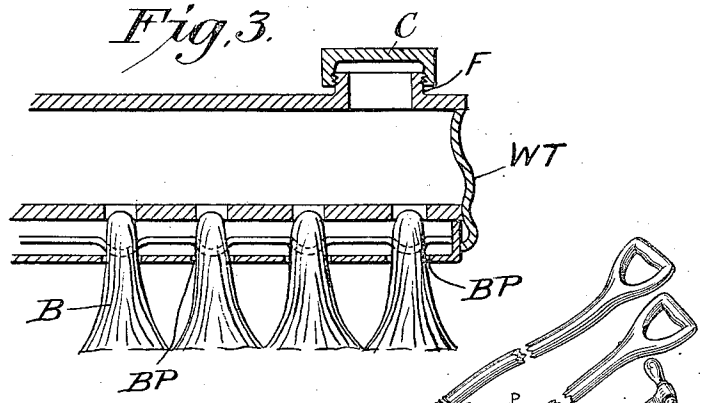
D. N. E. CAMPBELL.

GERMICIDE BRUSH.

APPLICATION FILED DEC. 13, 1917.

1,375,560. Patented Apr. 19, 1921.

Fig. 3.



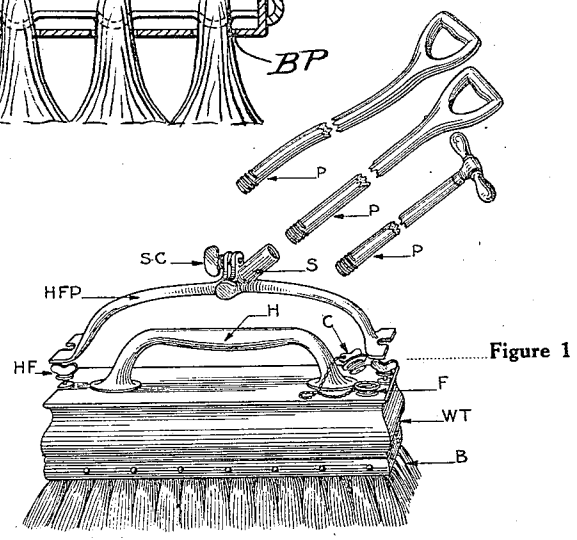


Figure 1

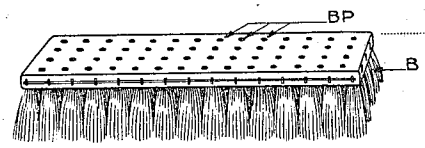


Figure 2

Witnesses.

Joseph Goldstein

LeRoy H. Warfield

Inventor

David Newton E. Campbell.

UNITED STATES PATENT OFFICE.

DAVID NEWTON EMANUEL CAMPBELL, OF BALTIMORE, MARYLAND.

GERMICIDE-BRUSH.

1,375,560. Specification of Letters Patent. Patented Apr. 19, 1921.

Application filed December 13, 1917. Serial No. 206,981.

To all whom it may concern:

Be it known that I, DAVID NEWTON EMANUEL CAMPBELL, a citizen of the United States of America, residing at No. 1369 North Carey street, Baltimore city, and State of Maryland, have invented a new and useful Germicide-Brush, of which the following is a specification.

This invention relates to a portable liquid heat brush, the object of which is for the instant destruction of pathogenic bacteria, or disease-producing germs in general; but this simple and effective device is particularly intended for the tuberculosis germs, which are unintentionally carried into the homes on the damp soles of pedestrians' shoes, and liable later to infect the occupants of said homes and render them victims of tuberculosis. The invention consists of the following parts designated by letters.

Figure 1 is a perspective of a brush embodying the features of the invention showing thereover a number of different separable handles for use therewith.

Fig. 2 is a detail perspective view of the brush proper or bristle carrying member.

Fig. 3 is an enlarged longitudinal vertical section of a portion of the brush to show the manner of securing the bristle tufts.

WT indicates a water tank, which is oblong in shape, made of zinc or other suitable metal, having a hollow receptacle, capable of holding when filled, at least, one pint of hot liquid solution, but varying in capacity to several quarts, according to the size of the tank and as necessity requires. The bottom thereof is evenly perforated to register with the perforations shown in the metallic bristle holder or carrying member shown by Fig. 2 and marked BP. Through the perforations BP of the brush holder the bristles pass up into the corresponding perforations made in the bottom of the water tank WT. Each bristle tuft B, passes through one of the perforations BP, and is held in place by a wire which passes horizontally on the inner surface at the tank bottom and dips down into each perforation through a loop in the root of each bristle tuft, then up and out to the next perforation, and so on, until each bristle root is held snugly and fastened to the tank bottom. The upper surface of the bristle holder or carrying member containing the perforations BP is pressed firmly to the bottom of the water tank WT then bracketed and soldered. The method of uniting the top surface of the bristle holder BP to the bottom of the water tank WT is subject to other modifications.

The perforations of the bristle holder BP when placed in juxtaposition with the corresponding perforations at the bottom of the water tank WT, constitute the only outlet for the hot liquid solution to percolate slowly upon the part scrubbed as the work progresses.

H represents the immovable handle centrally located on the top surface of the brush. This handle is constructed of suitable hollow metal, affording a safe and practical way for conveying the brush about, and as a holder when stooping to scrub floors.

F is the funnel into which the liquid heat solution is poured to fill the tank WT when necessary.

C represents the cork which is required to effectively retain the heat in the tank. It is screwed into the funnel after the tank is filled and is conveniently held to the water tank WT by a small undetachable metallic chain.

B is the brush which is made of the regular bristle scrubbing brush material. Worn-out bristles can be replaced by new ones when necessary on the same old tank WT.

H′ is the removable, hollow, metallic handle for poles P, consisting of two separate sections which meet in juxtaposition at the center and are held together by a screw clasp S. At this central meeting point, one section of the handle is concave at the base and beveled out to fit the convex head at the base of the other section of the handle. Each extremity of the two half sections of the handle has a notch or indentation into which the handle fastener is screwed to render same immovable and securely fastens the handle while it is in action. The sections of the handle H′ are movably connected or hinged at the center to permit the said handle to be readily applied over the handle H, the sections being contracted or drawn together to fit their notched ends *h* to the fasteners HF, and then said sections are moved into relative normal positions and the fasteners HF tightened over the ends *h*.

S′ is the fixed and immovable hollow socket constructed on the convex portion of the collapsible handle HFP in close proximity to the joint, extending outward and

upward from its base about five or six inches long and threaded at the open and outer extremity for the reception of the poles P, P and P, used when the operator is standing to scrub or mop, and when the brush is of large size, such as may be used in hospitals.

HF is the handle fastener which is screwed into place after the handle H′ is adjusted to render said handle immovable while in action.

The poles P are of different shapes and forms, constructed of hollow metallic substances, attached to the brush when the same is used while the operator is in a standing position. Each pole is threaded at its lower base and screwed into the immovable hollow socket S.

What I claim is:

A brush of the class specified, comprising a hollow body forming a tank to receive a liquid and provided with a handle and filling means, the bottom of the body having a plurality of outlet openings, a brush member having a flat plate provided with an upstanding flange for tight jointure with the body bottom which is located above and spaced from the brush member plate, the plate of said brush member having a plurality of openings therein in alinement with the openings of the body bottom, brush tufts inserted upwardly through the openings of the said plate and having their upper terminals partially extending through the openings in the body bottom, and a horizontally disposed securing wire carried by the brush member and inserted through the brush tufts and dipped downwardly toward and into the openings of the brush member plate to positively hold the brush tufts in place.

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

DAVID NEWTON EMANUEL CAMPBELL.

Witnesses:
ELLIS LEVIN,
EMANUEL M. BAUM.