(No Model.)

J. W. HEYER.

MECHANISM FOR SQUARING OR PLANE DRESSING THE END OF BARS OR RODS.

No. 264,877. Patented Sept. 26, 1882.

Fig. 1.

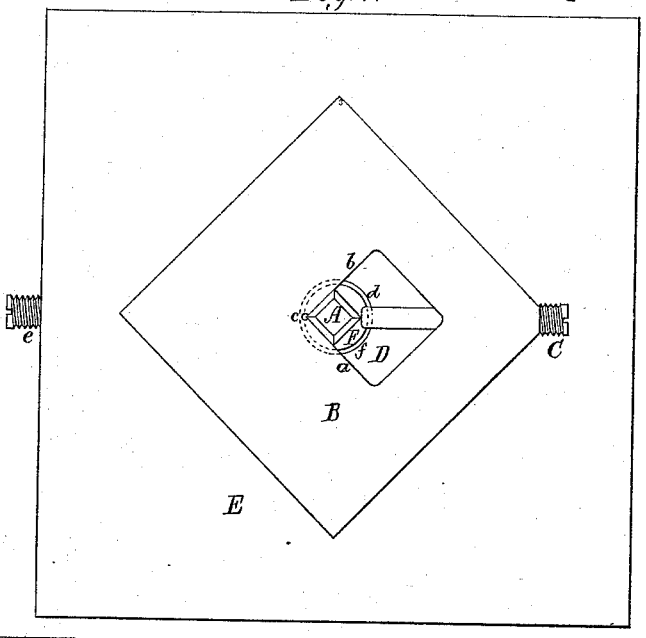


Fig. 4.

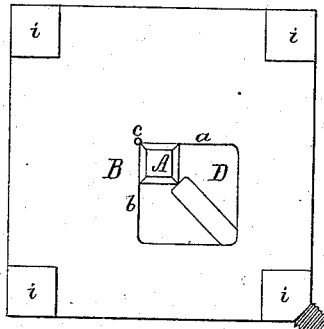


Fig. 2.

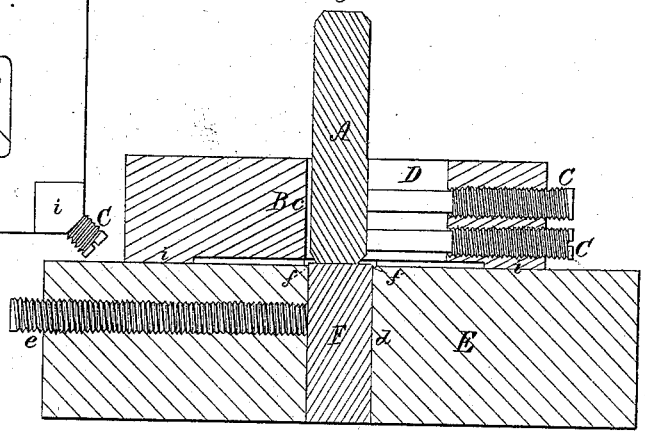
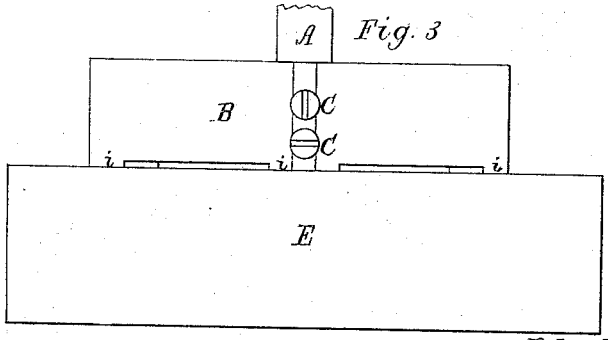


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN WORTH HEYER, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE PRATT & WHITNEY COMPANY, OF SAME PLACE.

MECHANISM FOR SQUARING OR PLANE-DRESSING THE END OF BARS OR RODS.

SPECIFICATION forming part of Letters Patent No. 264,877, dated September 26, 1882.

Application filed March 27, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN WORTH HEYER, of Hartford, in the county of Hartford, of the State of Connecticut, have invented a new and useful Improvement in Mechanism for Squaring or Plane-Dressing the End of a Bar or Rod; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a diagonal and vertical section, and Fig. 3 a side elevation, of a grinding mechanism of my improved kind. Fig. 4 is an under side view of the article-carrier to be described.

The mechanism or apparatus herein explained is designed principally for reducing to a plane surface the end of a metallic or other bar, and also for causing at the same time such end to be at a right angle to either side of the bar, such bar being supposed to be either square or rectangular in its transverse section. Even a cylindrical or a prismatic bar may be similarly reduced by the machine.

In the drawings one of the bars is shown at A as arranged within the article-carrier B, it being held therein by one or more screws, C, arranged diagonally in the carrier, as represented. This article-carrier is a square block of metal, having within and extending down through it an opening or socket, D, usually square, or thereabout, in horizontal section, two sides, *a* and *b*, of such socket being at a right angle to each other, and having at their intersection a vertical groove, *c*, all being as shown. This article-carrier is provided with a series of short feet, *i i i i*, extending down from it at its corners, and having their bearing or bottom surfaces in one plane, to which the sides *a b* of the opening or socket D are perpendicular or at right angles. This article-carrier rests on and is used with the grinder-carrier E, which is a metallic block or tablet, square or of other suitable form on its upper surface, and larger in size than the block B, the said upper surface being a plane surface. At its center the block E has a hole or socket, *d*, made in or down through it to receive the copper or soft-metal grinder F, which, after having been put in place, is secured in the socket by a set-screw, *e*, screwed into the block. The socket *d* at its upper end is countersunk or beveled, as shown at *f*, in order to form around the grinder and with it a groove or channel for intercepting any of the emery or grinding material that may fall or be discharged from the upper surface of the grinder, and by so intercepting it preventing it from getting upon the upper surface of the block E.

In using the described mechanism the grinder usually projects a little above the upper surface of its carrier. After having loosely secured in the carrier B the article to be ground and placed a small amount of emery or other suitable reducing material on the upper end of the grinder, the said carrier B is to be arranged upon the carrier E with the lower end of the article upon the top of the grinder. This having been accomplished, the carrier B is to be moved in various directions horizontally, and the article is to be pressed down until the lower end of it may have been sufficiently acted on or reduced.

The purpose of the groove *c* is to prevent injury to the article at the line of junction of the two sides of it that may be borne against the sides *a* and *b* of the socket D, and also to insure the perfect contact of the said sides of the article with the next adjacent sides of the socket.

I claim as my invention as follows, viz:

1. The combination of the grinder and its carrier, socketed and having a plane top surface, and means of supporting the grinder in place in the said carrier, with the article-carrier provided with feet, as described, to rest on the upper surface of the said grinder-carrier, and also with a socket and means, substantially as explained, for holding and confining in it an article to be ground, reduced, or polished on its lower end, all being to operate essentially as set forth.

2. The grinder-carrier having its grinder-receiving socket countersunk, beveled, or channeled at and around its top, in combination with the grinder arranged in said socket, as set forth.

JOHN WORTH HEYER.

Witnesses:
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