

G. A. Gray, Jr.,

Vise.

N^o 26,266.

Patented Nov 29, 1859.

Fig. 1.

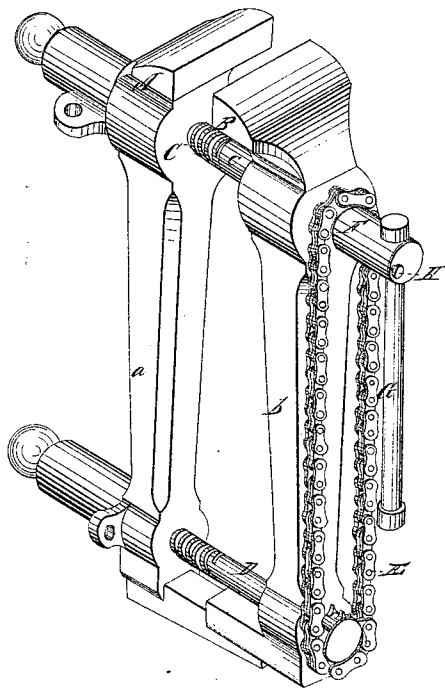


Fig. 2.

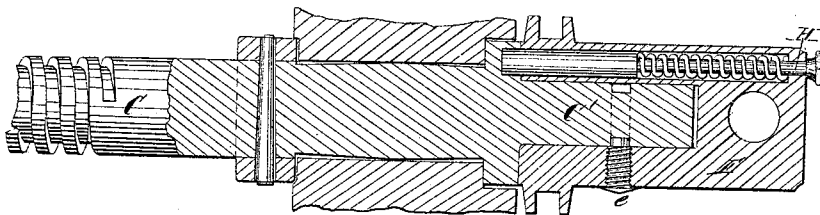
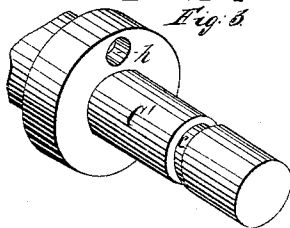


Fig. 3.



Witnesses:

G. H. Knight.
C. Steiner.

Inventor:

G. A. Gray Jr.

UNITED STATES PATENT OFFICE.

GEORGE A. GRAY, JR., OF CINCINNATI, OHIO.

BENCH-VISE.

Specification of Letters Patent No. 26,266, dated November 29, 1859.

To all whom it may concern:

Be it known that I, GEORGE A. GRAY, Junior, of Cincinnati, Hamilton county, Ohio, have invented a certain new and useful Improvement in Bench-Vises; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

The invention consists in a provision whereby the workman is enabled greatly to increase the grip or bite of the jaws.

Figure 1 is a side view of a bench vise embodying my improvement. Fig. 2 is an axial section through the upper screw. Fig. 3 is a perspective view of a portion of the upper screw.

A *a*, is the fixed jaw and shank. The jaw and shank B *b*, are adapted for a parallel motion to and from the fixed jaw by means of the familiar appliance of two screws C, D, connected by an endless chain E. A cylindrical projection C' from the front end of the screw C is grooved (*e*) around its periphery to receive a pin *e*, which projecting inwardly from a hollow movable head F confines said head while permitting its rotation upon said projection. The movable head has a customary handle G.

H is a spring catch—which at a certain point in the rotation of the head F, enters of itself a socket *h* in the screw C. The

portions of the screws which are within movable jaws are made slightly crowning.

Operation: A "grip" having been taken in the ordinary way, the operator while still grasping the handle with his right hand withdraws the catch H with his left and instantly reverses the handle G. In this movement the upper screw C remaining perfectly quiescent becomes a fulcrum for the jaw B *b* which now acting as a lever, has its upper end B powerfully pressed inward, by the retrograde motion of the lower screws D. By these means the customary screws D (heretofore employed only to preserve parallelism) becomes powerfully effective for an increased grip of the jaws, the action being performed by a simple reverse movement of the customary lever without stooping or detention.

A vise thus constructed permits the employment of a very short manageable handle.

I claim as new and of my invention—

The described combination of the handle G loose head F and catch H with the jaws, screws and endless chain of a parallel bench vise.

In testimony of which invention, I hereunto set my hand.

G. A. GRAY, JR.

Witnesses:

GEO. H. KNIGHT,
C. STEEMER, JR.