

T. J. LOUGHRIDGE.
ELECTRIC BRUSH HOLDER.

No. 580,114.

Patented Apr. 6, 1897.

Fig. 1.

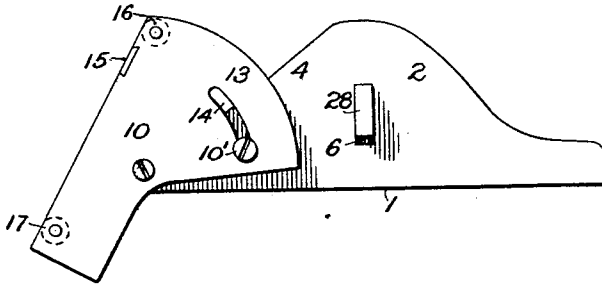


Fig. 2.

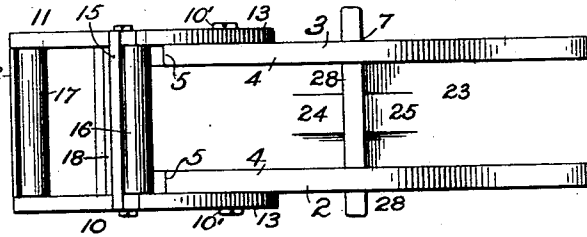


Fig. 3.

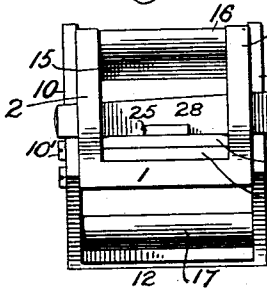


Fig. 4.

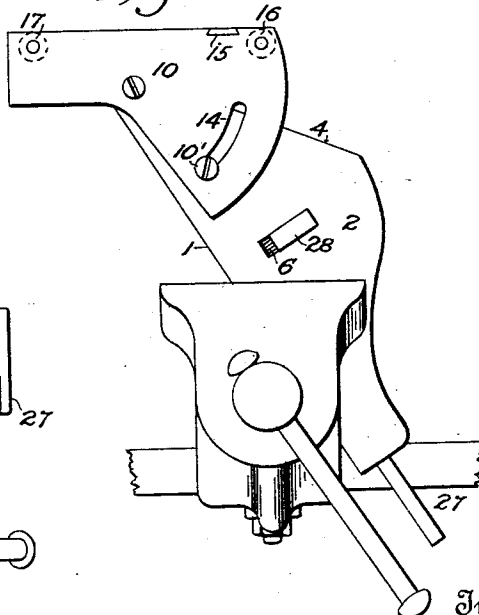
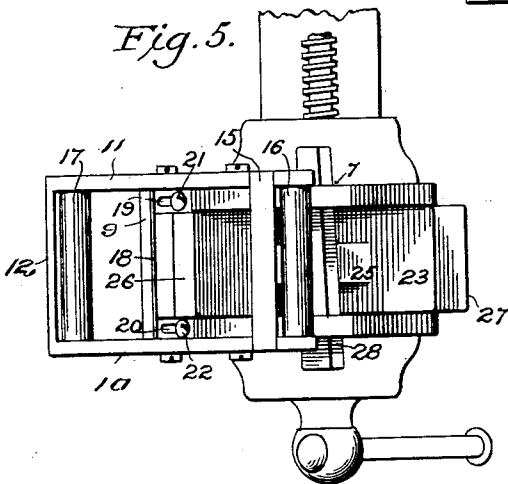


Fig. 5.



Witnesses

James F. Dehmel,
A. A. Haw.

Inventor
Theodore J. Loughridge
by John Hedderburn
his Attorney

(No Model.)

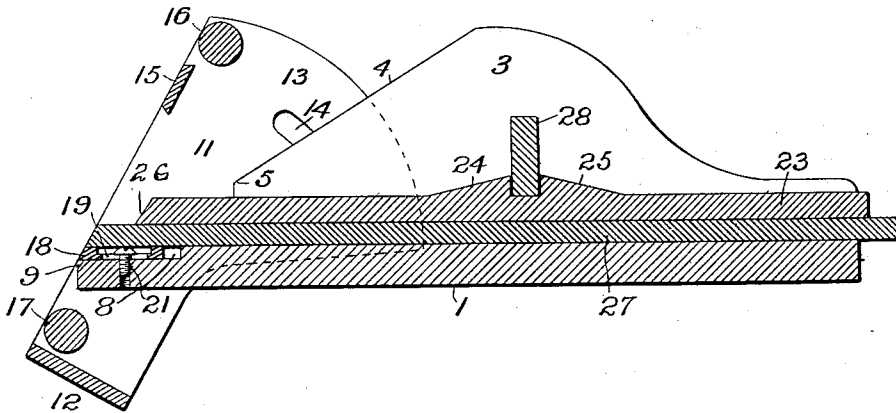
2 Sheets—Sheet 2.

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Fig. 6.



WITNESSES

James F. Duhamel
H. E. Tappan

INVENTOR.

Theodore J. Loughridge
by John Waddell
Attorney

UNITED STATES PATENT OFFICE.

THEODORE J. LOUGHRIDGE, OF OSHKOSH, WISCONSIN, ASSIGNOR OF
ONE-HALF TO FREDERICK C. TOOMBS, OF SAME PLACE.

ELECTRIC-BRUSH HOLDER.

SPECIFICATION forming part of Letters Patent No. 580,114, dated April 6, 1897.

Application filed June 1, 1896. Serial No. 593,806. (No model.)

To all whom it may concern:

Be it known that I, THEODORE J. LOUGHRIDGE, a citizen of the United States, residing at Oshkosh, in the county of Winnebago and State of Wisconsin, have invented certain new and useful Improvements in Electric-Brush Holders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to clamps or holders for securing electric brushes in proper position for trimming.

My object is to provide an improved and extremely efficient holder of the class described which will be capable of quick adjustment and adapted to accommodate brushes that require different styles of dressing or trimming.

Having this object in view, my invention consists of certain novel features and combinations, as will appear more fully hereinafter.

In the accompanying drawings, Figure 1 represents a side elevation; Fig. 2, a plan view; Fig. 3, an end elevation looking toward the adjustable guide or angle-finder; Fig. 4, a side elevation showing a brush in the holder and the holder in a bench-vise; Fig. 5, a plan view, also showing the holder in use; and Fig. 6, a longitudinal section.

My improved clamp consists, essentially, of two parts, a holder and an angle-finding adjustable guide.

The holder is a box-like structure open at both ends and having a base 1 and duplicate sides 2 and 3. The front ends of the sides are inclined, as at 4, and also cut away, providing shoulders 5. The sides are also provided with vertically-disposed slits 6 and 7, the former of which is disposed somewhat above the latter.

The front portion of the base 1 is recessed transversely at 8 and the front edge is beveled, as at 9.

My improved angle-finder is provided with duplicate guide-arms 10 and 11, having their lower ends connected by an integral cross-bar 12. The upper edges of these arms and the cross-bar lie in the same plane.

The rear portions of the arms are formed

into segmental heads 13, which are provided with curved slots 14, said segmental heads being connected by a cross-bar or brace 15. The numerals 16 and 17 designate upper and lower hardened-steel rollers, which are journaled in the arms 10 and 11 in such a manner that their peripheries will lie flush with the upper edges of said arms. The arms are pivotally connected by screws to the front end of the base 1 in such manner that the whole upper surface of the angle-finder will lie in the same plane with the bevel 9 when the angle-finder is adjusted. Headed set-screws 10' in the slots 14 afford means whereby the angle-finder can be held in adjusted position.

The numeral 18 designates a hardened-steel plate provided with slits 19 and 20, through which pass the shanks of adjusting-screws 21 and 22. This plate is adapted for movement on the transverse recessed portion 8 of the base of the holder.

A clamping-plate 23, provided with locking-braces 24 and 25, has a front beveled edge 26 and is adapted to be clamped down on the brush 27 being trimmed by a wedge-key 28, that passes through the slits 6 and 7 and between the braces 24 and 25.

My invention may be used in the following manner: The electric brush is slid into the holder and the clamping-plate placed thereon. After the angle-finder has been adjusted to define the angle of the "trim" and locked in position the plate 18 is adjusted and locked in such position that its front edge will lie in the same plane with the upper face of the angle-finder. The brush may then be slid forward until in proper position, the clamping-plate adjusted, and the wedge-key forced home, thereby locking the plate and brush in position. The holder may now be clamped in a vise, as shown in the drawings, and the brush treated with a file to give it the proper bevel.

Having thus described the invention, what is claimed as new is—

1. In a clamp for holding electric brushes while being trimmed, the combination with a holder for the brush, of an angle-finder pivoted to the holder and provided with an open face, means for locking the angle-finder in position at the desired angle, and an adjust-

able plate on which the end of the brush rests and which is adapted to insure an even trim of the brush, substantially as described.

2. In a clamp for holding electric brushes while being trimmed, the combination with a holder, of an angle-finder adjustably connected to the holder and provided with an open face, separated guide-rollers journaled in the angle-finder, being arranged to guide the tool used in trimming the brush, and means for locking the angle-finder in adjusted position.

3. In a clamp for holding electric brushes while being trimmed, the combination with a holder, of an angle-finder provided with an open face and pivotally connected to the holder, separated rollers journaled in the angle-finder and having their peripheries lying in the same plane, and means for locking the angle-finder in adjusted position.

4. In a clamp for holding electric brushes while being trimmed, the combination with a holder, of an adjustable angle-finder consisting of arms pivoted to the holder, separated rollers journaled in said arms and having their peripheries lying in the same plane, and locking devices for holding the angle-finder in adjusted position, and an adjustable plate for insuring an even trim of the brush, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

THEODORE J. LOUGHRIDGE.

Witnesses:

ARTHUR KELLOGG,
E. W. COLE.