

UNITED STATES PATENT OFFICE.

JAMES REYMOND AND ADOLPHE POINCENOT, OF ST. IMIER, SWITZERLAND.

SCREW-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 602,689, dated April 19, 1898.

Application filed July 6, 1897. Serial No. 643,565. (No model.)

To all whom it may concern:

Be it known that we, JAMES REYMOND and ADOLPHE POINCENOT, citizens of the Republic of Switzerland, residing at St. Imier, canton of Bern, Switzerland, have invented certain new and useful Improvements in Tool-Carriers for Screw-Cutting Machines; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The objects of this invention are to construct a device which can be conveniently secured to any screw-cutting machine and which permits of a separate cutting of the two sides of the screw-thread in such a manner that one side of the thread is turned off when the tool-carrier moves in one direction and the other side of the thread operated upon if the said carrier advances in the opposite direction.

The invention consists in the improved tool-carrier for screw-cutting machines and in the arrangement and combination of the parts thereof, as will be hereinafter more fully explained, and finally pointed out in the claim.

In the accompanying drawings, in which like letters of reference indicate similar parts throughout the several views where they occur, Figure 1 is a plan view of a screw-cutting machine, showing our improved tool-carrier attached thereto. Fig. 2 is an elevation of the said tool-carrier. Fig. 3 is a sectional view illustrating one of two devices or holders which retain each a cutter or tool, and Fig. 4 illustrates a part of a screw and the two cutters in their proper relation to the thread.

The improved tool-carrier consists of a plate A, comprising two arms *a* and *b*, and of two devices or holders destined to receive the cutting-tools.

The tool-carrier can be secured by the arm *a* to the carriage B of the screw-cutting machine in any convenient manner. The device or holder D is firmly secured or integral with the plate A and provided with an adjustable sleeve E. This latter contains a tool-holder *f*, having one of its ends enlarged to receive the tool *d*, and a nut *f'*, provided upon the

other threaded end, which is adapted to draw the tool-holder *f* within and press the tool *d* tightly against the face of the sleeve E in order to secure it, as will be understood. A set-screw F, working in the plate A and engaging with a collar on the sleeve E, allows of axially displacing the latter, and thus adjusting the tool *d* parallel to the axis of the screw to be threaded, according to the pitch of the thread required. Upon the arm *b* is adjustably secured the second tool-holder C, the cutting-tool *c* being held fast therein in any appropriate manner. This tool *c*, as well as the holder C, can be adjusted at a right angle to the axis of the screw to be threaded by means of the set-screws *h* and *i*, according to the diameter of same.

The sides of the screw-thread being turned separately, the tools are less apt to become dull. The thread so turned is more perfect, absolutely clean and sharp, and a screw-cutting machine provided with such a device requires considerably less driving power. At the same time there is a great saving of labor, there being no idle return movement of the tool-carrying carriage.

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

In a screw-cutting machine, a support or plate provided with two tool-holders, one integral therewith and the other movable thereon, said first tool-holder adapted to be adjusted parallel to the axis of the work-piece according to the pitch of the screw-thread required, and said second tool-holder capable of adjustment at right angles to the axis of the work-piece according to the diameter thereof, whereby the cutters are adapted to act separately upon the work-piece during the forward and return movement of the carriage, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES REYMOND.
ADOLPHE POINCENOT.

Witnesses:

C. HAMLIN,
ROBT. SOLLBERGER.