C. BIRGBAUER.

WHEEL DRESSER.

APPLICATION FILED MAY 16, 1919.

1,427,573. Patented Aug. 29, 1922.

Fig. 1.

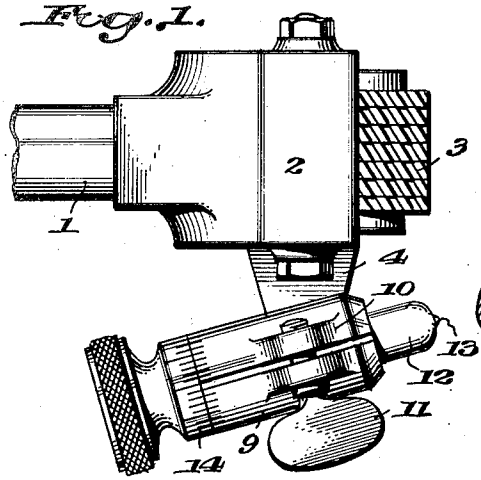
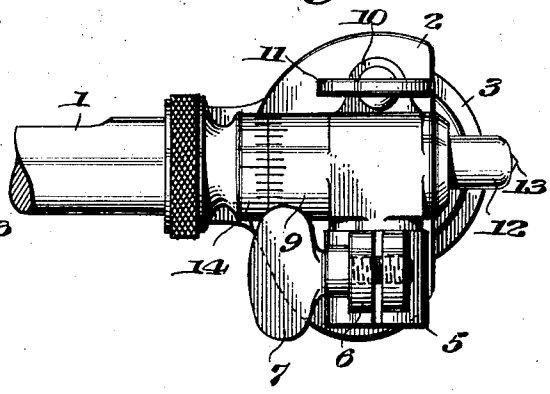


Fig. 2.



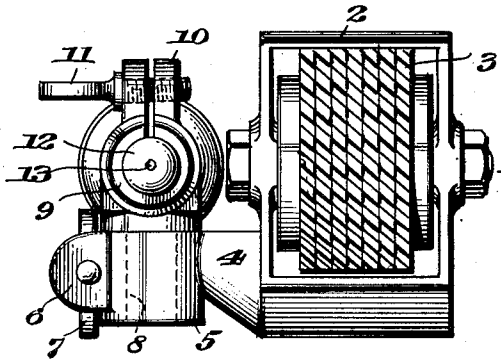
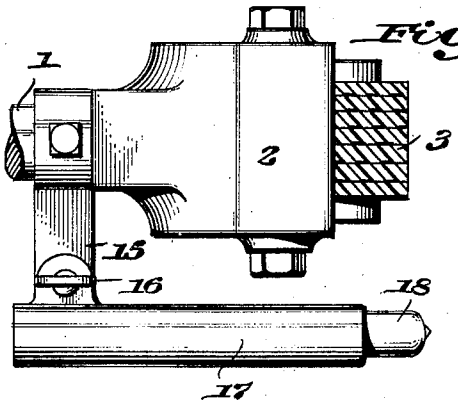


Fig. 3.

Fig. 4.



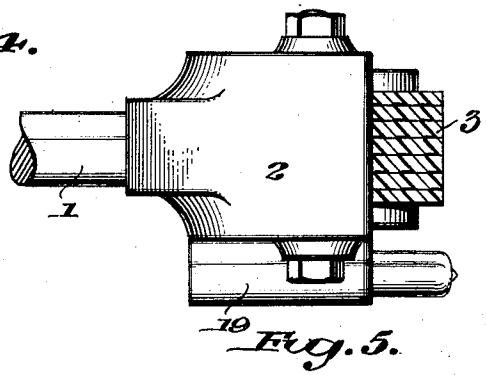


Fig. 5.

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UNITED STATES PATENT OFFICE.

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WHEEL DRESSER.

1,427,573. Specification of Letters Patent. Patented Aug. 29, 1922.

Application filed May 16, 1919. Serial No. 297,464.

To all whom it may concern:

Be it known that I, CONRAD BIRGBAUER, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Wheel Dressers, of which the following is a specification, reference being had therein to the accompanying drawing.

The object of this invention is to combine a rotary wheel dresser with a stationary dresser so that these dressing instrumentalities may be conveniently and expeditiously used to dress the surface of an emery wheel or other grinding stone. The rotary dresser may be of that type disclosed in my pending application Serial No. 271,998, filed Jan. 20, 1919, showing a wheel that has a toothed periphery providing two sets of cutting edges. The stationary dresser may be a commercial diamond held in a suitable mounting, and in combining these two dressing instrumentalities I make provision for adjusting the diamond mounting relative to the rotary dresser, such adjustment permitting of different facets of the diamond being used for dressing purposes so that the diamond may be evenly worn and a desired degree of wheel finish obtained therefrom.

The above and other objects are attained by a mechanical construction that will be hereinafter described, and reference will now be had to the drawings, wherein

Figure 1 is a plan of the wheel dressing tool, showing the bar or holder thereof partly broken away;

Fig. 2 is a side elevation of the same;

Fig. 3 is a front elevation of the wheel dressing tool;

Fig. 4 is a plan of a modified form of tool, and

Fig. 5 is a similar view of a further modification of my invention.

In the drawing, the reference numeral 1 denotes a portion of a bar or holder having the outer end thereof provided with a substantially semi-cylindrical hood or guard 2 and journaled in the hood or guard is a rotary wheel dresser 3 which has a portion thereof protruding from the guard 2 so that said wheel dresser may be placed in engagement with the periphery of an emery wheel or other grinding stone or structure.

One side of the guard 2, at the bottom thereof, has a bracket 4 terminating in a split boss 5, having apertured ears 6 connected by a set screw 7, so that the split boss may be contracted about the stem 8 of a horizontally disposed split sleeve 9. The connection between the boss 5 and the sleeve 9 permits of said sleeve being swung in a lateral plane to a position at an angle to the longitudinal axis of the bar or holder 1. One of these positions is shown in Fig. 1, and the sleeve 9 is maintained in parallelism with the axis of the bar or holder 1 in Fig. 3. The split sleeve 9 has apertured ears 10 connected by a set screw 11 and through the medium of the ears 10 and the screw 11 the split sleeve 9 may be clamped about a diamond mounting 12 having a diamond 13. The diamond mounting 12 is also adjustable in the sleeve 9 through the medium of a micrometer gauge 14 at the rear end of said sleeve, said micrometer gauge being of a conventional form which permits of the diamond mounting being minutely adjusted and positively fixed relative to the sleeve 9 by the clamping screw 11.

In Fig. 4 of the drawing the guard 2 is devoid of a bracket and a bracket 15 is mounted on the bar or holder 1. Adjustably connected to the end of the bracket 15, as at 16, is a holder 17 for a diamond mounting 18, and as shown in Fig. 5, a diamond mounting or holder 19 may be made integral with the side of the guard 2. In either of these instances, as well as that of the preferred form of construction, the diamond mounting is associated with the rotary wheel dresser, and since some artisans contend that a rotary wheel dresser will not provide a very fine finish for an emery wheel, the diamond is held relative to the rotary dresser so that it may be used for the desired degree of fine finish after the rotary dresser has been employed for what may be considered rough dressing. It is possible to use the rotary dresser by shifting the same relative to an emery wheel from right to left so that the diamond will not be brought into engagement with the emery wheel during such operation. Then it is possible to move the diamond from left to right and fine finish the periphery of the wheel. It is also possible to set the diamond a thousandth part of an inch in a plane behind that of the plane of the rotary dresser, so that after moving the rotary dresser from right to left the same movement may be continued to bring the

diamond into engagement with the emery wheel and thereby finish the surface produced by the rotary dresser.

It is thought that the operation and utility of my improved wheel dressing tool will be apparent without further description, and while in the drawing there are illustrated the preferred embodiments of my invention, it is to be understood that the structural elements are susceptible to such variations and modifications as fall within the scope of the appended claims.

What I claim is:—

1. In a wheel dressing tool wherein a rotary dresser and a diamond mounting are supported so that either may be used;—a holder for the rotary dresser, and means at the side of said holder for supporting the diamond mounting, said means permitting of the diamond mounting being swung in an arc and moved to and from a wheel.

2. A tool as in claim 1 wherein the diamond mounting has a micrometer adjustment, and means are adapted for securing said diamond mounting in a position to which it may be adjusted.

In testimony whereof I affix my signature in presence of two witnesses.

CONRAD BIRGBAUER.

Witnesses:

KARL H. BUTLER,

ANNA M. DORR.