

P. B. LAIRD.
Wheel for Dressing Stone.

No. 159,031.

Patented Jan. 26, 1875.

Fig. 1.

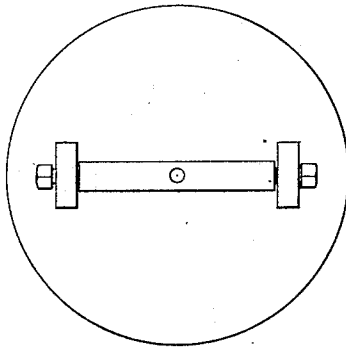


Fig. 2.

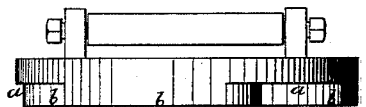
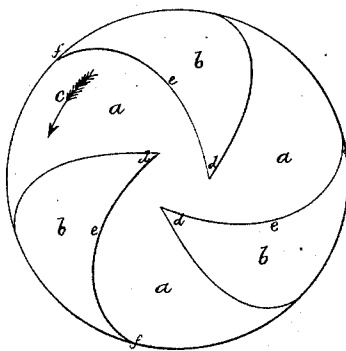


Fig. 3.



Witnesses.
S. W. Piper
L. N. Mollen

Peter B. Laird.
by his attorney.
R. M. Sully

UNITED STATES PATENT OFFICE.

PETER B. LAIRD, OF ST. JOHNSBURY, VERMONT, ASSIGNOR TO HIMSELF
AND ROBERT W. LAIRD, OF SAME PLACE, AND HIRAM MOODY, OF
PEACHAM, VERMONT.

IMPROVEMENT IN WHEELS FOR DRESSING STONE.

Specification forming part of Letters Patent No. **159,031**, dated January 26, 1875; application filed
October 28, 1874.

To all whom it may concern:

Be it known that I, PETER B. LAIRD, of St. Johnsbury, of the county of Caledonia and State of Vermont, have invented a new and useful Improvement in Wheels for Dressing or Smoothing Stone; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 an edge view, and Fig. 3 a bottom view, of one of my improved dressing or polishing wheels.

The wheel in common use for dressing or reducing or polishing with sand, or a gritty or smoothing powder or material, the plane surface of a stone, has been a disk of metal, having an eye or hole at its center for reception of the sand or reducing matter. Such a wheel has usually been connected to a vertical rotary spindle or shaft by a universal joint, or its equivalent, carried by a swing frame or arm, in order that the wheel (usually made of cast-iron) might rest flatwise upon the stone, and which, revolving rapidly, be moved over its surface to either smooth or polish it. Such a wheel has usually required a boy or person to feed it with the reducing material by pouring such into the eye.

My improvement saves the necessity of so feeding the wheel, and the labor and expense of the attendant for the purpose, as with my improvement the sand or material laid upon the surface of the stone will be seized by the wheel at its circumference, and drawn into it, and retained in it until it may have performed its office.

In carrying out my invention I form the wheel with what I term "hooked recesses" *a*

a a, made or arranged in it, from its bottom surface upward, substantially in manner as shown in the drawings, these recesses having between them reducing-surfaces *b b b*. The arrow *c* in Fig. 3 exhibits the direction in which the wheel is to revolve. The rear edge of each recess is curved or hooked, as shown at *d e f*, the front edge being also similarly arranged. This leaves the recesses with broad mouths or openings at their outer ends. The several recesses I prefer to have open into each other at the center of the wheel, in order that the sand or reducing material drawn into one may have free access to and be forced into the others.

When the sand or reducing material is introduced at the center of the wheel, and the lower surface of such wheel is a plane surface, or without recesses, the centrifugal force generated by the revolution of the wheel causes the sand to be thrown out from underneath the wheel; but with my improvement the sand is caught at the circumference of the wheel by the curved or hooked back of each recess, and by such is drawn into the wheel, and held therein against the centrifugal force tending to eject it.

What I claim as my invention is—

A metallic stone-dressing wheel, having hooked recesses *a*, as described, arranged in or with its lower or reducing surface *b*, substantially in manner and to operate as explained.

PETER B. LAIRD.

Witnesses:

R. H. EDDY,
S. N. PIPER.