

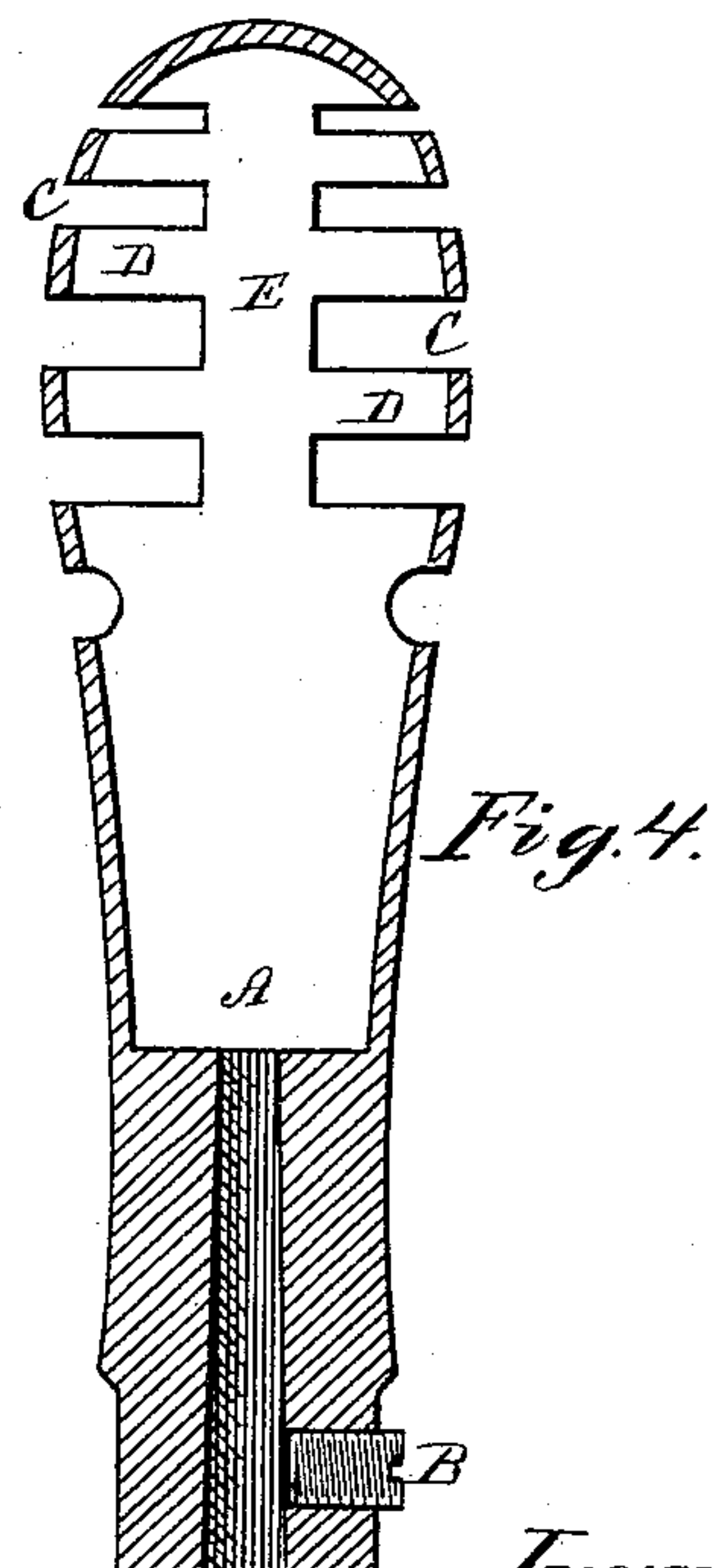
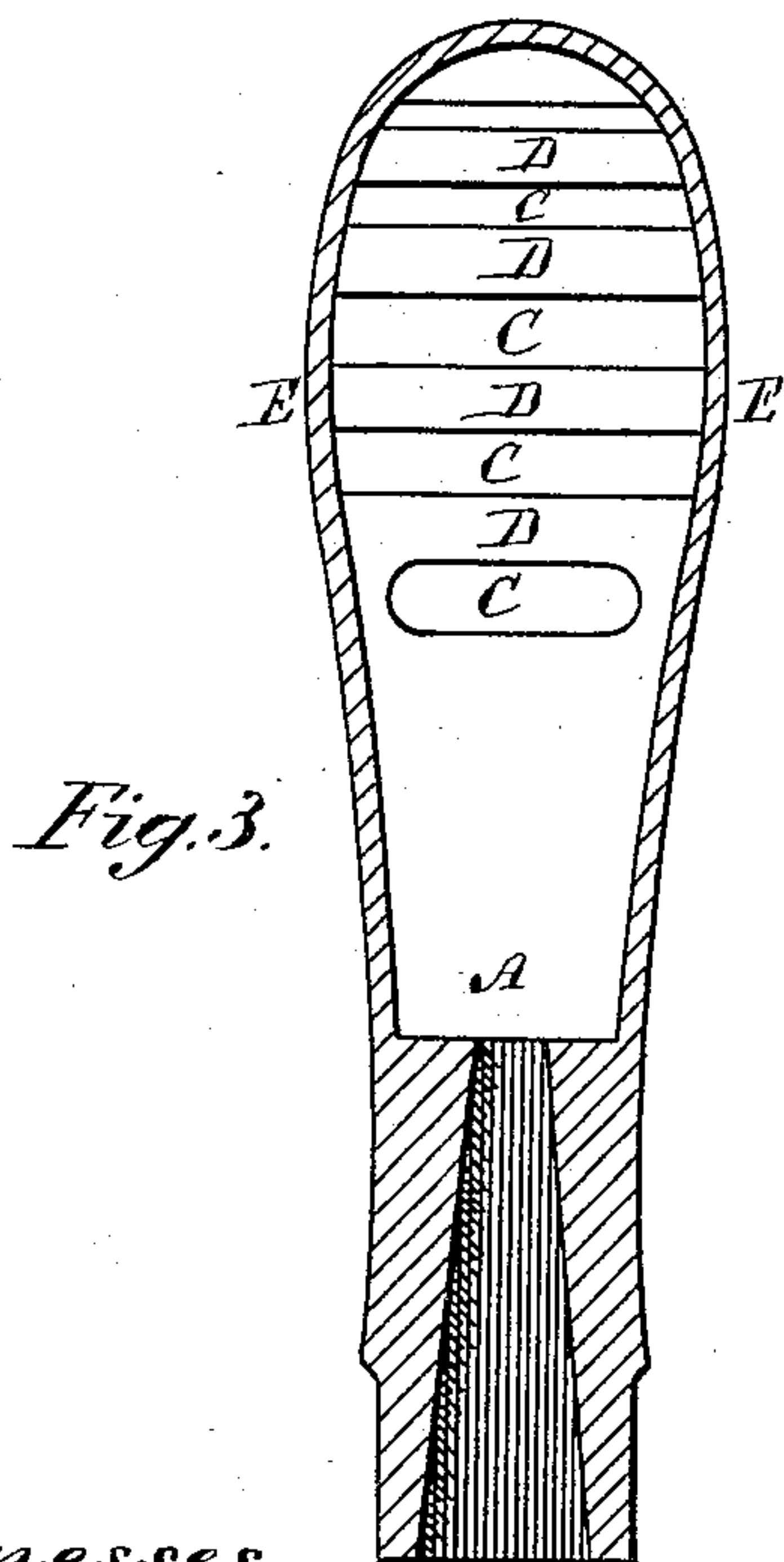
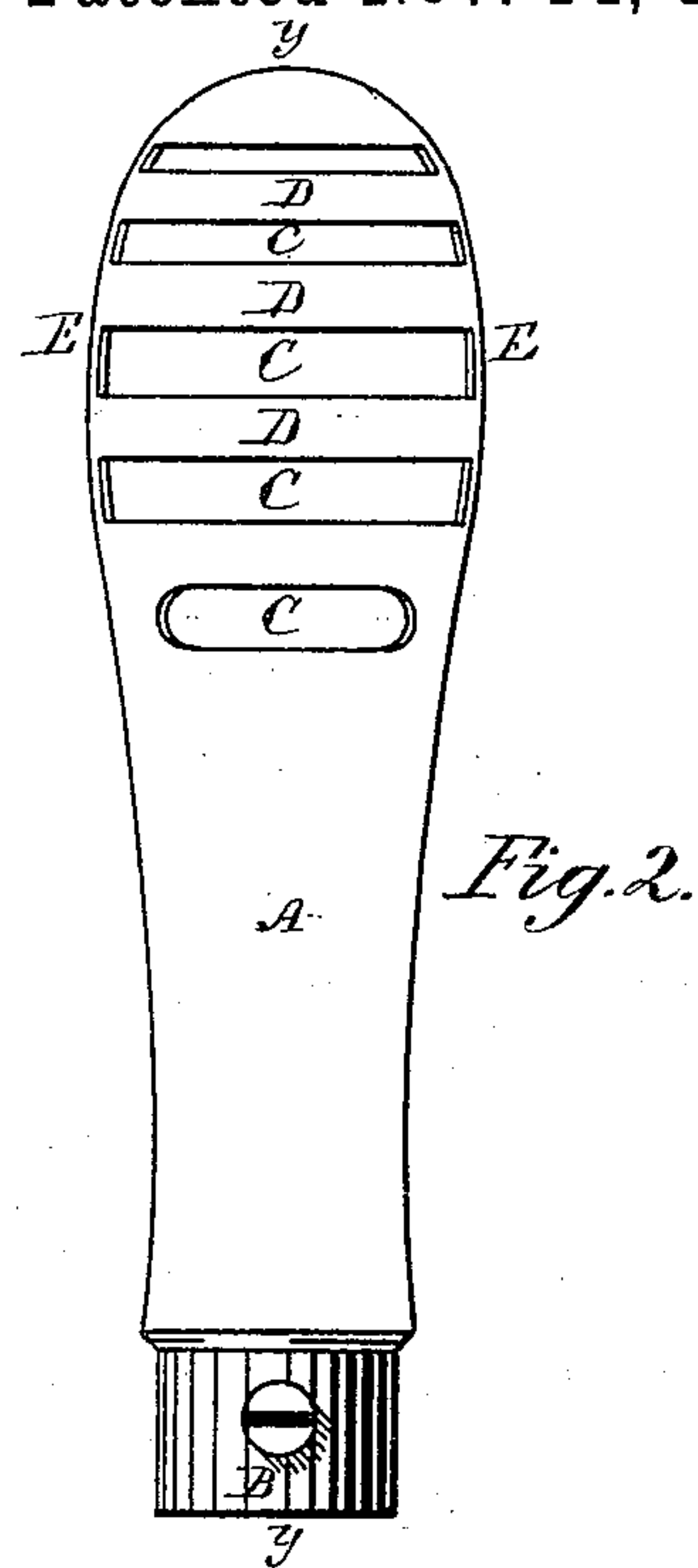
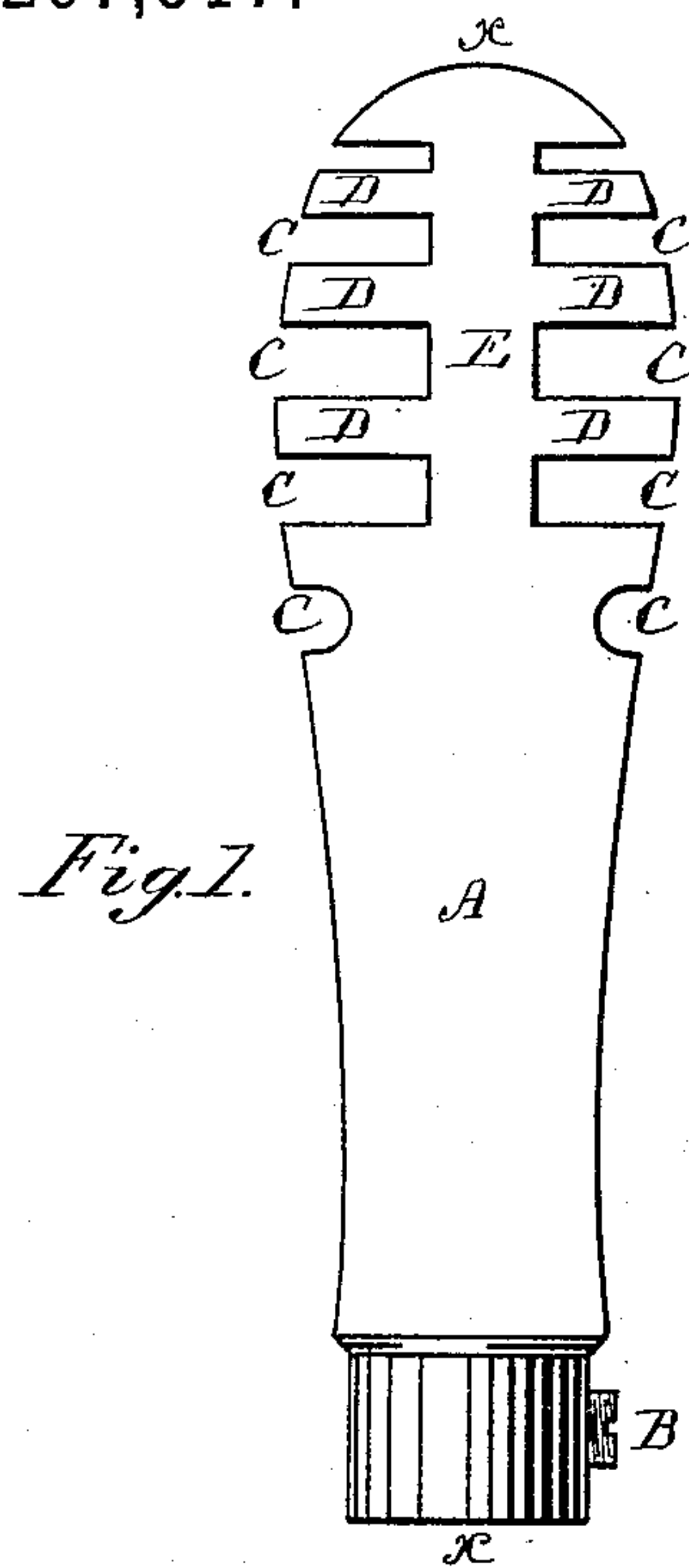
(No Model.)

J. C. GRAY.

TOOL HOLDER.

No. 267,517.

Patented Nov. 14, 1882.



Witnesses.
Edwin F. Dimock.
Wilmat Horton

Inventor.
John C. Gray,
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UNITED STATES PATENT OFFICE.

JOHN C. GRAY, OF HARTFORD, CONNECTICUT.

TOOL-HOLDER.

SPECIFICATION forming part of Letters Patent No. 267,517, dated November 14, 1882.

Application filed September 4, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. GRAY, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Tool-Handles; 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 invention relates to handles for tools, particularly files and screw-drivers; and its object is to provide a more durable, cheaper, and more efficient handle than the wooden handles now commonly used for such tools in machine-shops.

My invention consists in a light hollow metallic handle provided with openings upon the sides, which make the handle lighter, furnish a better hold for the hand, and admit of supports for the core in casting, so that the mold can be readily and easily formed.

In the accompanying drawings, illustrating my invention, Figure 1 is a side view of my improved handle. Fig. 2 is a side view of my improved handle at right angles to the view shown in Fig. 1. Fig. 3 is a vertical section through the handle on the line *xx* of Fig. 1. Fig. 4 is a vertical section through the handle on the line *yy* of Fig. 2.

A is the body of the handle. This is made hollow, with a socket in the end for the tang of the file or other similar tool.

B is a set-screw for holding the tool in the socket. It can also be held in by means of

wedges at the sides, or in any other convenient and customary manner.

C C C, &c., are openings or slots through the shell of the handle, extending nearly around the circumference of the handle in parallel directions, leaving bars D D, &c., between them, which are connected together on the sides of the handle by the vertical bars or connections E E. There may be two or more of these vertical connections, dividing the slots C into two or more divisions, as desired, for appearance or strength. Two are shown in the drawings, being at the sides of Fig. 3.

By means of this construction the core which forms the interior hollow of the handle (shown in Figs. 3 and 4) rests upon and is supported by the ribs in the mold, which form the slots C, and is held in a true central position without difficulty, so that the handle is always evenly balanced. The casting is easily made, and the handle, when cast, is light and efficient for the purpose intended, which is not the case with the solid cast-metal handles now in use.

My improved handle can be made of various sizes, and is strong and durable, outlasting many tools upon which it is used, thus saving the use of a large number of the common wooden handles.

What I claim as my invention is—

A hollow metallic tool-handle provided with openings C in the sides, surrounded and separated by the solid portions D E, substantially as described.

JOHN C. GRAY.

Witnesses:

THEO. G. ELLIS,
EDWIN F. DIMOCK.