No. 809,271. PATENTED JAN. 2, 1906.

F. M. STAMBAUGH.

VISE.

APPLICATION FILED MAY 15, 1905.

2 SHEETS--SHEET 1.

Fig. 1.

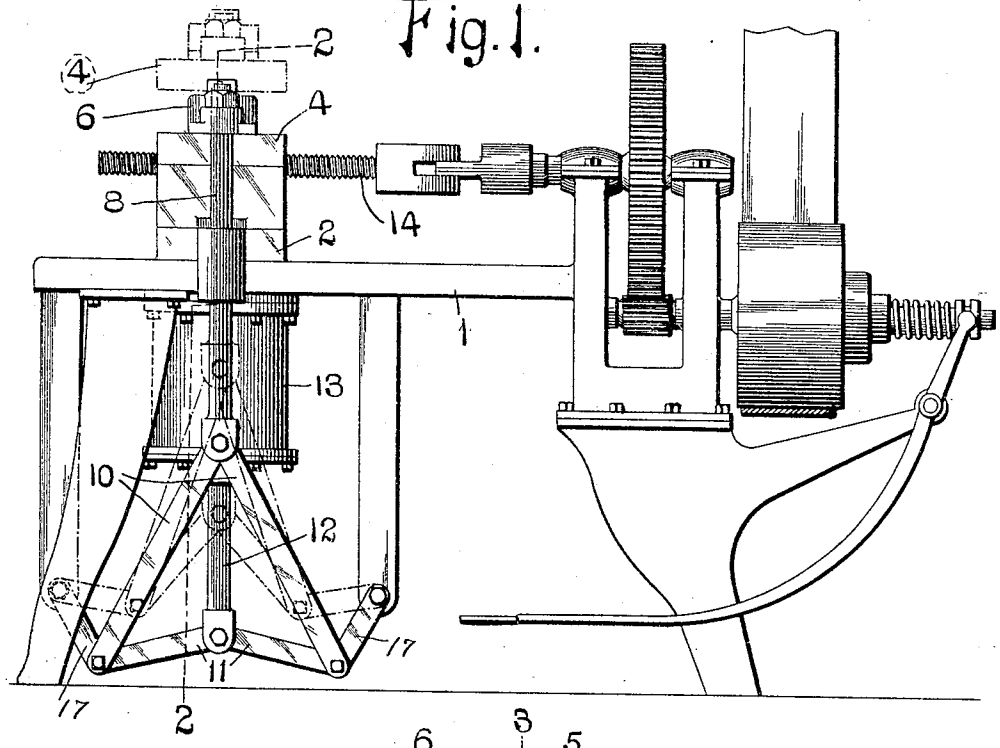
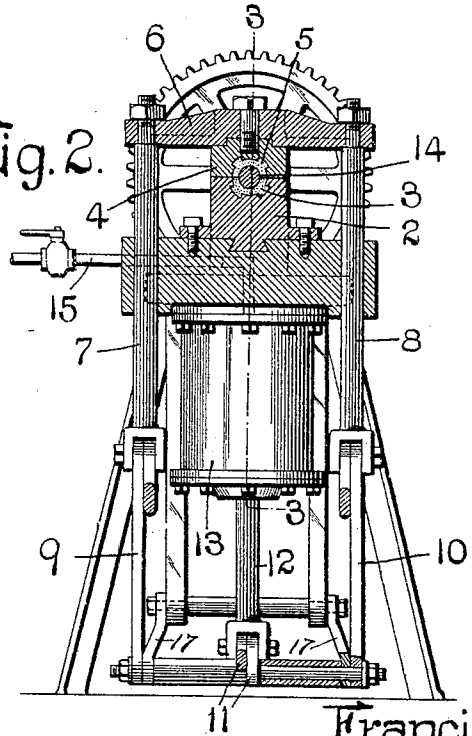


Fig. 2.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

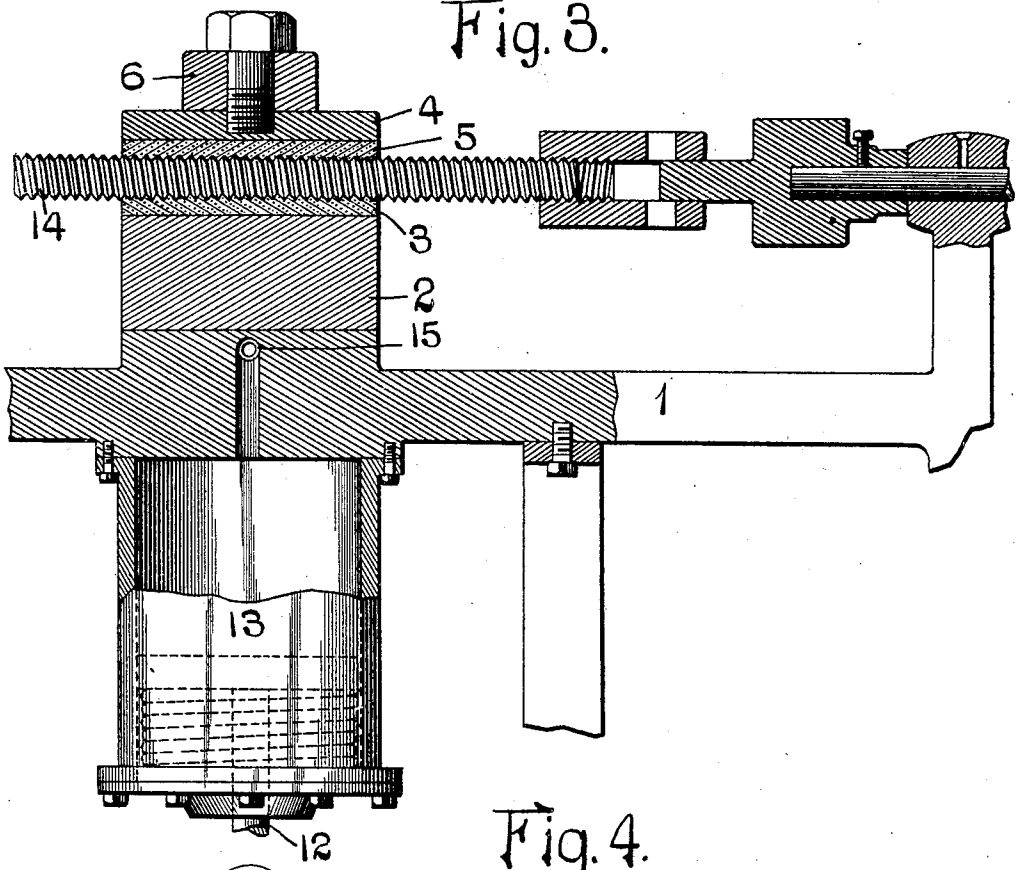
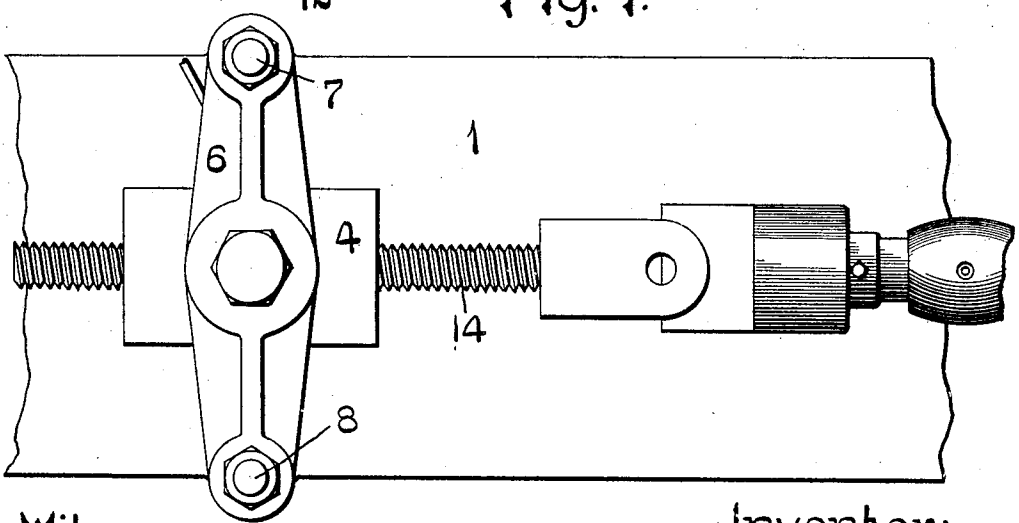


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

FRANCIS MARIAN STAMBAUGH, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE AMERICAN BRAKE COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

VISE.

No. 809,271. Specification of Letters Patent. Patented Jan. 2, 1906.

Original application filed March 7, 1905, Serial No. 248,849. Divided and this application filed May 15, 1905. Serial No. 260,477.

To all whom it may concern:

Be it known that I, FRANCIS MARIAN STAMBAUGH, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Vises, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevational view of a machine constructed in accordance with my invention. Fig. 2 is a cross-sectional view through the vise on the line 2 2 of Fig. 1. Fig. 3 is a vertical longitudinal sectional view through the vise on the line 3 3 of Fig. 2, and Fig. 4 is a top plan view of the parts illustrated in Fig. 3.

This invention relates to a new and useful improvement in machines for assembling parts of a slack-adjuster, but particularly to the vise for holding the rod. The remaining features illustrated in the accompanying drawings form a part of an application previously filed by me on March 7, 1905, and given Serial No. 248,849.

This invention consists in the construction, arrangement, and combination of the several parts, all as will be hereinafter described, and afterward pointed out in the claim.

In the drawings, 1 indicates a frame on which is secured a rigid jaw 2 of a vise having a concave portion in which is a facing of Babbitt metal 3 to prevent deterioration of the threads of the rod to be held thereby. The movable vise member is designated by the reference-numeral 4 and has a concave portion alining with the concave portion on the rigid jaw, and the concave portion of the movable member is also faced with Babbitt metal, as at 5.

6 designates a cross-head which carries the movable jaw, and depending from said cross-head are pitmen 7 and 8, guided in openings in the base or frame 1. Connected to the lower extremities of the pitmen 7 and 8 are sets of toggle-levers 9 and 10, which toggle-levers are adapted to be operated by compound toggles, designated as links 11 and 17, which are connected, respectively, to a piston-rod 12 in a cylinder 13 and to a stationary part of the base. By moving the piston in an upward direction the toggles will be retracted, as illustrated in dotted lines in Fig. 1, so that the jaws of the vise will be open, and rod 14 may be inserted between the jaws and the power applied by admitting a fluid through the pipe 15 into the cylinder to depress the piston and move the toggles into the position shown in full lines, so that the vise will firmly clamp the rod or any other work to be held therebetween. Preferably the piston is moved in an upward direction by means of a coiled spring interposed between the piston and the bottom of the cylinder, as shown in dotted lines in Fig. 3.

In assembling the slack-adjuster parts it is desirable that the work be held against a rotative movement, and by using a construction similar to the one heretofore described the desired purpose may be accomplished, and this without mutilating the threads of the rod or other work.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

In a metal-working machine, a base carrying a rigid jaw provided with a facing of soft metal, a coöperating jaw faced with soft metal and carried by a movable cross-head, a plurality of pitmen connected to said cross-head and moving in guideways formed in the base, toggle-levers connected to the lower end of each pitman, a cylinder carried by said base, a fluid-actuated piston mounted in said cylinder for moving the cross-head to clamp the jaws together and provided with a piston-rod, compound toggle-levers joined to the toggle-levers on the pitmen and connected at their respective ends to the piston-rod and to stationary parts of the base, and means for moving the piston to disengage the clamping-jaws; substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 11th day of May, 1905.

FRANCIS MARIAN STAMBAUGH.

Witnesses:
EDWARD WILSON,
GEORGE BAKEWELL.