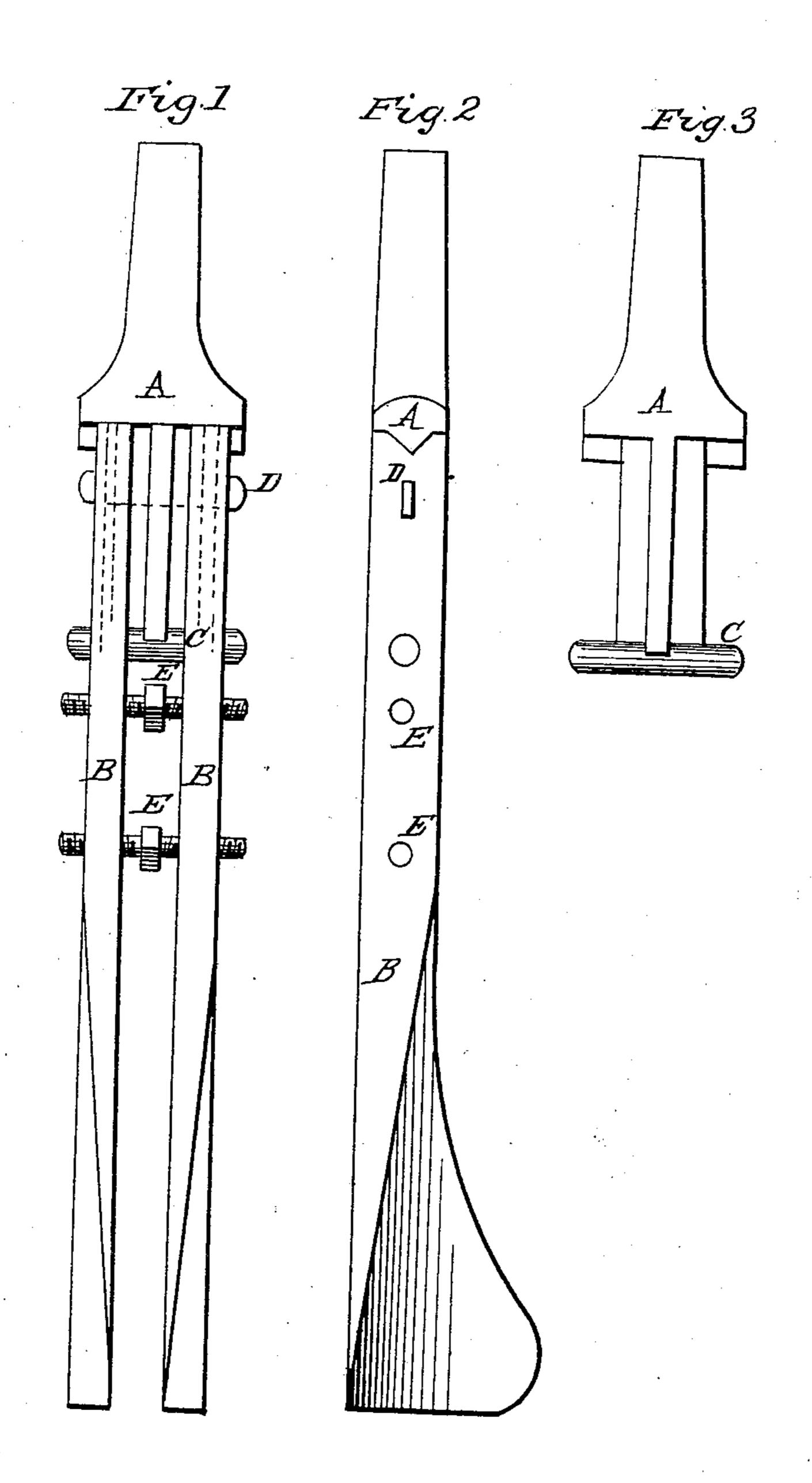
No. 77,357.

Patented April 28, 1868.



Spencer Foratt Of Mayhew.

INVENTOR Endrew & Cochran

## Anited States Patent Pffice.

## ANDREW J. COCHRAN, OF INDIANAPOLIS, INDIANA.

Letters Patent No. 77,357, dated April 28, 1868.

## IMPROVEMENT IN TENONING-CHISELS.

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

## TO ALL WHOM IT MAY CONCERN

Be it known that I, Andrew J. Cochran, of Indianapolis, in the county of Marion, and State of Indiana, have invented a new and useful Tenoning-Chisel; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making part of this specification.

My invention relates to chisels for cutting tenons, and which are adapted to use in ordinary mortising-machines, the novelty consisting in the arrangement of two adjustable bits, each having their edges formed in right-angular lines suitable to cutting the shoulder and paring the tenon at the same time:

Figure 1 is a side view, and

Figure 2 an edge view of the chisel.

Figure 3 is a view of the stock A.

Similar letters of reference indicate corresponding parts in the several figures.

The following description will enable skilled artisans to make and use my invention.

The chisel is composed of the stock A and bits BB. The cutting-end or edge of the bit is formed at a right angle, as shown, the part that pares the tenon being made of considerable width, in order to make a clean, smooth cut. The stock A is adapted to fit in the mandrel of ordinary mortising-machines, and the chisel is used in a similar manner to mortising-chisels.

In order to sustain the thrust in driving down the chisel, the stock is made with V-shaped shoulders that rest in corresponding notches in the upper ends of the bits, as shown, and the lower end of the stock is furnished with a short horizontal bar, C, forming a part of the stock, and which projects from the sides far enough to pass through the bits and help sustain them against the thrust, as well as preventing lateral movement.

The upper ends of the bits are grooved on the inside, down to the hole through which the bar C passes to receive the edges of the stock, and is thus arranged in order to give greater strength to the stock by the extension of its edges, and at the same time allow the bits to be set as near to each other as will be practically required.

The stock and upper ends of the bits are draw-mortised, so that the key D will draw the bits firmly against the shoulders of the stock. The bits may be set the proper distance apart by means of the set-screws E E, the opposite ends of which are cut with right and left screws, as will be readily understood from the drawing.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is— The combination of the bits B B with the stock A C, key D, and right and left screws E, when constructed and arranged to operate substantially as described.

Witnesses:

SPENCER HIATT, O. F. MAYHEW. ANDREW J. COCHRAN.