BOTTLE BRUSH WITH PIVOTED HANDLE

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

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BOTTLE BRUSH WITH PIVOTED HANDLE

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This invention relates to a brush for cleaning bottles and flasks and more particularly of that type in which the handle is pivoted to allow the brush to move about the handle through a 90° arc.

The object of the invention is to provide a brush for cleaning narrow neck flasks, bottles and the like which presents no metallic parts for contact with the inside of the bottle.

A further object of the present invention is to provide a simplified brush in which the handle is attached to the body of the brush by a wire loop serving as a pivot and the loop is retained by the wire body of the main part of the brush.

It is a still further object of the present invention to provide a brush which when completely assembled presents bristles in all directions to avoid the possibility of contact of the metal with the inside of the vessel being cleaned.

The invention is shown in the accompanying drawing in which:

Figure 1 is a side elevation of the brush.

Figure 2 is a perspective view of the handle portion of the brush with portions removed.

Figure 3 is an end view of the brush with the wire bristles removed.

Figure 4 shows the brush parallel to the handle for insertion and side cleaning.

Figure 5 is a partial view showing the finger gripping portion of the handle.

A body portion 6, originally a cylindrical tube is cut away at 7, formed with a central hole 8 and an end notch 9. In the first operation of forming the brush, the bristles 10 are folded about a U-shaped clip 11 and inserted in the tube 6 which is flattened at 12 to retain the bristles 10 in position, the U-shaped clip 11 being against the inner side of the body portion 6 firmly holding the bristles 10 in place.

The handle 13 which is formed with a bend 14, a finger gripping portion 15 and a flattened end portion 16 is secured to the body portion 6 by the U-shaped pivot wire clip 17 which passes through the holes 8 in the body portion 6 and a hole 18 formed in the flattened portion 16 of the handle 13. This U-shaped clip extends above the body portion 6 a distance equal to the thickness of the twisted wire 19 of the brush portion 20, the wire portion 19 engaging the clip 17 prevents turning of the clip 17 and makes it unnecessary to secure the ends of the clip 17 while at the same time permitting a certain looseness between the handle 13 and the body portion 6 so as to give the brush more flexibility.

After the handle portion is assembled to the body portion, the brush 20 is affixed to the body portion by inserting the end 21 between the bristles 10 into the notch 12 and bending the wire portion 19 back along the upper surface of the body portion 6 so that the twisted wire 19 snugly fits between the upstanding prongs of the wire clip 17. The end 22 of the wire 18 is then bent into the notch 9 and turned back into the body portion 6, this final crimping of the wire 18 at 22 firmly holding all the parts together.

Referring particularly to Figure 3, it will be seen that the bristles extend about 270° around the brush, leaving a space of approximately 90° at the handle side. The pressure exerted by the person washing the bottles must be exerted through the handle and in a direction opposite to the bare space so that it is impossible to press any metal parts against the inside surface of the bottle during the washing operation.

In use the handle is pivoted about the pivot 17, the bend 14 allowing the handle to partially fit into the cut away portion 7 of the body 6 and permitting the handle to assume substantially a straight line with the body portion 6 from any entrance into narrow neck bottles, such as baby drinking bottles and narrow neck flasks. Once within the flask the brush, by reason of the looseness of the pivot, practically swivels about the wire 17 permitting the bristles 10 and 20 to reach all portions of the flask without possibility of any metal scratching any of the inside of the flask.

What is claimed is:

1. A bottle brush comprising a substantially tubular body portion, the lower half of one half of the tubular body portion being removed forming a substantially semicylindrical section of one half of the body portion, a wire handle formed with a transverse hole adjacent one end, a U-shaped wire passing through the inner end of the semicylindrical portion of the body, through said handle hole and forming a pivot for said handle, the ends of said U-shaped wire extending above the upper surface of the body portion, a tuft of bristles folded about a U-shaped retaining wire and inserted in the tubular portion of said body, said tubular portion being flattened at a point beyond the U-shaped retaining wire to prevent withdrawal of the tuft of bristles, and a twisted wire brush portion secured to and carried along the upper surface of the body portion, the ends of said twisted wire brush portion being interwoven within said body portion.

2. A bottle brush comprising a substantially tubular body portion cut away through one half of the under-surface for the reception of a wire handle, a U-shaped wire passing through the
central portion of said body portion and pivotally supporting said handle, the ends of said wire projecting substantially above said body portion, a tuft of bristles folded about a U-shaped retaining wire and inserted in one end of the tubular body portion, said tubular body portion being flattened at a point beyond the U-shaped retaining wire to prevent withdrawal of the tuft of bristles, and a twisted wire brush portion extending along the top of said tubular body portion, the twisted wire engaging the projecting ends of the handle pivot wire to prevent possibility of turning of said wire.

3. A bottle brush comprising a substantially tubular body portion having the lower section of one half cut away, a handle pivoted to said body portion and receivable within the cut away section of said body portion, a tuft of bristles, a U-shaped retaining wire folded about the central portion of said tuft of bristles, said bristles being housed within the tubular body portion opposite to the cut away section, said tubular body portion being flattened at a point beyond the U-shaped retaining wire to prevent withdrawal of the tuft of bristles, a twisted wire brush carried along the upper side of said tubular body portion and having the projected ends of the wire intertwined into the tubular body portion to prevent contact of any of the wire metal with the inside of the bottle to be washed, said wire engaging the upturned ends of said U-shaped retaining wire to prevent withdrawal.

4. A bottle brush comprising a substantially tubular body portion having the lower section of one half of said body portion cut away and formed with notches at each end, a wire handle receivable in said cut away section and formed with a transverse hole at one end, a U-shaped wire extending through the sides of said body portion and passing through the hole in the end of said handle to provide a pivot pin for said handle, the ends of said U-shaped wire extending above the tubular body portion, a tuft of bristles carried in one end of said body portion and a twisted wire brush carried along the upper surface of said tubular body portion, the wire ends of said brush being receivable in the notched portions of said body portion and being intertwined within said body portion to prevent contact of said ends with the bottle to be washed, the center of said wire brush engaging the extended ends of said pivot pin to secure said pin against withdrawal.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

<table>
<thead>
<tr>
<th>Number</th>
<th>Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>676,645</td>
<td>Leimer</td>
<td>June 18, 1901</td>
</tr>
<tr>
<td>1,652,213</td>
<td>Pulver</td>
<td>Dec. 13, 1927</td>
</tr>
<tr>
<td>1,887,584</td>
<td>Bolagek</td>
<td>May 10, 1932</td>
</tr>
</tbody>
</table>