

(No Model.)

A. H. ADAMS.

BORING BRACE.

No. 282,251.

Patented July 31, 1883.

Fig. 1.

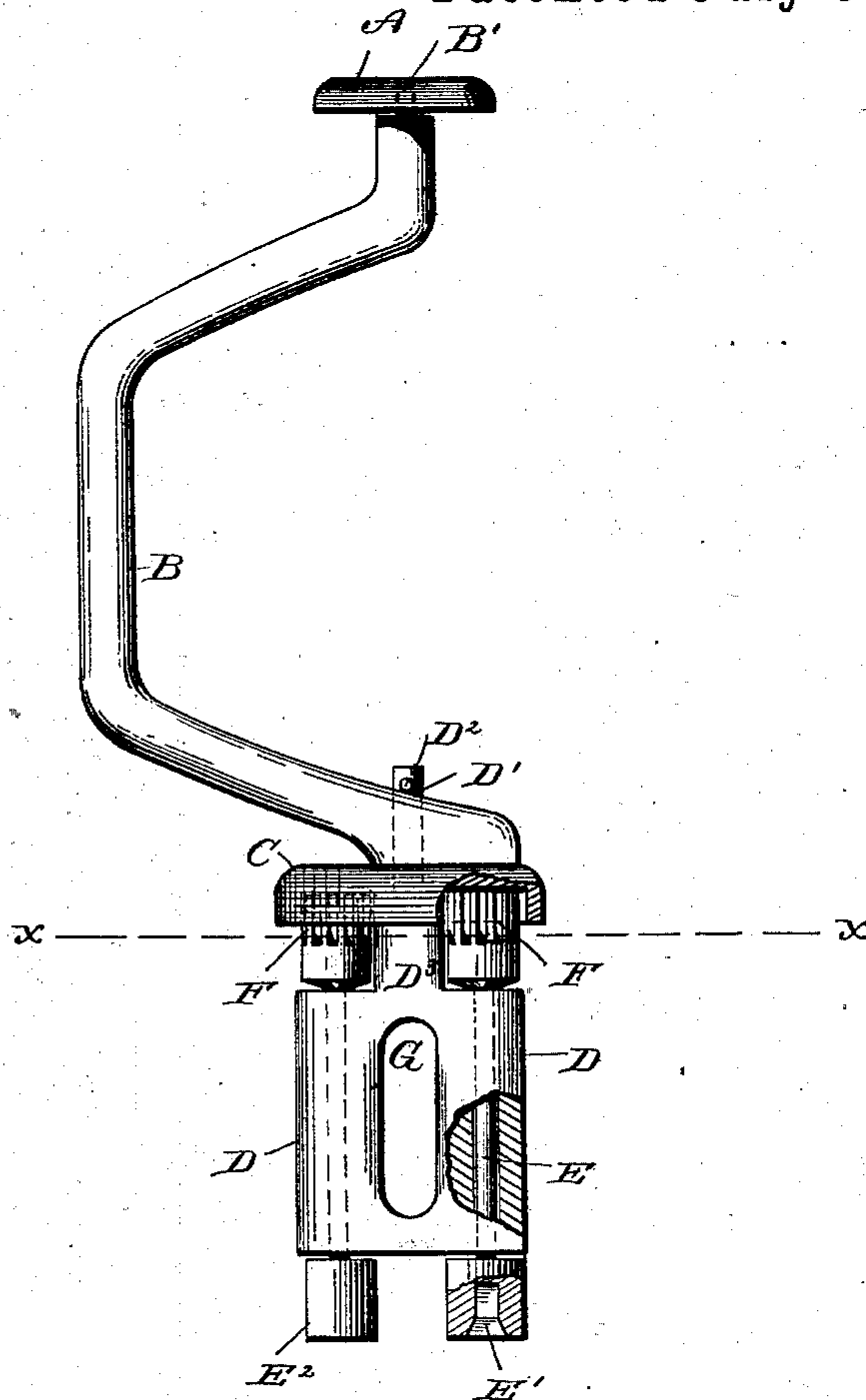
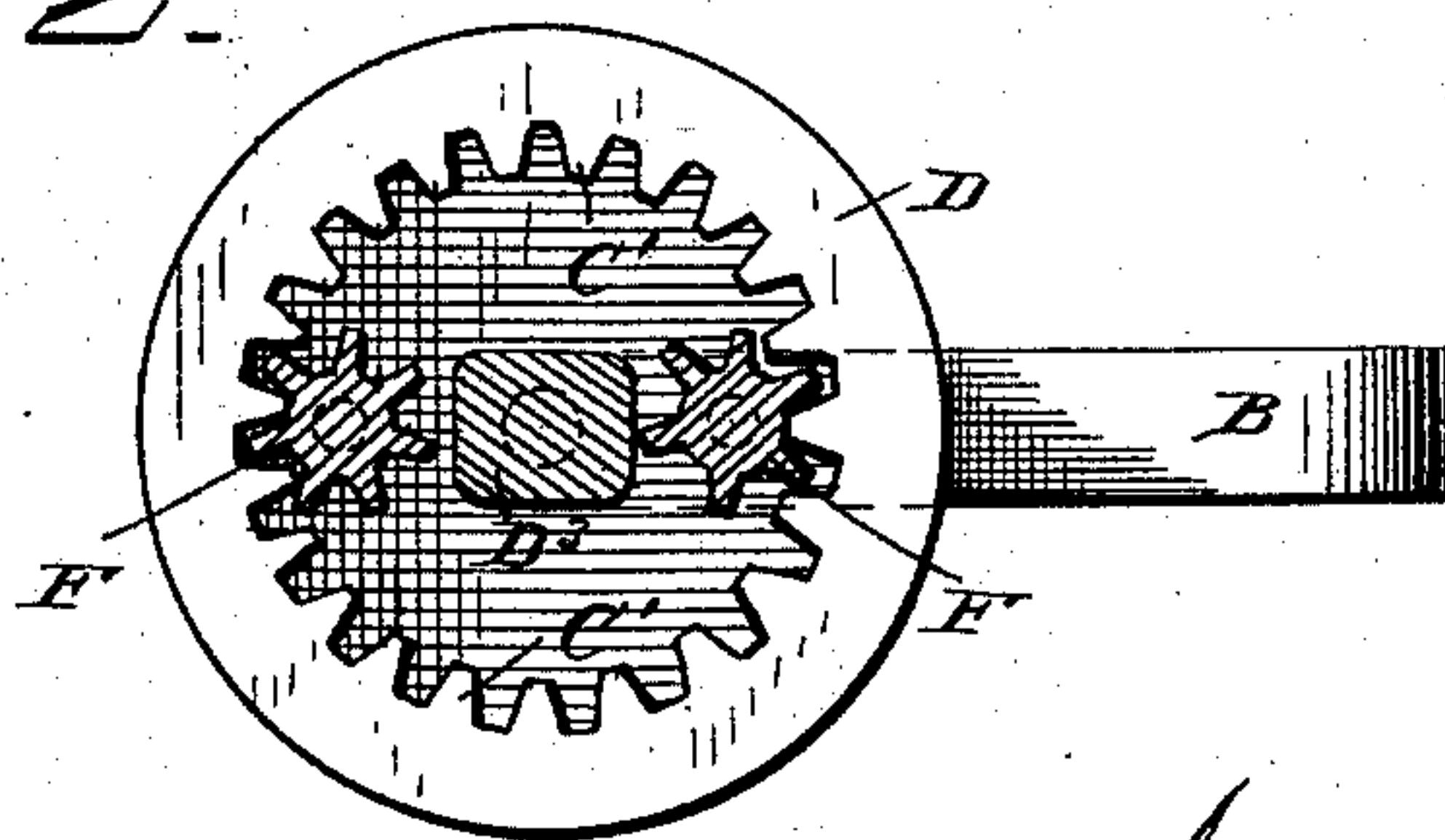


Fig. 2.



WITNESSES

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# UNITED STATES PATENT OFFICE.

AZRO H. ADAMS, OF SANTA ROSA, CALIFORNIA, ASSIGNOR OF ONE-FOURTH  
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## BORING-BRACE.

SPECIFICATION forming part of Letters Patent No. 282,251, dated July 31, 1883.

Application filed April 20, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, AZRO H. ADAMS, a citizen of the United States, residing at Santa Rosa, in the county of Sonoma and State of California, have invented certain new and useful Improvements in Boring-Braces, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to a boring-brace; and it consists in the parts which will be herein-after described, and pointed out in the claims.

In the accompanying drawings, Figure 1 represents a side view of my improvement, parts being broken away to better illustrate the device. Fig. 2 indicates a section on the line *xx* of Fig. 1.

In the two views like letters represent like parts.

A represents a cap revolubly mounted on the spindle B' of the crank B.

C is a crown-wheel rigidly united to the lower end of crank B. Said crown-wheel is provided with a rim having inwardly-projecting teeth C'.

D is a block through which the bit-spindles E pass.

D' is a spindle fixed to the projection D<sup>3</sup> of block D. Said spindle passes through the crown-wheel C and lower end of crank B, as shown by dotted lines, and it is revolubly mounted thereon.

D<sup>2</sup> is a pin in the upper end of spindle D' to secure said spindle and block D in position. E is the spindle of pinion F. E' is a socket in bit-holder E<sup>2</sup>.

G is an opening in block D, adapted to admit the fingers of the operator's hand for the purpose of holding said block and the bits in place while the device is being used.

The operation is as follows: The cap A and crank B are of ordinary construction. By

turning said crank the crown-wheel C, which rests upon the projection D<sup>3</sup>, is revolved around the spindle D'. Such movement causes the spurs C' to rotate the pinions F, spindles E, and bit-holders E<sup>2</sup>. It will thus be seen that when said holders are provided with bits two holes may be bored at the same time. It will be seen that one of the pinions and spindles E can be dispensed with, and yet leave one bit-holder adapted for use; or three or more of said pinions, spindles, and holders might be simultaneously used without departing from the spirit of my invention.

Having thus described my device and set forth its advantages, I claim as new and desire to secure by Letters Patent—

1. In a boring-brace, the crank B, having the crown-wheel C fixed to the lower end thereof, in combination with the hand-block D, provided with the upper projections, D<sup>3</sup>, D', the pinions F, and spindles E, the pinions F being mounted upon the shoulders of the block D, substantially as described, and for the purposes set forth.

2. In a boring-brace, the crank B, having the crown-wheel C fixed to the lower end thereof, in combination with the block D, having opening G, said block being provided with projection D<sup>3</sup>, mounted thereon, and spindle D', projecting from projection D<sup>3</sup>, the pinion F, mounted on the shoulder of block D, and the spindles E, incased in said block, substantially as described, and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

AZRO H. ADAMS.

Witnesses:

JAMES H. MCGEE,  
ALBERT G. SHANNON.