S. B. WILLIAMS.

Tram-Staff.

No. 164,355. Patented June 8, 1875.

Fig. 1.

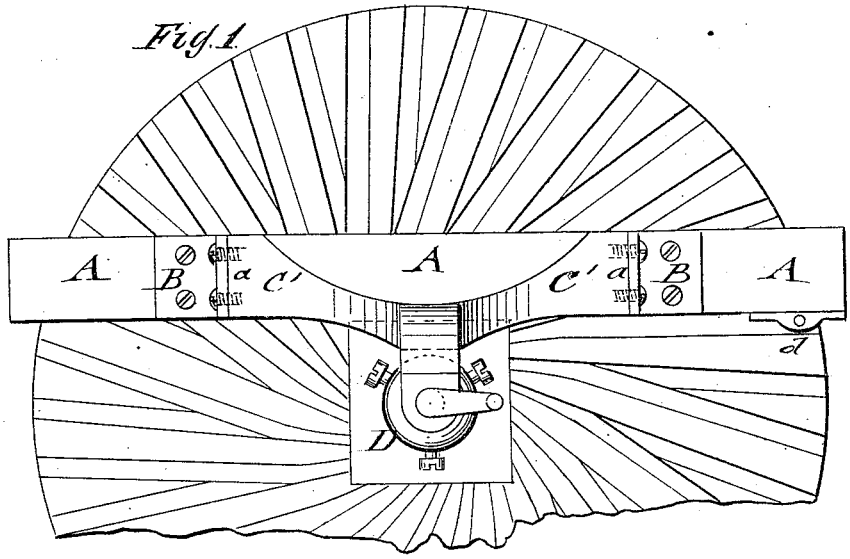


Fig. 2.

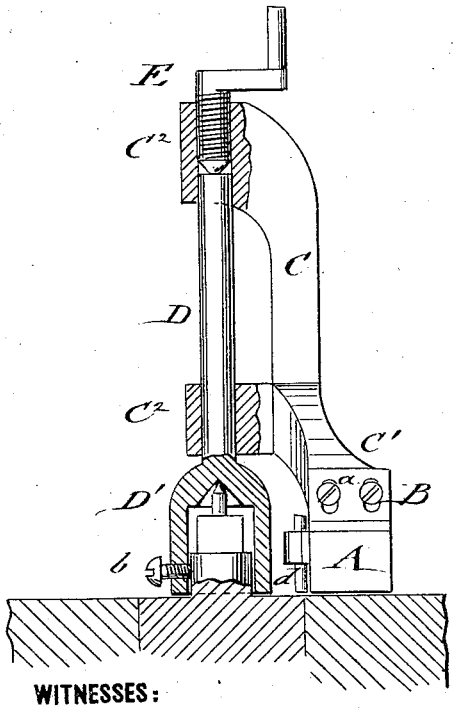
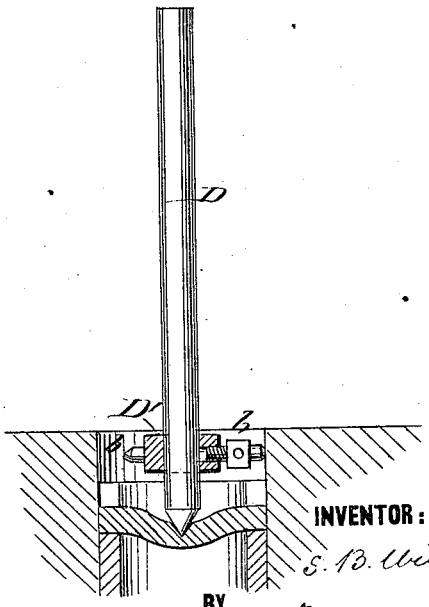


Fig. 3.



WITNESSES:

E. Wolff

W. H. Scarborough.

INVENTOR:

S. B. Williams

BY

Munn & Co

ATTORNEYS.

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

SAMUEL B. WILLIAMS, OF BRIDGEPORT, OHIO, ASSIGNOR OF ONE-HALF HIS RIGHT TO SEYMOUR C. W. DUNLEVY, OF SAME PLACE.

IMPROVEMENT IN TRAM-STAVES.

Specification forming part of Letters Patent No. **164,355**, dated June 8, 1875; application filed March 6, 1875.

To all whom it may concern:

Be it known that I, SAMUEL B. WILLIAMS, of Bridgeport, in the county of Belmont and State of Ohio, have invented a new and Improved Tram-Staff for Staffing Mill-Burrs, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a top view; Fig. 2, a sectional side elevation of my improved staff for staffing mill-burrs, as applied to a bed-stone; and Fig. 3 shows the mode of applying it to a runner.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claim.

In the drawing, A represents a tram-staff or guide-bar, which is about equal in length, more or less, to the diameter of the mill-burrs, so as to extend fully across the same.

The staff A is attached by rectangular brackets or irons B to the ends of branch arms C^1, of an upright standard, C, the angle-irons being slotted and provided with clamp-screws *a*, for the purpose of adjusting the staff on the standard. Sleeve-shaped projections C^2 at the central part of standard C, fit on a center shaft, D, that is either provided with a hollow bell or tripod shaped part, D′, with set-screws *b*, to be applied to the spindle of the bed-stone, as shown in Fig. 2, or with a cylindrical or four-pointed part, D′, with set-screws fitting the eye of the runner, as in Fig. 3.

The center shaft D is set into a perfectly vertical position to the face of the burrs by revolving the staff at some distance above the same, and adjusting a crank-screw, E, at the top of standard C until a regulating-quill or piece of steel, *d*, at the outer end of the staff forms an even contact at the circumference of the burr. In this manner the center shaft may be set by the adjusting-screws *b* more readily into vertical position on the burrs than by any other method.

The crank-screw E is applied at the top of standard C, and seated conically or otherwise on the upper end of center shaft D, so as to raise or lower the standard C and staff A thereon. Staff A is lowered, after the vertical adjustment of the center shaft, until it comes in contact with the burr. The set-screws in the angle-plates B of the staff are then loosened, so that the staff may fit itself to the face of the burr, after which the set-screws are tightened again, the tram-shaft attachment being then ready for use.

The straight staff extending across the face is more reliable and preferable than a short one, which has not the same degree of accuracy, while the independent working of the staff admits of a truer and more accurate staffing of the raised places, and, consequently, a more complete dressing of the burrs.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of the tram-staff A, bracket B, standard C C^1 C^2, shaft D D′, and crank-screw E, all constructed and arranged substantially as and for the purpose specified.

SAMUEL B. WILLIAMS.

Witnesses:
J. B. ROWLES,
F. C. ROWLES.