(No Model.)

## B. FORSTNER. SPOON BORING BIT.

No. 280,026.

Patented June 26, 1883.

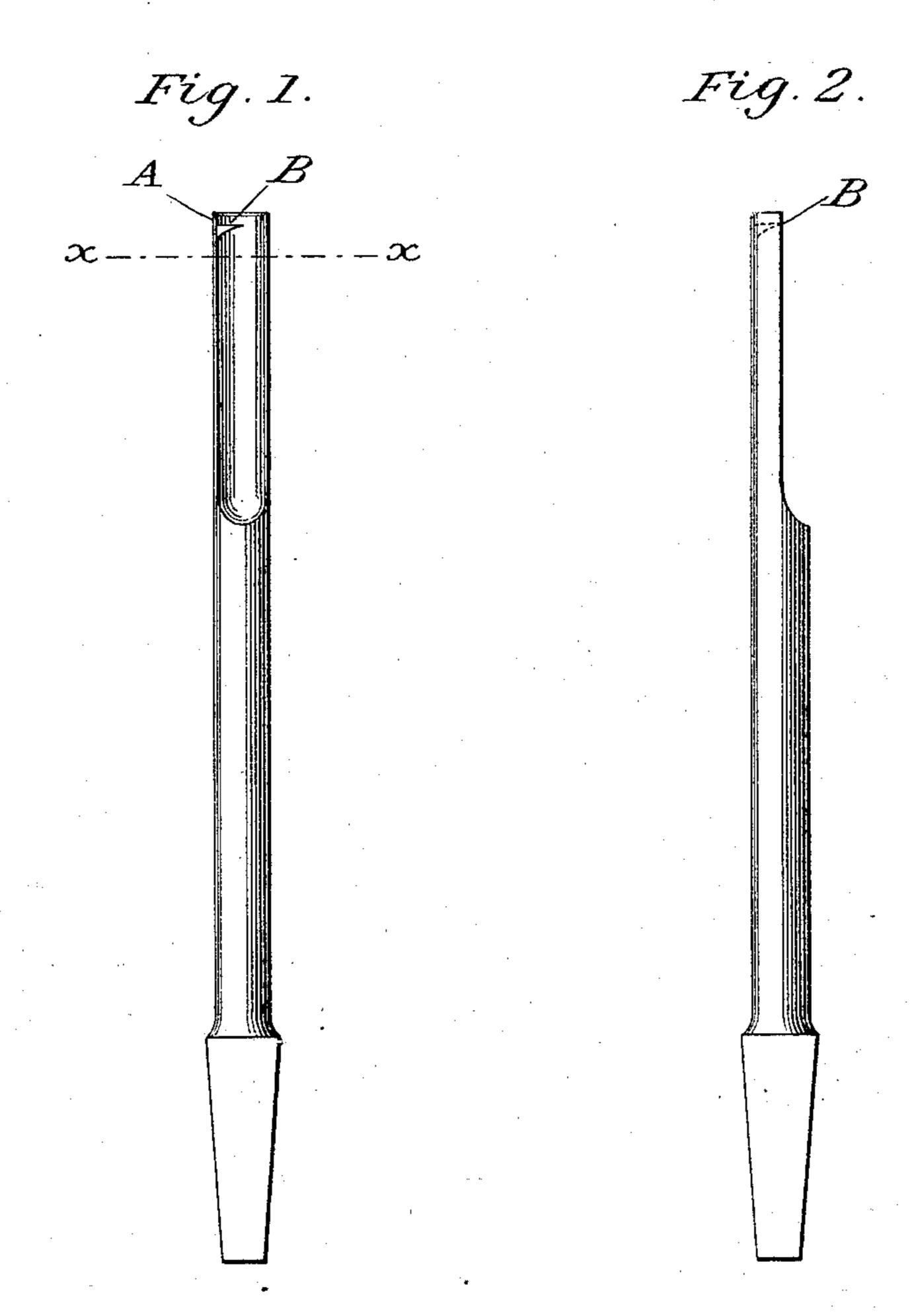


Fig. 3.

Witnesses: Hugh Say ton Paul Dfullman. Benj, Forstner, By Addison C. Gibbs, His Atty in fact.

## United States Patent Office.

BENJAMIN FORSTNER, OF SALEM, ASSIGNOR OF ONE-HALF TO ADDISON C. GIBBS, OF PORTLAND, OREGON.

## SPOON BORING-BIT.

SPECIFICATION forming part of Letters Patent No. 280,026, dated June 26, 1883.

Application filed March 6, 1883. (No model.)

To all whom it may concern:

Be it known that I, Benjamin Forstner, a citizen of the United States, residing at Salem, in the county of Marion and State of Oregon, have invented certain new and useful Improvements in Spoon - Bits, by which the speed, neatness, and boring capacity of the bit are increased without splitting the wood; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to spoon-bits in which the center cutter is set back from the lower end of the bit; and the objects of my improvements are, first, to cut a smooth hole; second, to cut off the grain of the wood, and then by means of the center cutter to cut up the core and bring the chips up out of the hole; third, to bore holes in narrow pieces and near the edge without splitting the wood. I attain these objects by means of a spoon-bit with a center cutter set a little back from the lower or cutting end of the bit, as illustrated in the accompanying drawings, in which—

Figure 1 is a bird's-eye view of the entire bit. Fig. 2 is a side view of the bit, showing the side cutter, A. Fig. 3 is a section at x x of the bit, showing the center cutter at B and side cutter at A.

The cutter B is in the concave portion of the spoon or pod of the bit and a little back from the end of the bit. The cutter is preferably about radial to the hole to be bored. The end of the bit first enters the wood and cuts an 35 arc-shaped slot before the cutter cuts off the fiber, thus making a very smooth hole.

I am aware that prior to my invention spoonbits have been invented and in use. I therefore do not claim that; but

What I claim is—

A spoon-bit having a cutter, as B, secured inside the concave part of the spoon, a little above the end of the bit.

BENJ. FORSTNER.

Witnesses:
DAVID EARLY,
SETH R. HAMMER.