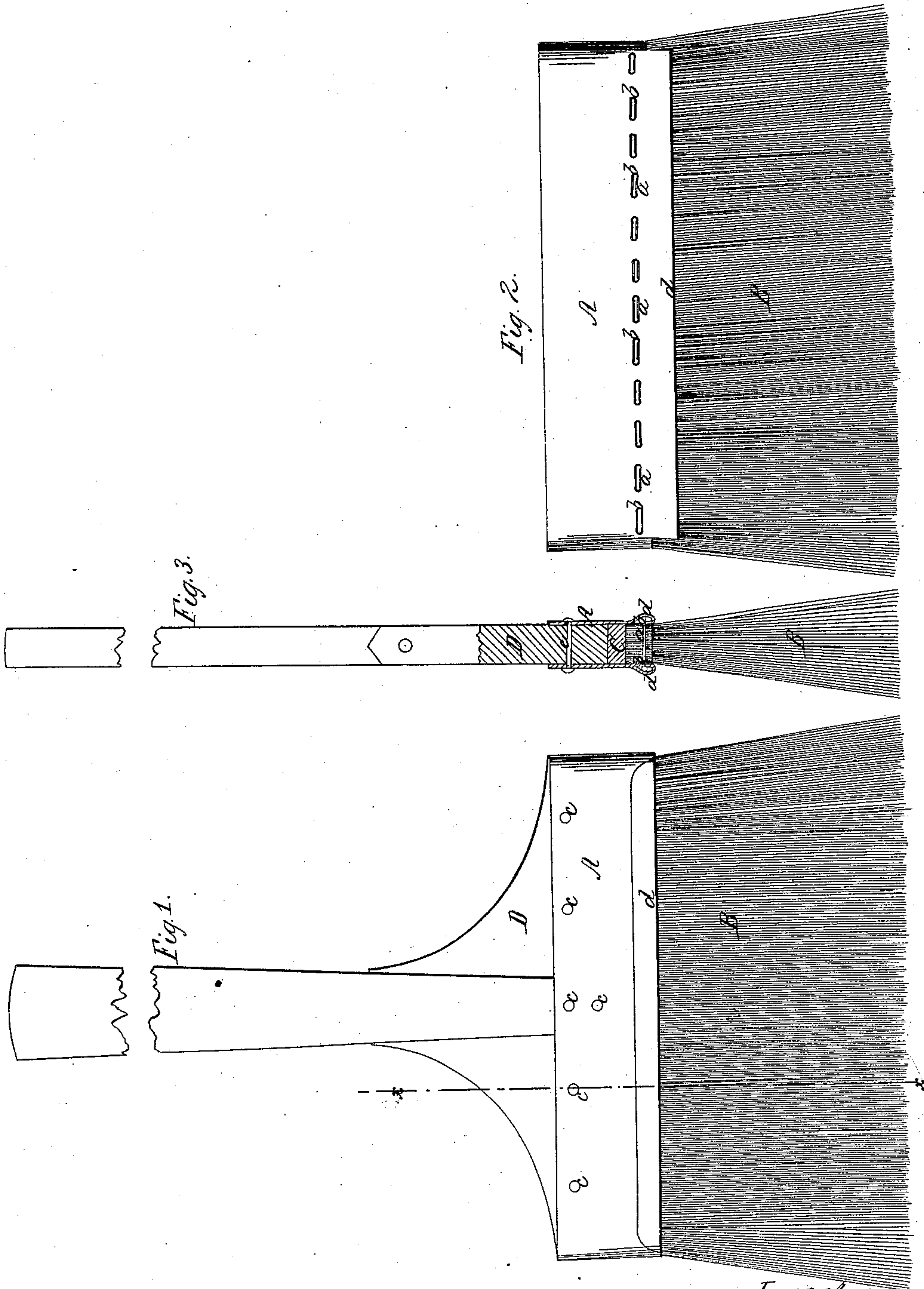


*C. Wyford*

*Brush.*

*N<sup>o</sup> 42,131.*

*Patented Mar. 29, 1864.*



*Witnesses:*  
*J. W. Coombs*  
*G. W. Reed*

*Inventor,*  
*Chas. Wyford*  
*per* *Munn & Co.*  
*Attys.*



# UNITED STATES PATENT OFFICE.

CHARLES TWYFORD, OF RED BANK, NEW JERSEY.

## IMPROVED BRUSH.

Specification forming part of Letters Patent No. 42,131, dated March 29, 1864.

*To all whom it may concern:*

Be it known that I, CHARLES TWYFORD, of Red Bank, in the county of Monmouth and State of New Jersey, have invented a new and useful Improvement in Brushes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view of my invention in a finished state; Fig. 2, a side view of the same in a partially-finished state; Fig. 3, a transverse section of the same taken in the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new and useful improvement in the construction of whitewash, varnish, and other brushes of flat form.

The invention consists in inserting the butts of the bristles in a band of sheet metal, and securing the same therein by means of a copper or other metal wire, which passes transversely through perforations in the metal band and the bristles, and the ends of the bristles within the metal band are covered with shellac, and the wooden handle is fitted in the metal band and secured therein by transverse rods, headed or riveted at their ends, the lower edges of the bands being then turned upward so as to cover the wire which passes through the metal band and bristles, as hereinafter described. By this arrangement it is believed that a very durable and economical brush is obtained, one which will have the bristles firmly secured in position so as to prevent them from becoming detached when the brush is in use.

A represents a metallic band, which may be constructed of sheet metal—zinc would probably be the preferable material. This band is of oblong flat form, corresponding to the desired form of the brush, and in it the bristles B are fitted or placed and secured by a wire, *a*, of copper or other metal, said wire passing through

perforations *b* in both sides of the band, near its lower edge. When the bristles are thus secured in the band, they are covered with a solution of shellac, C, (see Fig. 3,) and the wooden handle D is then fitted in the band A above the bristles, and secured in the band by rods or bolts *c*. The lower edges, *d*, of the band A extend sufficiently far down below the wire *a* to admit of said edges being bent upward over the exposed part of the wire, so as to prevent the bristles being cut by the sharp edges of the band, and to completely cover and protect the wire from wear or abrasion; and these edges are secured in this position by solder, or otherwise. By this mode of construction a very strong, durable, and economical brush is obtained, one that will hold the bristles firmly in position, and one not liable to be affected by the shrinking of the wooden handle—a contingency which almost invariably occurs with the ordinary flat brushes, especially whitewash-brushes, which have their bristles simply fitted to the wooden handle and their upper ends encompassed by leather.

I am aware that flat varnish-brushes have been constructed with metal bands; but the wire lacing has not, to my knowledge, been used, nor the shellac for keeping the bristles firmly cemented together in the band.

I claim, therefore, as new, and desire to secure by Letters Patent—

A whitewash, varnish, or other similar flat brush, constructed by having the bristles B fitted or placed within a metallic band, A, and secured therein by means of a wire, *a*, passing through the bristles and the perforations *b* in the band, and covered with shellac, C, the wooden handle D being secured in the band A, as shown, and all arranged substantially as and for the purpose set forth.

CHARLES TWYFORD.

Witnesses:

PETER AUMACK,  
THOMAS MORFORD, Jr.