

(No Model.)

F. O. FARWELL.
COMBINED ANVIL AND VISE.

No. 532,654.

Patented Jan. 15, 1895.

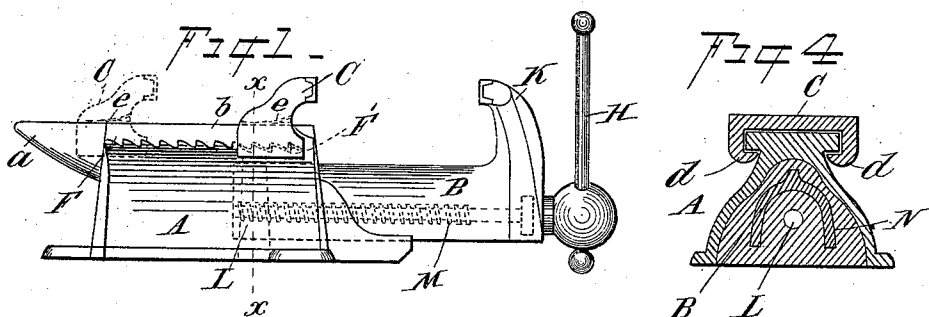


Fig. 2 -

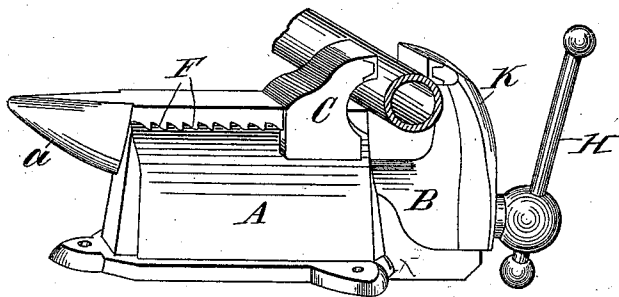
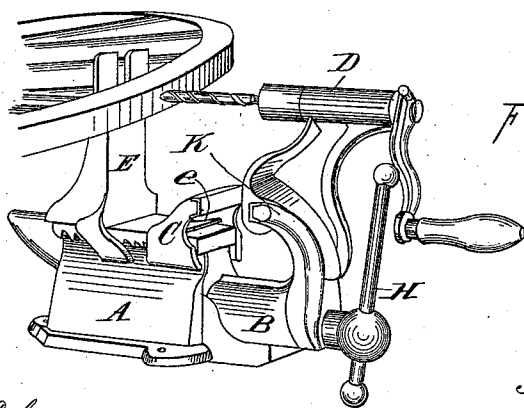


Fig. 3 -



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by
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UNITED STATES PATENT OFFICE.

FAY O. FARWELL, OF DUBUQUE, IOWA, ASSIGNOR OF ONE-HALF TO THE
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COMBINED ANVIL AND VISE.

SPECIFICATION forming part of Letters Patent No. 532,654, dated January 15, 1895.

Application filed April 5, 1894. Serial No. 506,514. (No model.)

To all whom it may concern:

Be it known that I, FAY O. FARWELL, a citizen of the United States, residing in the city and county of Dubuque and State of Iowa, have invented certain new and useful Improvements in a Combined Anvil and Vise; and I do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is to so combine an anvil and vise, that the scope or grasp of the jaws of the vise will be largely increased.

Another object is to arrange the jaws of the vise and the face of the anvil, in such a manner, that tubes and spherical bodies may be conveniently and firmly held between the clasp of the jaws and the face of the anvil.

A further object is to provide means, whereby a drilling attachment may be held and used upon the anvil between the jaws of the vise.

To accomplish these and other minor objects, both jaws of the vise are made removable and one adjustable and the under side of the anvil face is provided with means for holding the adjustable jaw in any desired position, while the other jaw is made to approach to and recede from the jaw, when fixed, by means of a screw thread.

In explaining the details of my invention, reference will be had to the accompanying drawings, forming a part hereof, in which similar letters of reference denote similar parts in all of the figures.

Figure 1, is a side elevation of the anvil and vise. Fig. 2, is a perspective of my device, showing the rear jaw moved back one notch and grasping a pipe between the three jaws formed by the end of the face of the anvil and the two jaws of the vise. Fig. 3 shows a perspective of my device, with drilling attachment in place, and Fig. 4, is a section through the line X—X of Fig. 1.

A, is the body of the anvil, having the usual horn *a*. Upon the upper part of the body A, is secured the face plate *b*, preferably cast integral with the body A, and somewhat wider than the body. Upon the under side of the face plate *b*, which extends on both sides of

the body, are formed notches F, F, which extend downward and forward, the object of which will presently appear.

The rear jaw C, is recessed out on its under side and fitted to loosely clamp the face *b*, of the anvil, as shown in Fig. 4. Along the lower edge of the jaw C, at *d, d*, are cut the notches F', F', corresponding to the notches F, F, in the under side of the face plate *b*, of the anvil and into which notches F, F, the notches F', F', mesh and prevent the jaws from being moved upon the face plate *b*, in the direction of the horn *a*.

Within the upper part of the jaw C, is set a spring *e*, which presses down on the face of the anvil and upward against the inner and upper part of the jaw C, and keeps the notches F', F', in engagement with the notches F, F, and hold the jaw C, firmly.

The jaw K, is of the usual pattern and caused to approach to and recede from the jaw C, by the usual screw M, engaging with the nut L, and operated by the handle H. Covering the screw M, and attached to the jaw K, is a semi-circular stay B, which fits into the recess N, in the body A. By this mode of construction, the jaw K, is caused to approach to and recede from the jaw C, in an even and steady manner, without wobbling.

When used for holding a drilling attachment, a second jaw E, is attached to the face plate *b*, of the anvil in substantially the same manner as the jaw C, is attached and an extra arm D, is secured to the jaw K.

The manner of operating my device is as follows: The jaw C, is moved on the face plate *b*, by pressing upon the top of the jaw C, and thus disengaging the notches F', F', from the notches F, F, and then sliding it to the desired position as shown in dotted lines Fig. 1. When the pressure is removed the spring *e*, causes the notches on the under side of the plate *b*, to engage with the notches on the jaw and thus hold the jaw secure. By this mode of construction, the scope or grasp of the jaws of the vise are more than doubled or largely increased over that of any other mode of construction. The jaw K, is then caused to advance toward the jaw C, in the usual manner, by turning the handle H, and

thus causing the screw M, to engage with the nut L, till the work is firmly clamped between the jaws.

If it be desired to hold a tube or spherical body, the jaw C, is moved a short distance back from the edge of the face plate b, and the tube placed between the jaws, in such a manner, that the end of the plate and the two jaws will attack the tube at three different points, as shown in Fig. 2, and thus hold the work secure.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a combined anvil and vise the body A and plate b, integral therewith, said plate projecting upon either side of the body A and having notches F, F upon the under side of the projection of the plate b, the jaw C, having notches F', F' with spring e, in combination with the jaw K, stay B, screw M and handle H, the two jaws being cut away or curved in-

wardly on their inner sides so as to adapt them to grasp a pipe and hold it against the corner or edge of the anvil, all arranged to operate as described and shown.

2. In a combined anvil and vise, the body A, having a face plate secured thereto which is wider than the body and provided with notches F, and a sharp inner edge or corner, combined with the jaw C which is adjustable by means of the notches on the body, and the jaw K, both jaws being recessed on their inner sides and provided with sharp edges or corners, whereby a pipe or round object may be clamped against the edge of the body, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FAY O. FARWELL.

Witnesses:

MONROE M. CADY,
HERBERT ADAMS.