R. PORTER.

BRUSH.

APPLICATION FILED JUNE 19, 1908.

922,947.

Patented May 25, 1909.

2 SHEETS—SHEET 1.

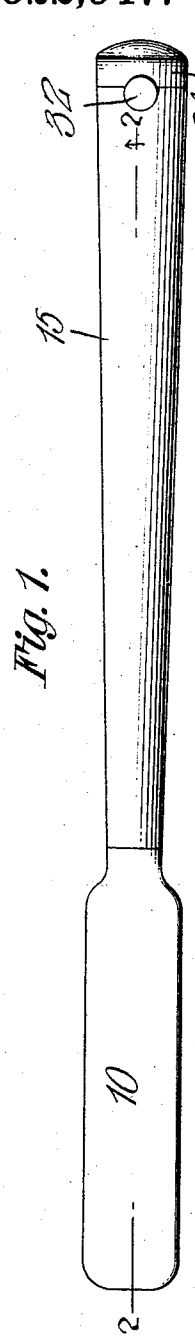


Fig. 1.

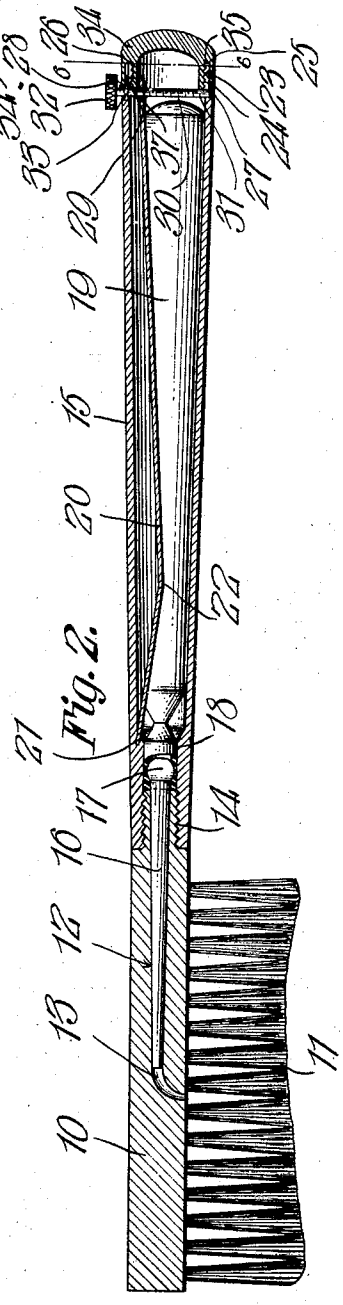


Fig. 2.

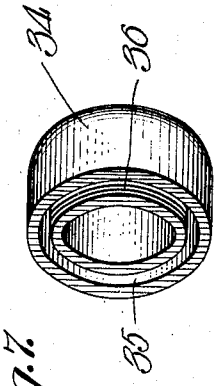


Fig. 7.



Fig. 4.

Witnesses

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2 SHEETS—SHEET 2.

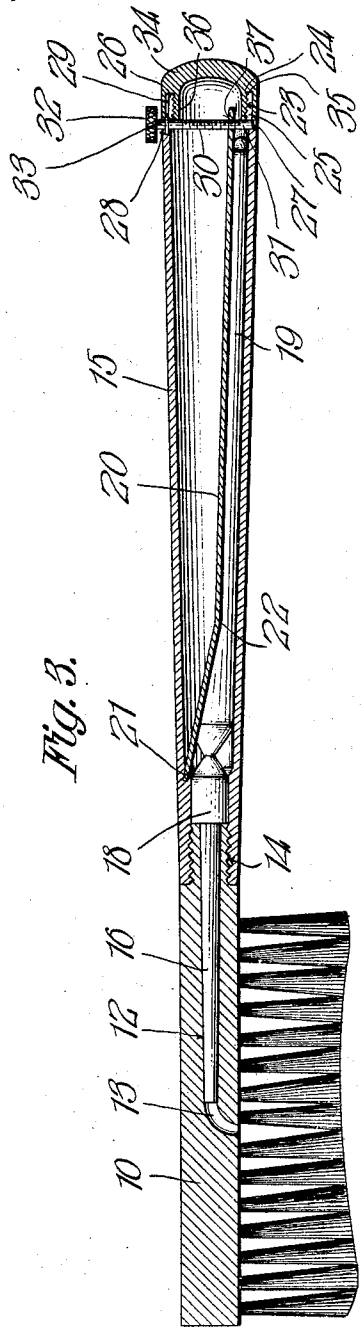


Fig. 3.

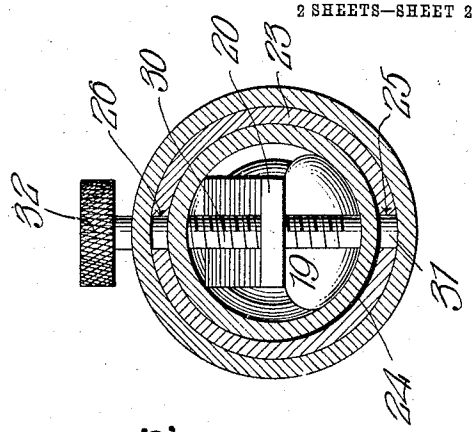


Fig. 6.

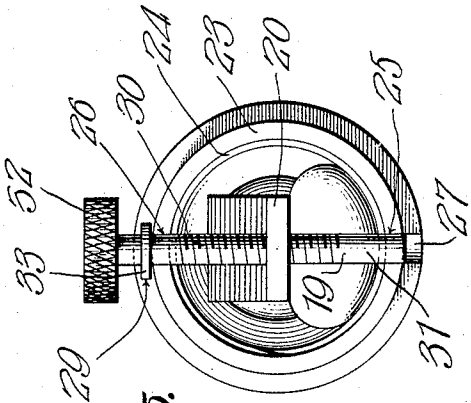


Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

ROSS PORTER, OF NEODESHA, KANSAS.

BRUSH.

No. 922,947. Specification of Letters Patent. Patented May 25, 1909.

Application filed June 19, 1908. Serial No. 439,426.

To all whom it may concern:

Be it known that I, ROSS PORTER, a citizen of the United States, residing at Neodesha, in the county of Wilson, State of Kansas, have invented certain new and useful Improvements in Brushes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to brushes and more particularly to that class of brushes known as fountain brushes and while the invention is illustrated as embodied in a tooth brush, it is to be understood that its principles may be embodied in any brush to which it would be applicable and in connection with which it would be useful.

More specifically speaking, it is the object of my invention to provide a novel construction of brush of that class in which a container for tooth paste or liquid is disposed within the handle of the brush and is adapted to supply material to the bristles of the brush upon being compressed, means being provided whereby it may be compressed without removing the handle or exposing the container.

One of the novel features of the invention resides in the manner of removably connecting the compressible container with the body of the brush and in such a manner that it may be removed from the handle and can be cleaned and another feature of the invention resides in the specific form of presser member provided for compressing the container and the manner of mounting the feed screw which permits of pressure being brought to bear upon the presser member to compress the container.

In the accompanying drawings, Figure 1 is a top plan view of a tooth brush showing my invention embodied therein, Fig. 2 is a vertical longitudinal sectional view therethrough on the line 2—2 of Fig. 1, the presser member being shown in the position which is assumed when the container is filled, Fig. 3 is a view similar to Fig. 2 but showing the position assumed by the presser member when the container is empty or nearly so, Fig. 4 is a detail perspective view of the nozzle of the device, Fig. 5 is an end view of the handle of the brush with the cap removed, Fig. 6 is a similar view on the line 6—6 of Fig. 2, and, Fig. 7 is a detail perspective view of the cap removed from the handle.

In the drawings, the head of the brush is indicated by the numeral 10 and the bristles carried by the head by the numeral 11, the brush head or back being formed with a longitudinally extending tapered bore 12 which extends from one end of the said head or back to a point substantially midway of the ends thereof and at its inner end is turned downwardly to open through the under side of the said head as indicated by the numeral 13 it being understood that the material to be supplied to the bristles is discharged through this end of the bore on to the middle bristles. The end of the head through which the major end of the bore 12 opens is reduced and threaded as indicated by the numeral 14 and threaded upon the said end of the head is the handle 15 of the brush, said handle being preferably tapered and of greater diameter at its outer end than at that end which is connected to the brush head. Inserted in the bore 12 is a tapered nozzle 16 and at its outer end, which end extends slightly beyond the reduced threaded end 14 of the brush head, said nozzle is formed with a ball like tip 17 over which is fitted the contracted end 18 of the container which is indicated by the numeral 19 and which is preferably in the form of an elongated rubber bag it being preferably tapered to substantially the same degree as the handle 15 of the brush and being larger at that end which is opposite to the end which is engaged over the tip 17 of the nozzle. The container 19 is received within the handle 15 and is to be compressed as will be presently explained so as to force the material such as the paste or liquid to be used, contained therein, through the nozzle 16 to the bristles 11 of the brush the tip 17 having a hole through which the material enters the nozzle.

A presser member which is in the form of a strip 20 and which is preferably of resilient sheet metal and is tapered from one end to the other, has its end inserted in a recess or seat 21 formed in the minor end of the handle 15 it being understood that the said presser member is received within the handle and that it is disposed against the container 19 it being designed to be forced against the container so as to compress the same and discharge the material therefrom to the bristles 11. I have found it expedient to bend the strip of resilient sheet metal comprising the presser member with an obtuse bend and this bend is indicated by the numeral 22 it being

located nearer the minor than the major end of the said member in which it is formed. By providing this bend, it will be readily understood insures of the major portion of the strip being disposed or directed as illustrated in Fig. 2 of the drawings when the bag is filled and when the strip has been sprung or forced to completely discharge the contents of the bag or container, the body portion of the strip will bear flat against the said container as clearly shown in Fig. 3 of the drawings, it being understood that all of the material is in this manner to be discharged from the container. This manner of mounting the presser member within the handle of the brush permits of its free movement to compress the container but at the same time obviates the expense and trouble of providing a direct and true pivotal connection between the member and the handle of the brush.

The major end of the handle 15 of the brush is provided with a reduced portion or flange 23 which is interiorly screw threaded as at 24 for a purpose which will be presently explained and this flange is formed with a slot or notch 25 and a similar slot or notch 26 the notches being arranged at diametrically opposite points in the said flange and the notch 25 opens into a seat 27 formed interiorly in the said handle 15; the notch 26 opens into an opening 28 formed also in the said end of the handle and has its edges formed each with a groove 29. A feed screw 30 is provided with a lower unthreaded end 31 which is received in the seat 27 and is insertible into position by sliding the said end of the screw through the notch 25, the said screw being provided adjacent its upper end with an unthreaded reduced portion 31 and with a head 32 the reduced portion 31 being inserted by way of the notch 26 into the opening 28 in the said handle 15 and being provided with an integral collar 33 which is received in the groove formed in the edges of the notch 26 it being understood that the screw is in this manner mounted to rotate within the opening 28 and the seat 27.

In order to hold the feed screw 30 against displacement and also to close the end of the handle, I have provided a cap indicated by the numeral 34 and formed in the edge of its flange with an annular groove 35 one wall of which is threaded as indicated by the numeral 36 so as to thread into the flange 23 upon the said major end of the handle. The feed screw 30 is threaded through a threaded opening 37 formed through the presser member 20 adjacent the major end thereof and it will be understood that by rotating the screw in the proper direction, the said end of the presser member will be moved downwardly so as to bring the member flat against the container 19 and compress the same thereby forcing the material contained therein to the bristles of the brush. By rotating the screw in the opposite direction, the presser member will be raised to normal position as will be readily understood.

It will be observed from the drawings that in order to remove the container it is only necessary to remove the cap 34 and then pull upon the container removing it to the major end of the handle and with it the nozzle 16 and feed screw 30 together with the presser member 20.

What is claimed is:

1. A brush comprising a body and a hollow handle having a compressible container arranged to supply material to the bristles of the brush, a pivoted presser member disposed against the container, and means for forcing said member against the container to compress the same and maintain a pressure thereon.

2. A brush comprising a body and a hollow handle having a compressible container arranged to supply material to the bristles of the brush, a presser member fixed at one end and having its free portion resting against the container, and means for forcing said member against the container to compress the same and maintain a pressure thereon.

3. A brush comprising a body and a hollow handle having a compressible container arranged to supply material to the bristles of the brush, a resilient presser member fixed at one end and having its free portions resting against the container, and means for forcing said member against the container to compress the same and maintain a pressure thereon.

4. A brush comprising a body and a hollow handle having a compressible container arranged to supply material to the bristles of the brush, a pivoted presser member resting against the container, and constructed to at all times rest flat against the container, and means for forcing said member against the container to compress the same and to maintain a pressure thereon.

5. A brush comprising a body, and a hollow handle, a compressible container arranged within the handle to supply material to the bristles of the brush, a presser member in the form of a strip of resilient sheet material inserted at one end into a seat formed in the said handle and having its free or body portion disposed against said container and means coöperating with the free end of the said member for exerting pressure against the same to compress the container.

6. A brush comprising a body and a hollow handle, the said body being formed with a tapered bore extending longitudinally of the said body, a compressible container disposed within the handle, a tapered nozzle fixed at one end of the container and inserted in the bore in the body of the brush whereby material may be discharged from the con-

tainer to the bristles of the brush, a presser member disposed against the container, and means for exerting pressure against the said member whereby the container will be compressed.

7. A brush comprising a body, a hollow handle, a compressible container arranged within the handle, a presser member also arranged within the handle and disposed against the said container, the said presser member being fixed at one end and provided at its other end with a threaded opening, that end of the handle corresponding to that end of the presser member through which the opening is formed being provided with a flange which is notched, an adjusting screw engaged at one end of the notches and provided with a collar which engages in the other one of the notches and a cap threaded upon the said end of the handle and holding the said adjusting screw against displacement from the notches.

In testimony whereof, I affix my signature, in presence of two witnesses.

ROSS PORTER.

Witnesses:
C. A. WALKER,
E. H. MERKLE.