(No Model.)

A. L. BRETLAND.

LATERALLY ADJUSTABLE VISE FOR BOLT CUTTING MACHINES.

No. 430,825. Patented June 24, 1890.

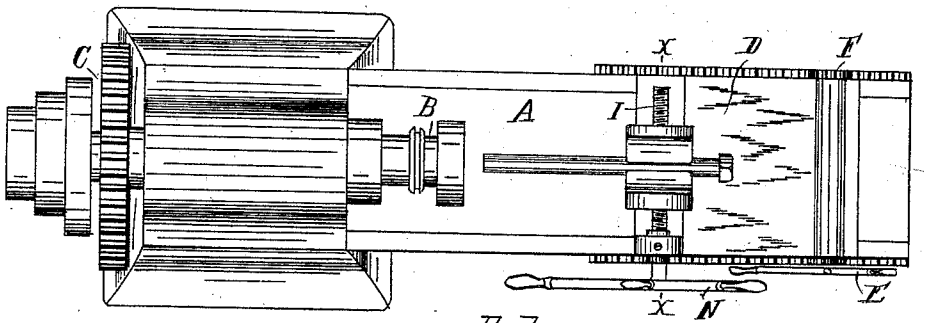


Fig 1.

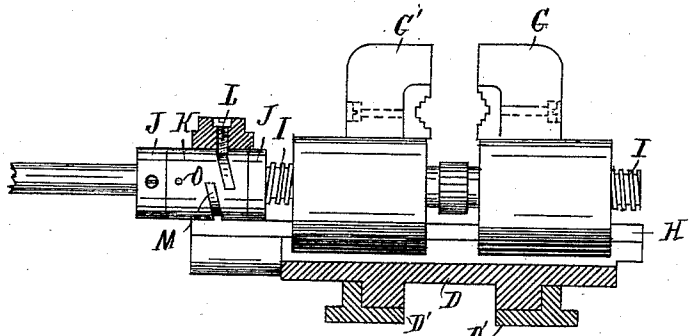


Fig 2.

WITNESSES.
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UNITED STATES PATENT OFFICE.

ALFRED L. BRETLAND, OF FREMONT, ASSIGNOR TO WILLIAM R. ANDERSON, OF TIFFIN, OHIO.

LATERALLY-ADJUSTABLE VISE FOR BOLT-CUTTING MACHINES.

SPECIFICATION forming part of Letters Patent No. 430,825, dated June 24, 1890.

Application filed July 23, 1889. Serial No. 318,395. (No model.)

To all whom it may concern:

Be it known that I, ALFRED L. BRETLAND, a citizen of the United States, and a resident of Fremont, in the county of Sandusky and State of Ohio, have invented certain new and useful Improvements in a Laterally-Adjustable Vise for Bolt-Cutting Machines; and I do hereby declare that the following is 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to a laterally-adjustable vise for bolt-cutting machines, and has for its object to provide means for adjusting the vise or bolt-holder to cause the bolt to align with the cutter-head.

A further object is to render it possible to adjust the screw-shaft by which the jaws are operated, thereby rendering the same central with the center of cutting-spindle.

Heretofore in the branch of the art to which my invention belongs there has been great difficulty experienced in effecting a true alignment of the bolt to be threaded with the opening in the cutter-head, caused by the wear of the bearings for the vise-screw, together with the constant wear of the screw and threads in the vise-jaws.

The object of my invention is to render it convenient to align these parts by means of the same screw-shaft that effects the dripping of the valve, thereby insuring a coincident movement of the entire vise.

The invention consists in the parts and combination of parts hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a plan view of a bolt-cutter with my improvement attached. Fig. 2 is a transverse view on lines $x\,x$, Fig. 1.

A is the bed-frame of the machine; B, the cutter-head, and C the actuating mechanism.

D designates the vise, reciprocating in ways D′ in the frame by means of hand-wheel E and gear F, or in any preferred manner.

G and G′ designate the jaws of the vise, movable upon a way H upon the frame of the vise when actuated by a right and left hand screw I, working in the right-hand-threaded perforation in the jaw G and the left-hand-threaded coincident perforation in jaw G′, whereby when the screw I is turned to the right the two jaws will approach each other and engage with a bolt, and when the screw is turned to the left will cause the jaws to separate.

J designates collars secured to the screw-shaft, one upon each side of a bearing K, held in the frame of the machine in any desired adjustment by means of a screw L, tapped through the frame and engaging in a spiral groove M cut in the bearing and encircling the same.

N designates the hand-wheel secured to the screw-shaft, and by which means the right-and-left screw is turned to cause the jaws of the vise to engage with the bolt.

From the above description the operation will be apparent. The bolt or article to be held is placed between the jaws, and hand-wheel N is turned to the right to cause the jaws to approach and grasp the same. Hand-wheel E is now turned and the vise is run forward to cause the bolt to enter the cutter-head. Should the center of the jaws, however, be out of alignment with the cutter-head, screw L is turned to release its hold in the spiral, a spanner or punch is inserted in a perforation O in bearing K, and the bearing K is turned in the proper direction to cause the screw and jaws to travel bodily to align with the cutter-head.

What I claim is—

1. In a bolt-cutter, the combination, with the oppositely-arranged gripping-jaws, of a shaft passing through said jaws and upon which they move in opposite directions, and a laterally-adjustable bearing upon one end of the shaft, whereby the said shaft is moved transversely across the bed-frame to vary the position of the bolt held between the jaws, as and for the purpose described.

2. In a bolt-cutter, a vise comprising the oppositely-arranged gripping-jaws, one of which is provided with a right and the other with a left hand threaded perforation, a right and left hand screw respectively working in the jaws, and a laterally-adjustable bearing upon one end of the screw-shaft, whereby said screw and vise are moved transversely

across the bed-frame, as and for the purpose set forth.

3. In a bolt-cutter, a vise composed of gripping-jaws caused to travel in opposite directions by means of a right-and-left screw-rod tapped into the right-hand thread of one jaw and the left-hand thread of the opposite jaw, collars upon the screw-rod, a revoluble spirally-grooved bearing between the collars, and a set-screw tapped through the frame and into the groove of the bearing, as and for the purpose set forth.

In testimony that I claim the foregoing as my own I hereby affix my signature in presence of two witnesses.

ALFRED L. BRETLAND.

Witnesses:
BIRT S. GARVER,
JOHN T. GARVER.