

1,145,822.

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UNITED STATES PATENT OFFICE.

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CORE-DRILL.

1,145,822.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CLINTON E. WILDER, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented certain new and useful Improvements in Core-Drills; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, forming part of this specification.

My invention relates to core drills, and consists in the improvements hereinafter described and pointed out, and illustrated in the accompanying drawings, in which:—
Figure 1, is a side view in elevation of a core drill embodying my invention. Fig. 2, is a transverse section of the same on the line $x-x$ in Figs. 1 and 3. Fig. 3, is a side elevation of the same looking in the direction of the arrow in Fig. 1.

In these drawings A, indicates a tapered shank of the drill; A', indicates the tang on the upper end thereof, which are common in the construction of drills. From the lower end of the shank A, the stock B, of the drill extends downwardly in a cylindrical form, being provided at its lower end with an enlarged collar B', so that the cut made by the drill will not bind upon the upper portion of the drill stock. The drill stock B, is provided with a longitudinal opening C, from its lower end, substantially co-extensive with the length of the stock B, and I make a longitudinal slot C', through the wall of the drill stock B, the sides of the slot having flat radial surfaces c . Upon one of these flat radial surfaces c , I secure a cutting tool D, by means of screws d , which pass through slotted openings d' , in said tool. The rear surface of the tool D, preferably at its upper end, is provided with transverse teeth or serrations d^2 , which engage like teeth b , on the flat radial surface c , on the side of the slot C'.

In Fig. 2, I illustrate a longitudinal rib d^2 , on the back of the tool D, which fits into a groove in the side c , of the slot C', which assists in holding the tool D, in its proper position.

In operation, when it is desired to take a sample of the metal of a forging, from which it is desired to make a shaft or other article of manufacture, the tool B, prescribes an annular cut into the body of the forging, such distance as may be desired, leaving a core or plug of metal, which enters the longitudinal opening C, in the drill, until the desired depth has been cut, when said core or plug can be broken out and removed for the purpose for which it is desired. As the cutting edge of the tool D, is worn away, the screws d , may be loosened and the tool moved downward slightly, and again firmly secured in place with the teeth d^2 , and b , shown in Fig. 3, held firmly in mesh by the screws d .

Having thus fully described my invention so as to enable others to construct the same, what I claim as new and desire to secure by Letters Patent, is:—

In a device of the character described, a cylindrical stock having a central longitudinal recess therein, and a longitudinal slotted opening through the wall of said stock having radial side surfaces therein, said slotted opening being substantially co-extensive in length with said central recess, a cutting tool adjustably secured upon one of said radial walls and having its cutting edge projecting slightly beyond the lower end of said stock, a shank integral with said stock and means on said shank to prevent said shank and stock from rotating with relation to its operating mechanism, substantially as described.

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

CLINTON E. WILDER.

Witnesses:

H. M. STURGEON,
E. E. MYERS.