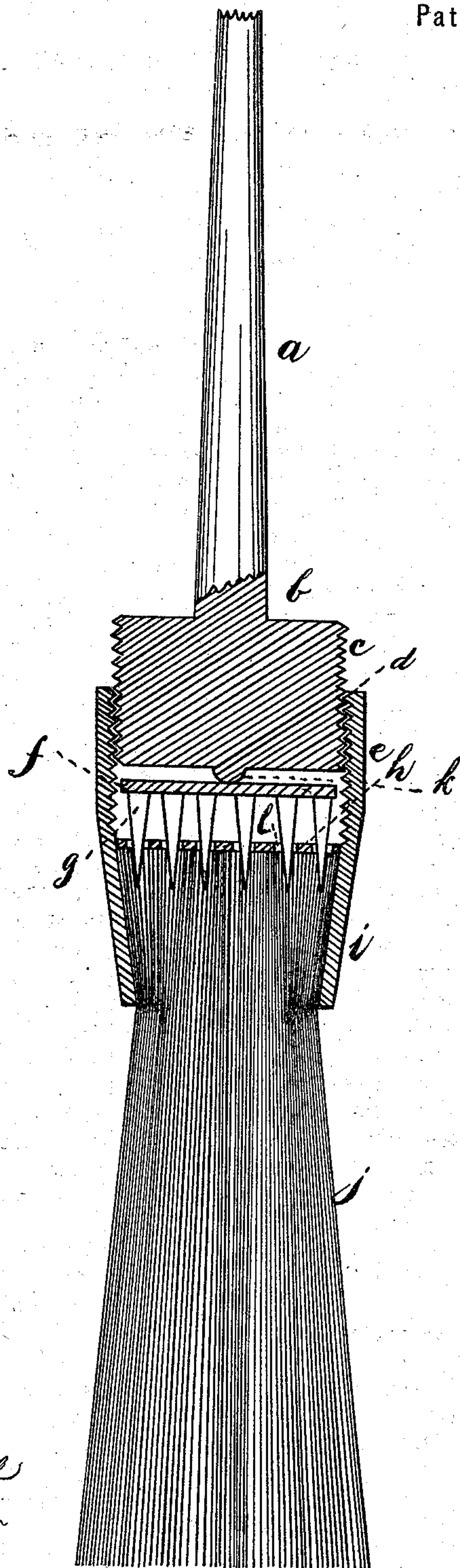


F. H. JORDAN.  
Paint-Brushes.

No. 154,397.

Patented Aug. 25, 1874.



Witnesses:  
Edwin W. Hartwell  
Edwin A. Leighton

Inventor:  
Frank H. Jordan.



# UNITED STATES PATENT OFFICE.

FRANK H. JORDAN, OF PORTLAND, MAINE.

## IMPROVEMENT IN PAINT-BRUSHES.

Specification forming part of Letters Patent No. **154,397**, dated August 25, 1874; application filed May 15, 1874.

*To all whom it may concern:*

Be it known that I, FRANK H. JORDAN, of Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in 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 which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The drawing shows a sectional view of my invention.

The object of my invention is to produce an improved paint-brush. It consists, first, of a movable and detachable plate or disk having on its lower surface a series of projecting pegs or points, the said plate working within the ferrule of a brush and being held in position by the butt of the brush-handle, as is hereinafter more fully described; second, in the combination of a handle having a screw upon its butt with a ferrule having a female screw to match the screw upon the handle, and a separate removable plate provided with points on its lower surface, the said plate working within the ferrule and operated by the pressure of the handle upon it; third, in the combination of a screw-handle, a ferrule fitted with a screw, a removable plate having points on its lower surface, and a fixed perforated disk.

Having thus given the object of my invention, and in what it consists, I will now proceed to describe in detail its construction and operation.

*a* shows the handle of the brush, on the lower end of which is the base *b*, provided with the male threads *c*, which fit the female threads *d* in the upper part of the ferrule *e*. *h* is a circular perforated disk placed in the ferrule at a point just below the female threads *d*. *f* shows a movable plate having on its lower side a series of tapering pins or pegs, *g*. These pass down through the perforations *l* in the disk *h*, penetrate the bristles composing the brush, and expand the same within the ferrule. The lower end of the ferrule is first filled with the bristles necessary for the brush, the same passing up in said ferrule until they strike the

disk *h*, which serves as a stop for their farther penetration. The movable plate *f* is then placed in the upper part of the ferrule and its points *g* allowed to pass down through the perforations in the disk *h* and into the heads of the bristles forming the brush. The handle is then screwed into the ferrule until the projecting part *k* of its base bears against the upper side of the plate *f*. The handle, continuing to be screwed down, forces with it the said plate and its points. This expands the bristles within the ferrule and holds the same securely therein. When they have become loosened by wear or otherwise the handle can be still farther screwed down, by which movement the bristles will still continue to be firmly held within the ferrule. The plate *h* is not essentially necessary, and may be dispensed with, if desired; but in the formation of a brush of this description it is deemed preferable to have the ferrule provided with this plate, inasmuch as it measures the distance which the bristles shall penetrate the said ferrule.

The handle, with its base, need not be made of solid material, but can be tubular, if desired. It may be made of metal, vulcanized rubber, or any suitable material.

It is evident from the foregoing that in a brush of this description, when the bristles have become so worn as to be unfit for further use, they can be removed from the ferrule and new ones inserted. It will, therefore, be seen that my improvement will last for a great length of time and for several sets of bristles.

While I have above described in detail a preferable method of constructing the brush, in order to carry out or embody my said invention, it is evident that the handle and ferrule may be made and adapted to each other in any ordinary and well-known way or method, and that in said case the operation and office of the said movable disk with projecting points would not be changed in any essential degree.

I do not claim a wedge placed in the center of the heads of the bristles, the said wedge being forced downward by screw-pressure, in order to expand and confine the bristles within the ferrule. I employ in lieu thereof a plate having on its under surface a series of taper-



ing points which penetrate the heads of the bristles at regular distances apart, on their ends within the ferrule.

The advantage of this arrangement is very evident. Where a single wedge is used, the pressure is unevenly distributed, the bristles in the center being more closely confined than those on the outer edge. By the use of my plate *f* the pressure is equally distributed among all the bristles. This, it will be seen, is quite an important feature.

I do not claim in a paint-brush a ferrule having a perforated diaphragm located in said ferrule to receive pegs driven through the same and into the butt of the bristles, for this, I am aware, is the invention of another.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a paint-brush, the movable and detachable plate *f*, having points on its lower surface, working within the ferrule *e* and held in place by the butt of the brush-handle, substantially as described.

2. In a paint-brush, the combination of a handle having a screw upon the butt, a ferrule with a female screw to match the screw upon the handle, a separate removable plate, *f*, having points *g*, the said plate *f* working within the ferrule and operated by the pressure of the handle, substantially as described.

3. The combination of the screw-handle *a*, ferrule *e* fitted with a screw, the removable plate *f* provided with points *g*, and a fixed perforated disk, *h*, the points of the plate *f* passing through the perforations of the disk *h*, and the plate *f* being forced downward by the turning of the screw-handle, in order to force the points *g* into the heads of the bristles, as herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

FRANK H. JORDAN.

Witnesses:

EDGAR S. BROWN,  
EDWIN W. HASKELL.