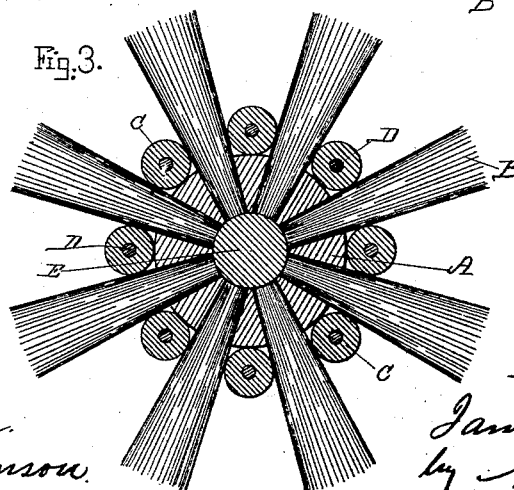
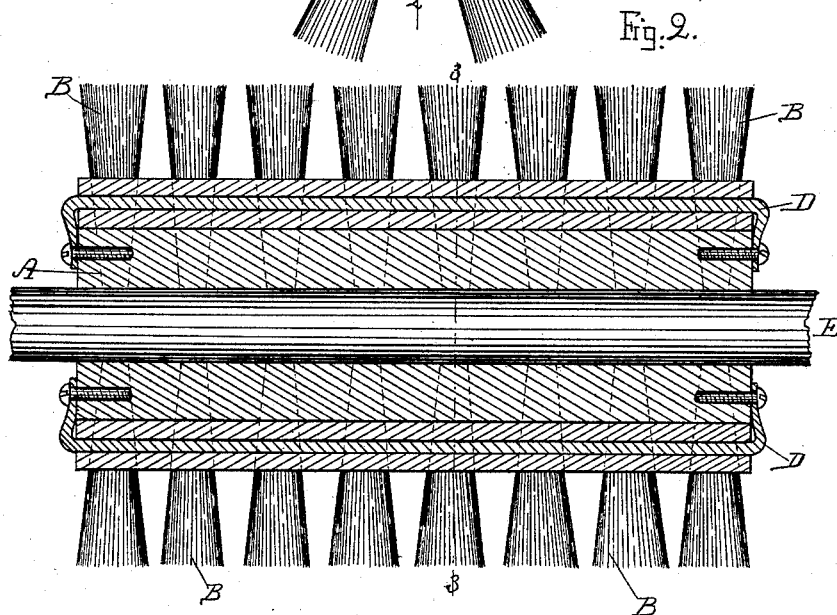
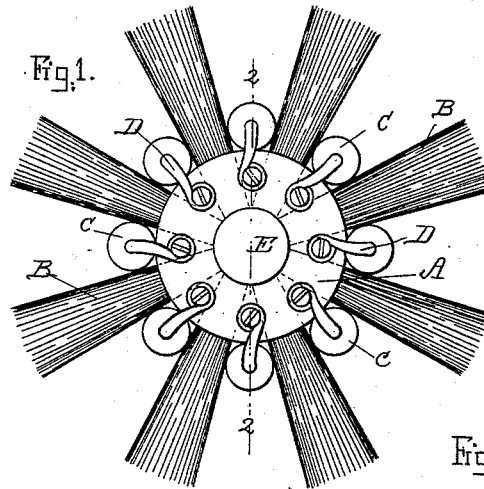


(No Model.)

J. L. SHUTE.
BRUSH.

No. 524,654.

Patented Aug. 14, 1894.



Witnesses.

Laurie W. Moller.
Kittie M. Hanson.

Inventor.

James L. Shute
by *Alvan Andren*
his atty.

UNITED STATES PATENT OFFICE.

JAMES L. SHUTE, OF GLOUCESTER, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO WILLIAM T. MERCHANT, OF SAME PLACE.

BRUSH.

SPECIFICATION forming part of Letters Patent No. 524,654, dated August 14, 1894.

Application filed September 19, 1893. Serial No. 485,791. (No model.)

To all whom it may concern:

Be it known that I, JAMES L. SHUTE, a citizen of the United States, and a resident of Gloucester, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Brushes, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention relates to improvements in brushes and it has for its object to prevent the breaking of the bristles at or near the place where they are attached to the block, base piece or roller.

The improvement is equally well adapted for flat or cylindrical brushes without departing from the essence of my invention, which is carried out as follows reference being had to the accompanying drawings, wherein—

Figure 1, represents an end view of the improved brush. Fig. 2, represents a central longitudinal section on the line 2—2 shown in Fig. 1; and Fig. 3, represents a cross section on the line 3—3 shown in Fig. 2.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In the drawings A represents the base or bristle holder which may be flat or cylindrical as may be desired.

B B are the bristles secured to the base A in any suitable or well known manner. Between the rows of bristles B B I locate intermediate cushions C C as shown which are preferably made of india rubber or other yielding or elastic material, but if so desired said cushions may be made of inelastic material. In practice I prefer to secure each of said cushions C C in place by means of a metal wire D passing through the respective cushions B B and having their ends secured to the ends of the roller or bristle base A as shown. I wish however not to confine myself to this precise arrangement of the manner of holding the cushions in place on the exterior of the roll as this may be done in any other manner without departing from the essence of my invention.

The intermediate fillings C C serve to pre-

vent the breakage of the bristles at or near the place where they are secured to the base or holder thus preventing their being accidentally dislodged and mixed with the articles operated upon or if used on rapidly rotating brushes preventing the bristles from being broken and thrown into and injuring the eyes of the operator.

E in the drawings represents the shaft of a rotary brush to which the cylinder or bristle holder or base A is secured in any suitable manner.

In making rotary brushes the base or bristle holder A may be made if so desired in two longitudinal halves secured together in any suitable or desirable manner or it may be made in the form of a single piece, sleeve or cylinder without departing from the essence of my invention.

The invention is applicable for general brushing or cleaning purposes for flat or rotary brushes and supplies a ready means for the prevention of the breakage of the bristles at or near the place where they are secured to their base or bristle holder.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

1. In a brush, the combination of a brush-head, a series of bristles secured therein, and a yielding body interposed between the series of bristles, substantially as shown and described and for the purpose specified.

2. In a brush, the combination of a brush-head, a series of bristles secured therein, and tubular rolls mounted on yielding supports arranged between the rows of bristles, substantially as shown and described and for the purpose specified.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 8th day of September, A. D. 1893.

JAMES L. SHUTE.

Witnesses:

ALBAN ANDRÉN,
KITTIE M. HANSON.