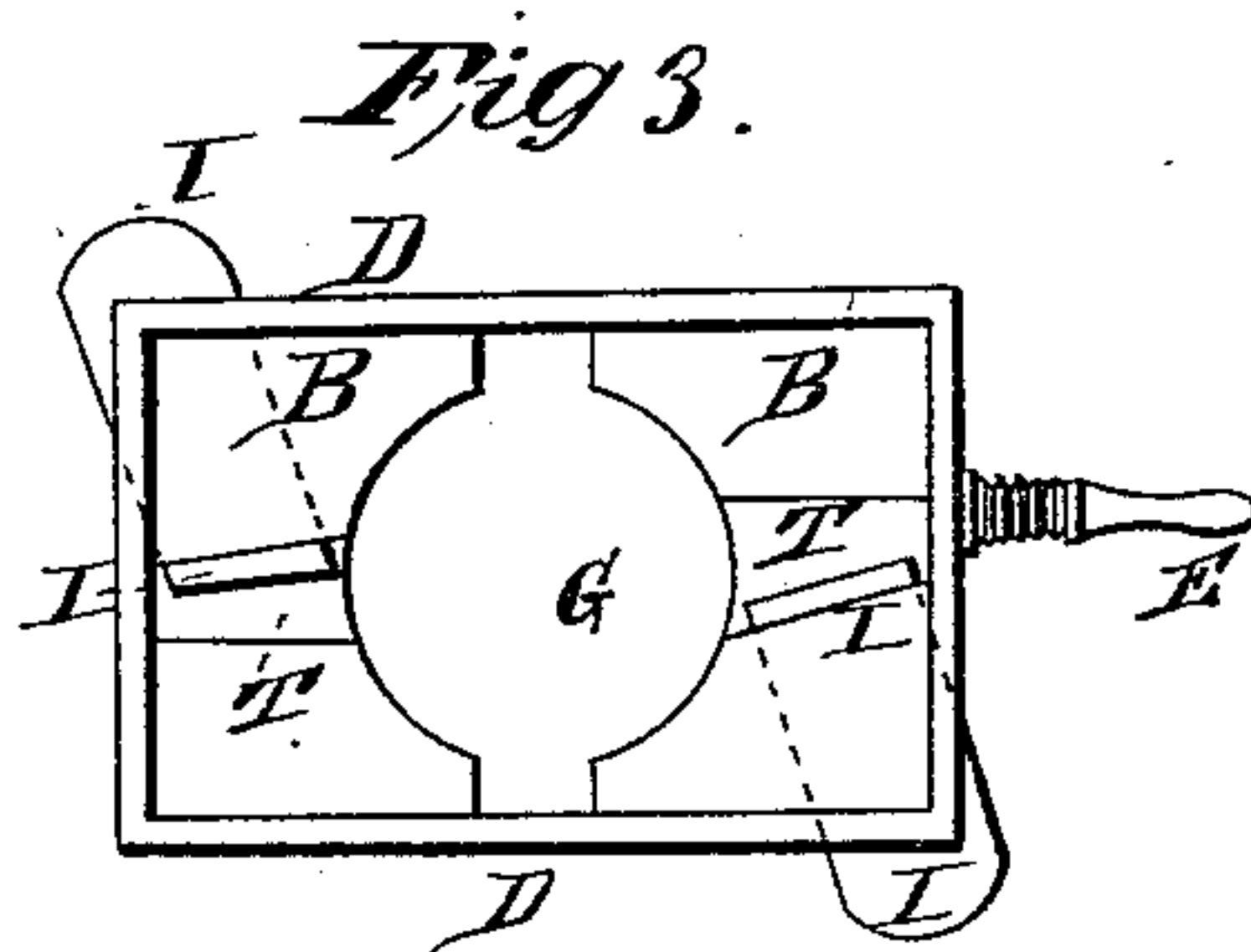
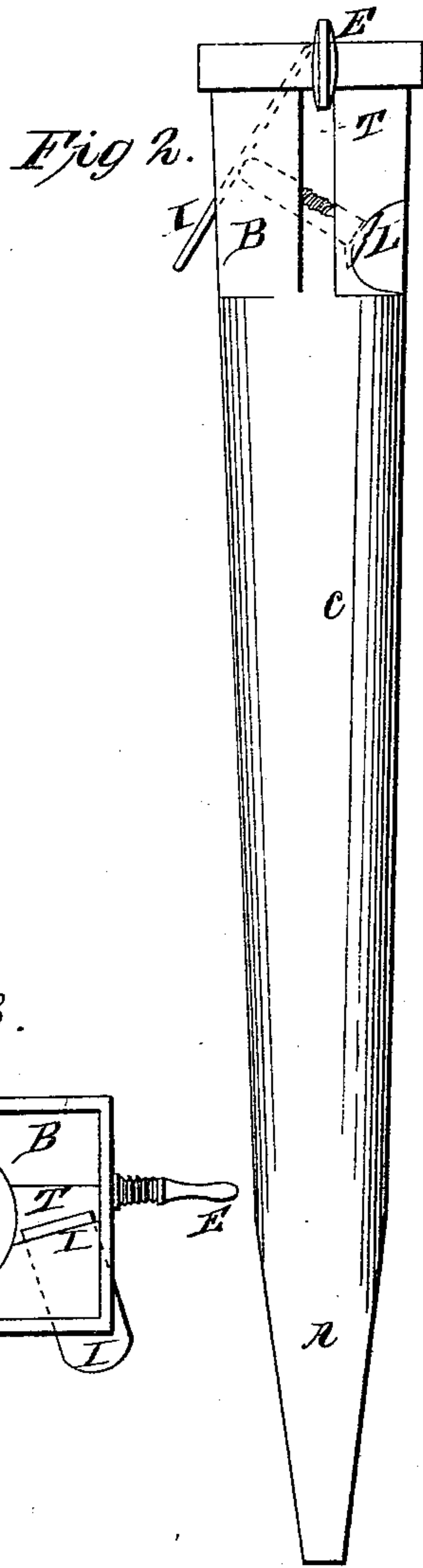
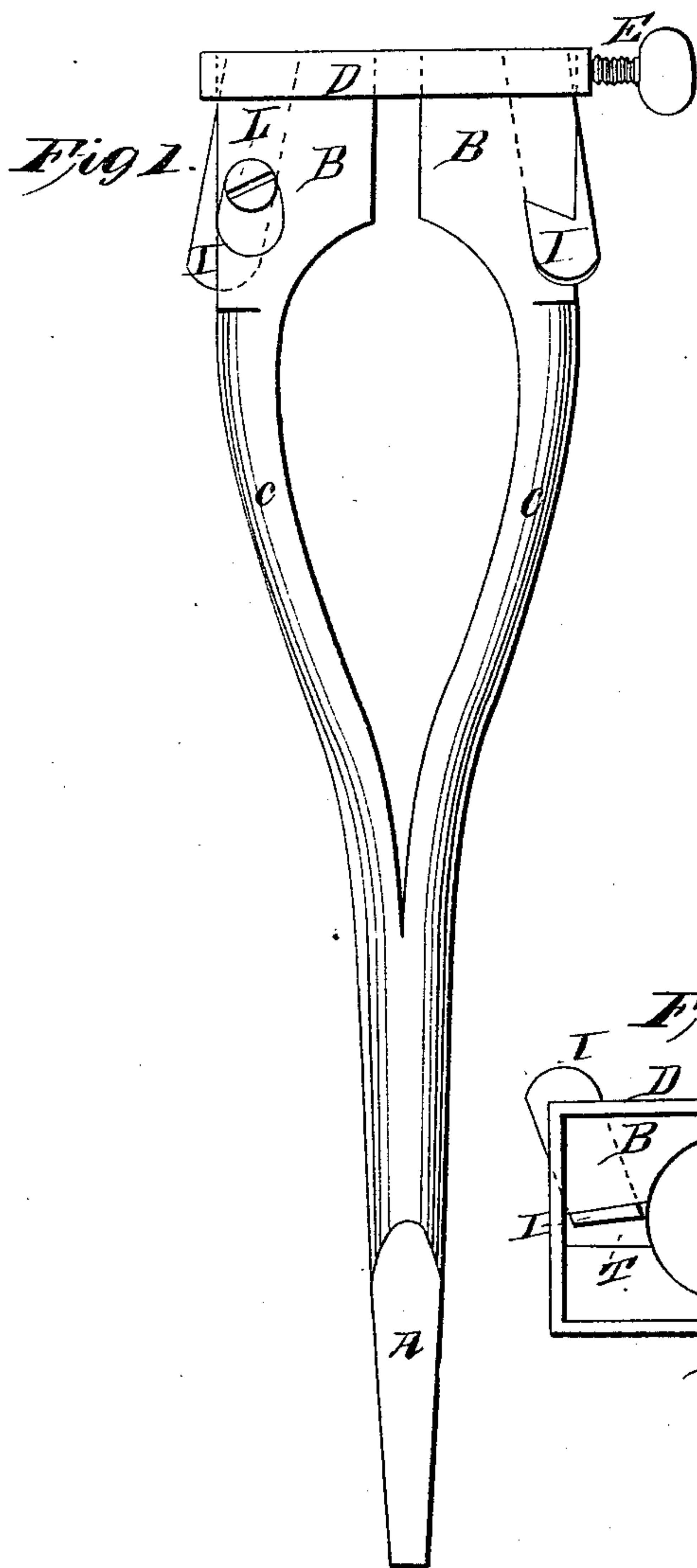


M. Isbell,
Hollow Auger,
No 64,423, Patented May 7, 1867.



Witnesses:

A. J. Tibbitts
Wm. B. Hummelf

Inventor:

BY HIS ATTORNEY Morris Isbell

Wm. E. Earle

United States Patent Office.

MORRIS ISBELL, OF NEW HAVEN, CONNECTICUT.

Letters Patent No. 64,423, dated May 7, 1867.

IMPROVEMENT IN HOLLOW AUGERS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, MORRIS ISBELL, of New Haven, in the county of New Haven, and State of Connecticut, have invented a new Improvement in Hollow Auger; and I do hereby declare the following, when taken in connection with the accompanying drawings, and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view

Figure 2, an edge view; and in

Figure 3 an end view.

This invention relates to that class of augers or instruments used for forming tenons upon spokes, or for like purposes, and consists in the peculiar construction whereby it is made easily adjustable to any required size of tenon within certain limits.

To enable others to construct and use my improvement, I will proceed to describe the same as illustrated in the accompanying drawings.

A is the shank, formed to fit the mandrel or shaft by which the auger is revolved. B B are the two parts of the head of the auger, formed upon elastic springs C, which are united upon or so as to form the shank, as seen in fig. 1. Around the head is placed a metallic band, D, (see fig. 3,) through which a set-screw E passes, bearing upon one of the parts of the head, so that by turning in the screw the two parts of the head are forced toward each other, and by releasing the screws the reaction of the springs forces the two parts of the head asunder. Between the two heads a space is formed, sufficiently large for the largest tenon to be formed, and in each of the parts of the said head is fixed a cutter, I, extending through to the face, as seen in fig. 3, and denoted by broken lines, fig. 2, and each cutter secured in its place by a set-screw, L, or otherwise, and each of the cutters provided with a throat, T, through the head, to permit the shavings to pass freely out. The band D passing, as it does, entirely around the head, and of sufficient strength, serves to hold the two parts of the head firmly in the proper position relative to each other. Thus is produced a hollow auger extremely simple, durable, and cheap in its construction, and easily adjusted for cutting different-size tenons.

I do not broadly claim an adjustable hollow auger, as such are common and well known.

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

The divided head B, in combination with the springs C C, the band D, and the adjusting screw E, all constructed and arranged to operate substantially in the manner described.

Witnesses.

JOHN E. EARLE,

A. J. TIBBITS.

MORRIS ISBELL.