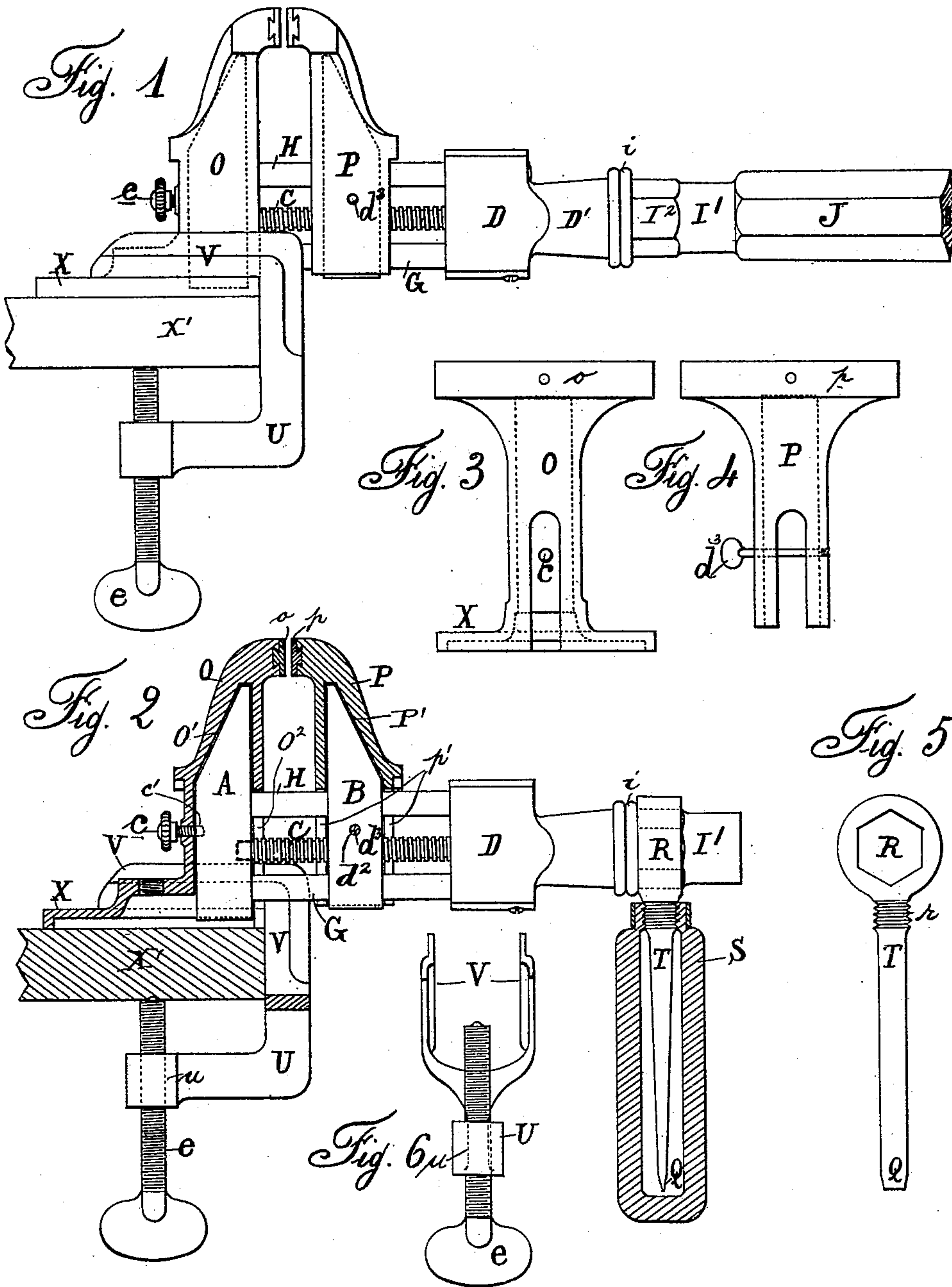


H. PORT.  
PARALLEL VISE.

No. 496,168.

Patented Apr. 25, 1893.



Witnesses:-

H. B. Boulter

C. J. Northrup.

Inventor:-

Henry Port,

by his attorney

H. B. Boulter.

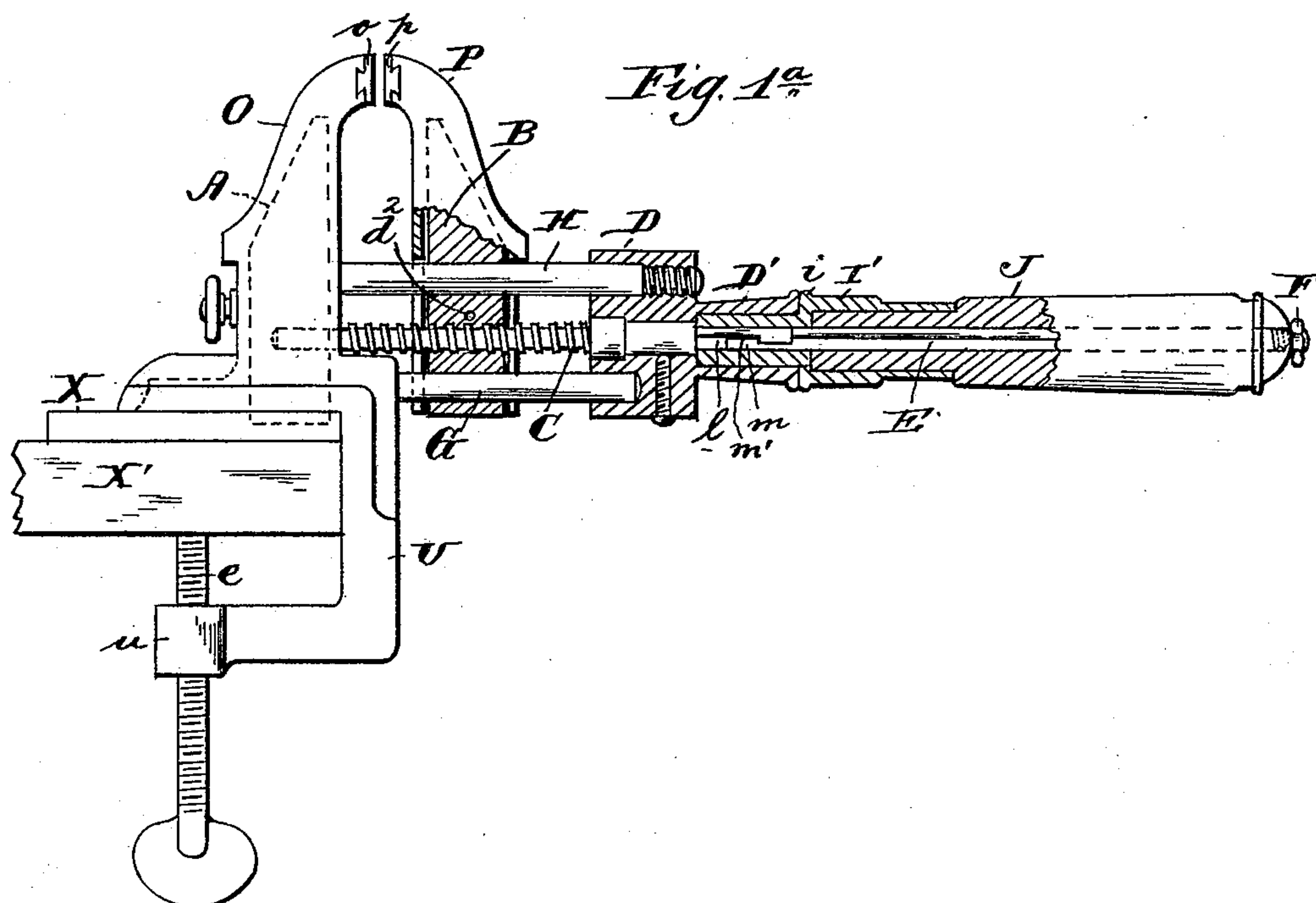
(No Model.)

2 Sheets—Sheet 2.

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# UNITED STATES PATENT OFFICE.

HENRY PORT, OF PARIS, FRANCE.

## PARALLEL VISE.

SPECIFICATION forming part of Letters Patent No. 496,168, dated April 25, 1893.

Application filed November 5, 1892. Serial No. 451,073. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY PORT, a citizen of the United States, residing at Paris, France, have invented certain new and useful Improvements in Parallel Vises; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention has relation to portable parallel vises and it has for its object to provide means adapted to be connected with a wrench such as is described in my pending application for patent filed January 25, 1892, Serial No. 419,248, whereby I obtain a parallel vise which is of simple and inexpensive construction and adapted to serve all the purposes for which such a vise is designed, and the invention consists in the construction, arrangement and combination of parts, as hereinafter fully described, illustrated in the accompanying drawings and pointed out in the appended claims.

In the drawings:—Figure 1 is a side elevation of my improved vise. Fig. 1<sup>a</sup> is a like view, partly in section of the vise; Fig. 2 a like view partly in section, showing a detachable operating handle applied to the device. Fig. 3 is a face view of one of the jaws; Fig. 4 a like view of the other jaw; Fig. 5 a detail face view of the key R. Fig. 6 is a face view of the clamp V and securing screw.

Inasmuch as I have described in detail in my pending application for patent above referred to, the construction of wrench with which I connect certain means to produce the parallel vise forming the subject of this invention, and for the further reasons that I do not claim such wrench *per se* herein and that any wrench provided with a revoluble handle portion, a movable and a fixed jaw, guide rods for said movable jaw, and an adjusting screw located intermediate the guide rods, may be employed by me for the formation of the improved vise, I do not deem it necessary to describe in detail in this application the construction and operation of said wrench embodied in my above-mentioned application, except in so far as it may be necessary to explain the connection of the auxiliary devices therewith to form the vise and operation of the same.

A indicates the fixed jaw and B the movable jaw of the wrench.

C is the screw-rod for adjusting the position of the movable jaw, said screw-rod working in a threaded opening in said jaw and its outer end turning freely in a socket in the fixed jaw.

G H are guide rods which pass freely through jaw B, the ends of guide G being seated in sockets in jaw A and body portion or socket D of the wrench. Revolvably mounted in the portion D' of socket D is a sleeve I' having a shoulder *i*, abutting against the inner end of portion D'. Said sleeve I' has a squared central opening to receive the squared shank *l* of the screw-rod, so that when the sleeve is turned the screw-rod will be caused to turn and adjust the movable jaw B. Within the sleeve is fitted one end of the handle J, which is provided with a squared central opening to receive the squared rod E which serves to retain the handle in place and is provided at one end with a tenon *m* which engages with a notch *m'* in the end of the shank *l*, and provided at the opposite end with a threaded portion to receive a securing nut F. Thus, by turning the handle J the sleeve I' and screw-rod will be turned and effect the adjustment of the jaw B.

O indicates a vise jaw which is provided interiorly with a chamber O' of a shape corresponding with that of jaw A of the wrench, and over which jaw A is adapted to fit the jaw O. The latter is provided with a foot or flange X adapted to rest upon and to be clamped to a bench or table X'.

The inner wall of jaw O is provided with a vertical slot O<sup>2</sup> adapted to permit of the passage therethrough of the guides G H and rod C when the jaw O is in its position over the jaw A. The jaw O is provided with the clamping face *o* and is adapted to be secured to the bench or table by means of a clamping arm or bracket U whose upper end is bent at right angles and is bifurcated as at V to embrace the jaw O at each side. The lower portion of arm U is likewise bent at right angles and is provided with a threaded socket *u*, within which works a screw *e*, whose inner end bears against the under side of the bench. By properly turning the screw, arm U is made to tightly clamp the foot X and thus hold the jaw O and wrench firmly in place.

For the purpose of firmly holding the jaw



A within the jaw O a tightening screw *c*, may be employed which works in a threaded opening in jaw O and is adapted to enter the socket *c'* in jaw A.

5 P indicates a second vise jaw which is constructed similarly to jaw O, that is to say, it is provided with a clamping face *p*, a recess or chamber *P'*, within which fits the jaw B, and with slots *p'* in both its inner and outer  
10 walls as shown.

The jaw P when placed over jaw B is adapted to be moved therewith, when said jaw B is moved through the medium of the handle J or sleeve I' and screw-rod C, as set forth hereinbefore and in my before mentioned application for patent, and if desired, a pin *d*<sup>3</sup> may be used to connect the jaws, said pin passing through perforations in the jaw P and the perforation *d*<sup>2</sup> in the jaw B. For the purpose  
20 of obtaining greater leverage in turning the screw-rod to adjust the jaws B, P, I slip over the faceted portion I<sup>2</sup> of the sleeve I' a key R, as shown in Fig. 2, which has a threaded shoulder *r*, and a tapering shank T whose lower  
25 end Q is pointed to adapt said key to serve as a screw-driver when detached from the sleeve I'. Upon the threaded shoulder *r* of key R is adapted to screw a hollow handle S by means of which the rod C may be turned easily.  
30 When this arrangement is employed, the handle J may be removed, as seen in Fig. 2.

What I claim is—

1. The combination with a wrench having a fixed and a sliding jaw, guides, and a screw-rod for adjusting the movable or sliding jaw,  
35 of a vise jaw fitting over the fixed jaw of the wrench, and provided with a threaded opening in its outer wall, a tightening screw work-

ing in the said threaded opening and engaging a socket in the fixed jaw of the wrench, a  
40 second vise jaw fitting over the sliding jaw and adapted to move therewith, a pin passing through aligned openings in the movable jaw of the wrench, and the vise jaw carried thereby, and means for clamping the device to a  
45 support, as described.

2. The combination with a wrench having a fixed and a sliding jaw, guides, and a screw-rod for adjusting the sliding jaw, of a vise jaw fitting over said fixed jaw and having a  
50 foot or flange, a second vise jaw fitting over the sliding jaw of the wrench, and means for securing the device to a support comprising an arm having its upper end bent and engaging over the foot or flange of the vise jaw,  
55 and having a bent lower end, and a clamping screw working in a threaded opening in said lower end and bearing against the under side of the support, as described.

3. The combination with a wrench having  
60 a fixed and a sliding jaw, guides, a screw-rod for adjusting said sliding jaw and a sleeve adapted to turn said screw-rod, of vise jaws mounted over the jaws of the wrench, and a key removably mounted upon the said sleeve  
65 and having a pointed shank as described, and a handle removably mounted upon said key, all arranged and adapted for cooperation, as and for the purpose specified.

In testimony that I claim the foregoing I  
70 have hereunto set my hand this 27th day of September, 1892.

HENRY PORT.

Witnesses:

VICTOR MATRAX,  
JOSEPH SALING.