt*
ATTORNEYS

UNITED STATES PATENT OFFICE.

MAX VEECK AND CARL E. REICHERT, OF PHILADELPHIA, PENNSYLVANIA.

BOTTLE CLEANING OR WASHING BRUSH.

1,206,273.

Specification of Letters Patent. Patented Nov. 28, 1916.

Application filed February 8, 1916. Serial No. 77,083.

To all whom it may concern:

Be it known that we, MAX VEECK and CARL E. REICHERT, both citizens of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Bottle Cleaning or Washing Brush, of which the following is a specification.

Our invention consists of a bottle cleaning or washing brush which is provided with a shank of duplicate members, thus rendering the brush-head of vastly increased strength.

The novelty resides in the particular construction and arrangement of parts herein-after more fully described and then particularly pointed out in the appended claims.

The invention is satisfactorily illustrated in the accompanying drawing, but the important instrumentalities thereof may be varied, as long as they are included in the scope of the claims.

Figure 1 represents a side elevation of a bottle cleaning or washing brush embodying our invention. Fig. 2 represents a partial side elevation of the same at a right angle to Fig. 1, and a longitudinal section of the handle or carrier of the brush. Fig. 3 represents a partial side elevation and partial longitudinal section of a portion thereof. Fig. 4 represents a horizontal section of the brush.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawing, 1 designates the shank of the brush, the same being formed of two parallel lengths 2, each of spirally twisted material, such as wire, thus stiffening and strengthening said shank, said lengths being united at the outer end of the shank by the bend 3 of the primary piece of twisted wire, of which the two lengths are formed. A portion of one of the lengths of the shank has its spiral twists separated and between the same the central portions of the layers 4 of the bristles or brush material forming the head of the brush are received and firmly retained in position.

5 designates a tuft of bristles or brush material which occupies the outer end of the head of the brush and projects longitudinally therefrom, the bunch of material being bent on itself and having its bend passed through portions 6 of the spiral twists, which are opened sufficiently to receive the same and clamp them tightly in place. Then

the portion of the tuft above the bend thereof is placed against the adjacent portion of the shank and secured tightly thereto by the binder or ferrule 7, which is wrapped around the two lengths of the tuft and said portion of the shank, firmly connecting the lower or inner portion of the tuft with the portion of the shank that carries it, while the main portion of the tuft is free to spread and bend when inserted into a bottle or other vessel to full extent, so that when the brush is rotated said tuft contacts with the bottom of the bottle or vessel and reaches the corner of the same, while the head of the brush contacts with the inner side of the bottle or vessel, and thus the latter will be effectively washed and cleansed. When the brush is withdrawn the tuft resumes its normal condition, the tuft particularly straightening out so that it can be inserted conveniently again into the mouth and neck of the bottle or vessel, and the head readily follows the same, it being evident that the plurality of lengths of the shank provides a strong structure for the latter, and the tuft is properly sustained on one length of the shank, and most firmly connected therewith, without interfering with the connections of the bristles or brush material that comprise the head of the brush with the other length of the shank. The shank has its plurality of lengths connected with a suitable handle 8, the same having a plurality of bores or openings extending longitudinally therein to receive said lengths and hold the latter.

For bottle washing machines the handle may be of the form of an elongated sleeve having a threaded opening 10 to which is fitted the screw stud 11 which is adapted to tighten against the elongated end portion 12 of one of the shanks 2, so as to confine said portion in its bore and, consequently, hold both shanks in the sleeve, it being noticed that the two bores in the sleeve are of different lengths, as are also the portions of the shanks in said bores.

The sleeve is extended as at 13 for receiving a rotating shaft or spindle of said machine and has therein a slot 14 for connection with said shaft or spindle. As the two lengths of the shank are adjacent and parallel, or substantially parallel, and the central bend of the body of the tuft 5 is connected with the twisted portions 6 near the outer bend 3 of said two lengths, said inner portion of the tuft has its side contiguous

to the adjacent length of the shank, and so is braced thereagainst, especially when the brush is rotated in its operative direction in the bottle or vessel that is being cleansed 5 or washed.

When the brush is inserted in a bottle or other vessel to be cleansed or washed, the bend 3 at the outer end of the shank is adapted to abut the bottom of said bottle 10 or vessel as a stop and turning point for the lateral brush, serving also as a brace for said end of the shank, to prevent fracture of the latter, when it is thrust into the bottle or vessel and rotates on the bottom 15 thereof.

The binding 7 of the double end-tuft is below the bend of the two-part shank, as seen clearly in Fig. 2, and the bend of this tuft is held by one member of the shank 20 below said binding so that portions of the tuft above and below said binding lie comparatively flat against the adjacent portions of the shank and so are sustained firmly thereon in longitudinal direction, a feature 25 of importance owing to the strain to which the tuft is subjected during the rotation of the brush, at which time its free portion turns over in the direction shown by the arrow in Fig. 3, when it is pressed against 30 the interior of the bottle or vessel and thus subjecting the tuft to severe strain at the bend 3, which is resisted by the binding 7.

Having thus described our invention what we claim as new and desire to secure by 35 Letters Patent is:—

1. A brush of the character described, comprising a head of brush material, an end tuft, a fastening therefor, and a shank 40 formed of a plurality of lengths of twisted wire, said end tuft having a bend passed through portions of said twisted wire and the said lengths of twisted wires being bent upon themselves beyond the fastening of the

end tuft, the portions of said tuft above and below said fastening lying substantially 45 flat against the adjacent portions of said shank.

2. A brush comprising a head of brush material, an end tuft extending in the direction of the length of the brush, a shank 50 of a plurality of lengths of twisted wires bent upon themselves, the bend of said end tuft being passed through portions of said twisted wires, and a binding around said end tuft and said portions of the twisted 55 wires.

3. A brush comprising a head of brush material, an end tuft extending in the direction of the length of the brush, a shank of a plurality of lengths of twisted wires 60 bent upon themselves, the bend of said end tuft being passed through portions of said twisted wires, a binding around said end tuft and said portions of the twisted wires, and a sleeve constituting a handle and hav- 65 ing bores of different lengths, the portions of the shank being of corresponding different lengths, and means in said sleeve for engaging one of said lengths of wire.

4. A brush comprising a head of brush 70 material, a tuft on the outer end thereof, a shank composed of a plurality of lengths, said tuft and head being connected with said lengths, a handle, the lengths of said shank being differential, and said shank 75 having the bores of differential lengths to receive said lengths of the shank, and a screw fitted in the side of said handle entering a bore therein and adapted to tighten against the shank in said bore.

MAX VEECK.
CARL E. REICHERT.

Witnesses:

JOHN A. WIEDERSHEIM,
N. BUSSINGER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."