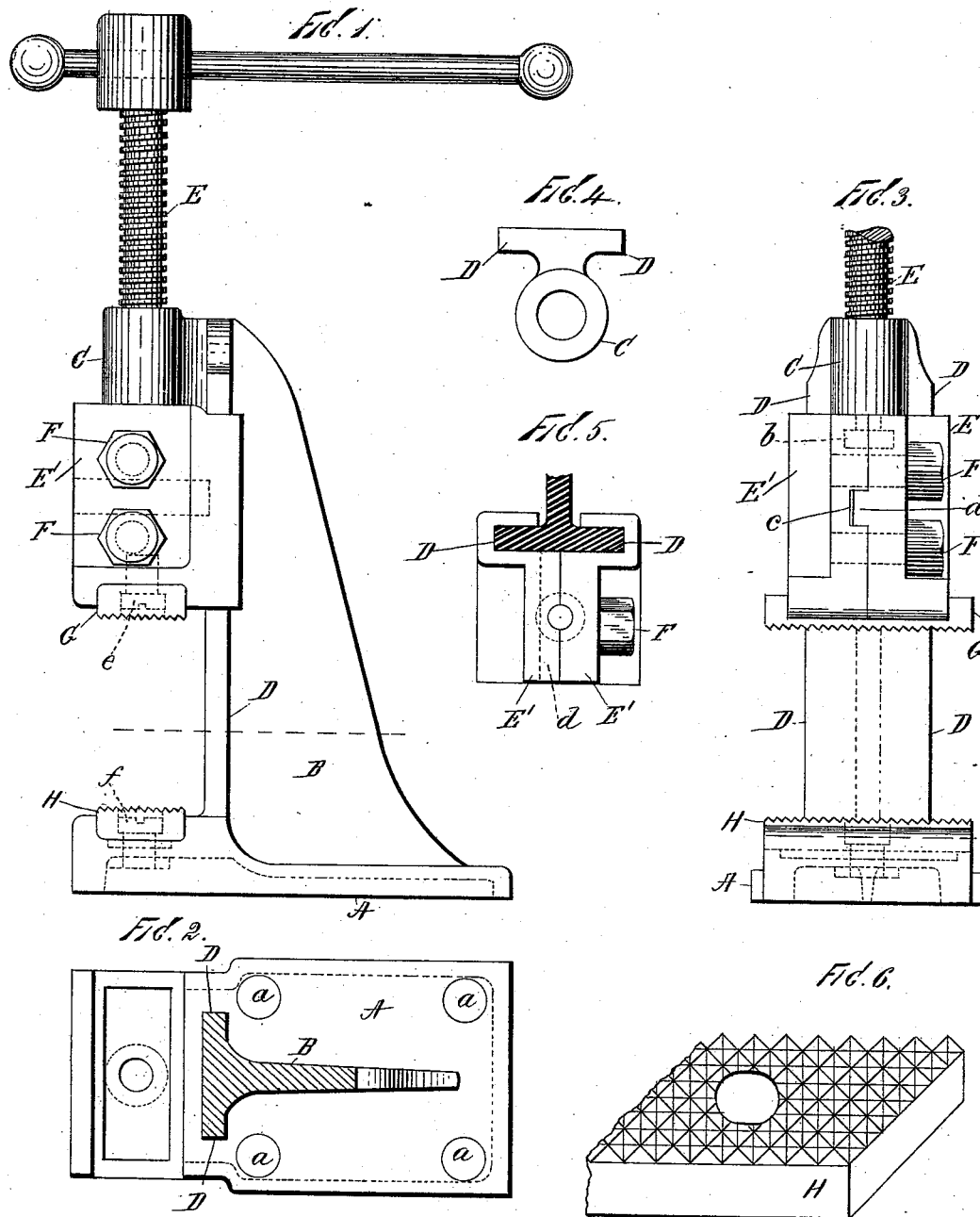


(No Model.)

G. F. HAVEN.
PIPE VISE.

No. 523,311.

Patented July 17, 1894.



Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE F. HAVEN, OF BROOKLYN, NEW YORK, ASSIGNOR TO THE LEWIS TOOL COMPANY, OF NEW YORK.

PIPE-VISE.

SPECIFICATION forming part of Letters Patent No. 523,311, dated July 17, 1894.

Application filed March 17, 1894. Serial No. 504,069. (No model.)

To all whom it may concern:

Be it known that I, GEORGE F. HAVEN, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Pipe-Vises, of which the following is a specification.

My invention has relation to devices employed for holding pipes and such like articles while being threaded, cut, or otherwise fitted or worked upon, which devices are commonly known as pipe vises,—and especially does the invention relate to that variety wherein the block carrying the movable die is mounted upon the end of the power screw and made to travel back and forth therewith.

The object of my invention is primarily to provide a simple, strong, durable, convenient and cheap means of coupling the movable block upon the end of the screw, and, subordinately, to produce a pipe vise of the character specified which may be easily and cheaply made and whereof the parts may be readily disunited for changes or repairs as may be required. To accomplish all of this and to secure other and further advantages in the matters of construction, operation and use, my improvements involve certain novel and useful arrangements or combinations of parts and particular features of invention as will be herein first fully described and then pointed out in the claims.

In the drawings, Figure 1 is a side elevation showing my improved vise complete and ready for use and opened to its fullest extent. Fig. 2 is a horizontal section and plan view of the base part omitting the lower die or grip plate. Fig. 3 is a front elevation corresponding with Fig. 1. Fig. 4 is a top view showing the nut through which the power screw moves. Fig. 5 is a top view of the traveling block which is applied upon the end of the power screw; and Fig. 6 is a perspective view of one of the dies or grip plates detached.

In all the figures, like letters of reference, wherever they occur, indicate corresponding parts.

A is the base or bed plate of the implement intended to be secured to the bench in any secure manner, as by bolts which may pass through suitable perforations as *a a*. From

this bed plate rises the main standard B carrying the nut C for the power or operating screw and the guide ribs DD upon which the movable block or head travels. The base, standard, ribs and nut are usually cast in one piece and are made as solid and heavy as required.

E is the operating screw passing through the nut. This screw is recessed near its inner end so as to form a shoulder *b* to receive the traveling block, and by preference the screw is first threaded throughout its length and the recess afterward formed therein so that shoulder *b* shall be left of the greatest diameter possible to pass through nut C. The traveling block is fitted to embrace this shoulder and is made in two parts E' E', perforated and recessed at top so that when placed together around shoulder *b* they will admit it and its neck or shank with just sufficient freedom to permit the necessary movements. The sections of the block are also each fitted to embrace and slide upon the ribs D as shown in Fig. 5, and when in place they are to be rigidly locked one to the other so as to constitute a head which shall be practically as solid and unyielding as if made of a single piece. For this purpose, one of the pieces E' is recessed as at *c* to receive an entering key or projection *d* formed on the other piece, and the two pieces are firmly secured by screw bolts F. F. which draw and hold them with as much pressure as may be necessary. Being thus locked together, they are held in front by the key and at the back by the parts embracing the ribs so that they cannot be moved out of their proper relative positions. The head thus constructed is easily and cheaply made and may be easily and perfectly mounted by anyone, or dismounted whenever required, without disarranging any of the other parts. The serrated die or grip plate G is secured in the face of the traveling head block by a screw bolt *e* and may be easily removed at any time,—and the plate H is secured in the base by a screw bolt *f* so that it may also be removed when required. The plates G and H are of any length desired.

The pipe vise constructed and arranged substantially in accordance with the foregoing explanations will be found to answer all

the purposes or objects of the invention previously alluded to.

Having now fully described my invention, what I claim as new herein, and desire to secure by Letters Patent, is—

1. In a pipe vise of the character herein set forth, the movable head made in separable parts, the same being perforated and recessed to receive the shoulder and shank upon the end of the operating screw and embracing the ribs upon both sides of the standard, and being locked together, substantially as shown and for the purposes set forth.

2. In a pipe vise, the traveling head composed of separable parts, of which one part is recessed to receive a projecting key upon the other part, and the locking screw bolts, said head being combined with the operating screw and with the vise-standard carrying the guid-

ing ribs, which are embraced by the sections of the head, substantially as shown and described.

3. The herein described pipe vise composed of the base or bed plate standard with guiding ribs, operating screw, divided head embracing the end of the screw and the guiding ribs on the standard, locking bolts and removable grip plates, all combined and arranged for operation, substantially as shown and described.

Signed at New York city, in the county and State of New York, this 13th day of March, A. D. 1894.

GEORGE F. HAVEN.

Witnesses:

W. J. MORGAN,
WORTH OSGOOD.