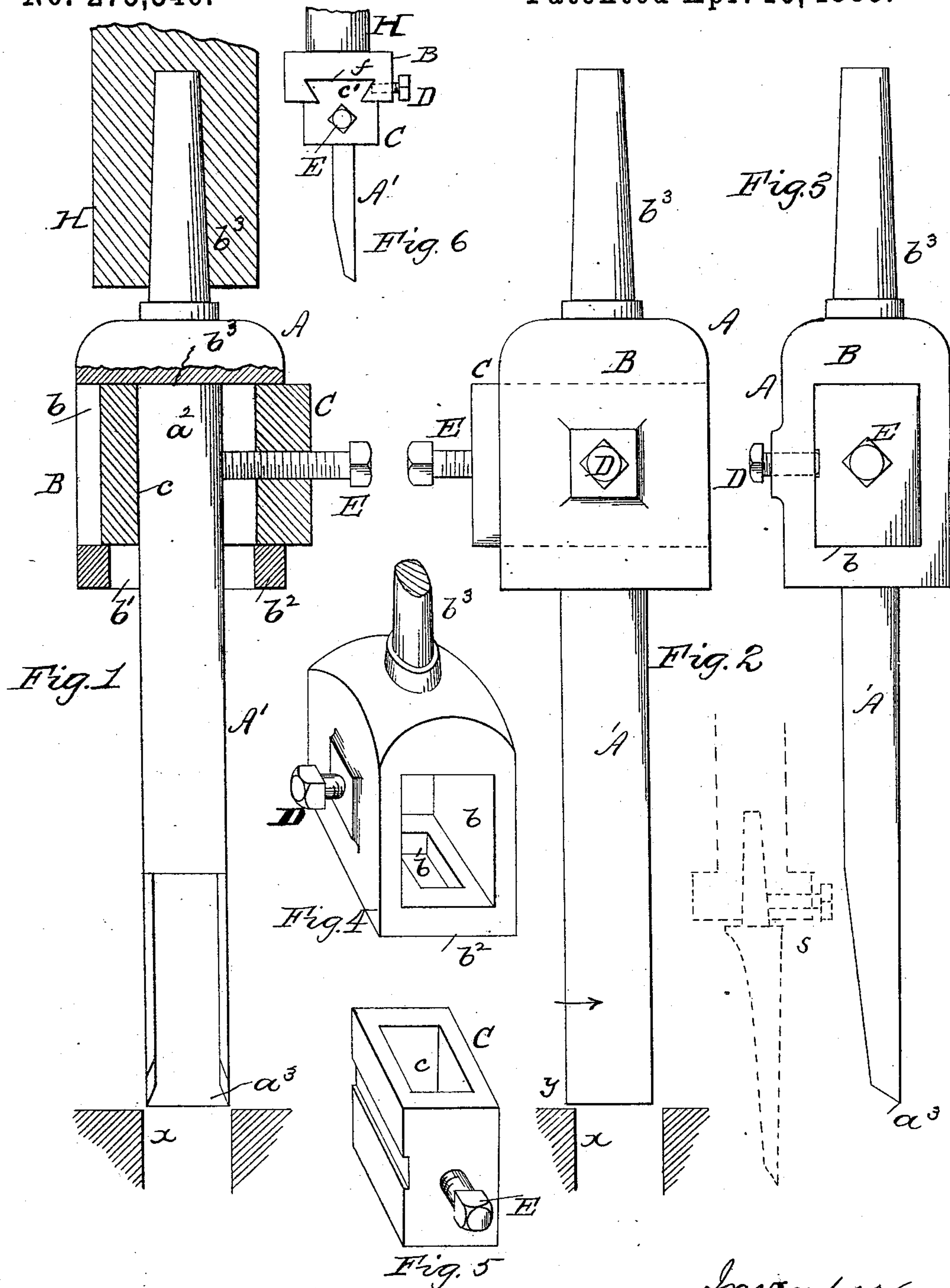


(No Model.)

G. W. AMESBURY.
HOLDER FOR MORTISING CHISELS.

No. 275,346.

Patented Apr. 10, 1883.



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UNITED STATES PATENT OFFICE.

GEORGE W. AMESBURY, OF PHILADELPHIA, PENNSYLVANIA.

HOLDER FOR MORTISING-CHISELS.

SPECIFICATION forming part of Letters Patent No. 275,346, dated April 10, 1883.

Application filed September 2, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. AMESBURY, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Sockets or Holders for Mortising-Chisels, of which the following is a specification, reference being had therein to the accompanying drawings, wherein—

Figure 1 is a broken section of my improved socket or holder for mortising-chisels applied to the plunger, and illustrating a chisel inserted therein. Fig. 2 is a reverse elevation of the same. Fig. 3 is a side elevation thereof. Figs. 4 and 5 are perspectives illustrating the detail parts of my invention, and Fig. 6 is an elevation of a modification of same.

My invention has relation to mortising-machines or their plungers and the chisels therefor, and has for its object to provide a mortising-machine or its plunger with a chisel which is adapted and designed to be moved laterally across the face of the plunger, so that said chisel may be adjusted to a central position regardless of the wear or imperfections of the plunger, in order that the chisel, when reversed, will reciprocate in the identical plane occupied by the chisel before such reversal.

My invention has for its further object to provide a more simple and inexpensive chisel for mortising-machines than has heretofore been made.

At present mortising-machine chisels, which are formed of one piece or section, having an oblong or square transverse area, with lower edge and side cutters, are usually made with a tapered tang or shank, which fits into a correspondingly-shaped opening in the plunger of the machine, as shown at S in the drawings, so that said chisel and plunger will be in axial line with each other to provide for a reciprocation of the chisel in the same planes in its reversed positions. When the machine so constructed is new such result is obtained; but, owing to the wear of the plunger and the straining or bending of the chisel, the latter does not move in identical planes when reversed. Consequently it becomes necessary to line up such chisel each time it is inserted in the plunger, thereby entailing great annoyance and loss of time. My invention avoids

such objections; and to effect such avoidance I arrange the plunger or the chisel in such manner that the latter may be moved laterally or adjusted across the face of the plunger to secure it in any desired position, so that when it is reversed it reciprocates in the same plane that it did before such reversal took place.

My invention accordingly consists of a socket or holder provided with an adjustable block or slide carrying the mortising-chisel, so that when the slide is moved the chisel is adjusted to a desired position, which will enable it to reciprocate in the same plane when in its reversed positions.

My invention further consists of a square-end mortising-chisel, in combination with an adjustable socket or holder, as hereinafter specifically described and claimed.

Referring to the accompanying drawings, A represents a socket or holder for mortising-chisels, composed of a box or collar, B, having a central opening, b , a slot, b' , in its lower side, b^2 , and a shank or tang, b^3 , which is designed to be inserted in the usual opening formed in the plunger H of the mortising-machine. The latter is not shown in full in the drawings, but only partially so, as it may be of the usual or any desired make of such machines, and need not therefore be more particularly described.

Within the slot b is placed a block or slide, C, designed to be held in its adjusted position therein by a set-screw, D. Said slide has a vertical opening, c , which receives the square end a^2 of a chisel, A', which is retained therein by set-screw E. The opening c is oblong in outline, so as to receive the square or oblong ends of the chisels of various widths; but, if desired, said opening may be otherwise configured.

The chisel A' is inserted in block C by passing it through slot b' of box or socket B into opening c until its square or oblong end a^2 abuts against the side b^3 of opening b , and is so secured by the set-screw E. The slide C is then moved laterally until the axial lines of the chisel and shank b^3 coincide, whereupon the set-screw D is turned or adjusted to retain said slide in position. When the holder and chisel are secured to the plunger and the latter is moved to reciprocate the chisel to cut from its starting-point to the shoulder of the mortise, said chisel is then reversed in said mortise to

cut up to the opposite shoulder thereof. When such reversal is effected, should the chisel not come into the plane that it occupied before being reversed, and thereby assume a position a little to the one side of the mortise, as shown at *y*, Fig. 2, the block C is adjusted laterally or in the direction indicated by the arrow in said figure until the plane of such chisel coincides with the mortise *x*; hence the provision of the adjustable slide C permits of an adjustment for the mortising-chisel to enable it to reciprocate in identical planes in its reversed positions. So, too, if desired, a narrow chisel may be adjusted in its holder to cut a mortise of a width greater than that of the chisel. The latter, it will be noticed, is devoid of the tapered shank or tang usually formed on mortising-chisels. Its end *a*² has parallel or approximately parallel sides to form a square or oblong upper part for insertion in opening *c*. Its opposite end is provided with a cutting-edge, *a*³, and otherwise dressed or finished in the usual manner. Such chisel is made or cut from a square or oblong bar of steel, and its edge *a*³ is then planed or milled thereon. No forging of any kind is required, as is essential for the tapered-shank chisel. Consequently my improved chisel can be made by any ordinary mechanic without the use of special tools at a greatly-reduced expense or cost over that required for the chisels as heretofore made.

I have shown and described the socket or holder A as being made separate from and inserted in the plunger H; but I do not confine my invention thereto, as in building new mortising-machines the socket may be formed integrally with the plunger, which is provided with mechanism for securing the lateral adjustment of the chisel. Such construction is shown in Fig. 6, wherein the plunger H is provided with a socket or collar, B, forged or formed thereon, in which is a dovetail or other shaped slot, *f*. In the latter slides a tongue, *c'*, formed on block C, which is firmly secured in its adjusted position by set-screw D, passing through said socket, as illustrated.

What I claim as my invention is—

1. A mortising-machine plunger provided with a socket, a laterally-sliding block or chisel-holder, mechanism for retaining and adjusting said block in said socket, and means for securing the chisel in said block, whereby the block and chisel may be adjusted to cause the latter to reciprocate in the axial line of the plunger, substantially as shown and described.

2. The combination, with a mortising-machine plunger adapted and designed to be rotated to reverse the chisel, of a socket, a laterally-sliding block or chisel-holder, and means for maintaining the chisel in the holder and the latter in the socket, substantially as shown and described.

3. A socket or chisel-holder for mortising-machine plungers, having a shank and a central oblong opening, and a slide or block fitting in said opening and formed with a slot or recess for the reception of the chisel, in combination with means for maintaining the slide and the chisel in their adjusted positions, substantially as shown and described.

4. The combination, with adjustable sliding block C, having opening *c* for the reception of a mortising-chisel, of a socket or holder therefor adapted to be secured to the plunger of a mortising-machine, and set-screws for holding said block in the socket and the chisel in the block, substantially as shown and described.

5. In combination, a socket or holder having a sliding block with oblong or square central opening, means for maintaining said block in its adjusted positions on said holder, a mortising-chisel having a square or oblong upper end, and mechanism for securing and adjusting the chisel within said sliding blocks, substantially as shown and described.

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

GEORGE W. AMESBURY.

Witnesses:

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CHAS. F. VAN HORN.