(No Model.)

W. W. BRISBEN.

EMERY WHEEL DRESSER.

No. 491,466. Patented Feb. 7, 1893.

Fig. 1.

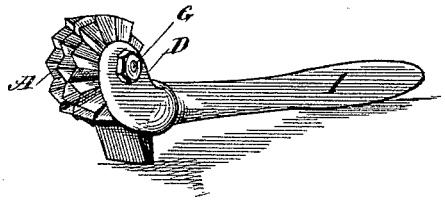


Fig. 2.

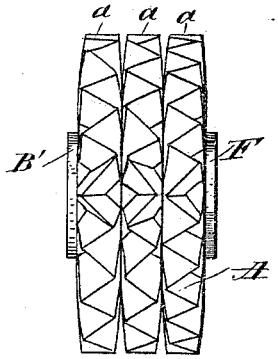


Fig. 3.

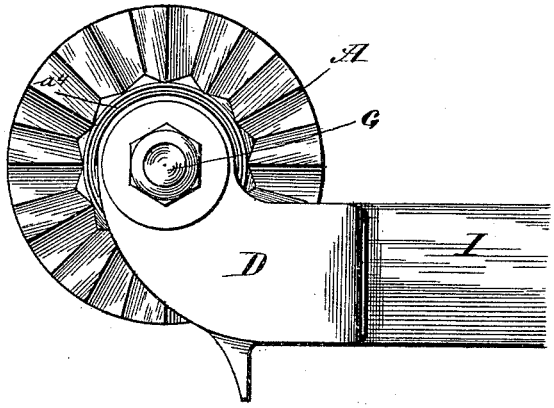


Fig. 4.

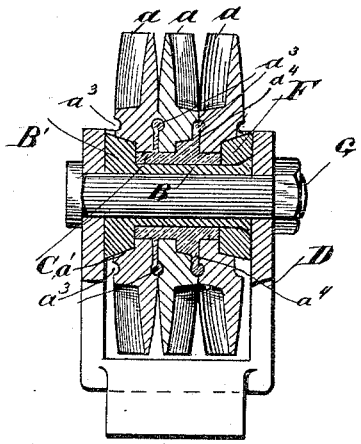
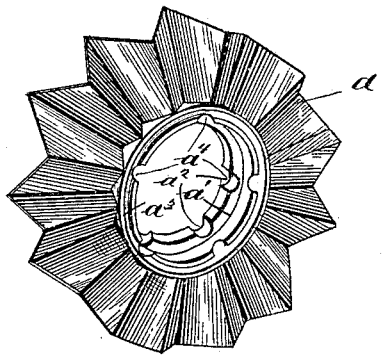


Fig. 5.



Witnesses
Jos. Dayis
E. Hopkins

Inventor
William W. Brisben
by William W. Monroe
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM W. BRISBEN, OF CLEVELAND, OHIO, ASSIGNOR TO JAMES E. RUNDLE, OF SAME PLACE.

EMERY-WHEEL DRESSER.

SPECIFICATION forming part of Letters Patent No. 491,466, dated February 7, 1893.

Application filed September 3, 1892. Serial No. 445,012. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. BRISBEN, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga, State of Ohio, have invented certain new and useful Improvements in Emery-Wheel Dressers, of which I hereby declare the following to be a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in emery wheel dressers; and is especially designed as an improvement upon the invention described in my own Letters Patent, No. 368,062, dated August 9, 1887.

The object of the invention is to group the several metallic disks therein described upon a central sleeve, and secure them rigidly thereto, so that the several disks will operate practically as an integral mass.

My invention is constructed as shown in the accompanying drawings, and specifically described in specification and claims.

The accompanying drawings illustrate in Figure 1, a perspective view of the invention, mounted upon a suitable handle. Fig. 2 shows an edge view of the device, and Fig. 3 a side view. Fig. 4 shows a section on axial line of sleeve, and Fig. 5 shows a view of one of the detached disks.

In the figures, A represents a series of cutters consisting of separate wheels or disks *a*, having angular cutting edges. These cutters are similar in all respects to those shown in my former application with the exception of the central opening, which is enlarged to include the sleeve B, which passes completely through the cutting disks *a*, and the hardened metallic medium of solder or Babbitt metal C which envelops the sleeve, a ring F is seen at one extremity of the sleeve provided with a tapering opening *f* into which the extremity of the sleeve is upset or riveted. The other extremity of the sleeve is provided with the head B′, which is set down slightly within the recess *a′* in the disk *a*. A similar recess receives the inner face of the ring F.

In order to rigidly secure the disks *a* to the Babbitt metal, the disks are provided with the recesses a^2 into which the metal flows when liquid and when hardened furnish ridges which prevent the revolution of the disk on the metal; further security is given the disks by the annular cavities a^3, and entering channels a^4 for the fluid metal, thus forming rings of metal where the disks are adjacent in their places with short radial connections with the main body of metal. It will be seen that all of these extensions of the metal assist to prevent any rotation whatever of the disks on the metal.

The advantages of the device are obvious over my former invention in the greater regularity of wear obtained by the constant and equal rotation of all of the cutters.

I do not limit my invention to the angles of the periphery of the disks nor the degree of thickness of the metal in the angles; a great diversity of angles being possible as described in my previous application, nor do I limit myself to any specific form of disk.

I do not confine myself either to the kind of medium employed in securing the disks to the sleeve, since some of the harder cements might be applicable to this purpose.

The bolt G and handle I may be as described in my former application, and do not form any new feature of this invention.

The extremity of handle I and end of bolt G are shown in Fig. 2 one arm of the fork I′ being shown.

I claim—

1. In an emery grinding-tool comprising a series of disks mounted upon a sleeve, means for securing the sleeve and disks rigidly together consisting in the internal securing medium of fusible metal C introduced into central openings in the disks, and into annular and transverse cavities with which the adjacent edges of the disks are provided—substantially as described.

2. In an emery grinding tool comprising a series of disks, provided with central openings and annular and transverse cavities on their meeting faces communicating with said central openings, the combination therewith of a sleeve B, and intervening metal medium, introduced in the liquid state into the central opening and cavities, whereby rigid connection is made between the disks and sleeve substantially as described.

WILLIAM W. BRISBEN.

Witnesses:
WM. M. MONROE,
JOS. J. DAVID.