No. 713,004. Patented Nov. 4, 1902.

# J. HUNTER.

## TOOL HOLDER.

Application filed Jan. 14, 1902.

(No Model.)

Fig. 1

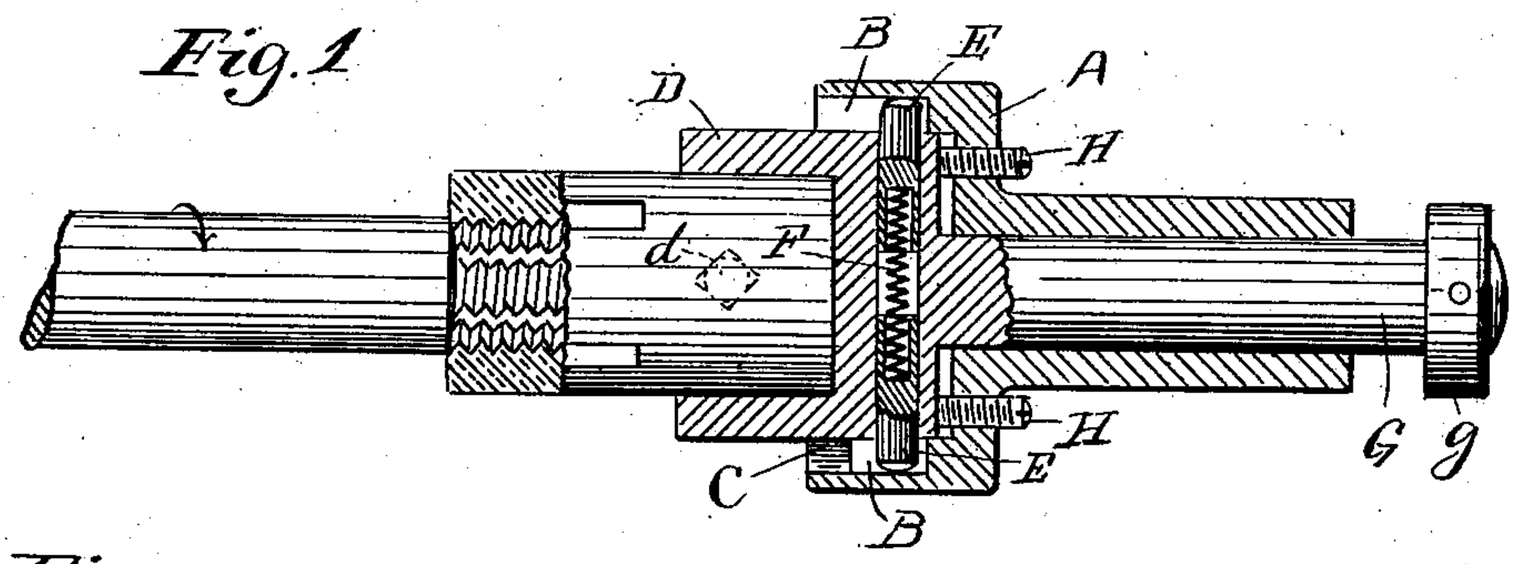



Fig 2

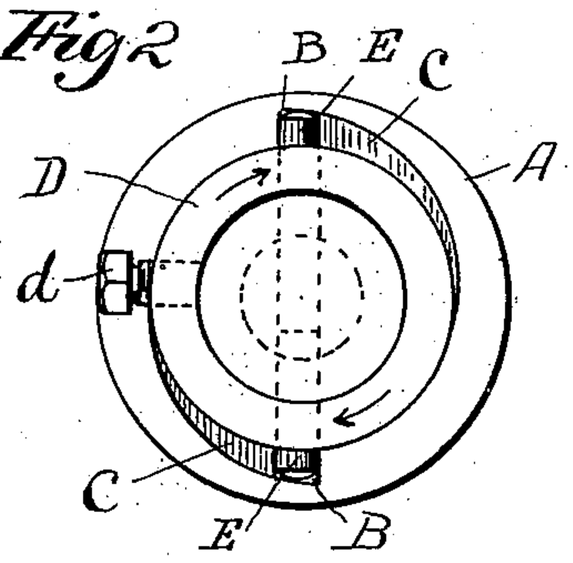



Fig. 3

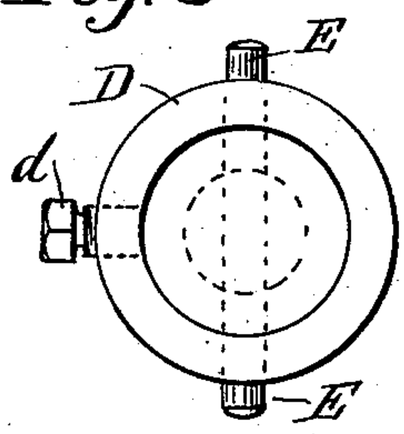



Fig 4

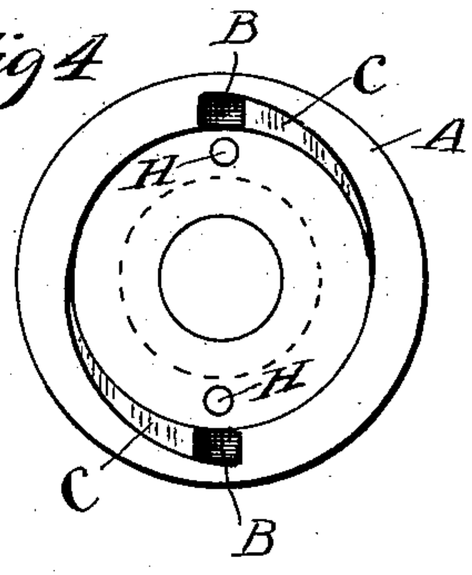



Fig. 5.

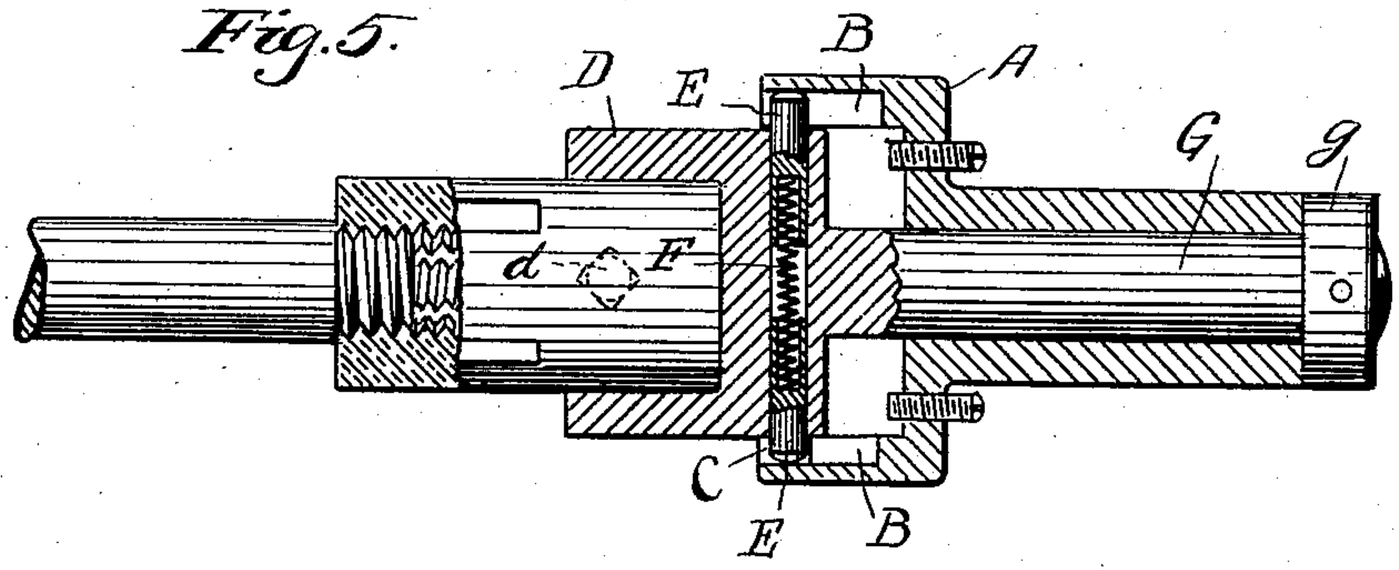
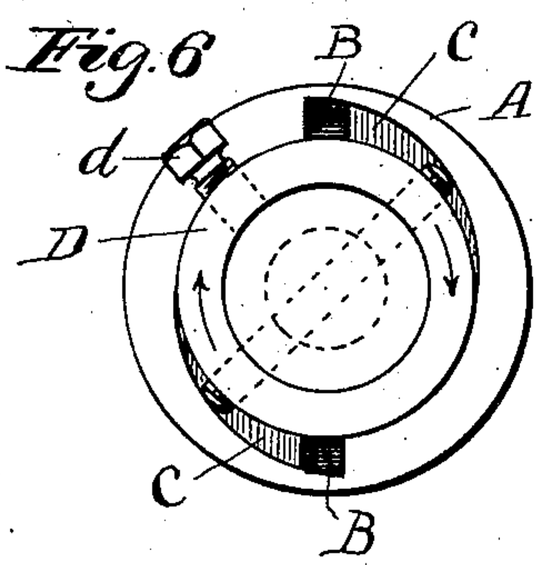



Fig. 6




Witnesses
C. F. Kilgore
D. H. Greenendahl

Inventor
James Hunter
By Simonds & Hawley
Attorneys

# UNITED STATES PATENT OFFICE.

REISSUED

JAMES HUNTER, OF HARTFORD, CONNECTICUT.

## TOOL-HOLDER.

SPECIFICATION forming part of Letters Patent No. 713,004, dated November 4, 1902.

Original application filed October 29, 1901, Serial No. 80,419. Divided and this application filed January 14, 1902. Serial No. 89,749. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES HUNTER, a citizen of the United States, and a resident of Hartford, county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Tool-Holders, of which the following is a full, clear, and exact description, whereby any one skilled in the art may make and use the same.

The invention relates particularly to an apparatus of the kind specified having features of novelty and advantage.

In the drawings, Figure 1 is a side view, partly in section, of a tool-holder embodying my invention, showing the parts in their original position before beginning to cut the thread. Fig. 2 is an end view of the holder with the die removed. Fig. 3 is an end view of the die-holder. Fig. 4 is an end view of the body portion. Fig. 5 is a side view, partly in section, similar to Fig. 1, but with the parts in their forward position after the thread has been cut. Fig. 6 is an end view showing the operation of the cam-slots and the pins.

Referring to the drawings, A denotes the body part, having a reduced shank, by which it is supported in the turret of the machine. The body part A has two grooves B formed lengthwise along its interior face, these grooves at their outer ends opening into cam-shaped circumferential slots C C. The die-holder D is of ordinary construction, having a recess for the die and means, such as the screw *d*, for holding the die in place. In this die-holder are located two pins E E, movable radially and continually pressed outward by a spring F. At the rear of the die-holder is a reduced shank G, which passes through the shank on the body part and projects beyond it. At the end of the shank of the die-holder is secured a collar *g*, which limits the movement of the forward travel of the die-holder through the body. Projecting through the rear wall of the body are screws H H, which limit the inward movement of the die-holder. By means of these screws the length of the thread to be cut can be adjusted to any desired degree, and the tool can be made to cut a single thread or a dozen or more by simply changing the adjustment of these screws.

The operation of the device is as follows: The die in the die-holder is presented to the blank which is to be operated upon and which rotates as shown in Fig. 1 of the drawings. The pins E E on the die-holder are located in the lengthwise grooves of the body. When the die is brought into contact with the blank, it of course begins to cut a thread, the die-holder being held against rotary movement by the pins E in the grooves B. The die-holder is, however, free to move lengthwise of the body part, and this it will do under the influence of the thread which is being cut on the blank, and it will continue to move forward until such time as the pins come into the path of the cam-shaped slots C C. The die-holder is then free to revolve with the blank, the pins being formed to travel by the high points of the cam-slots by compressing the spring F. When the machine reverses, the die-holder reverses its direction of rotation until the pins come in contact with the sides of the lengthwise grooves formed by the high points of the cam-slots. The further rotation of the die-holder is thus prevented, and under the influence of the thread which has been cut the die-holder is driven backward to its original position, the pins traveling in the lengthwise grooves in the body. The forward movement of the die-holder is limited by the collar *g*, secured to the end of its shank.

This application is a division of my original application serially numbered 80,419 and filed October 29, 1901.

I claim as my invention—

1. In a device of the class specified the body portion, grooves arranged lengthwise thereof, said grooves opening at their outer ends into cam-shaped slots, the die-holder capable of lengthwise movement with respect to the body, and radially-movable pins adapted to move in the lengthwise grooves and in the cam-slots in said body, substantially as described and for the purposes set forth.

2. In a device of the class specified, the body portion, grooves arranged lengthwise thereof in its interior surface, said grooves at their outer ends opening into cam-shaped slots, the die-holder capable of lengthwise movement with respect to the body, spring-operated pins adapted to move in the lengthwise grooves and in the cam-slots in said body, and adjust-

able means for limiting the inward movement of the die-holder, substantially as described and for the purposes set forth.

3. In a device of the class specified the body portion, grooves arranged lengthwise thereof, cam-shaped slots formed near one end of said body portion and arranged in communication with said lengthwise slots, the die-holder capable of movement lengthwise within the body, pins carried by the die-holder and movable radially with respect thereto, said pins engaging said grooves, and springs pressing the pins into said grooves, all substantially as described and for the purposes set forth.

JAMES HUNTER.

Witnesses:
D. I. KREIMENDAHL,
M. H. C. DERBY.