

T. M. LOGAN.
Miller's Proof Staff and Red Staff.

No. 213,339.

Patented Mar. 18, 1879.

Fig. 1.

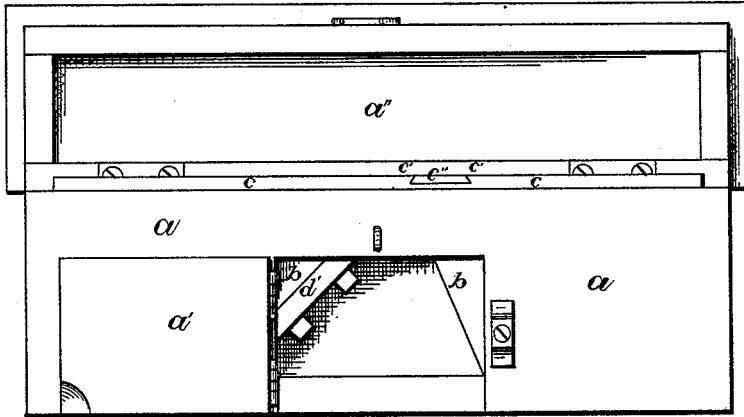
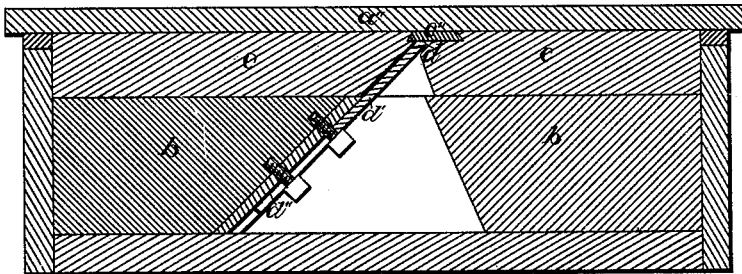


Fig. 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN MILLERS' PROOF-STAFFS AND RED-STAFFS.

Specification forming part of Letters Patent No. **213,339**, dated March 18, 1879; application filed May 8, 1878.

To all whom it may concern:

Be it known that I, THOMAS M. LOGAN, of Mapleton Depot, in the county of Huntingdon and State of Pennsylvania, have invented certain new and useful Improvements in Millers' Proof-Staffs and Red-Staffs; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in millers' proof-staff and red-staff dressers; and it consists, first, in the combination of a proof and red staff dresser with a cutting-plane in proof-staff; second, in the arrangement and combination of parts, that will be more fully described hereinafter.

The accompanying drawings illustrate my invention, and of these Figure 1 is a side elevation with the lid and side door open. Fig. 2 is a vertical longitudinal section of the whole device.

a represents a box, with a side door, *a'*, secured by a button, and through which the parts may be adjusted, and a lid, *a''*, fastening with a catch, and attached to the box by means of hinges, or by hooks and eyes, so that it may be taken off at pleasure.

Within and at either end of the box are fastened two wooden blocks, with their two approximating ends cut away in the shape of a **V**, so as to form the throat of a plane, as shown at *b*. Upon these blocks is set the marble or stone slab *c*, which forms, so arranged, the proof-staff and plane-sole of the combined tool. Upon the face of slab *c* is cut the recess *c'*, with rabbeted edges. Into this recess opens a slot, *d*, through which passes the plane-iron *d'*, which works back and forth between the two projecting guides or flanges of a steel shoe, *d''*, which forms the facing of the plane-bed.

The plane-iron is operated through side door, *a*, by means of two clamping-bolts turned by a wrench. The clamping-bolts work in a slot, so that the plane-iron can be moved up or down over the steel shoe at pleasure.

In the recess *c'* fits, by means of its rabbeted

edges, the steel slide *c''*, and when this is inserted the bolts holding the plane-iron in position are loosened, and the cutting-edge is allowed to fall down in the slot.

It will thus be seen that slab *c* presents, at will, either a smooth unbroken surface or the sole of a plane-stock with its plane-iron.

The tool is designed to be used as follows: Dropping the plane-iron down, slide *c''* is inserted, and the tool becomes a proof-staff. If it is designed to mark the irregularities on the red-staff, the surface of slab *c*—slide *c''* being *in situ*—is smeared with oil. The red-staff to be proved is applied to the surface of the proof-staff, and the oil upon the latter marks the prominences. If it is designed to remove these prominences, slide *c''* is taken out, the plane-iron is set, and the red-staff is operated upon the surface of the proof-staff as an ordinary jack-plane or dressing-plane.

I find that there are very great advantages in the use of marble or stone for the improved proof-staff, as well as for the plane-sole, because it does not expand or contract through changes of temperature, and always remains "true." It is, moreover, very much cheaper than if iron or steel were used.

I do not, however, limit myself to the specific use of marble or stone, as porcelain, glass, or any other suitable non-expanding material may be used.

I am aware that an iron frame in which the proof-staff (made of wood) has been secured, and then a plane used to dress the rod, is old; and this I disclaim.

Having thus described my invention, I claim—

1. A miller's proof-staff and red-staff dresser combined with a cutting or dressing plane in a single tool, and with a suitable box, in which it operates, substantially as shown.

2. The proof-staff and red-staff dresser consisting of slab *c*, with slide *c''*, in combination with the jack-plane or dressing-plane composed of plane-stock *c*, recess *c'*, slot *d*, plane-iron *d'*, and steel shoe *d''*, with its flanges or guides, and all working and operating within box *a*, with side door, *a'*, and lid *a''*, substantially as set forth.

3. In a miller's proof and red staff, the marble slab or block c, the said slab forming both the plane-sole and proof-staff, substantially as shown and described.

4. A miller's proof-staff having its proving-surface made of marble or stone, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of April, 1878.

THOMAS MILES LOGAN.

Witnesses:

JAMES MAGUIRE,

MARSHALL YOCUM.