

(No Model.)

W. W. BRISBEN.
DRESSER FOR EMERY WHEELS.

No. 368,062.

Patented Aug. 9, 1887.

Fig. 1.

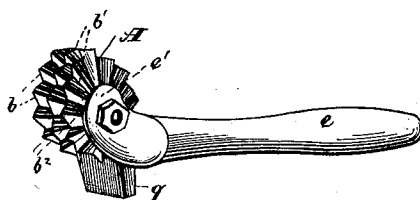


Fig. 3.

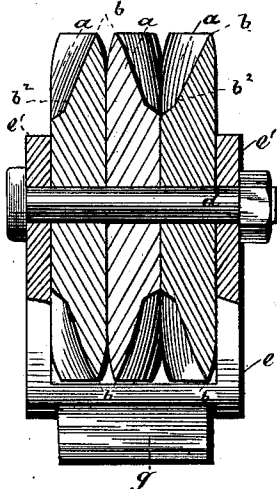


Fig. 5.

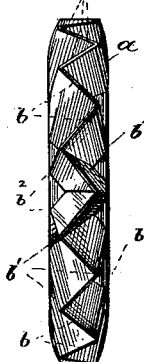


Fig. 2.

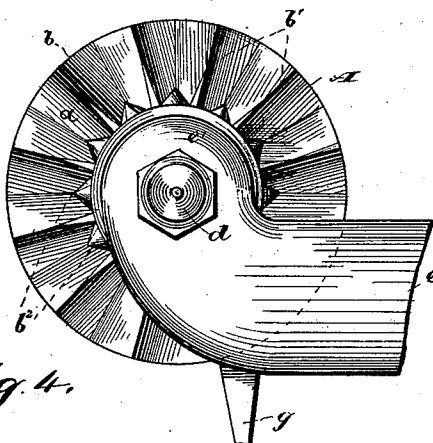
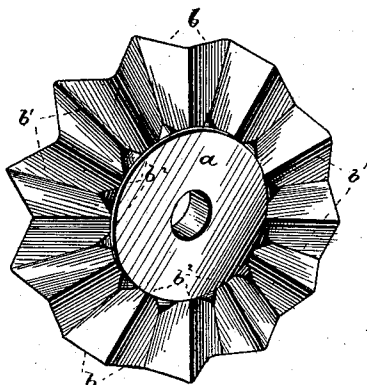


Fig. 4.



WITNESSES:

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WILLIAM W. BRISBEN, OF CLEVELAND, OHIO.

DRESSER FOR EMERY-WHEELS.

SPECIFICATION forming part of Letters Patent No. 368,062, dated August 9, 1887.

Application filed November 23, 1886. Serial No. 219,556. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. BRISBEN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Dressers for Emery-Wheels; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in dressers for emery-wheels; and the object of the invention is to provide a metallic dresser of such wearing qualities and such distribution and arrangement of cutting-edges that it will take the place of the black diamond and other expensive expedients for truing and dressing emery-wheels, and do the same work quickly and effectively without removing the wheels from their working bearings.

To this end the invention consists in the construction and combination of parts herein shown and described, and particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a perspective view of my improved device suitably mounted in a handled frame. Fig. 2 is an enlarged side elevation of the device with the handle broken off. Fig. 3 is a vertical central section, Fig. 2, disclosing three separate wheels mounted together on a common shaft. Fig. 4 is a side elevation of one of the cutting wheels or disks. Fig. 5 is an edge view of one of the disks.

In the drawings, A represents a series of cutters consisting of separate wheels or disks, *a*. These cutters are preferably made of white foundry-iron, musket-steel, or other metal which can be tempered to a high degree of resistance and finished with a cutting-edge that will take hold of and reduce the surface of emery-wheels, as herein described, while the cutters are hard enough to hold their edge through several successive operations, and are not materially dulled or impaired thereby. The cutters are cast, as shown, with a hole in the center and a cutting-edge, *b*, around the periphery running in zigzag lines at about right angles from side to side, the cutting-edge traversing substantially the entire width of

the cutters, as shown in Fig. 5. To form the cutting-edge and to get the effect desired, the disks necessarily are scalloped, as at *b'*, the scallops feathering out toward their base *b''*, where they run into the flat sides of the disks, thus leaving sufficient material to support and strengthen the cutting-edge.

The wheels or disks, fashioned as above described, are loosely mounted side by side on the axial bolt or shaft *d* between the arms *e' e'* of the handle *e*, and adapted to turn independently of each other on the shaft. The handle or holder *e* has its arms *e' e'* bent upward, as shown, and at the base of said arms or bifurcation where the curvature begins, is a fulcrum, *g*, fixed rigidly upon the handle. This fulcrum or rest serves as a pivotal point for the tool, so that when the handle is raised the cutters will tip forward and come in contact with their work. It will be observed that the fulcrum is so arranged with reference to the cutters that when the cutters are at work it will be in the direct line of resistance and form a firm and reliable bearing, whatever the pressure against the emery-wheel may be. The tool thus completed is designed to be used in truing or dressing emery-wheels while in motion in their usual places of work, and is applicable as well to grindstones which need similar treatment. The special advantage of this tool over other dressers employed for the same purpose is found in the arrangement and action of the cutting-edges, which, as they approach their work in diagonal lines while revolving at a high rate of speed, caused by the revolution of the wheel being reduced, abrade the said wheel uniformly and evenly, instead of cutting cogs and the like therein, as other dressers are liable to do, while at the same time it will perfectly true the wheel or merely dress it, as may be required. When the cutters are dulled, they can be removed and sharpened, and, being well oiled, will revolve freely on their axis. One or more of the wheels may be used at the same time; but I prefer a series of three or four. The cutters shown in Figs. 2, 3, 4, and 5 are drawn to working scale, so that they are much smaller and will revolve much more rapidly than the average emery-wheel on which they are employed.

The zigzag lines may run at somewhat

greater or less angle than shown and still do the desired work.

I am aware that a rock-boring machine has been patented in which "scaloped cutter-wheels" are used; but such wheels I do not claim as my invention and would not serve my purpose.

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

1. In a dresser for emery-wheels, a wheel provided with a sharp cutting-edge on its periphery running from side to side in zigzag lines at right angles to each other, and the sides of the wheel having flat faces at right angles to each other tapering from the hub of

the wheel to the cutting-edge in straight lines, being tapered inward from the sides of the wheel on both sides thereof, substantially as set forth.

2. In a dresser for emery-wheels, a holder having upwardly-bent arms at one end and a fixed fulcrum on the holder near the base of the arms, in combination with dressing-wheels supported between the said arms, substantially as set forth.

In testimony whereof I have hereunto set my hand this 20th day of November, 1886.

WILLIAM W. BRISBEN.

Witnesses:

H. T. FISHER,
WM. M. MONROE.