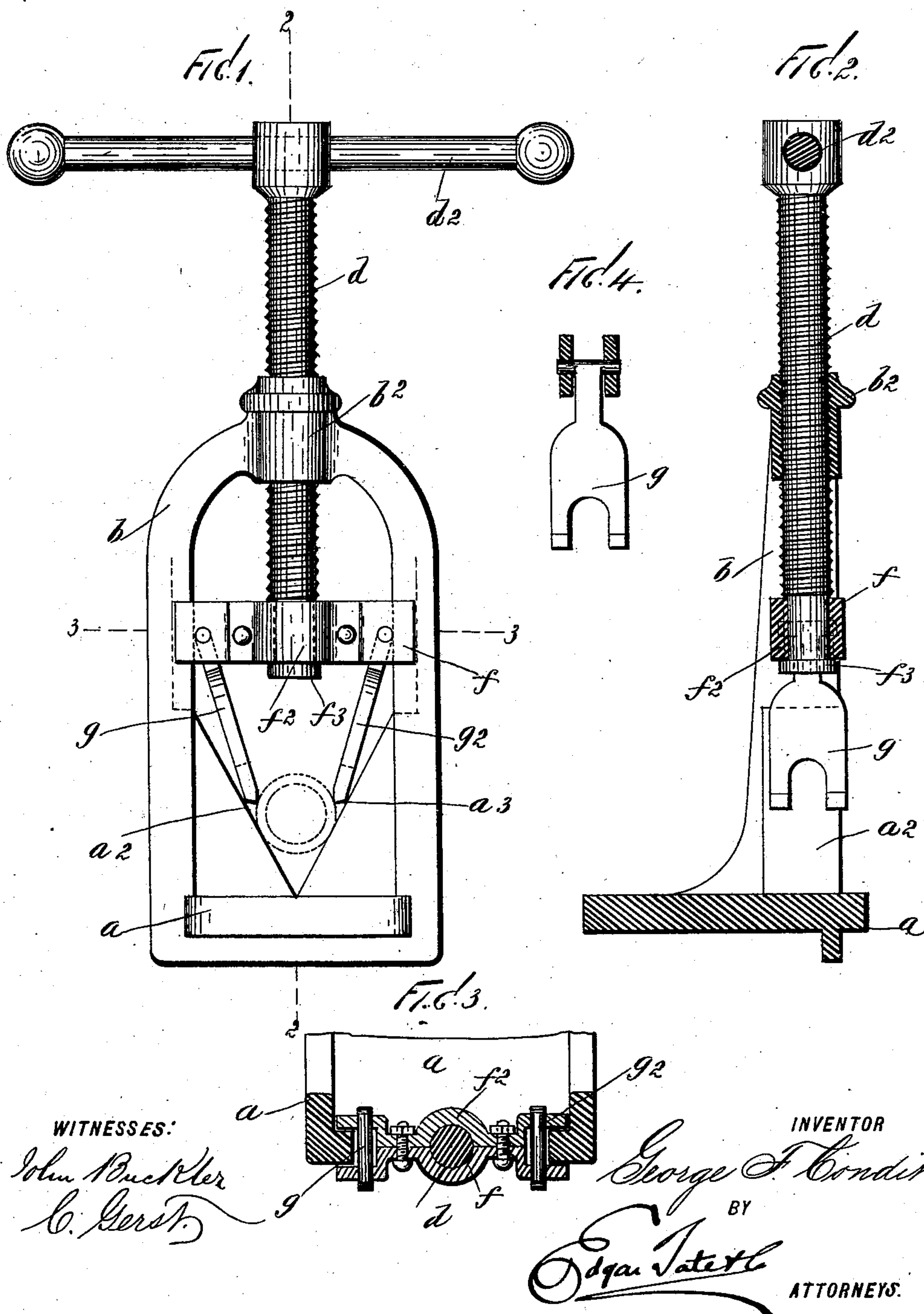


(No Model.)

G. F. CONDIT.  
VISE.

No. 601,313.

Patented Mar. 29, 1898.





# UNITED STATES PATENT OFFICE.

GEORGE F. CONDIT, OF ORANGE, NEW JERSEY.

## WISE.

SPECIFICATION forming part of Letters Patent No. 601,313, dated March 29, 1893.

Application filed September 1, 1897. Serial No. 650,239. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE F. CONDIT, a citizen of the United States, residing at Orange, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Vises, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to vises, and more particularly to that class thereof which is designed to clutch a pipe or other circular object.

The object of the invention is to provide a vise of the above-described class which can readily adjust itself to any size of pipe, will firmly retain the same within its jaws without danger of crushing or mutilating said pipe, and which is simple in construction and inexpensive to manufacture.

The invention consists in the novel features of construction hereinafter set forth and described, and more particularly pointed out in the claims hereto appended.

Referring to the drawings, Figure 1 is a front elevation of my improved vise; Fig. 2, a sectional elevation on the line 2 2 of Fig. 1; Fig. 3, a transverse section on the line 3 3 of Fig. 1, and Fig. 4 a detail view of one of the clamping-plates.

Like letters refer to like parts throughout the several views.

In the accompanying drawings, *a* denotes the base of the vise. *b* denotes a yoke preferably made integral therewith and having a screw-threaded collar *b*<sup>2</sup>, adapted to receive the screw *d*, which is provided with a suitable handle, as *d*<sup>2</sup>.

*f* denotes a cross-head which is attached by means of a collar, as *f*<sup>2</sup>, at a central point thereon and a cylindrical portion of the screw *d*, a knob *f*<sup>3</sup> preserving the proper relation between these elements. The cross-head *f* is preferably made of two plates united by suitable means and has pivoted thereto two clamping-plates *g g*<sup>2</sup>, which are susceptible of lateral oscillation. The free ends of these clamping-plates are preferably provided with

an angled portion adapted to engage the surface of the pipe and prevent its slipping.

The base *a* is extended upwardly from a central point thereon in such manner as to form a V-shaped opening of the walls *a*<sup>2</sup> *a*<sup>3</sup>, the upper surfaces of which are free from any abrasion or irregularity in their surfaces.

The clamping-plates *g g*<sup>2</sup> are preferably shaped so as to present two prongs adapted to engage the pipe when the vise is in operation, as shown in Fig. 4.

The operation of my improved vise is as follows: A pipe of any dimension having been placed between the upper surfaces of the walls *a*<sup>2</sup> *a*<sup>3</sup>, which, as aforesaid, form a V-shaped opening, the clamping-plates *g g*<sup>2</sup> are brought into contact therewith by forcing downwardly the cross-head *f* by means of the screw *d* operating in the collar *b*<sup>2</sup> of the yoke *b*. The angled edges and pronged points of said clamping-plates permit said plates to bind firmly against the pipe and by increased pressure prevent any movement on the part of the same. The regularity of the surfaces of the walls *a*<sup>2</sup> *a*<sup>3</sup> act merely to retain the pipe in this position by means of friction, and hence the pressure exerted by said clamping-plates will tend merely to prevent the rotation of the pipe and not to compress the same, (as in the ordinary vise,) which often results in the distortion of the pipe even to a point of total collapse.

When it is desired to release the pipe, it is merely necessary to raise the cross-head and its clamps, thus releasing the pipe. If it is found that the walls of the pipe are mutilated in any way, it will be merely necessary to file said mutilation away, as it will be merely superficial and not of a permanent nature.

By the means above described the objects of my invention are fully attained. I have produced a vise which can securely hold a pipe without any danger of crushing or mutilating the same, which will accommodate itself to any size of pipe, and is simple in construction and efficient in operation.

It is not my intention to limit the invention to the precise construction herein shown

and described, as it is obvious that there may be many changes in detail of construction without departing from the spirit of my invention.

5 Having fully described my invention, I claim as new and desire to be secure by Letters Patent—

1. In a vise, the combination with a base, having walls extended to form a V-shaped opening therein, of a cross-head, clamping-plates and means whereby said plates may be forced within said opening, substantially as shown and described.

2. In a vise, the combination with a base, having a V-shaped opening therein, of a cross-head, clamping-plates pivoted thereto, and means whereby said plates may be forced within said opening, substantially as shown and described.

3. In a vise, the combination with a base, having walls extended to form a V-shaped

opening therein, of a cross-head, clamping-plates provided respectively with two horns angled at the ends, and means whereby said plates may be forced within said opening, substantially as shown and described.

4. In a vise, the combination with a base having walls extended to form a V-shaped opening therein, of a yoke, a cross-head sliding vertically within said yoke, clamping-plates pivoted thereto, and means whereby said cross-head is raised or lowered, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 23d day of August, 1897.

GEORGE F. CONDIT.

Witnesses:

C. GERST,

A. C. VAN BLARCOM.