

(No Model.)

W. W. BRIGG.

BORING BIT.

No. 274,711.

Patented Mar. 27, 1883.

Fig. 1.

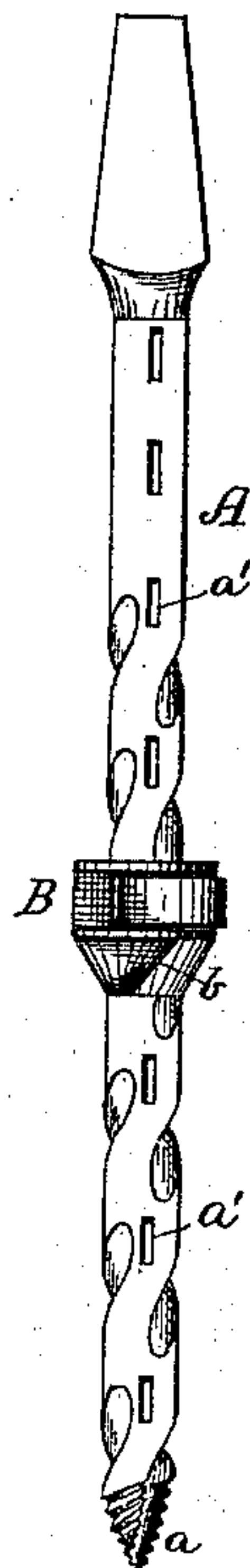


Fig. 2.

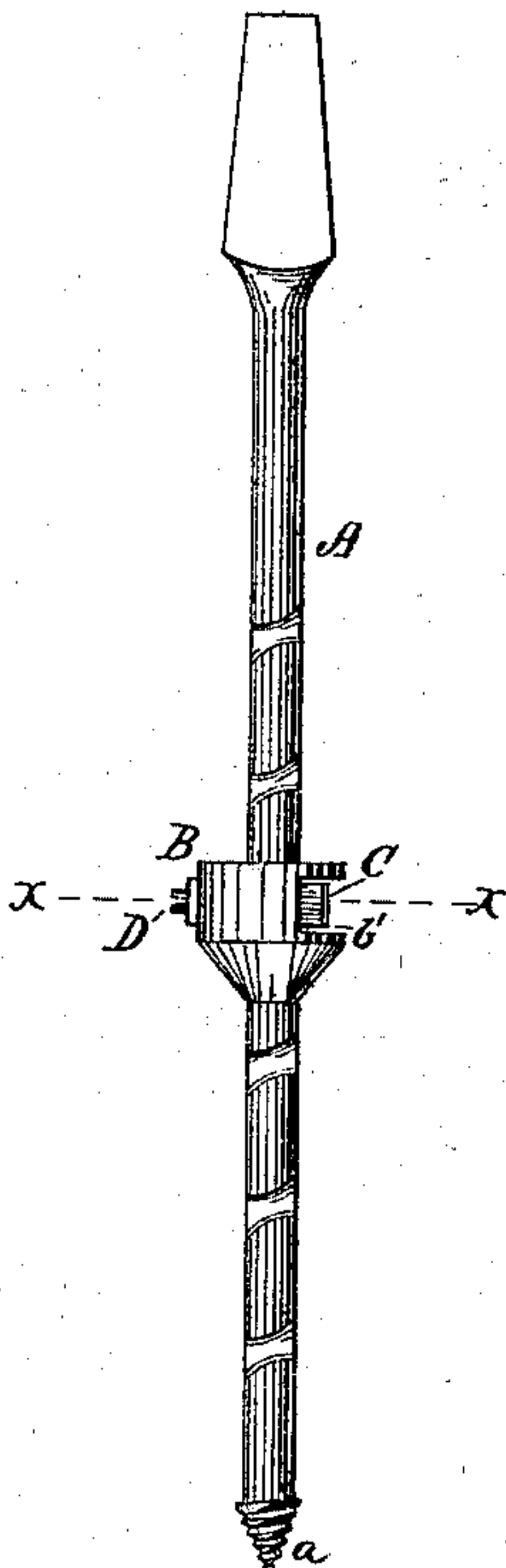
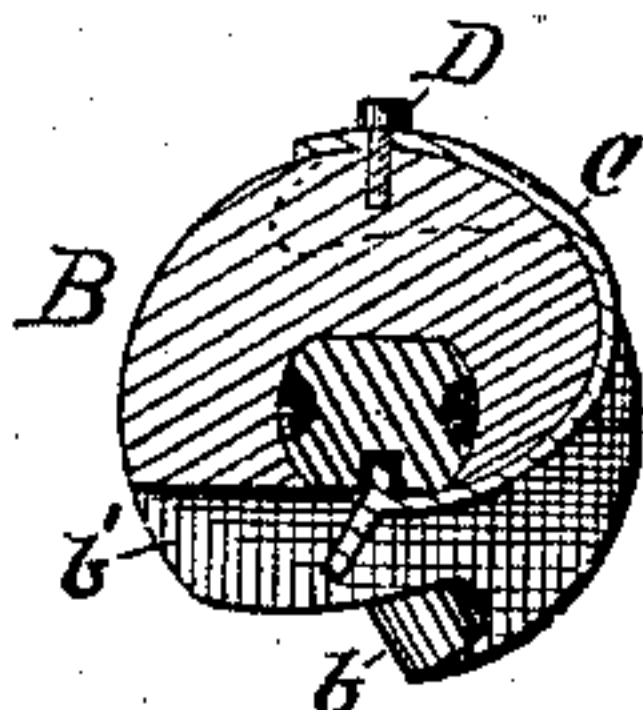


Fig. 3.



WITNESSES:

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BORING-BIT.

SPECIFICATION forming part of Letters Patent No. 274,711, dated March 27, 1883.

Application filed December 19, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. BRIGG, a citizen of the United States of America, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Boring-Bits, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to an improvement in boring-bits; and the invention consists in the peculiar construction and arrangement of parts, as hereinafter more particularly described and claimed.

In the accompanying drawings, Figures 1 and 2 represent side elevations of my bit in different positions, Fig. 1 showing the flat side and Fig. 2 the convex side; and Fig. 3 a cross-section on the line $x x$.

A represents the bit, preferably made with two convex and two flat sides, each pair of sides being parallel. At the bottom is a screw-point, a , preferably provided with a groove or cut extending down across the thread, the edges of which groove may be "undercut" or not, as preferred.

At B is shown a countersink, made with an oblong hole through it, having two round sides and made to fit the boring-bit as shown. This countersink has undercut cutting-edges, as shown at b in Fig. 3, which are set at an angle of about forty-five degrees, as shown in Fig. 1, and a slot, b' , through which passes a spring, C, fastened to the countersink by a screw, D, or in any other convenient manner. The free end of this spring catches into notches a' in the flat sides of the bit, so that the countersink may be adjusted at any desired point, according to the depth of hole desired. In lieu of the notches a' , the spiral grooves on the convex sides may be used by making the spring of such shape as to fit into them instead of the notches.

By the use of the bit having flat parallel sides the countersink B will fit it at any point, whereas if the sides were made tapering the aperture in the countersink would be too large to fit the bit near the bottom, if made large enough to fit it at the top. By my arrangement and construction I am enabled to combine the benefit of a bit that bores a hole the full size for the whole length, the flat cutting-edges to ream out the hole, and the use

of the countersink, which cannot be employed with advantage where the sides of the bit are tapering.

By the use of a bit having a flat side or sides the countersink cannot turn, and hence is readily held in place by the spring-catch C. The screw-point is also a considerable improvement on the flat bit, because, if made without it there is little or no tendency to draw into the wood.

By making the countersink with the cutting-edge at or about the angle shown there is a tendency to draw the countersink into the wood, so that but little power is required to hold the countersink in place.

What I claim as new is—

1. A boring-bit having its shank of the same size in cross-section for its whole length and provided with a flat side and a series of notches adapted to receive the spring-catch of a countersink, substantially as and for the purpose specified.

2. A boring-bit having two convex sides provided with spiral grooves and two flat sides, each pair of sides being parallel, adapted to fit a correspondingly-shaped recess in a countersink, whereby said countersink will accurately fit any portion of the bit, and thus prevent it from turning thereon, substantially as described.

3. A boring-bit having a screw-point, two convex sides, provided with spiral grooves, and two flat sides, each pair of sides being parallel, substantially as described.

4. A boring-bit having a flat side, in combination with a countersink having an aperture closely fitting all sides of said bit to prevent its turning thereon, and a suitable fastening device, substantially as described.

5. The combination, with a boring-bit, A, having two flat sides, two convex sides, and a series of notches in its sides, of a countersink, B, having an aperture of corresponding shape, and the spring C, all constructed and arranged substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses this 18th day of December, 1882.

WILLIAM W. BRIGG.

Witnesses:

T. J. W. ROBERTSON,
CHARLES P. WEBSTER.