No. 791,374. PATENTED MAY 30, 1905.

E. B. SHEPARDSON.

CLAMPING HOLDER FOR TUBES, BOLTS, &c.

APPLICATION FILED SEPT. 17, 1904.

Fig. 1.

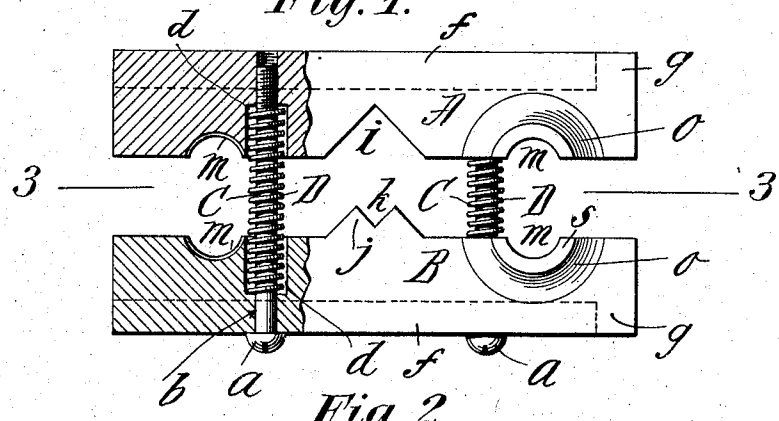


Fig. 2.

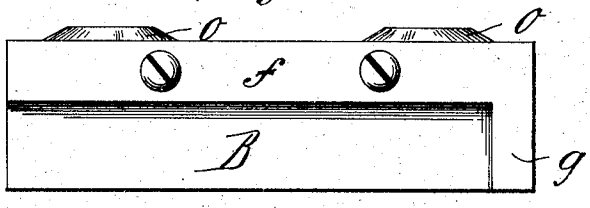


Fig. 3.

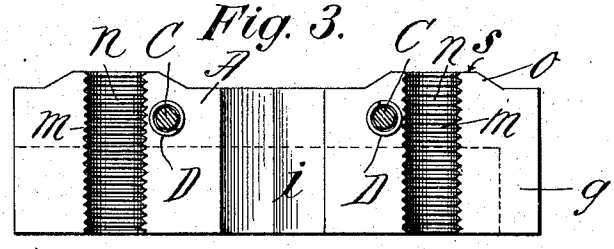


Fig. 5.

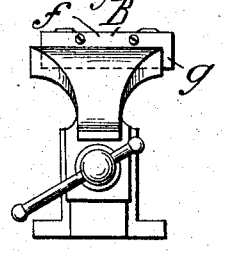


Fig. 4.

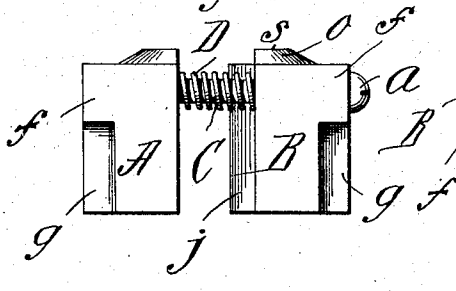
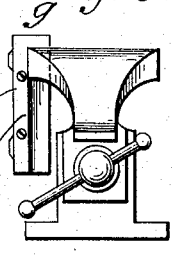


Fig. 6.



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No. 791,374. Patented May 30, 1905.

UNITED STATES PATENT OFFICE.

EDWARD B. SHEPARDSON, OF GREENFIELD, MASSACHUSETTS.

CLAMPING-HOLDER FOR TUBES, BOLTS, &c.

SPECIFICATION forming part of Letters Patent No. 791,374, dated May 30, 1905.

Application filed September 17, 1904. Serial No. 224,912.

To all whom it may concern:

Be it known that I, EDWARD B. SHEPARDSON, a citizen of the United States of America, and a resident of Greenfield, in the county of Franklin and State of Massachusetts, have invented certain new and useful Improvements in Clamping-Holders for Tubes, Bolts, &c., of which the following is a full, clear, and exact description.

This invention relates to appliances to be used in conjunction with vises for holding round articles confined by the pressure of the vise-jaws while being worked upon.

The clamping-holder embodying the features of improvement constituting this invention is especially useful for the confinement of nickel-plated or polished tubes and pipes—such, for example, as are used in open-work plumbing and on which screw-threads are to be cut—the new appliance insuring a tight holding or confinement of the pipe without liability of the same becoming marred or having the external finish thereof impaired.

Another object is to increase the scope of utility of the clamping-holder by rendering it available for holding threaded bolts or rods or other round objects on which heads or shoulders are to be upset.

The invention consists in the holder having the separable clamping-blocks thereof formed with features and combined for co-action one with another with the part to be worked upon and with the vise-jaws, all substantially as hereinafter fully described, and set forth in the claims.

The improved clamping-holder is illustrated in the accompanying drawings, in which—

Figure 1 is a plan view with one end portion shown in horizontal section. Fig. 2 is a side view of the holder. Fig. 3 is a cross-sectional and elevation view as seen beyond the plane indicated by the lines 3 3, Fig. 1. Fig. 4 is an end view. Fig. 5 and 6 are elevations showing the clamping-holder in the jaws of a vise, the holder in Fig. 5 being shown as horizontal and for holding the pipes to be worked upon vertically, while in Fig. 5 right-angular relations of the parts are indicated.

Similar characters of reference indicate corresponding parts in all of the views.

The clamping-holder comprises a pair of substantially rectangular clamping blocks or jaws A B, the one having studs or screw-threaded rods C C engaged therewith and extended horizontally and in parallelism at right angles from its inner side and each rod provided with an outer end head *a* to constitute a stop. The other block, B, is suitably transversely bored, as represented at *b* in Fig. 1, to enable such block to be fitted about and slide upon the said studs C, and the springs D D are interposed in compression between the blocks and encircling intermediate portions of the studs, the opposite ends of the springs, as shown, being disposed within the countersunk sockets *d d* in the pair of blocks. The blocks have at their upper sides the outwardly-extending horizontal ledges *f f*, which serve as rests, whereby the clamping-holder may be supported on the vise-jaws, as well as held to pressure between them, and in order that the clamping-holder may be as well held with the blocks vertically, as shown in Fig. 6, and at right angles to the arrangement of confinement shown in Fig. 5 one end of each block is provided with a ledge *g*.

The inner surface of one of the blocks, A, is constructed with a V-shaped recess *i*, which extends entirely across such face, and the other block, B, has opposite such recess *i* a protuberance *j*, which is preferably of V shape and complementary to the recess *i*, so as to be nested therewithin when the one block is forced more or less closely to the other and the apex portion of the protuberance *j* has a V-shaped smaller recess, as represented at *k*. The surfaces of the V-shaped recesses *i* and *k* serve as bushings or protectors for the finished surface of a pipe, which may be held between them and subject to the hard pressure of the vise-jaws closed against the opposite outer sides of the blocks A and B, the blocks closing together more or less accordingly as the clamped pipe is of small or large diameter, the bearing parts constituted by the surfaces of the V-shaped re-

cesses being self-conforming to the sizes of the round object to be held.

In addition to the opposing recessed formations shown at *i* and *k* the clamping-blocks A and B have at their inner faces semicircular opposing recesses *m m*, serrated, as indicated at *n*, and the upper surfaces of the pair of blocks have raised portions or half-bosses *o* with flat tops *s* marginally of the partially-circular recesses *m*.

A screw-threaded bolt may be engaged between the clamping-blocks in the serrated recesses *m m* and held against endwise movement even when end force may be violently exerted thereagainst, and the flat-topped half-bosses serve as rests against which to upset a head or shoulder on the end of the bolt which may be heated, the flat surfaces imparting form to the under side of the head which is produced thereagainst.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A clamping-holder, for vise-held tubes, &c., consisting of a pair of separable blocks having at their outer opposite portions and at one end portion of each block, supporting-ledges, guiding and supporting means whereby one block is movable transversely to and from the other, one of said blocks having at its inner side a V-shaped recess, and the other block having at its inner face a projection which may enter said recess, and provided within at its point with a V-shaped recess, and springs for exerting a separating force on said blocks.

2. A clamping-holder for round vise-held articles to be worked upon, consisting of a pair of separable blocks, means for supporting and guiding one block to and from the other and both blocks having opposite recesses in their inner faces, which are serrated, and both blocks having their upper sides constructed with raised and flat-topped portions at one end margin of each of said serrated recesses.

3. A clamping-holder for round vise-held articles to be worked upon, consisting of a pair of separable blocks having the external ledges as a vise-jaw rest, means for supporting and guiding one block to and from the other and both blocks having opposite recesses in their inner faces, which are serrated, having their upper sides constructed with raised and flat-topped portions at one end margin of each of said serrated recesses, and the blocks constructed, the one with the V-shaped recess, and the other with an opposite protuberance having a smaller V-shaped recess, and the block-separating springs.

Signed by me at Springfield, Massachusetts, in presence of two subscribing witnesses.

EDWARD B. SHEPARDSON.

Witnesses:
A. V. Leahy,
Wm. S. Bellows.