

(No Model.)

E. H. FARMER.

WISE.

No. 362,262.

Patented May 3, 1887.

FIG. 2

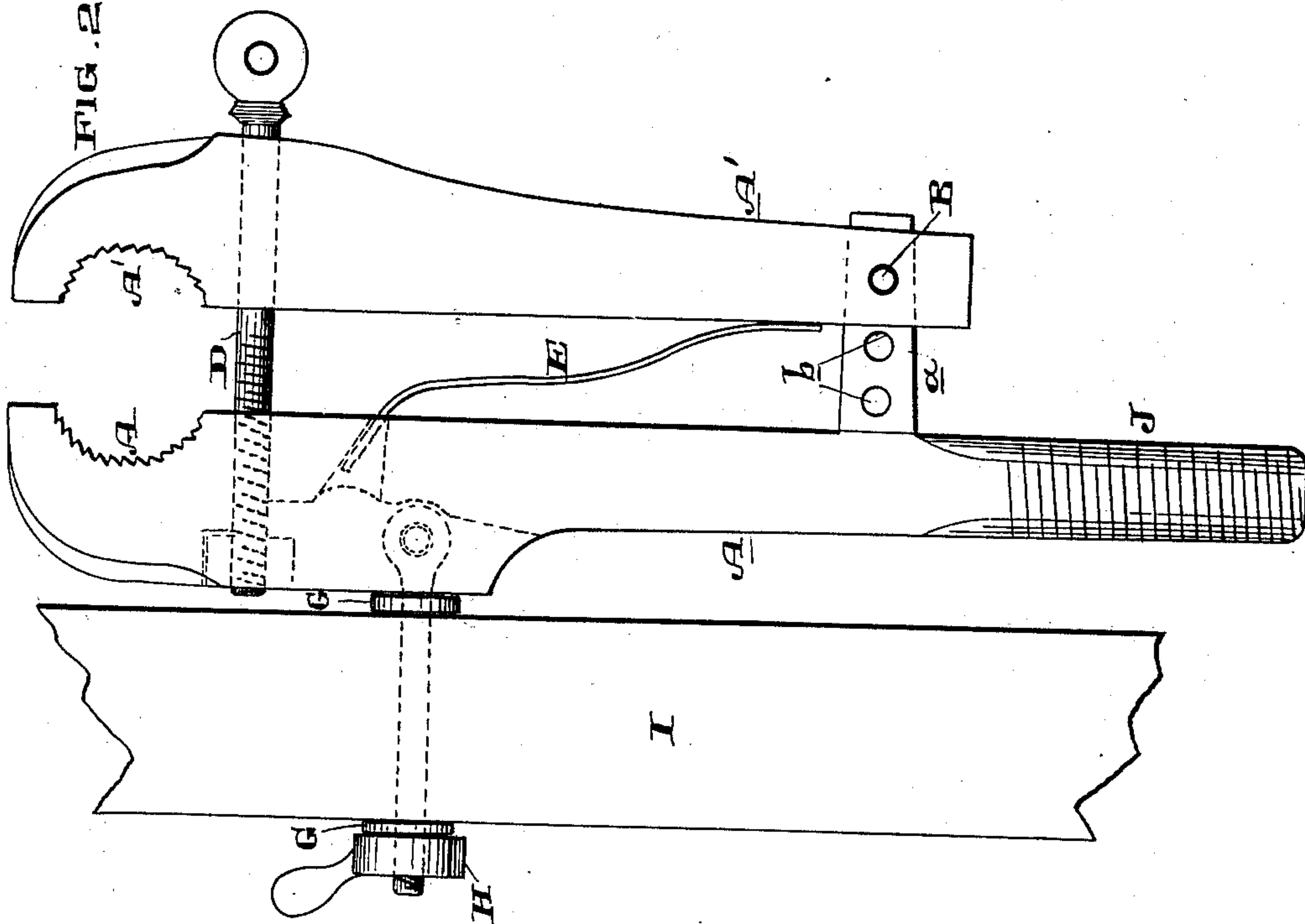
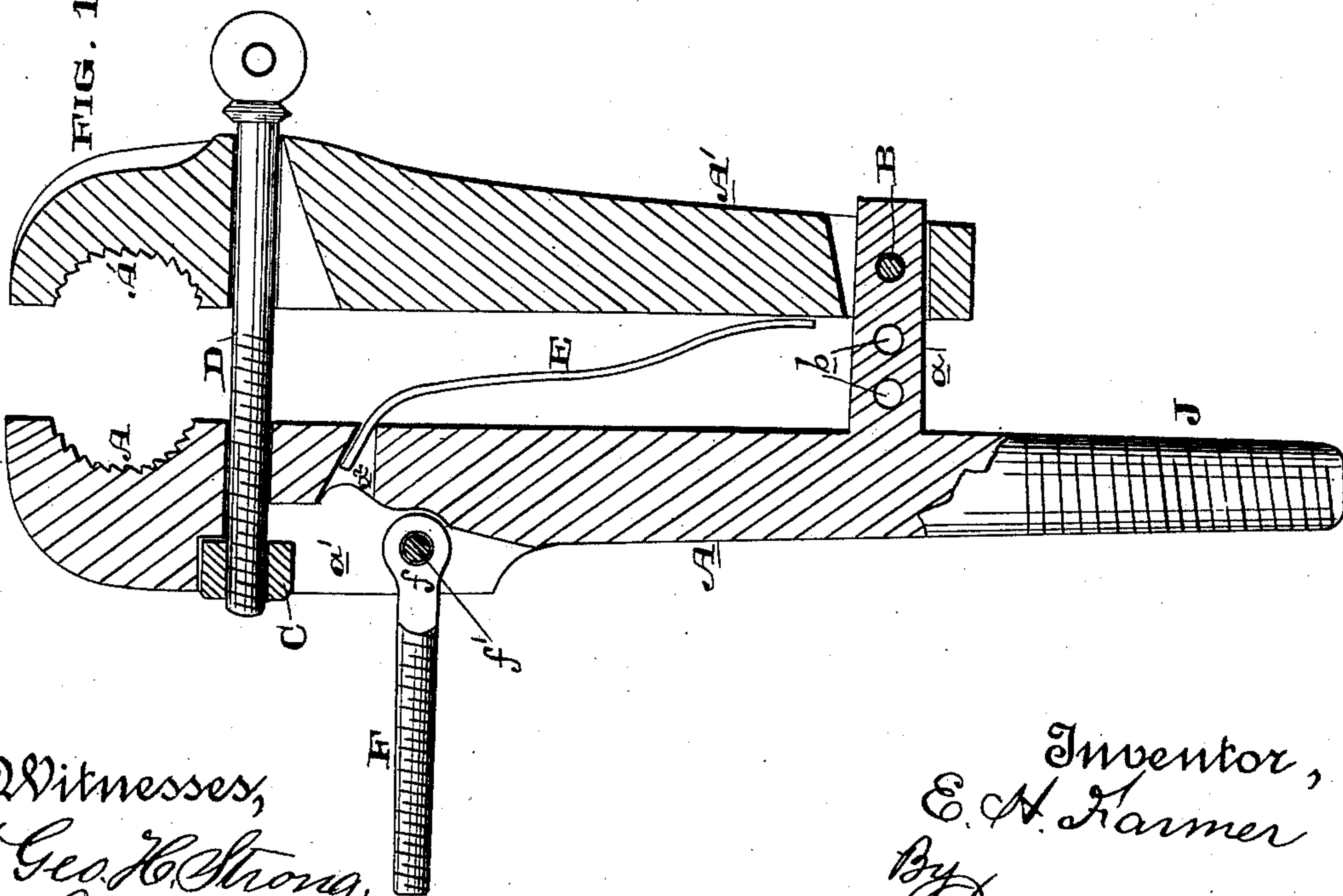


FIG. 1.



Witnesses,  
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# UNITED STATES PATENT OFFICE.

EDWARD HENRY FARMER, OF GILROY, CALIFORNIA.

## WISE.

SPECIFICATION forming part of Letters Patent No. 362,262, dated May 3, 1887.

Application filed December 22, 1886. Serial No. 222,333. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD HENRY FARMER, of Gilroy, Santa Clara county, State of California, have invented an Improvement in Vises; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to the class of vises; and my invention consists, in combination with the vise-jaws, one of which has a slotted back, of a bolt pivoted within said back, whereby it may be extended for use in securing the vise or dropped down out of the way, and a nut on said bolt, as I shall hereinafter fully describe.

The object of my invention is to provide a vise which may be readily connected with any convenient support--if in a workshop, with a bench or frame-work of any kind; or if in the field, with a suitable portion of any larger implement, as the wheels thereof, so as to furnish the vise a firm support.

Referring to the accompanying drawings, Figure 1 is a vertical section of my vise. Fig. 2 is an elevation showing its attachment to an upright piece or frame.

A is one jaw, and A' is the other. From the lower portion of the stock of the jaw A extends a guide-arm, *a*, upon which is fitted the lower portion of the stock of the opposing jaw by means of an enlarged slot in said stock, whereby in its movement on the arm it is prevented from cramping.

The jaw A' may be adjusted to suitable position by means of a removable pin or bolt, B, which passes through any of the series of holes *b* in the arm *a*. The back of the jaw A is slotted at *a'*, and in this slot is seated loosely a nut, C, which receives the adjusting-screw D, which passes through both jaws, its passage through the jaw A' being in a slot or opening large enough to prevent any cramping in the adjustment.

E is the spring which controls the expansion of the jaws. This spring is not riveted or otherwise rigidly connected with either of the jaws, but is simply placed in its position before the jaws are adjusted, and is held as long as said jaws remain connected. This is accomplished by fitting the upper end of the spring into a recess, *a''*, in the inner surface of the jaw A, and allowing its lower end to rest

against the inner surface of the stock of the opposing jaw.

F is the securing screw or bolt of the vise. This has a flattened head, *f*, which is seated in the slot *a'* in the jaw A, and is pivoted therein by means of a bolt or pin, *f'*. Upon this securing screw or bolt are fitted the washers G, and on its outer end is the tail-nut H. The use of the securing screw or bolt is seen in Fig. 2.

I is any frame-work or standard or piece of any kind, through which the securing screw or bolt may pass. A washer, G, is on each side of this, and by setting up the tail-nut H the vise may be drawn tightly against the frame-work and held there. In this way, in the field or elsewhere, the vise may readily be attached to a wheel by passing the screw or bolt F between the spokes and setting up the tail-nut, so as to bind the vise firmly to the spokes.

When the vise is not in use, the securing screw or bolt may be dropped down along the back of the main jaw, or by removing the pin *f'* it may be taken out altogether.

The advantage of the nut C is that being loosely seated in the slot *a'* of the jaw A, it may be readily taken out when worn and a fresh one substituted.

The lower end or foot of the stock of the main jaw A is externally threaded, as shown at J. This is for the purpose of enabling the operator to set up the vise in any pipe which may be handy, said pipe being driven into the ground or otherwise secured, and having its open end exposed and threaded for the reception of the threaded foot of the vise.

I am aware that it is not new to use a bolt or screw provided with a tail-nut for the purpose of connecting the vise with some support; but in the only instance of which I am aware where this is done the same bolt or screw is made to serve the double function of adjusting the jaws and securing the vise as well. It is as if I were to extend the adjusting-screw D and fit to it washers and a tail-nut. In this case it is apparent that the jaws would have to grip the work before the vise itself would begin to be tightened to its support. This is a disadvantage, and I avoid it by having my securing bolt or screw F distinct from the adjusting-screw D.

Having thus described my invention, what I

claim as new, and desire to secure by Letters Patent, is—

5 In a vise, and in combination with the jaws A A', the former of which has a slot, *a'*, in its back, and the adjusting-bolt D and nut C, seated thereon in the slotted back of jaw A, the securing screw or bolt F, pivoted in the slot *a'* in the back of jaw A, whereby it may be extended for use or dropped down along

the back of the jaw, and the tail-nut and washers on the said screw or bolt.

In witness whereof I have hereunto set my hand.

EDWARD HENRY FARMER.

Witnesses:

HOWARD WILLEY,  
A. G. HINMAN.