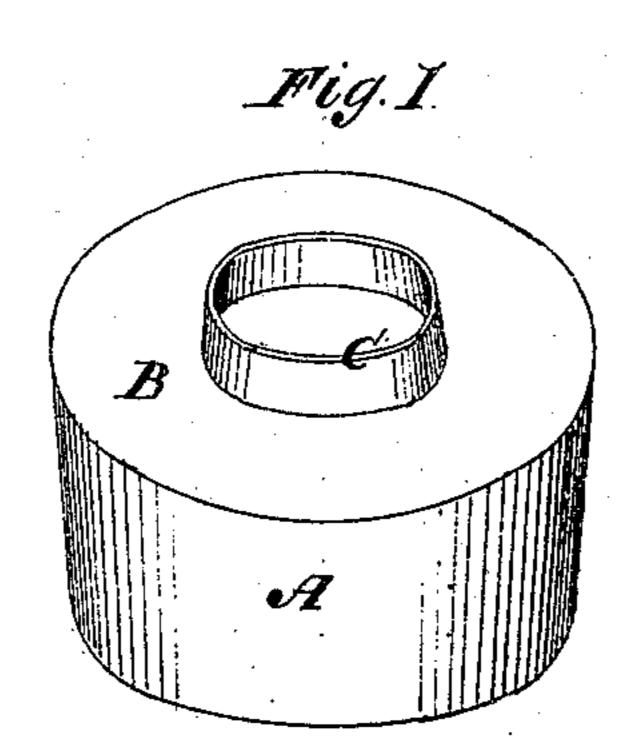
M.B. Billings

Faint Brush Ferrule.

10. 106545.

Fatented Aug. 23. 1870.



Anited States Patent Office.

WILLIAM B. BURTNETT, OF NEW YORK, N. Y.

Letters Patent No. 106,545, dated August 23, 1870.

IMPROVEMENT IN FERRULES FOR PAINT-BRUSHES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM B. BURTNETT, of the city, county, and State of New York, have invented a new and useful Improvement in Ferrules for Paint-Brushes; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in the metal ferrules used for confining the butt ends of the bris-

tles and the handles together; and

It consists in an improved ferrule made of sheet metal by stamping up in dies, all as hereinafter described.

Figure 1 is a perspective view, and

Figure 2 is a sectional elevation of my improved ferrule.

Similar letters of reference indicate corresponding parts.

A represents the cylindrical part;

B, the end or top; and

C, the small flange projecting from the wall of the central hole for the handle.

The pawl A is first made cylindrical, and then contracted at the open end by means of dies or other suitable means, so that the bristles, which are largest at the butt ends, will be wedged in when the handle is driven in and held more securely against drawing out.

To make these ferrules, I take a circular disk of metal and strike it up in dies into the form of a cup with a plane bottom. I then subject it to the action of a pair of dies having a semi-spherical cavity in the center of the bottom of the ferrule die, and a corresponding projection on the end of the male die, and

thereby raise an oval projection on the upper side of the part B; then I subject the blank to a pair of dies suitably shaped to cut the said projection at the end of the flange C, and to swell the part forming the said flange into the finished shape shown.

In this way I am enabled to produce the said flange around the hole without tearing or checking the metal, which occurs in attempting to form the hole and the flange at the same time the cup is formed, or in attempting to raise the said projection and cut it off at

one operation.

Cast-metal ferrules made in the same form as mine with the exception of the contraction at the open end, have been heretofore used, but they are so liable to break (even when malleablized) when the handles are driven in, that they are very unsatisfactory, and a great percentage of waste arises from the frequent breakages. At best the bristles are not as well secured as they should be.

Now, my improved ferrules are so strong that it is impossible to break them with the handles ordinarily used in wedging them, as I have demonstrated practically, the said handles splitting and breaking instead of the ferrules.

Having thus described my invention,

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

The sheet-metal paint-brush ferrule, formed of one piece of sheet metal, as herein described, as an improved article of manufacture.

The above specification of my invention signed by me this 3d day of June, 1870.

WILLIAM B. BURTNETT.

Witnesses:

GEO. W. MABEE, ALEX. F. ROBERTS.