

W. LEHMANN.
Method of Straightening the Faces of Millstones.

No. 211,244.

Patented Jan. 7, 1879.

Fig. 1.

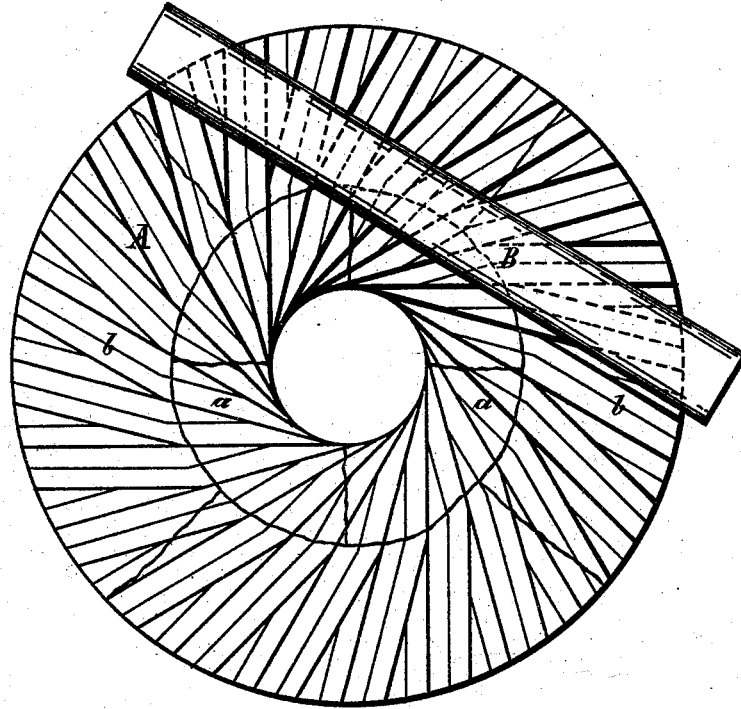
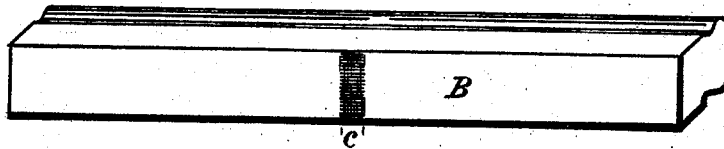


Fig. 2.



Witnesses:

Jacob Richter
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IMPROVEMENT IN THE METHOD OF STRAIGHTENING THE FACES OF MILLSTONES.

Specification forming part of Letters Patent No. **211,244**, dated January 7, 1879; application filed April 30, 1878.

To all whom it may concern:

Be it known that I, WILLIAM LEHMANN, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented an Improved Method of Truing the Grinding-Surfaces of Millstones, of which the following is a specification:

My invention relates to an improved method of truing or testing the accuracy of the grinding-surfaces of millstones; and consists in employing a straight staff having a small painted portion at the center, and passing this staff over the stone in such manner as to carry the painted portion over every portion of the grinding-surface.

In order to secure a uniform and economical grinding action on the part of millstones, it is necessary that that portion of their faces which performs the grinding operation shall be absolutely straight and true, and it is to secure this result, when the stones are being dressed, that my invention is designed.

Heretofore the universal practice in truing millstones has been to make use of two straight staffs, known as the "proof-staff" and the "red-staff," the latter being so designated because its entire under surface was coated with a colored chalk or paint to be transferred to the face of the stone.

In commencing operation on a stone under the common method, the proof-staff is applied to the face of the stone, and such places as appear to be above the general level are marked and colored or painted. These spots are then cut down by hand, the high spots again marked and cut down, and so on repeatedly until no high places are appreciable to the touch. The red-staff is then painted on on its whole under surface, laid across the stone, generally at one side of the bosom, and then swung around over the entire surface, so as to paint the elevated spots. The high spots are then reduced, the test repeated, and the operation continued until the staff paints the entire surface, whereupon the stone is considered to be as true as possible.

In practice it is found that a true level surface cannot be produced in the above-described manner, and that the staff painted its entire length will not indicate a true surface—first, because it will rock or pivot upon the high

points so that its ends will fall into the low points and paint them as well as the high; and, second, because the sections of which grinding-stones are composed vary in hardness, so that the staff having its entire surface painted will mark one spot more heavily than another, although they may be on the same level.

After many experiments I have discovered that the above-mentioned difficulties may both be overcome, and a true surface secured by simply providing the red-staff with paint or color at the middle for a short distance, varying from one-half an inch to six or seven inches, according to the length of the staff, and then passing the staff over the stone in such manner that the painted portion shall pass over every point in the grinding-surfaces, care being taken in so doing to keep as great a portion of the staff's length upon the stone as possible, in order that it may bear and be sustained on both sides of the painted portion.

It is manifest that the staff painted and applied as above cannot apply the paint to depressed points in the stone, and that, being sustained at all times on both sides of the paint, the latter will not be applied with any greater distinctness on the soft portions than on the others.

In the drawings, Figure 1 represents a plan view of a stone having my red-staff applied thereto. Fig. 2 is a perspective view of the staff.

The staff B, being painted in the manner shown, is laid across the stone in any position desired and carried over the same in different directions at will until every point in the grinding-surface has been passed over by the paint. The depressed points will remain unpainted. Whenever the entire surface can be painted the stone will be found perfectly true and straight. After the grinding-face is trued the bosom is sunk to a lower level, as usual.

I am aware that a staff has been painted at the center, laid diametrically across the stone, and then rotated while retaining the diametric position, in order to paint the bosom in a circular form. This, however, has no bearing on my invention, inasmuch as it was not applied to test the grinding-surface, but required the latter to be trued first, for which purpose a

special and entirely dissimilar device was provided.

I believe myself to be the first to test the grinding-surface by means of a staff having paint on a small central portion only; and my invention consists, broadly, in so doing, whether the paint is applied in the exact middle of the staff or not, and without reference to the exact length of the painted portion, provided it is quite small as compared with the length of the staff.

Having thus described my invention, what I claim is—

The herein-described method of truing the grinding faces of millstones, consisting in applying a straight staff having a small painted portion at the center, and moving the staff over the stone in such manner as to pass the paint over every portion of the grinding-surface, substantially as described and shown.

WILLIAM LEHMANN.

Witnesses:

JACOB RICHTER,
LOUIS KLINCKERFUES.