Jan. 6, 1925. 1,521,737

J. M. WASHBURN

BRUSH

Filed Sept. 29, 1921

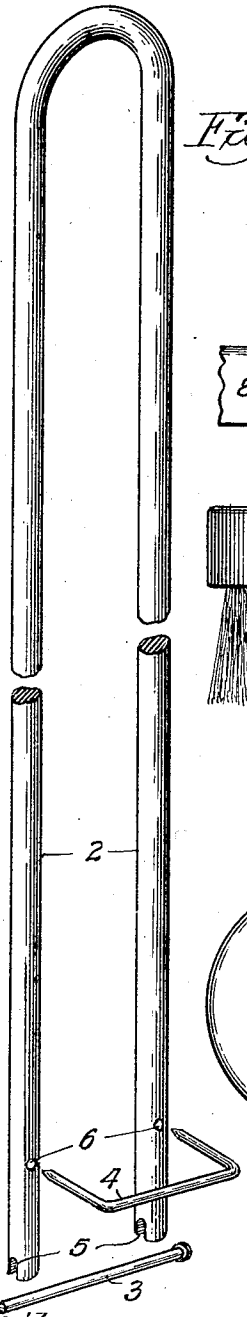


Fig. 3.

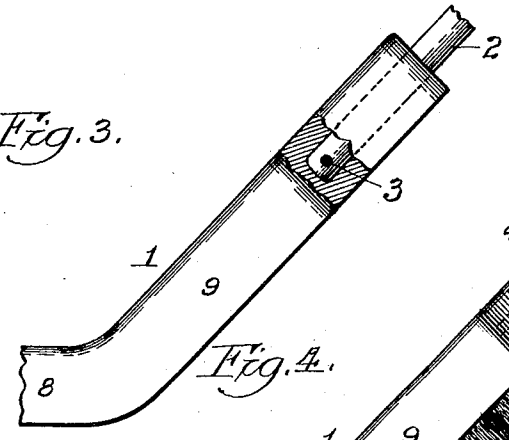
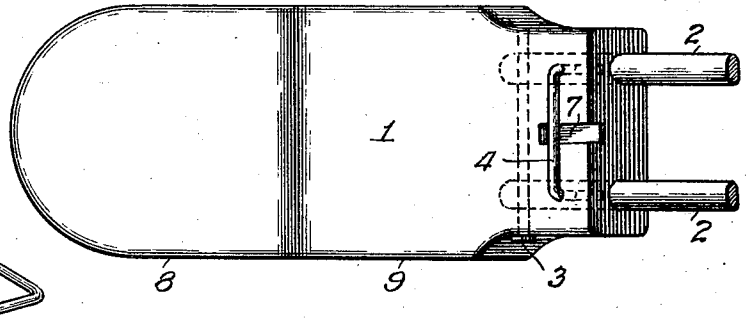


Fig. 4.

Fig. 1.

Fig. 2.



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UNITED STATES PATENT OFFICE.

JAMES MURRAY WASHBURN, OF CHICAGO, ILLINOIS.

BRUSH.

Application filed September 29, 1921. Serial No. 504,164.

To all whom it may concern:

Be it known that I, JAMES MURRAY WASHBURN, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in a Brush, of which the following is a specification.

This invention relates to a new form of brush head and the manner of connecting the brush head and its handle so that there shall be both a rigid connection and one which will permit easy separation of head and handle. This invention also includes the idea of so connecting the head and handle as to eliminate the tendency of torsion to cause the breaking of the holding means connecting head and handle and prevent the rotation of the handle with relation to the head.

My invention further resides in the combination, construction and arrangement of parts illustrated in the accompanying drawing, and while I have shown therein preferred embodiments, I desire the same to be understood as illustrative only and not as limiting my invention.

In the drawing attached hereto and forming a part hereof:—

Fig. 1 is a side elevation of a brush head with a fragmentary showing of the handle to show the shape of the brush head and to illustrate the manner of attaching the two elements.

Fig. 2 is a plan view of the structure shown in Fig. 1.

Fig. 3 is a perspective view of the handle member shown in Figs. 1 and 2 together with the means for attaching the handle to the brush head or body and preventing the rotation of the parts thereof with respect to the body portion.

Fig. 4 is a fragmentary showing of the brush head illustrating a simplified construction for use in brushes in which it is not necessary to provide against so much torsional strain.

Referring more in detail to the annexed drawing, numeral 1 designates the brush head or body, 2 the handle member, 3 a pin passed through the body and through slots or notches 5 in the ends of the handle 2, while 4 designates a U-shaped fastening member passed through the body and the ends of the handle. As shown in Fig. 3, the handle 2 is U-shaped and is provided in or near its ends with notches 5, while there are provided, somewhat removed from the ends perforations 6, adapted to receive the ends of the U-shaped fastening member 4. A notch 7 of any desired shape may be provided in the brush body for the insertion of a small implement for the removal of the fastening member 4.

It will be obvious from the foregoing that when the pin 3 is passed through the body member 1, and the handle member 2 is inserted into the perforations in the end of the body member until the notches 5 closely engage said pin, it will be almost out of the question for the parts of the handle 2 to rotate in the openings in the body member because of the close fit of the openings 5 and the pin 3. Also the fastening member 4 fits closely in openings in the body member and in openings 6 in the handle member, thus also assisting in preventing rotation of these members in relation to the body member as well as preventing withdrawal of the handle member from the body member.

In brushes in which it is not necessary to provide against so much torsional strain the structure can be simplified as shown in Fig. 4, by omitting the fastening member 4, and its cooperating perforations in brush body and handle and substituting for the notches 5 corresponding perforations a little removed from the ends of the handle. By then inserting a pin 3, which closely fits these perforations, rotation of the handle parts because of the torsional strain will be prevented, and the handle will be unable to break the pin. Of course, this construction omits the added advantage to be obtained from the use of the member 4, which cooperates with pin 3 in preventing the destructive effects of the torsional strains. It is obvious that, if desired, member 4 may be used in the form illustrated in Fig. 4.

As shown in Figs. 1 and 4, the brush body is angular shaped so that it may be conveniently used in washing the sides, bottom and angles of such articles as bath tubs, automobile spokes and the like. The angle between the parts 8 and 9 is preferably though not necessarily, 135°, and these parts are joined by a properly curved portion. The surface defined by the bristle ends is also curved so that the parts are properly arranged to serve most efficiently in all situations. The central, curved part will serve for cleaning angles while the plane portions will serve for cleaning vertical walls or

the bottom of bath tubs and the like. These parts will also serve very effectively for the cleaning of various parts of automobiles besides the spokes. It will be seen from the foregoing that not only is the connection between the brush handle and head very efficient and effective and easily connected and detached, but the brush head itself is so shaped that it can be readily used to wash in many difficult locations, the obtuse angle between the parts of the head having been found to be the most satisfactory one which could be chosen.

It is, of course, understood that the specific description of structure set forth above may be departed from without departing from the spirit of my invention as set forth in this specification and the appended claims.

Having now described my invention, I claim:—

1. In a construction of the character described, a body having a pair of holes therein, a handle comprising a co-operating pair of arms adapted to be inserted into said holes, said arms having transverse notches in the ends thereof and a pin passing through the body and the notches in the ends of the arms.

2. In a construction of the character described, a body having a pair of holes therein, a handle comprising a co-operating pair of arms adapted to be inserted into said holes, said arms having transverse holes near the ends thereof and a fastener passing through the body and the holes in the arms.

3. In a construction of the character described, a body having a pair of holes therein, a handle comprising a co-operating pair of arms adapted to be inserted into said holes, said arms having transverse notches in the ends thereof, a pin passing through the body and through the notches in the ends of the arms, transverse holes near the ends of the arms, and a fastener passing through the body and through the holes in the arms to hold the two together.

4. In a brush, a body having a pair of substantially parallel holes therein, a handle having a pair of arms extending into said holes and themselves being provided at their ends with a pair of notches and near their ends with a pair of perforations, a pin extending through the body and the notches in the arms to assist in preventing rotation of said arms in said body, and fastening means extending through the body and the perforations to prevent the separation of said body and arm.

5. In a brush, a body having a pair of substantially, parallel, longitudinally extending holes, a U-shaped handle having its arms extending into said holes, said arms having adjacent their ends holes extending in substantially the same direction transversely of the axes of the arms, and a U-shaped fastening means extending through the body and the arms to hold the parts in assembled relation and assist in preventing rotation of each arm in its respective hole.

6. In a brush, a body having a pair of substantially parallel, longitudinally extending holes in one end of said body, a U-shaped handle having its arms extending into said holes, said arms having adjacent their ends holes extending in substantially the same direction and transversely to the holes in the body, and fastening means extending through the body and arms to hold the parts in assembled relation and assist in preventing the rotation of the arms in their respective sockets.

In witness whereof, I hereunto subscribe my name to this specification.

JAMES MURRAY WASHBURN.