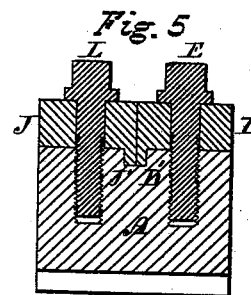
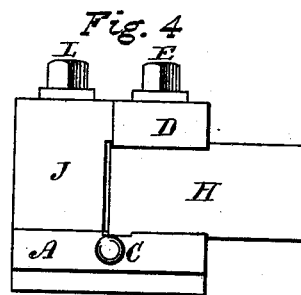
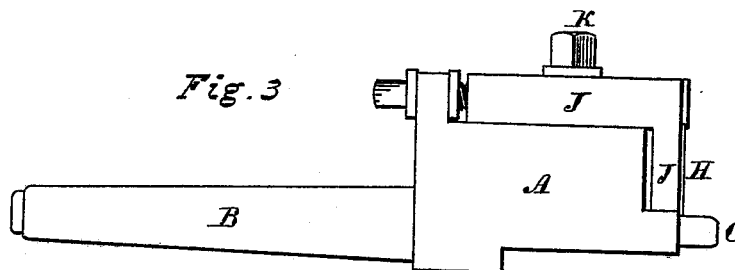
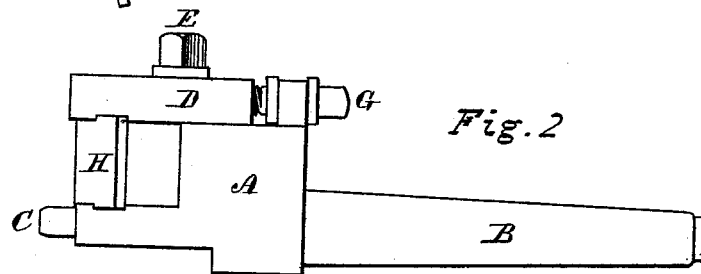
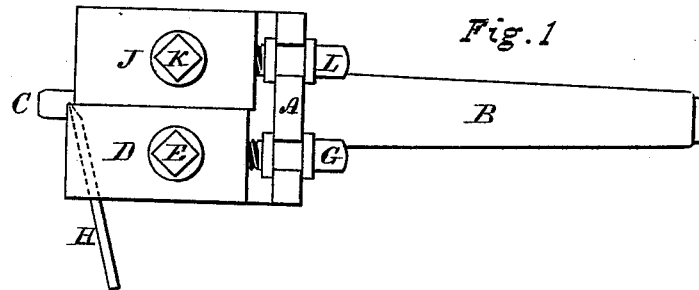


T. E. KING.
Tools for Turning the End of Spools.
No. 215,005. Patented May 6, 1879.



Witnesses.

Wm. B. Curtis
M. C. Johnson

Inventor.

Theodore E. King
by Theo. G. Bell, Attorney

UNITED STATES PATENT OFFICE.

THEODORE E. KING, OF ROCKVILLE, CONNECTICUT.

IMPROVEMENT IN TOOLS FOR TURNING THE ENDS OF SPOOLS.

Specification forming part of Letters Patent No. **215,005**, dated May 6, 1879; application filed March 8, 1879.

To all whom it may concern:

Be it known that I, THEODORE E. KING, of Rockville, in the county of Tolland and State of Connecticut, have invented certain new and useful Improvements in Adjustable Tools for Turning the Ends of Spools and other similar articles; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

My improvement relates to tools to be used in machines for making spools, or in other similar machines, for the purpose of turning or planing the ends of the spool or other article.

In such machines the cutter has ordinarily been inserted into a solid head, so that the edge operated somewhat in the manner of a plane in removing the surplus material. The cutter being inserted in the head or stock at an angle, it has been necessary to grind and sharpen it with great care, so as to preserve the edge exactly at right angles to the length; otherwise the turned end of the spool would be cut conical instead of plane. If the top edge were ground off the most, the end would be dishing; and if the lower edge were ground too much, then the end would be crowning.

With the usual construction another difficulty has also been found. In order to regulate the depth of shaving to be taken off by the cutter, it has been driven forward or back in a similar manner to a plane-iron, so that it should project more or less from the body of the head in which it was set. This has moved the cutting-edge more or less out of the proper radial line of the spool, or its best position for cutting, and has also affected the length of the spool, which it is very desirable to have of an exact and uniform length.

The object of my improvement is to provide a means for holding and adjusting the cutter which shall be free from the above-named defects.

My invention consists in the mechanism which will be hereinafter described.

In the accompanying drawings, Figure 1

shows a top view of my improved tool. Fig. 2 shows a side view on what may be called the "front" of the tool. Fig. 3 shows a view of the back of the tool. Fig. 4 shows an end view; and Fig. 5, a vertical cross-section through the clamping-nuts.

A is the head-block, to which the parts of the tool are attached. B is a taper spindle, which fits into a socket in the machine to hold the tool while in use. C is a pin or center, which enters into the hole of a spool or other article to be operated upon, and upon which it turns. D is a slide upon the top of the block A. It has a lip or guide, D', which runs in a groove in A to hold it exactly in line.

E is a clamp-screw, for holding the slide D securely in place when set. G is an adjusting-screw, which rests in a vertical flange upon the part A, and in which it turns in a suitable socket, the screw-thread entering into the slide D, so that when the screw is turned by means of a wrench or otherwise it moves the part D upon the block A.

The parts A and D are furnished with grooves for holding the top and bottom edges of the cutter H, as shown in the drawings. The cutter H rests in these grooves, and when the clamp-screw E is tightened it is clipped and firmly held in place. By turning the screw G when the cutter is in its place, the top edge is moved to the right or left, so as to bring the cutting-edge exactly at right angles to the axis of the spool, and thereby shave the end to a perfect plane.

J is a sliding piece, fitted to the top of the block A, and extending downward, just back of the cutting-edge of the cutter, so as to form the throat, which regulates the thickness of the shaving. This part J is furnished with a lip or guide, J', which runs in a groove in the block A, to hold it in line in the same manner as the part D. The lips and groove are shown more particularly in Fig. 5. The part J is also furnished with a clamp-screw, K, and an adjusting-screw, L, exactly in the same manner as the part D. By means of the adjusting-screw L the part J is moved nearer to or farther from the cutting-edge of H to adjust the opening of the throat. This obviates the necessity of moving the cutting-edge after it has been once set to its proper position.

In a machine requiring both ends of the article to be turned at the same time, as with spool-machines, two tools are used, one at each end. In this case the tools are reversed but symmetrical, and the rotating spindle, which carries the article and rotates it, passes through one of the tools. My invention is, however, applicable to turning any end surface in a plane exactly at right angles to the axis.

What I claim as my invention is—

1. The parts A and D, movable upon each other, and having grooves for clipping the

opposite edges of the cutter H, and provided with an adjusting and clamping mechanism, substantially as described.

2. The adjustable sliding throat-piece J, provided with adjusting and clamping mechanism, in combination with the fixed supports for the cutter H, substantially as described.

THEODORE E. KING.

Witnesses:

M. C. JOHNSON,
THEO. G. ELLIS.