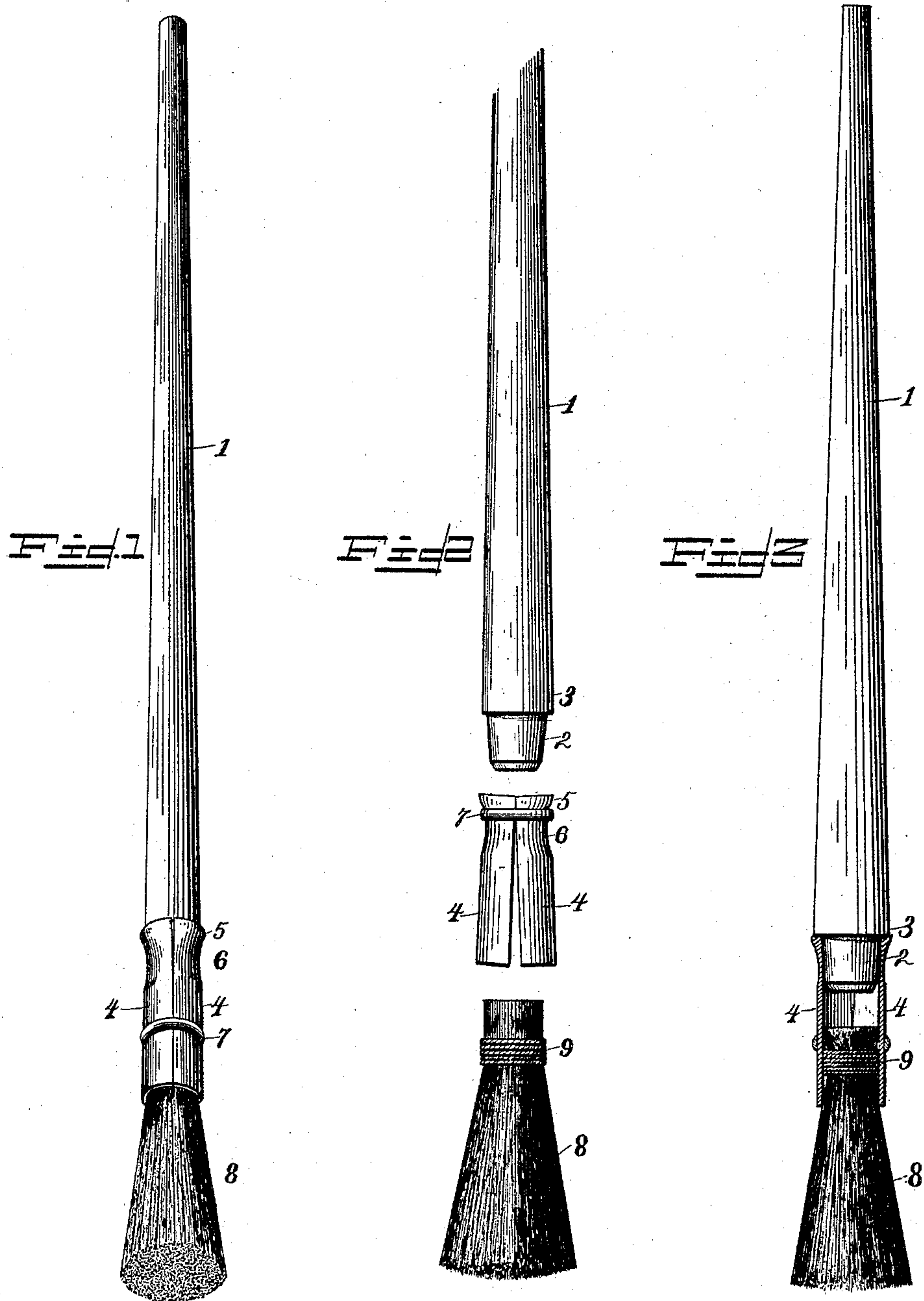


(No Model.)

L. J. MCGREGOR & C. M. CARPENTER.  
PAINT BRUSH.

No. 495,702.

Patented Apr. 18, 1893.



Witnesses

*W. B. Mattingly*  
*J. H. Liggers*

Fig. 4



By their Attorneys,

Inventors

*Louis J. McGregor and*  
*Charles M. Carpenter*

*C. A. Snow & Co.*



# UNITED STATES PATENT OFFICE.

LOUIS J. MCGREGOR AND CHARLES M. CARPENTER, OF HYNDMAN,  
PENNSYLVANIA.

## PAINT-BRUSH.

SPECIFICATION forming part of Letters Patent No. 495,702, dated April 18, 1893.

Application filed December 14, 1892. Serial No. 455,188. (No model.)

*To all whom it may concern:*

Be it known that we, LOUIS J. MCGREGOR and CHARLES M. CARPENTER, citizens of the United States, residing at Hyndman, in the county of Bedford and State of Pennsylvania, have invented a new and useful Paint-Brush, of which the following is a specification.

Our invention relates to improvements in paint-brushes, and to that class thereof in which the bristles are detachably connected with the handle, whereby new bristles may be added from time to time as they become worn and rendered useless, and thus the same handle serves its useful purpose for a great length of time, and a saving effected in the cost of the brushes.

The objects and advantages of our invention, together with the novel features thereof will hereinafter appear and be particularly pointed out in the claims.

Referring to the drawings:—Figure 1 is a perspective view of a paint-brush constructed in accordance with our invention. Fig. 2 is an elevation the brush-handle clamping ferrule and tuft of bristles being detached and ready to be assembled. Fig. 3 is a longitudinal sectional view the parts being assembled, or in other words, the brush being ready for use. Fig. 4 is a transverse section through a tuft of bristles.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 designates a handle of suitable size and length and formed of wood, and the same gradually swells or enlarges toward its lower end, but short of the same is reduced to form a slightly tapered tenon 2, above which, by reason of the sudden reduction, is produced an annular shoulder or stop 3.

4 4 designate a pair of semi-tubular clamping jaws, the same being formed of brass or other metal and of corresponding size and shape. These clamping jaws are of such combined diameter as when placed together to form a tube or ferrule they will be slightly less than the greatest diameter of the tenon 2. The clamping-jaws 4—4 are provided at their rear ends with semicircular ribs or bosses 5, and in advance of said bosses, but in rear of their centers they are slightly

skived out or reduced as at 6. Mounted upon the ferrule thus produced by the aforesaid assemblage of the jaws is a sliding ring 7, said ring having an interior diameter equal to the combined external diameter of the jaws in front of or below that point thereof at which they are skived or reduced, and hence said ring has an internal diameter slightly exceeding the external diameter of the two jaws when they are assembled and at that point thereof that is skived or reduced. At the same time the shoulder or boss at the rear end of the ferrule serves as a limiting device for preventing a withdrawal of the ring in an upward or rearward direction.

8 designates a tuft of bristles that are put together without glue and with the simple wrapping or binding-cord 9. In the present instance the bristles form a cylindrical tuft, in that the brush to be produced is cylindrical, but it will be understood that the bristles may be bound upon a filling plug as indicated in section in Fig. 4, when an oblong brush is required. In such instance, also, the handle and the ferrule would likewise be altered in shape, the principle and features of construction remaining the same.

To assemble the parts and produce the brush, the sliding ring is moved to the rear or upper end of the ferrule until its movement is arrested by contacting with the annular enlargement or boss at the upper rear end of the ferrule. This will permit, by reason of the loose fitting of the ring upon the ferrule at this point, of a spread of the two jaws at their front ends, and when this has been accomplished the butt-end of the tuft of the bristles is inserted into said ferrule at its spread end. The ring is now pushed down about the center of the ferrule thus clamping the two jaws upon the bristles, after which the tapered tenon of the handle is forced into the upper or rear end of the ferrule, thus slightly spreading to a very limited degree the upper or rear ends of the jaws, and still further clamping the front ends of the jaws upon the bristles. It will be seen that the ring remaining in the middle or near that point, serves as a fulcrum, and while the tuft of bristles clamp the upper or rear ends



of the jaws upon the handle the tapered end of the handle serves also to spread said upper or rear end and clamp the jaws upon the bristles. As a result an exceedingly secure  
5 and efficient connection is formed between the bristles and the handle, in which we avoid all use of glue and other expensive constructions. To remove the bristles when they are worn it is simply necessary to with-  
10 draw the handle, which permits the upper or rear ends of the jaws to come together, and hence loosens the ring so that it may be readily slid to the upper or rear end of the ferrule, which loosens the front ends of the jaws  
15 and permits of a ready withdrawal of the bristles from the ferrule.

Having described our invention, what we claim is—

1. The combination with a handle, and a  
20 tuft of bristles, of a connecting device consisting of a pair of transversely curved independent jaws adapted to clamp the tuft of bristles, and at their opposite ends a handle, and a sliding ring mounted on the jaws and  
25 adapted to bind the same in position upon

the handle and bristles, substantially as specified.

2. The combination with a handle reduced at one end to form a tapered tenon, and a tuft of bristles, of an intermediate connecting  
30 device consisting of a pair of semi-cylindrical jaws enlarged externally at their rear ends and in advance of such enlarged portions slightly reduced externally, said jaws being  
35 of a combined internal diameter agreeing with the smallest portion of the tapered tenon, and a sliding ring mounted on the jaws and having an internal diameter agreeing with the greatest external diameter of said jaws  
40 with the exception of the enlargement at the rear end thereof, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

LOUIS J. MCGREGOR.  
CHARLES M. CARPENTER.

Witnesses:

W. S. MULLIN,  
J. W. MADORE.