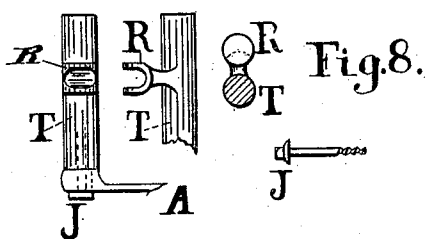
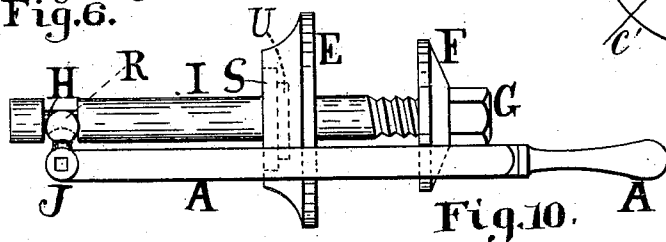
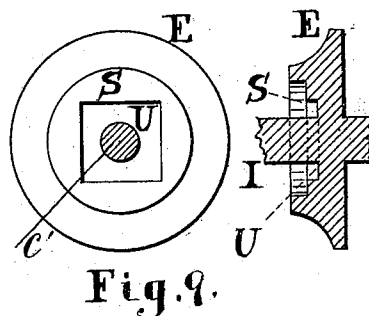
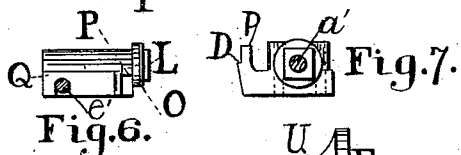
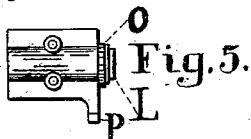
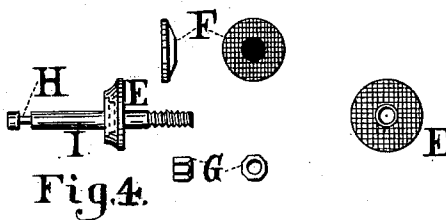
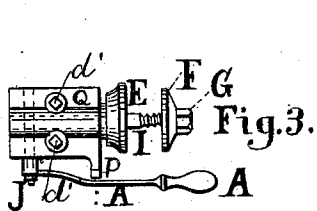
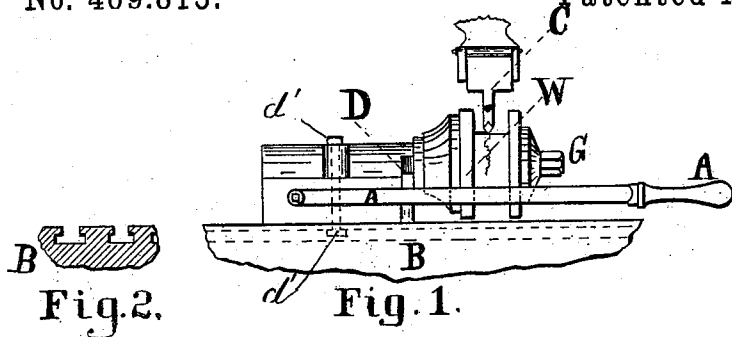


(No Model.)

W. HONSCHEID.
WORK HOLDER FOR METAL PLANERS.

No. 469,815.

Patented Mar. 1, 1892.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM HONSCHIED, OF ELMIRA, NEW YORK.

WORK-HOLDER FOR METAL-PLANERS.

SPECIFICATION forming part of Letters Patent No. 469,815, dated March 1, 1892.

Application filed August 22, 1891. Serial No. 403,487. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HONSCHIED, a citizen of the United States, residing at Elmira, in the county of Chemung and State of New York, have invented a Work-Holder for Metal-Planers for Holding Work in Position While Being Planed, of which the following is a specification.

My invention relates to an improvement in that portion of a machine for planing metals which holds the metal in its proper position while it is being planed, especially those parts of engines known as "brasses;" and the objects of my invention are to provide a machine that will clamp and hold the metal firmly in position while any given side is being planed not only, but which shall also enable the operator to present all the sides to be planed to the cutting-points of the planer in succession without unclamping the metal till all the sides have been planed, and without the use of any instrument for truing up the angles and the faces, thus securing the most perfect accuracy and uniformity in the formation of the same. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of the machine in its relation to the bed and cutting-tool of the planer. Fig. 2 is a section of a portion of the planer bed or table. Fig. 3 is a plan of my machine apart from the planer. Figs. 4, 5, 6, 7, 8, 9, and 10 show the various details of the machine.

Similar letters refer to similar parts throughout the several views.

The bolts d' d' serve to fasten my machine to the table of the planer either by inserting the heads of both bolts into one groove or by inserting one in each of two grooves, as the case may require.

The machine, when taken apart, consists, first, of what I term the "body," of which Figs. 5, 6, and 7 are respectively plan, front elevation, and end elevation.

a' is a hole extending longitudinally clear through the body. Through this the journal I passes when the machine is put together.

e' is a box-groove passing transversely through the bottom of the body at right angles to the hole a' . In this box e' is the rock-

ing bar T, which has upon one side of it the eccentric yoke R, which when in position engages with the journal I at H, as shown in Fig. 10, where the operating-lever A is also shown connected at J.

D is a shoulder made in the post P to hold the lever A up when lifted. The lever A is made of spring-steel and presses the post closely when in position.

O and L are fixed portions of the body, O being a round collar fitted to exactly fill the recess S in the collar E, which latter is securely fastened to the journal I. It serves to prevent chips entering the inner recess U, which is here shown exactly square. (It can be made of any other form desired, agreeing with the number of sides the article to be planed has.) The machine here described is for planing square "locomotive brasses," and the die and its recess are therefore made square. It will be seen that the rocking bar T, when in the box e' , can have only a rocking motion produced by raising or lowering the lever A. When this is done, the eccentric-yoke R, engaging with the small portion H of the journal I, causes the latter, which, with its fixed collar E and adjustable collar F, is the vise in which the metal to be planed is firmly held, to move longitudinally to and from the fixed parts O and L of the body of my machine, and so be engaged with or disengaged from the recess U of the fixed collar E. It will be observed that when these two relative parts L and U are disengaged the journal I may be rotated either backward or forward at will, and so while thus free any desired side of the metal, which is clamped firmly within its collars, like a saw on a mandrel, may be put in position to be planed, and then by simply lifting the lever A the recess U, a fixed part of I, is engaged by L, a fixed part of the body Q, which is firmly bolted to the bed or table of the planer.

L and U are so closely fitted to each other as to forbid any movement when thus engaged, and the metal is thus held immovable under the cutting-tool of the planer till one side is finished. This done, drop the lever A. L and U are disengaged. Turn the metal one-fourth way round and another side is in position to be planed. Lift the lever A, when

it will be firmly fixed in this position again, and so on till all four sides are planed. In this way it will be observed that the metal is not once released from its clamping between the collars E and F till it is completed. The die L and the recess U being exactly square and fitting perfectly, the metal planed will necessarily be exactly square. As before stated, other forms can be made, if wanted, as triangles, octagons, &c. The round recess S should be somewhat deeper than U and the collar O correspondingly thicker than the die L, so that O shall not be wholly withdrawn out of S when U is disengaged from L in turning the metal to present a new face to the cutter, the whole office of the collar O, fitting in the recess S, being to keep chips from the inner recess U. All parts of the machine are made very strong, and all fits are perfect, so that there is no lost motion between any of the parts.

Having thus described my mechanism, I claim the following as my invention:

1. The combination, with the bed or table of a metal-planing machine, of a work holder and adjuster consisting of the body Q and its fixed collar O and die L, a rocking bar T, with

its eccentric yoke R and operating-lever A, the journal I, its fixed collar E, and its adjustable collar F, all working together in the manner substantially as and for the purposes shown and described.

2. In a work holder and adjuster to a metal-planing machine, the combination of the body Q, having a fixed collar O and die L, a rocking bar T and its eccentric yoke R, and lever A with the journal I, having upon it a fixed collar E and adjustable collar F, the fixed collar E having boxed into the back of it the round recess S and angular recess U, all substantially as and for the purposes shown and described.

3. In a work holder and adjuster, the combination of the body Q, having the fixed collar O and die L as component parts thereof, with the movable journal I, provided with the circular recess S and angular recess U in the back thereof, said collar being permanently attached to the journal I, in the manner and for the purposes shown and described.

WILLIAM HONSCHEID.

Witnesses:

J. N. WARD,

J. C. GALLAGHER.