H. SMITH.

Drill for Drilling Metal.

No. 164,604. Patented June 15, 1875.

Fig. 1.

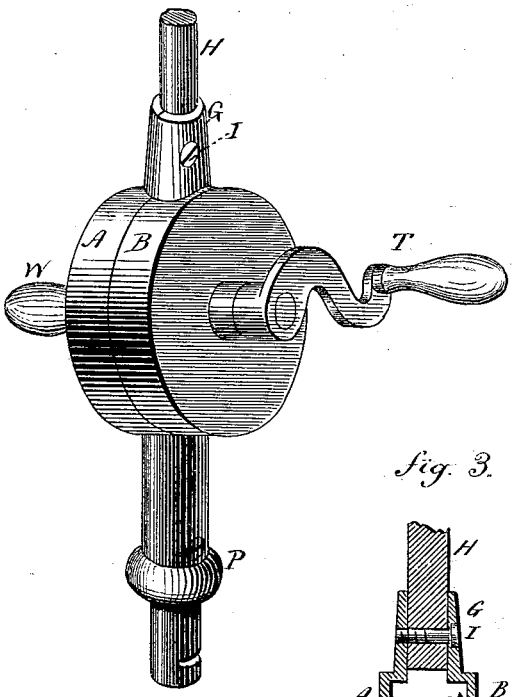


Fig. 2.

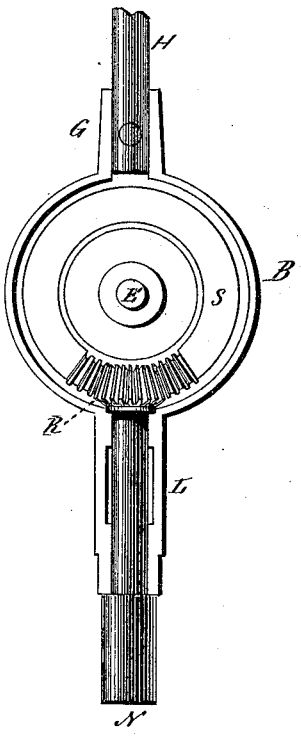
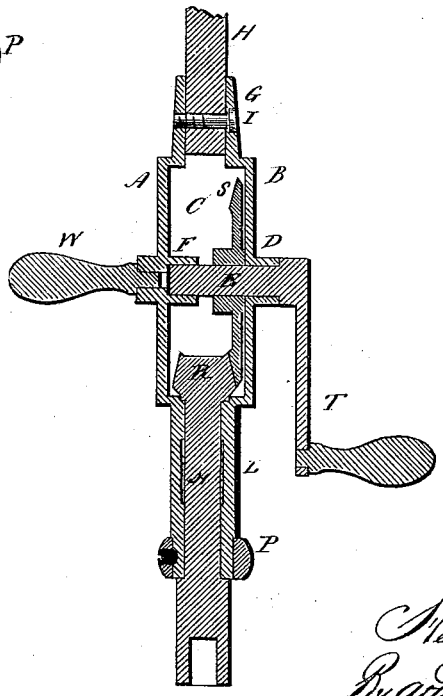


Fig. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY SMITH, OF MERIDEN, CONNECTICUT, ASSIGNOR TO CHARLES PARKER, OF SAME PLACE.

IMPROVEMENT IN DRILLS FOR DRILLING METAL.

Specification forming part of Letters Patent No. **164,604**, dated June 15, 1875; application filed May 20, 1875.

To all whom it may concern:

Be it known that I, HENRY SMITH, of Meriden, in the county of New Haven and State of Connecticut, have invented a new Hand Drill-Stock; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, perspective view; Fig. 2, vertical central section; Fig. 3, vertical section at right angles to that of Fig. 2.

This invention relates to an improvement in what is commonly known as drill-stock—that is to say, a stock for holding the drill for drilling metal or other material by hand—the object of the invention being to construct a simple drill, in which the mechanism shall be inclosed; and it consists in a case formed in two parts with a chamber for the driving-gear, and also to form a bearing, both for the driving-shaft and for the mandrel or drill-spindle.

A is one part, and B the other part, of the case, both substantially alike, the central portion made of cylindrical form inclosing a chamber, C. Centrally through the part B one of the bearings D is formed for the crank-shaft E, and a corresponding bearing, F, in the other part. Upon the upper side of each part of the cylinder half of the vertical sleeve G is formed, into which the head or bearing H is set, and through the sleeve and piece H a single screw, I, is set, which holds the case together at that point and the part H in its place. Upon the lower or opposite side of the cylinder a second sleeve, L, is formed, in like manner as the first—that is, half upon each part—and into this the drill-spindle N is fitted, so as to revolve freely therein, and take a bearing to prevent axial movement. Around the sleeve L a band, P, is placed and secured, so as to hold the case together at that end, the upper and lower points of security being all that is required. On the shaft E a beveled gear, S, is fixed, working into a pinion, R, on the spindle N, and the shaft E fitted with a crank, T, so that by turning the crank the spindle will be revolved in like manner as other drill-stock.

For convenience of holding the drill-stock, a handle, W, is placed upon one part of the case in line with the driving-shaft, as seen in Fig. 3.

I claim—

The herein-described drill-stock, consisting of the inclosing-case A B, constructed with bearings F D, for the driving-shaft, with the sleeve G upon the upper side to receive the head, and sleeve L upon the lower side to form a bearing for and hold the spindle N, the said case constructed in two parts secured together, substantially as described, and combined with the driving-shaft E, crank T, gear and pinion S R, substantially as set forth.

HENRY SMITH.

Witnesses:

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