

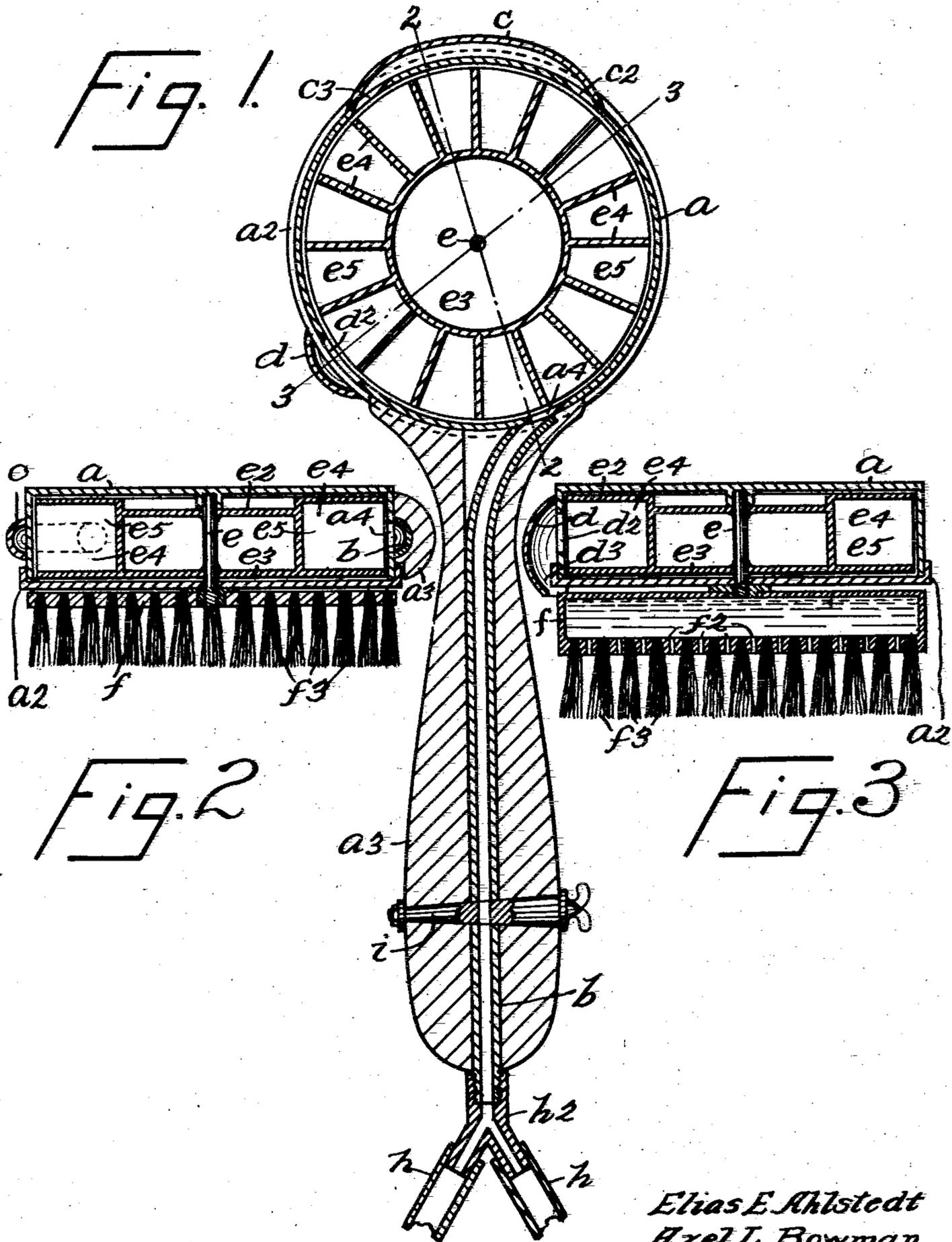
E. E. AHLSTEDT & A. L. BOWMAN.

BRUSH.

APPLICATION FILED DEC. 9, 1907.

939,181.

Patented Nov. 2, 1909.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

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BRUSH.

939,181.

Specification of Letters Patent.

Patented Nov. 2, 1909.

Application filed December 9, 1907. Serial No. 405,725.

To all whom it may concern:

Be it known that we, ELIAS E. AHLSTEDT and AXEL L. BOWMAN, subjects of the King of Sweden, and residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Brushes, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to brushes and particularly to bath brushes and the object thereof is to provide means for the automatic operation of a brush during the use thereof; a further object being to provide means whereby a continuous stream of water, of a desired temperature, is directed to the point of use of the said brush or whereby any liquid or combination of the same may be available at the point of use; a further object being to provide a brush of this type which also serves as a reservoir for liquid or other soap when used as a bath brush or for other liquids or powders when otherwise employed and a still further object being to provide a brush of this description which is simple in construction and operation, which cannot get out of order and which is comparatively inexpensive.

Our invention is fully described in the following specification, of which the accompanying drawings form a part, in which the separate parts are designated by the same reference characters in each of the views, and in which:—

Figure 1 is a central sectional plan view of a brush constructed according to our invention; Fig. 2 is a section thereof taken on the line 2—2 of Fig. 1; and Fig. 3 is a similar section, but showing a modification thereof.

In the drawings forming a part of this application, we have shown a casing *a*, provided with a detachable cover *a*<sup>2</sup> and a handle *a*<sup>3</sup> through which is passed a tube *b* projecting beyond the outer end of the handle and being bent at the opposite end so as to direct a stream of liquid into the casing *a*, through a port *a*<sup>4</sup>, at an angle to the axial line of the said handle and casing.

Upon the exterior of the casing *a*, opposite the handle *a*<sup>3</sup>, is a tube or passage *c* which is in communication with the said casing through ports *c*<sup>2</sup> and *c*<sup>3</sup> and at a point between said tube *c* and handle *a*<sup>3</sup> is

placed a shell shaped plate *d*, in communication with the casing *a* through a port *d*<sup>2</sup> and open at the lower side as shown at *d*<sup>3</sup> in Fig. 3.

Rotatably mounted within the casing *a*, centrally thereof is a shaft *e* to which are secured two plates *e*<sup>2</sup> and *e*<sup>3</sup> and between which are mounted a plurality of blades *e*<sup>4</sup> forming pockets *e*<sup>5</sup> and detachably secured to the projecting end of the shaft *e* is a brush *f*, rotatable therewith, said brush being shown, in Fig. 3, as hollow, to hold liquid soap or the like, passed thereto through the opening for the shaft *e* when detached and adapted to percolate therefrom through openings *f*<sup>2</sup> among the bristles *f*<sup>3</sup>. The outer end of the tube *b* is preferably screw threaded in order to secure a flexible tube *h* thereto or, if it is desired, a branch coupling *h*<sup>2</sup> may be employed as shown, and a valve *i* may be employed in the tube *b* when the brush is used in the usual manner.

In practice, the tube *b* is connected, by means of the flexible tubes *h*, to a source of liquid supply under pressure which, passing into the casing *a*, strikes the blades *e*<sup>4</sup> and thus rotates the shaft *e* and brush *f* and producing a scrubbing effect upon the body when used as a bath brush and a distributing effect when paints and the like are employed. The liquid enters the pockets *e*<sup>5</sup>, in this operation, but is thrown therefrom by centrifugal force against the walls of the casing, through the tube *c* which is of smaller diameter than the passage through the casing and again into the casing and against the blades *e*<sup>4</sup> thereby balancing the motive force on the blade carriers and on the shaft *e*. When the liquid reaches the port *d*<sup>2</sup> it passes out of the casing and is directed downwardly to a point adjacent to the bristles of the brush *f* thereby assisting in the cleansing operation if the device is held with the plate *d* at the top of the casing and being free to escape if at the lower side thereof.

It will therefore be seen, from this description, that an automatic scrubbing brush is provided which is operable by the liquid employed for said scrubbing or cleansing and various changes in and modifications of the construction herein shown and described may be made without departing from the spirit of the invention or sacrificing its advantages.

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Having fully described our invention, what we claim as new and desire to secure by Letters Patent, is:—

5 A casing, a brush rotatable thereon, means for connecting said casing with a source of liquid supply, means for actuating said brush by means of said liquid, the back of said brush being hollow and provided with perforations leading to the bristles.

In testimony that we claim the foregoing 10 as our invention we have signed our names in presence of the subscribing witnesses this 7th day of December 1907.

ELIAS E. AHLSTEDT.  
AXEL L. BOWMAN.

Witnesses:

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J. C. LARSEN.