

(No Model.)

R. WILSON.

MANUFACTURE OF ROCK BORING RODS.

No. 360,941.

Patented Apr. 12, 1887.

FIG. I.

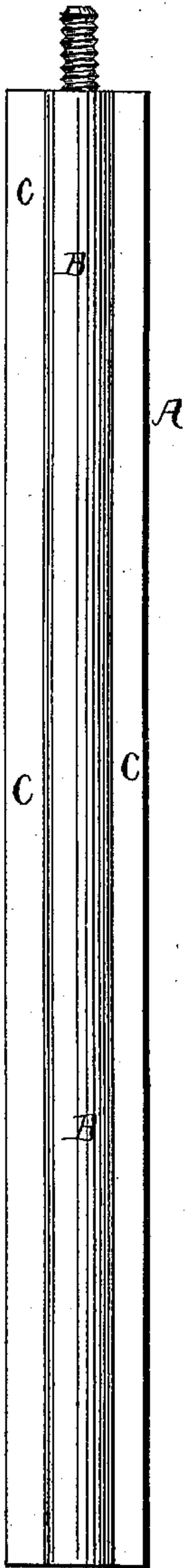


FIG. II.

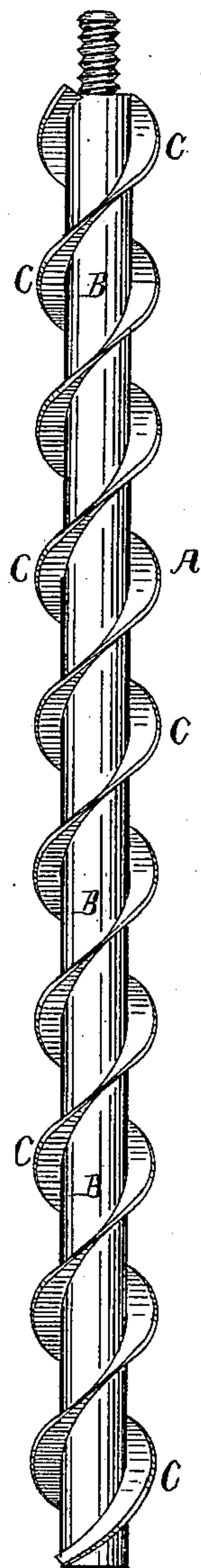


FIG. III.



WITNESSES:

F. Barnett.

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UNITED STATES PATENT OFFICE.

ROBERT WILSON, OF BISHOP-AUCKLAND, COUNTY OF DURHAM, ENGLAND.

MANUFACTURE OF ROCK-BORING RODS.

SPECIFICATION forming part of Letters Patent No. 360,941, dated April 12, 1887.

Application filed December 3, 1886. Serial No. 220,629. (No model.) Patented in England June 8, 1885, No. 6,907.

To all whom it may concern:

Be it known that I, ROBERT WILSON, a subject of the Queen of Great Britain, and a resident of Bishop-Auckland, in the county of Durham, England, have invented certain new and useful Improvements in Boring-Rods, (for which I have obtained a patent in Great Britain, No. 6,907, dated June 8, 1885,) of which the following is a full, clear, and exact specification.

My invention relates to an improved method of manufacturing bore-rods for boring long holes in stone, coal, or other substances.

These rods are at present made by being molded and cast in steel, and of about two feet in length, with threaded ends for connecting. They are first formed as a round bar with a continuous worm or web running around it like a miller's screw, which works out the cuttings made by drills.

My invention consists of making the bore-rods of wrought-steel, and the method of manufacturing same is to forge or roll a bar of steel one inch in diameter with two projections like wings opposite each other extending out from the sides of said bar. These projections should be half an inch wide, and about three-sixteenths of an inch thick. These bars with their wing projections are heated, and then twisted by any suitable machine or implement. When the rods are twisted, the wing projections will form the web or worm around the boring-bar.

Referring to the drawings, Figure I is a side view of a bar with the projections before it has been twisted or formed up. Fig. II is a side view of the bar twisted and ready to use as a bore-rod. Fig. III is a top view of Fig. I.

A is the bore-rod. This rod consists of a round bar, B, of wrought-steel. This bar B has formed upon it the wing projections C C, opposite each other. This bar with this projection is then heated and twisted into a spiral form by any suitable machine or tool. It will be observed that in twisting this rod the projections C C will form the spiral webs of the bore-rod, as shown in Fig. II.

The advantages of this mode of forming a bore-rod are, first, great reduction in cost; second, they can be altered and strengthened at any time by reheating same; third, great durability.

What I claim is—

Forming a bore-rod by taking a round bar, B, having side flanges or webs, C C, heating and twisting the same till the said projections or flanges form the spiral web of said bore-rod, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of September, 1886.

ROBERT WILSON.

Witnesses:

THOMAS GOWLAND,
JOS. H. WHITFIELD.