WASHING BRUSH FOR GLASSWARE

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2 Claims. (Cl. 15—164)

This invention relates to new and useful improvements in a washing brush for glassware.

The invention has for an object the construction of a washing brush which is characterized by a tip brush section which is of a specific form and shape and which may be removed and replaced with tip sections of other shapes. The invention proposes to adapt the washing brush for glasses, bottles, jars and other glassware of various shapes.

Another object of this invention resides in the provision of a means for joining the brush body and the brush tip section as a rigid unit and at one's option, in succession, as a flexible unit.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawing, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawing forming a material part of this disclosure:

Fig. 1 is a side elevational view of a washing brush for glassware constructed according to this invention.

Fig. 2 is a vertical fragmentary sectional view of a portion of Fig. 1 showing specifically the junction of the brush body with the tip section.

Fig. 3 is a horizontal sectional view taken on the line 3—3 of Fig. 2.

Fig. 4 is a perspective view of one of the shells used in the device.

Fig. 5 is a perspective view of one of the slidable members used in the device.

Fig. 6 is a sectional view similar to Fig. 2 but illustrating these parts in a different position.

Fig. 7 is a side elevational view of another tip section which may be used in conjunction with the main body section of the brush.

The washing brush for glassware, according to this invention, includes a main body section 10 provided with bristles 11 and at one end having a handle 12 by which it may be manipulated. A tip brush section 13 with bristles 11 is movably mounted upon the main brush body and forms a continuation of the brush thereof. A means is provided for joining the brush body and tip body section as a rigid unit and at one's option, in succession, as a flexible unit, as will appear as this specification proceeds.

The tip section 13 is of solid cylindrical form having a rounded top. This is but one specific form of tip section which may be used according to the concepts of this invention. In Fig. 7 a conical shaped tip section 13 is illustrated with bristles 11 which may be substituted for the tip section 13. This is merely by way of illustration to point out that various tip sections may be provided for the main brush body to adapt the brush for cleaning various shaped hollow objects.

The means for joining said brush body and brush tip body section includes a hollow shell 15 set into each of the adjacent ends of these parts. Each shell 15 has a cylindrical wall portion 15a forced against the wall of a bore in the body for receiving the shell. Each shell 15 has at its outer end an inturnd flange 15b defining an opening 16. At its inner end each shell 15 has several elements 17 rigidly mounted upon the inner face of the wall of the shell forming an irregular configuration. As illustrated on the drawing, there are four of the members 17 forming a four point star.

At the points of each of the points of the star, and formed in the wall of the shell 15, there are spring portions 18. These spring portions are formed by cutting in from the outer edge of the shell and so dividing off strip portions of the side wall of the shell which form the spring portions. Each of the spring portions 18 has an inward directed projection 18a arranged at the outer end of the members 17. A member 19 is slidably mounted within each shell 15 and is of a shape to engage between the members 17. When completely pressed inwards the member 19 is adapted to have its points engage above the projections 18a of the leaf spring portions 18 to maintain the member 19 in a fixed position. The member 19 of one of the shells 15 is provided with a central hollow threaded shell portion 19a adapted to threadedly engage a threaded solid stem 19b formed on the other section 13.

The operation of the device is as follows:

Fig. 2 illustrates the parts with the brush body and the brush tip body section connected as a rigid unit. In this figure the members 19 are held by the projecting portions 18a and the spring portions 18. The brush may be used by gripping the handle and forcing the brush portion thereof through the neck of a bottle or opening of a vessel for cleaning the same. In the event that it is desired to clean glasses in the wide base of a narrow necked container, whose crevices cannot be readily reached, it is required that the tip brush section be flexibly connected with the main brush body. To do this it is merely necessary that the tip section be gripped and pulled away from the main body section. This will cause the members 19 to disengage from the leaf spring portions 18 and then the members 19 are...
free in the space beneath the members. This condition of the device is illustrated in Fig. 6. The tip brush body section may now pivot in all directions relative to the main brush body.

If desired, the parts may again be rigidly connected by aligning the tip brush section axially with the main brush body and applying pressure and turning the tip brush body section to cause the points of the members to re-enter the areas between the members. By exerting pressure the members will snap beneath the projecting portions of the leaf spring portions and the device will now again be in the position illustrated in Fig. 2.

The tip may be removed when it is in the position shown in Fig. 2 by merely rotating it. Then the threaded socket will threadedly disengaged from the threaded shank. The tip may be substituted in place of a tip. Its bottom is constructed identically to the bottom portion of the tip.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A washing brush for glassware, comprising a main brush body with bristles and provided with a handle, a tip brush body section with bristles, removably mounted on said main brush body and forming a continuation of the brush thereof, and means for joining said brush body and brush body section as a rigid unit and at one's option in succession as a flexible unit, comprising a hollow shell set into each of the adjacent ends of said brush body and brush body section, a member slidably mounted in and extended from each shell and rigidly connected together, means for rigidly securing said members in said shells, and means for flexibly holding said members in the shells.

2. A washing brush for glassware, comprising a main brush body with bristles and provided with a handle, a tip brush body section with bristles, removably mounted on said main brush body and forming a continuation of the brush thereof, and means for joining said brush body and brush body section as a rigid unit and at one's option in succession as a flexible unit, comprising a hollow shell set into each of the adjacent ends of said brush body and brush body section, a member slidably mounted in and extended from each shell and rigidly connected together, means for rigidly securing said members in said shells, and means for flexibly holding said members in the shells, said means for rigidly securing said members in said shells including leaf spring portions integral with the material of the shells and engageable with said members.

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