

J. S. CAMPBELL & T. T. EYRE.

SCREW CUTTING DIES.

No. 178,409.

Patented June 6, 1876.

Fig. 1.

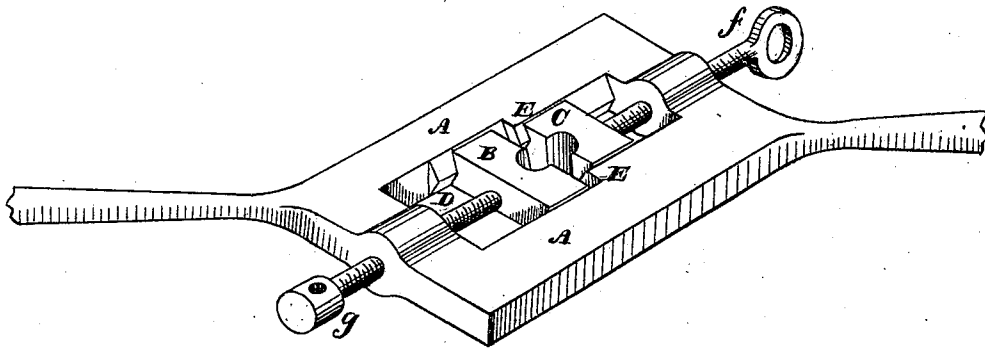
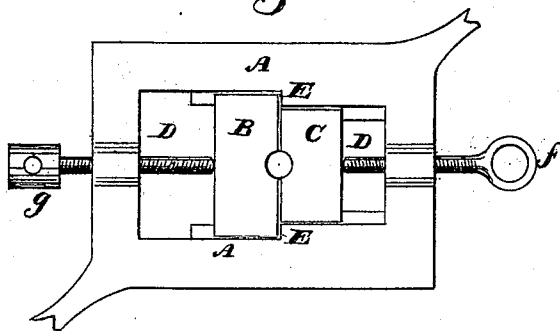


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN S. CAMPBELL, OF ASTORIA, AND THOMAS T. EYRE, OF SALEM, OREGON.

IMPROVEMENT IN SCREW-CUTTING DIES.

Specification forming part of Letters Patent No. **178,409**, dated June 6, 1876; application filed January 17, 1876.

To all whom it may concern:

Be it known that we, JOHN S. CAMPBELL, of Astoria, Oregon, and THOMAS T. EYRE, of Salem, Marion county, State of Oregon, have invented an Improved Screw-Plate; and we do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use our said invention without further invention or experiment.

The object of our invention is to so arrange and apply the dies in a screw-plate that they can be set to threads of any desired size, and so that when the dies are once set they will cut a screw of uniform size, so that the same nut will fit every screw made by it.

Referring to the drawings, Figure 1 is a perspective view of our bolt-cutter. Fig. 2 is a plan view.

Let A represent the stock or screw-plate. For convenience we have applied our invention to a screw-plate in which the handles are formed on diagonal corners of the plate, so as to leave the ends of the plate free for the passage of the screws which operate the dies. The recess D, or slot in which the dies B C move, is made narrower at one end than at the other, so that the narrower die C moves in the narrow portion, while a wider die, B, moves in the wider portion, thus providing a shoulder, E, on each side of the slot or recess, against which the larger die will strike when moved toward the smaller die C. The sides of the slot or recess are made V-shaped, in the usual way, and the edges of the dies are grooved accordingly, so as to guide the dies and hold them in place. A thumb or lever screw, *f*, passes through the end of the screw-plate A, so that its end will press against the narrow die C, while another screw, *g*, passes

through the opposite end of the plate, so that its end presses against the back of the die B.

In using this screw-plate, the size of the screw to be made is first obtained. The narrow die C is then set, by means of the thumb-screw *f*, so that when the wider die B is forced up against the shoulder E of the recess D, the screw formed by the two dies will be of the proper size. The widest die is then moved back, so as to admit the end of the bolt or screw-rod; and, as the screw is finished, the die B is moved up, by means of the screw *g*, until it strikes the shoulders E, thus finishing the screw. These shoulders E serve as a gage for determining the size of every screw.

When the die C is once set, every screw formed by the dies will be uniform as long as the die B is moved up against the shoulders in making the threads, and, by shifting the position of the die C, any desired size of screw can be formed.

We thus provide a very convenient screw-plate, by which screws in a variety of sizes can be made, and every screw will be uniform, so as to receive the same nut.

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

The screw-plate A, having the recess or slot D, made narrower at one end than at the other, so as to provide a shoulder, E, in combination with the dies B C, one of which moves in the narrow and the other in the wider portion of the slot, and operated by the screws *f g*, substantially as and for the purpose described.

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Witnesses:

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