W. R. MENDENHALL AND N. TENNENT.

CLEANING BRUSH.

APPLICATION FILED JAN. 19, 1920.

1,360,307. **Patented Nov. 30, 1920.**

Fig. 1.

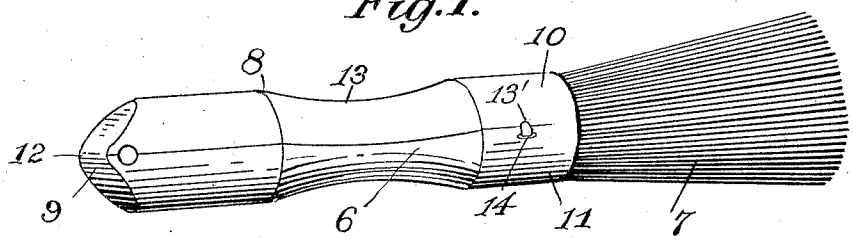


Fig. 2.

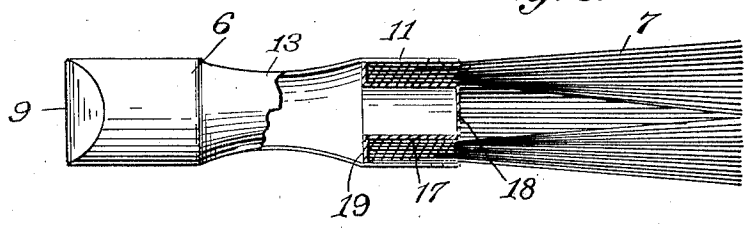


Fig. 3.

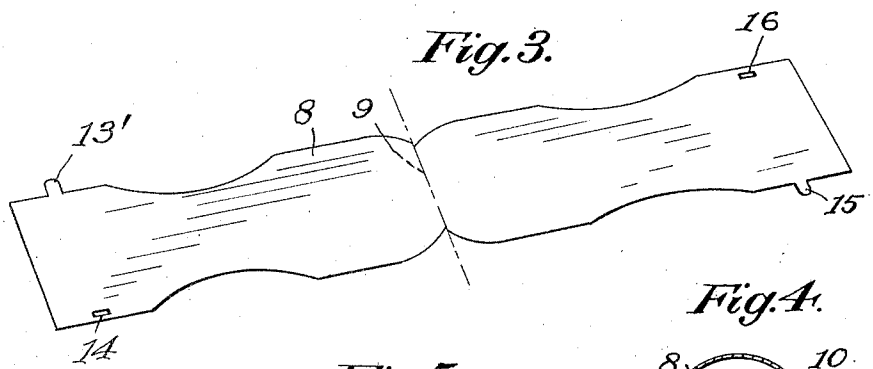


Fig. 4.

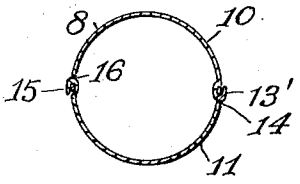
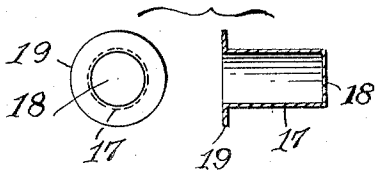


Fig. 5.



Inventor's
William R. Mendenhall,
N. Tennent,
By their Attorney
Wm. H. Reid.

UNITED STATES PATENT OFFICE.

WILLIAM R. MENDENHALL, OF EAST ORANGE, AND NETTIE TENNENT, OF ATLANTIC CITY, NEW JERSEY.

CLEANING-BRUSH.

1,360,307. Specification of Letters Patent. Patented Nov. 30, 1920.

Application filed January 19, 1920. Serial No. 352,469.

To all whom it may concern:

Be it known that we, WILLIAM R. MENDENHALL, a citizen of the United States, and a resident of East Orange, county of Essex, and State of New Jersey, and NETTIE TENNENT, a citizen of the United States, and a resident of Atlantic City, county of Atlantic, and State of New Jersey, have invented certain new and useful Improvements in Cleaning-Brushes, of which the following is a specification.

This invention has reference to cleaning brushes, of particularly the kind that employ bristles made of fine wires.

The object of our invention is to provide a brush of this character in which the bristle portion of fine wires is securely held in a handle member of rigid form, and of simple and economic construction.

In the accompanying drawing showing one embodiment of our invention, Figure 1 shows a perspective view.

Fig. 2 is a side elevation partly in section.

Fig. 3 shows the blank for the handle.

Fig. 4 is a cross section through the handle.

Fig. 5 shows the plug for securing the bristles in section and end view.

As shown in the drawing the device comprises a handle denoted generally by 6, in one end of which are secured bristles 7, preferably formed of comparatively fine wires. The bristles are secured in the open end of the handle by suitable fastening means such as a plug smaller than the end of the handle, to form an annular chamber between the plug and the inner wall of the handle, in which chamber the bristles are secured.

The handle member as shown is formed from a strip or plate 8 that is bent at its middle transverse portion 9 to bring the end portions 10 and 11 together, which end portions are bent to a channel form as indicated in Fig. 4, to the form of a half circle, whereby when the meeting edges of the strip portions are brought together they will form a cylindrical shell. This bending is so arranged as to produce a closed end 12 that is somewhat angular as indicated, and obviously the other end of the handle will be open. If desired the middle portion 13 of the handle may be somewhat reduced, as shown.

Suitable means are provided for securing the meeting edges of the two channel portions of the handle, which means are preferably integral with the portions 10 and 11. As shown, we provide a hook 13′ at one end portion of the strip, and a slot 14 on the opposite edge. At the other end portion we provide a hook 15 on one side, and a slot 16 on the other side; which hooks and slots are arranged on opposite sides of the strip, respectively, as shown in Fig. 3. It will be understood from Fig. 4 that when the strip is bent on the transverse middle line 9 and channeled as set forth, the hook 15 will enter the slot 14, and the hook 13 can be passed through the slot 16, as shown in Figs. 1 and 4. This will securely hold the two side portions of the handle together.

To secure the bristles 7 in the open end of the handle, we provide a plug member, shown in Fig. 5 as comprising a cylindrical member 17 having one end 18 closed, with an external flange 19 at the open end. Obviously such construction can be very readily formed by the usual die operations. The flange 19 is of a diameter to tightly engage the inner wall of the handle at the open end, as shown in Fig. 2. This will provide an annular chamber between the cylindrical body 17 of the plug, and the handle wall, in which chamber the bristles 7 are rigidly and securely confined, as indicated in Fig. 2. If desired, an adhesive may be employed to assist the retention of the bristles in the holder, but the walls 10 and 11 will move the ends of the bristles into close relationship and cause the same to bind upon the plug 17. In assembling the different parts, the bristles are placed on the plug 17 and the sides of the handle folded thereon and clamped in the manner above described by the connecting parts 15 and 16 while the inner flange 19 limits the inward movement of the bristles 7 and with the inclosing parts for the bristles coöperating to prevent an accidental falling out of the bristles. Obviously the bristles will spread both outwardly and inwardly from this annular form and appear to form a solid brush. A device of this character will serve to strongly hold the bristles in position for use. A structure of this character is of great utility in domestic operations, as the wires will enter sharp cavities in grooves in various culinary utensils, that would not be cleaned by ordinary brushes. It will be further seen that such

a device is very economic of construction, comprising merely the handle member formed of one strip, and the plug member that serves to confine and secure the bristles in the handle.

What we claim is:—

1. A brush of the type described comprising a tubular handle, a cup having an angular flange inserted in said handle with the outer edge of the flange engaging the handle to hold the cup spaced therefrom, and wire bristles secured between the cup and handle.

2. A brush of the type described comprising a tubular handle, a cup having an annular flange inserted in said handle with the outer edge of the flange engaging the handle to hold the cup spaced therefrom, and bristles secured between the cup and handle and engaging the flange at their inner ends.

Signed at New York city, N. Y., on January 17th, 1920.

WILLIAM R. MENDENHALL.
NETTIE TENNENT.