

G. EMIG.

SCREW-CUTTING MACHINE.

No. 170,160.

Patented Nov. 23, 1875.

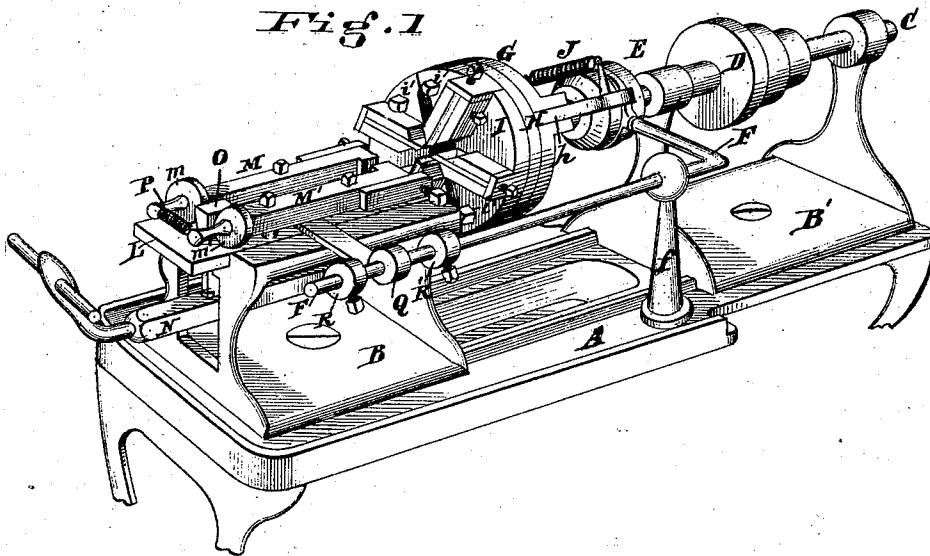


Fig. 2

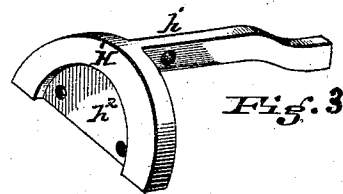
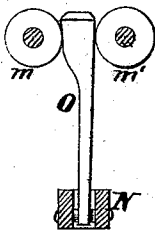


Fig. 3

Attest

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GEORGE EMIG, OF CINCINNATI, OHIO.

IMPROVEMENT IN SCREW-CUTTING MACHINES.

Specification forming part of Letters Patent No. 170,160, dated November 23, 1875; application filed September 16, 1875.

To all whom it may concern:

Be it known that I, GEORGE EMIG, of Cincinnati, Hamilton county, State of Ohio, have invented an Improvement in Bolt and Screw Cutting Machine, of which the following is a specification:

My invention relates to devices for containing the dies and permitting the same to be repaired and replaced without readjustment, and also to the device for securing the bolt and operating the bolt-slide; and my invention consists, first, in a two-part die-chuck, counterbored for the reception of a two-part die-plate, and secured to and operated by arms or levers, in a manner hereinafter described.

My invention consists, in the second part, in the provision of bolt-jaws, slide-wedge, and hinged lever, so arranged and connected together that one of the jaws may be moved toward and from the other, and the bolt-slide moved by the same hand and motion.

Figure 1 is a perspective view of a bolt-cutting machine embodying my invention. Fig. 2 is an elevation of the slide-wedge device for operating the bolt-jaws. Fig. 3 is a perspective view of one leaf of the divided chuck.

A is the bed of the machine, supporting the adjustable frames B B', which uphold the bolt-clamps, and drill-chuck, and cone-pulley, respectively. Secured to the shaft C are the cone-pulleys D and collar E, the latter fitted to slide forward and backward on the shaft. F is a rod for operating the said collar E, and it rests in a journal or bearing-post, f. To the end of shaft C is secured the head-plate G, in slots of which are secured or pivoted levers h h' of the two-part chuck H H'. When the parts H H' are fitted together and in position they are held there by collar E, resting between the arms h h', and can be opened or closed by merely operating the collar E backward or forward. This two-part chuck has a counterbored recess, h², to receive the members of a double or two-part die-plate, I, which are formed with shoulders i, to coincide exactly with aforesaid counterbore. The die-plate is secured to the chuck by means of the bolts or screws i'. The arms h h' are drawn toward each other, with a tendency to open or separate the parts of the chuck, by means of

the spring J. Fitted to slide in frame B is a plate, L, which carries the two jaws M M' of the bolt or screw clamp, and to which is hinged a lever, N, for operating it. The jaw M' is secured rigidly to the plate B, while the jaw M is pivoted to it, so as to allow of lateral movements for claspings and releasing the bolt or screw. Fitted upon the outer ends of the jaws M M' are friction-rollers m m', between which plays the half-wedge O in vertical motion. The half-wedge is secured to the lever N, so that said lever can perform the double operation of manipulating the feed-slide L, and controlling the grasp of jaws M M' upon the bolt or screw to be cut. P is a spring for compressing the jaws against the wedge. The plate or slide L also carries a lever, Q, for operating the rod F at the proper time to open and close the chuck H H', which time is regulated by the movable collars R R'.

It is obvious that the friction-rollers can be dispensed with, and a stationary friction-surface introduced instead.

By the application of the lever N, as above described, the operator can feed up the bolt or screw, and, when finished, release it from the jaws, while the other hand is occupied in providing fresh bolts or material to be cut, and placing it in position, the device thus allowing of the most complete and useful application of the labor of the operator.

Having thus described my invention, I desire to claim—

1. In a screw-cutting machine, in combination with the two-part die-plate I i, the two-part counterbored retaining-chuck H H' h², operating-arms h h', and supporting-plate G, the whole constructed to operate substantially as described.

2. In a screw-cutting machine, the combination of jaws M M', lever N, wedge O, and spring P, all connected and operating substantially as and for the purpose specified.

In testimony of which invention I hereunto set my hand.

GEORGE EMIG.

Witnesses:

JOHN E. JONES,
EDGAR J. GROSS.