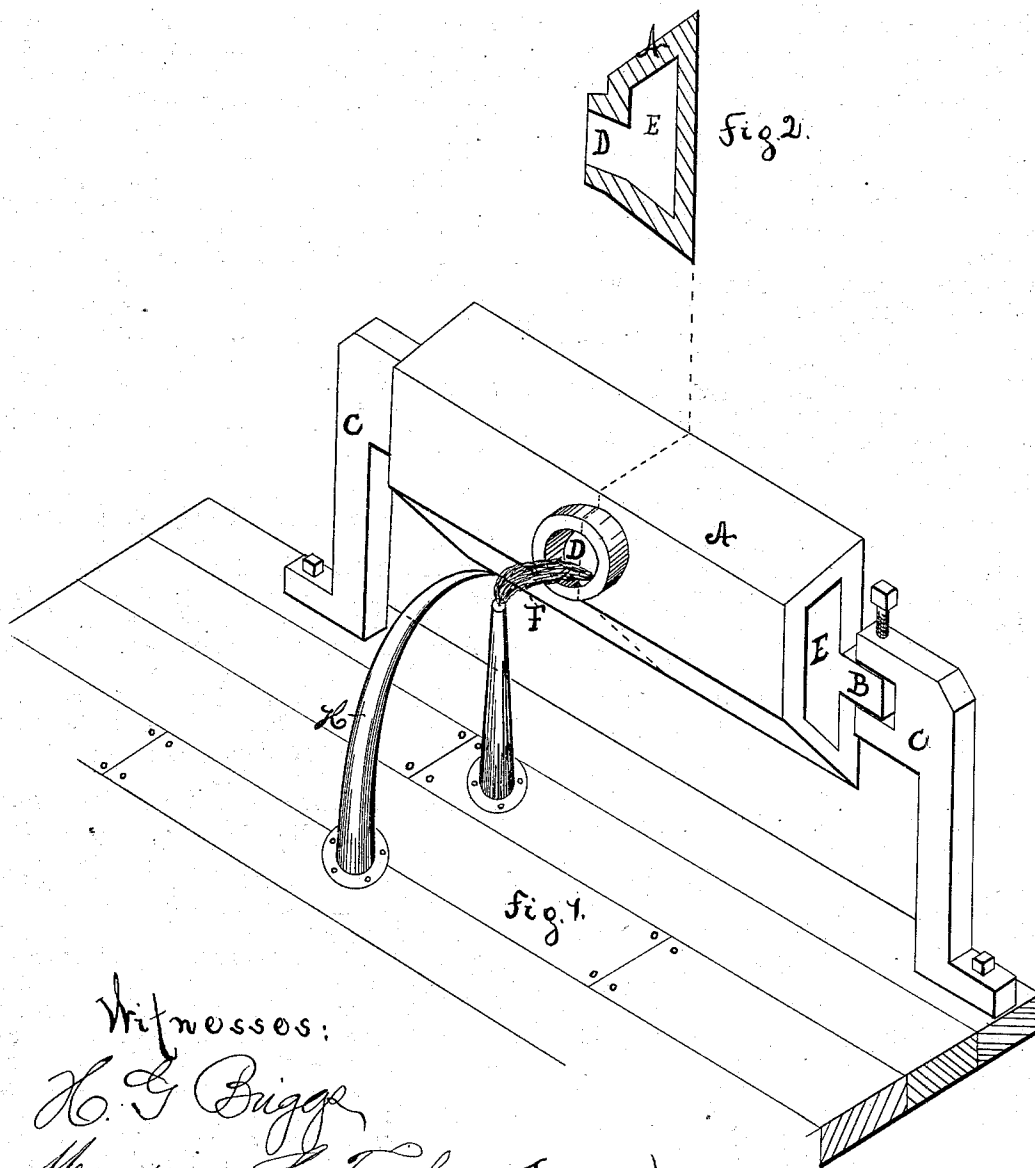


(No Model.)

J. S. WHITE.
BRUSH SEARING DEVICE.

No. 267,957.

Patented Nov. 21, 1882.



Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN S. WHITE, OF PORTLAND, MAINE.

BRUSH-SEARING DEVICE.

SPECIFICATION forming part of Letters Patent No. 267,957, dated November 21, 1882.

Application filed May 8, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. WHITE, residing in Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Brush-Searing Devices; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The nature of this invention has direct reference to furnishing brush-makers with a new and improved searing apparatus which shall be a convenient and desirable substitute for the old and well-known "searing-iron," now in common use in brush-manufactories for searing the butts of the bristles in certain kinds of brushes after the brushes are made. The said process of searing the butts of brushes is for the purpose of making a smooth surface to paint over. This method of searing brushes now consists in the use of a metallic prism attached to a long handle. In practice the metallic prism is first highly heated in a furnace. It is then taken from the furnace by the attendant and securely confined between the jaws of a clamp or vise. The operation of searing is next performed by drawing the brush along one of the angles of the heated prism. Comparatively much time and labor are required for this process, and the manufacturer is subjected to great expense in keeping the supply of searing-irons in proper working condition, as repeated heating of the irons tends to their rapid destruction.

Many efforts have been made to perform the work of searing brushes by mechanical contrivances, but thus far without practical success.

My invention has for its object to provide a simple and effective apparatus for accomplishing this result, so that an ordinary workman is enabled to sear a far greater number of brushes in a given time than can possibly be seared by the usual process practiced in the art, as hereinbefore described.

To this end my invention consists of a hollow metallic prism of any suitable number of sides and angles, and having the following peculiar elements of construction, viz: a bore that corresponds in geometrical outline to the outside of the prism, a slot or hole piercing

oneside of the prism, and studs projecting from the ends, which, in connection with proper clamping-supports, provide a means for holding the device in any desired position. Further, for the purpose of highly heating the said metallic prism, so that the operation of searing a brush can be successfully performed, the invention consists in combining with said metallic prism a gas or other flame and means for blowing or fanning the same into the side orifice, so that the flame will strike full and fair upon the lower angle of the prism-bore and heat the metal along that line to a very high degree. Finally, all the other details of my invention will be fully described farther on in my specification, in connection with the accompanying drawings, in which—

Figure 1 shows the device mounted upon a bench ready for operation. Fig. 2 shows a cross-section through the plane of the dotted outlining.

Same reference-letters indicate same parts.

Let A represent the metallic prism. Located on the extreme ends of the prism are studs B, which fit into the jaws of supporting standards or clamps C.

The letter D indicates a hole cut in the back side of the prism. This hole D passes through the side in a slanting direction tending toward the lower angle of the bore.

E shows the bore of the prism. This bore is made to correspond with the outside of the prism. A gas or other flame is represented by F. The letter H shows a tube which leads from a blower situated beneath the bench.

I practice my invention as follows: As the air issues from the blower-tube it strikes forcibly against the flame F and drives it with great velocity through the slanting hole D. Thus an intense heat is caused to play directly on the lower angle of the bore E. Further, because the prism is open at its ends, two drafts or currents of air will be created as the air in the bore becomes heated, so that the flame, after striking against the angle, will spread out and be drawn toward the ends and the whole inside of the prism will be filled with the flame. In a very short time the prism will become highly heated, so that an attendant can with great ease perform the operation of searing by simply drawing the brush along the lower an-

gle of the prism, which is more highly heated than the rest of the same by reason of the direct action of the flame on that part.

5 In my description thus far I have made mention of only one opening, D, in the side of the prism; but I do not wish to be understood as confining myself strictly to that description.

10 In practicing my invention occasion may arise where it will be desirable to use a long prism. In that case a series of two or more holes or slots, flames, and blower-tubes would be necessary. Also, I show the flame as blown into the prism at the side. It is readily obvious that the flame might be blown into the
15 end of the prism and forced longitudinally through the bore without departing from the spirit and intention of my invention, as hereinbefore set out.

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

1. The searing device, herein shown and described, composed of the metallic prism A, hav-

ing the angles of its bore E so made as to correspond with the outside angles, the slanting orifice D, for deflecting a gas or other flame
25 toward the lower angle of said bore E for the purpose of more highly heating said angle, and the studs B, which form the connections with the standards or clamps C, all the different elements constructed and arranged substantially
30 as shown and described.

2. In a device for searing brushes, the combination of the following elements, viz: a hollow prism, A, having an opening, D, a gas-pipe, F, and an air-pipe, H, all substantially as and for
35 the purpose set forth.

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

JOHN S. WHITE.

Witnesses:

C. E. ODIORNE, Jr.,
H. G. BRIGGS.