

E. A. Siiverkroff,

Grindstone.

No. 101,058,

Patented Mar. 22. 1870.

Fig. 1

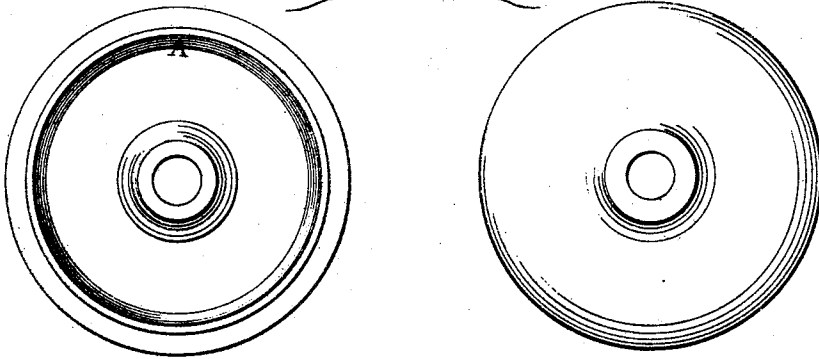


Fig. 2.

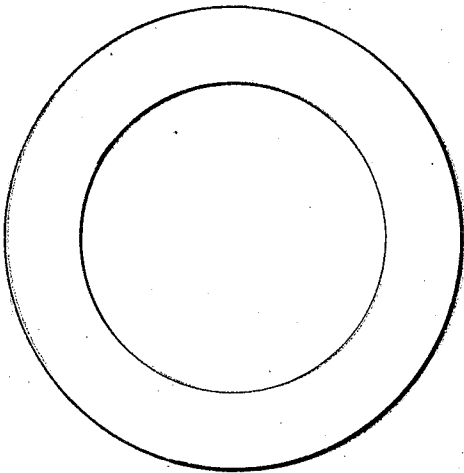
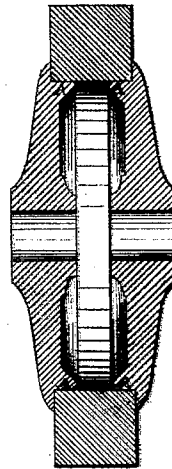


Fig. 3.



Witnesses.

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EDWARD A. SÜWERKROP, OF WASHINGTON, DISTRICT OF COLUMBIA.

Letters Patent No. 101,058, dated March 22, 1870.

IMPROVEMENT IN EMERY-WHEEL CLAMP.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, EDWARD A. SÜWERKROP, of the city and county of Washington, and District of Columbia, have invented a certain new and useful Emery-Wheel Clamp.

My invention consists in forming upon the inner surface of the clamps an outwardly-projecting rim, of a size in diameter equal to the diameter of the eyes of the emery-wheel, and also in having in the center of the clamps eyes fitted to receive the arbor on which they are to operate; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part of the same, is a true, clear, and exact description thereof.

Reference being had to the drawings—

Figure 1 represents in side view the inner and outer face of a pair of my clamps. They are both provided, as usual, with arbor-holes. A is a projecting ring cast upon the inner face of the clamp, and its outer diameter is equal to the diameter of the eye of the emery-wheel with which it is to be used.

Figure 2 represents a composition emery-wheel.

Figure 3 represents in section the mode of application of my improved clamp to the wheel.

In the manufacture of solid or composition emery-wheels, it is desirable to make them with a large eye, in order that a greater portion of the material may be applied to the circumference, for the wheel, as it becomes worn to a smaller diameter, becomes less effective as a grinding device.

Heretofore clamps have generally been made with a straight inner face. Upon partially compressing a wheel between such a pair, it became necessary to center the wheel by pressure against its periphery. Some little time was always requisite to effect this centering.

As the diameters of the eyes of the various sizes of wheels are generally about the same, the circum-

ference of the ring A may be turned to a certain size, according to the kind of wheels in use. Much time is saved in centering, for it cannot well be out of center when placed on the rings.

Another advantage is obvious. With the old style of clamps, when the emery-wheel was worn thin, or near the eye, they were liable to break inward from pressure of the article being ground. With my improved clamp, the emery may be worn to the merest shell, as the ring backs it up, or sustains it against springing and breaking.

My clamp is especially adapted for use with the article known as the "tannite emery-wheel."

I am well aware that saw-gummers have been constructed having two clamps, with an inwardly-projecting ring similar to my present invention. Such, however, were securely fastened together after the emery-wheel or grindstone had been adjusted, and to remove the same special manipulation or unscrewing of the parts was essential. They were also constructed with an arbor-eye in but one clamp, while in the other a central annular portion was removed to allow of its passing over, but not in contact with the arbor-collar, and the one clamp is secured upon the arbor between its collars.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

The improved emery-wheel clamp herein described, consisting of a right and left-hand collar, each of which is provided with the inwardly-projecting ring, A, and suitable arbor-eyes, substantially as shown and described.

E. A. SÜWERKROP.

Witnesses:

WM. B. WOOD,
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