

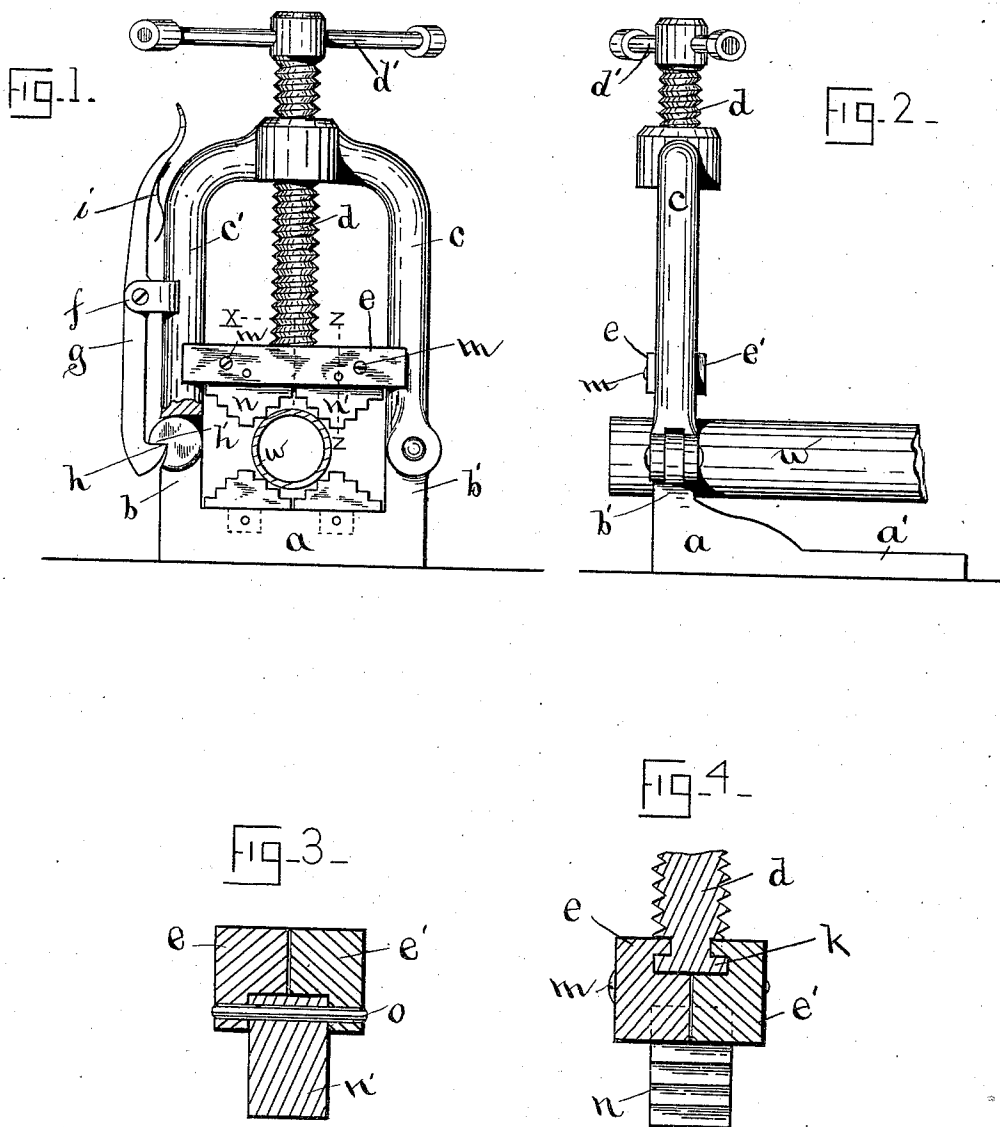
(No Model.)

W. VANDERMAN.

PIPE VISE.

No. 371,805.

Patented Oct. 18, 1887.



Witnesses

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UNITED STATES PATENT OFFICE

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PIPE-VISE.

SPECIFICATION forming part of Letters Patent No. 371,805, dated October 13, 1887.

Application filed August 13, 1887. Serial No. 247,230. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM VANDERMAN, a citizen of the United States, residing at Willimantic, in the county of Windham and State of Connecticut, have invented certain new and useful Improvements in Pipe-Vises, which improvements are fully set forth and described in the following specification, reference being had to the accompanying sheet of drawings, in which—

Figure 1 is a front elevation of a vise embodying my improvements, and Fig. 2 a side elevation of the same. Fig. 3 is a cross-section on line *z z* of Fig. 1, and Fig. 4 a similar view on line *x*.

My improvements relate to vises for clamping tubing during the act of cutting off or threading the same; and said improvements consist, first, of a spring-pressed latch for interlocking the two principal sections of a hinged vise, and, second, of a new form of cross-head for supporting the upper or movable jaws. By means of these improvements I am able to simplify somewhat the construction and to add to the convenience of the vise.

Aside from the changes above noted, the general construction of the vise shown in the annexed drawings is substantially the same as in pipe-vises now in common use.

The reference-letter *a* indicates the lower or base section of the frame of my vise, having a laterally-projecting plate, *a'*, through which bolts or screws may be passed to attach the complete vise to a bench or other rigid support. Said base has upwardly-projecting sections *b b'*, to the latter of which is hinged a yoke whose limbs *c c'* are parallel with each other and preferably circular in cross-section. This yoke is drilled and tapped from its upper curved end to receive a screw, *d*, provided with an operating-handle, *d'*. The lower end of screw *d* is attached, in a manner hereinafter explained, to a two-part cross-head, *e e'*, which travels upward or downward with said screw, its ends being shaped to fit and slide on the limbs *c c'*, above mentioned.

On the outer side of limb *c'* are integral lugs *f*, in which is hung a lever, *g*, whose lower end, *h*, is shaped as a hook to engage and interlock with a corresponding hook, *h'*, on projection *b*. The upper end of lever *g* is of a shape that can

be conveniently grasped to operate it, and is held normally away from limb *c'* by a spring, *i*.

The lower end of screw *d* is grooved annularly to leave a head, *k*, and the companion sections *e e'* of the cross-head are chambered or cherried out to inclose said head, as shown in the sectional view, Fig. 4, the two sections of said cross-head being then securely clamped together by screws or bolts *m*. The lower side of the cross-head is also chambered to receive the upper pair of jaws, *n n'*, said jaws being locked in position by pins or screws *o*.

The lower jaws, *q q'*, rest in and on the chambered base *a*, and are retained in place by screws *s*.

When it is desired to use the vise, latch *g* is thrown out of locking engagement with hook *h'*, and yoke *c c'* is swung open, carrying with it the cross-head and jaws *n n'*. The pipe, *w*, to be cut or threaded is then laid in place on jaws *q q'* and the yoke returned to its closed position, latch *g* snapping automatically into engagement with hook *h'*. Screw *d* is now turned home until the pipe is firmly gripped between the upper and lower jaws, as illustrated in the first figure of the drawings.

I am fully aware that pipe-vises with hinged frames have been commonly used heretofore, some of which have been provided with links on one section arranged to hook over a projecting lug on the companion section. When hung to the upper section and operated by gravity alone, the rusting or gumming up of such links has prevented their working satisfactorily. My latch, being actuated by the spring *i*, is held in constant locking engagement with hook *h'*, finds its place automatically as the yoke is swung to its closed position, and can be released only by considerable pressure on the upper or handle end, exerted against the force of spring *i*.

Having described my invention, I claim—

1. In a pipe-vise, in combination with a hinged two-part frame, a spring-actuated latch for interlocking said parts, substantially as herein specified.

2. In combination with the yoke of a pipe-vise, a screw vertically movable therein, having its lower end headed, as described, and a cross-head formed of two companion sections cupped to inclose said screw-head, said cross-

head sections being clamped together by screws or bolts, substantially as and for the object specified.

3. In combination with the yoke of a pipe-
5 vise, a screw vertically movable therein, having its lower end headed, as described, and a cross-head formed of two companion sections cupped to inclose said screw-head, chambered

to receive the upper jaws, and clamped together by bolts or screws, substantially as and for the objects set forth.

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