

E. Osborne,

Tool for Making Wooden Legs.

N^o 57,755.

Patented Sep. 4, 1866.

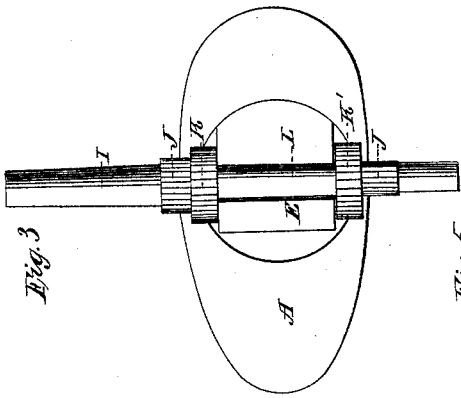


Fig. 3

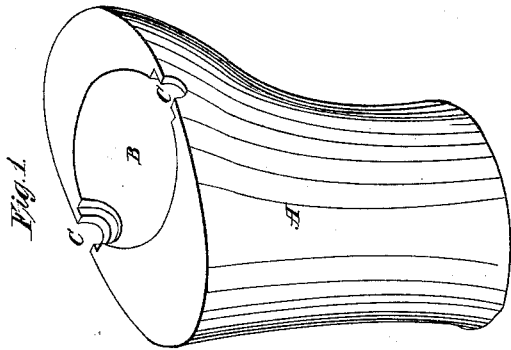
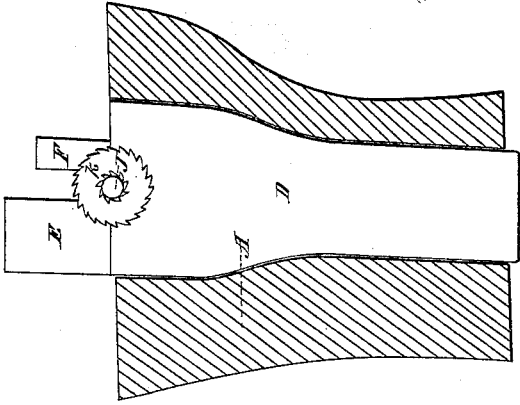


Fig. 1

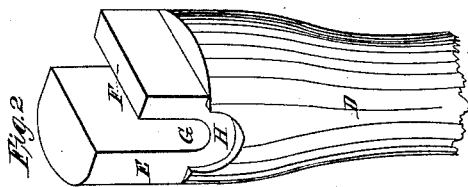


Fig. 2

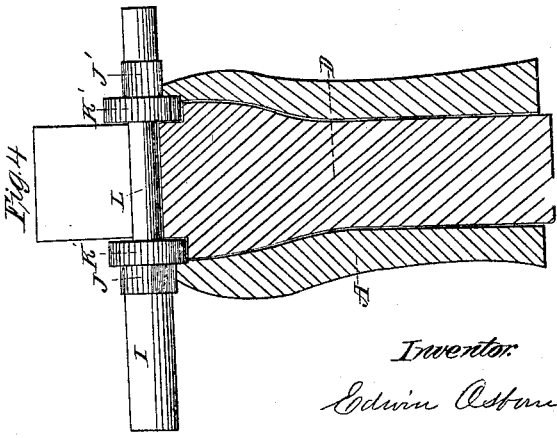


Fig. 4

Witnesses.
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UNITED STATES PATENT OFFICE.

EDWIN OSBORNE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN TOOLS FOR MAKING WOODEN LEGS.

Specification forming part of Letters Patent No. 57,755, dated September 4, 1866; antedated August 23, 1866.

To all whom it may concern:

Be it known that I, EDWIN OSBORNE, of the city of Philadelphia, in the State of Pennsylvania, have invented a new and Improved Burr-Cutter for Cutting the Countersinks for the Ankle-Joints of Artificial Legs; and I do hereby declare the following to be a full and correct description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the ankle portion of a wooden leg, showing its interior cavity and the counter-sinks required for the reception of the heads of the ankle-joints. Fig. 2 is a perspective view of the plug or holder which fits the cavity of the ankle-piece and supports the cutter and guides it when in operation. Fig. 3 is a top view of the plug and cutter in place in the ankle-piece. Fig. 4 is a transverse vertical section of the plug and ankle-piece, showing the cutter in place when its work is done. Fig. 5 is a longitudinal vertical section of the ankle-piece with the plug and cutter inserted.

The same part is marked by the same letter wherever it occurs.

In the manufacture of an artificial leg of wood it becomes necessary to countersink the head of the ankle-joint in the ankle-piece, and for that purpose to prepare the ankle-piece for the reception of the head of the joint by cutting out a counter-sink and shoulder, and an opening for the reception of the bolt-head, in the form clearly shown at C in Fig. 1. To do this with accuracy by hand is tedious and uncertain.

My invention consists in a peculiar construction and application of burr-cutters with their guiding-plug, for the performance of this work in the manner hereinafter set forth.

In Fig. 1 of the accompanying drawings, A marks the body of the ankle-piece of an artificial leg; B, its interior cavity, and C the counter-sink and shoulder for the reception of the head and bolt of the ankle-joint.

D in the drawings, marks the plug or holder, which is most fully represented in Fig. 2. It

is made of the exact shape of the cavity B, so as to fit it perfectly.

The cavity B is cut by a tool of my invention, for which I have applied for a patent, and is always uniform in dimensions for legs of uniform size.

The plug has two projections, E F, between which is the semicylindrical groove G, for the reception of the shaft of the burrs. H is a counter-sink, in which the largest burr rotates.

I marks the conical end of the cutter-shaft, which is made to fit the chuck of an ordinary lathe. J J' K K' are the burrs, of which K K' are the largest and of equal size. Their function is to cut the cavity for the reception of the head of the joint. J cuts the aperture for the head of the bolt, and J', which is the smallest burr, cuts the aperture for the small end of the bolt.

The middle portion L of the shaft fits and turns in the groove G of the plug D.

The operation is as follows: The ankle-piece A having been prepared by the tool before alluded to for the reception of the plug, this is inserted in the cavity B in the proper position to guide the action of the cutters. The shaft I is chucked in the lathe, and the ankle-piece with the plug inserted is brought up so that the portion L of the cutter-shaft shall gradually pass down into the groove G. Rapid rotation is imparted to the shaft, and the burrs finish their work as soon as the shaft L comes into contact with the bottom of the groove G. The ankle-piece is then withdrawn and the plug removed for a repetition of the operation.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

The plug D, in combination with the burr-cutters, constructed, arranged, and operating substantially in the manner and for the purpose specified.

EDWIN OSBORNE.

Witnesses:

CHAS. F. STANSBURY,
J. EDWARD NEEL.