

No. 818,062.

PATENTED APR. 17, 1906.

S. H. TUCKER.
EXPANSIBLE BIT.
APPLICATION FILED DEC. 11, 1905.

Fig 1

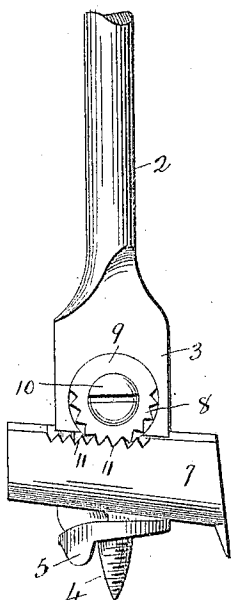


Fig 2

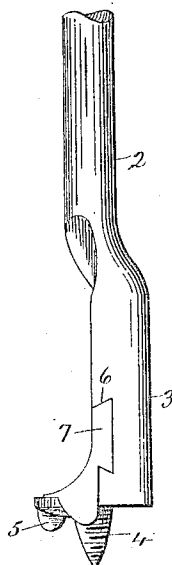
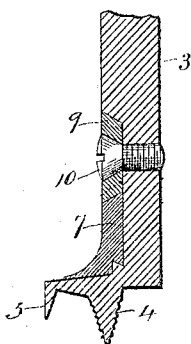


Fig 3



Witnesses.

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STILES H. TUCKER, OF SEYMOUR, CONNECTICUT.

EXPANSIBLE BIT.

No. 818,062.

Specification of Letters Patent.

Patented April 17, 1906.

Application filed December 11, 1905. Serial No. 291,207.

To all whom it may concern:

Be it known that I, STILES H. TUCKER, a citizen of the United States, residing at Seymour, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Expansible Bits; and I do hereby declare the following, when taken in connection with the accompanying drawings and the figures 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, a front view of an expansible bit constructed in accordance with my invention, the upper end of the shank broken away; Fig. 2, a side view of the same; Fig. 3, a vertical central section through the lower portion of the head.

This invention relates to an improvement in expansible bits, and particularly to those comprising a head having a transverse undercut groove and a cutter having corresponding beveled edges to enter said groove and be moved back and forth therein, the object of the invention being a simple and convenient means for securely holding the adjustable cover in position and permit it to be conveniently moved when required; and the invention consists in the construction as hereinafter described, and particularly recited in the claim.

As in the usual construction, the bit consists of the usual shank 2, substantially semicircular head 3, lead point 4, and cutting-lip 5. In the flat face of the head 3 is a transverse undercut groove 6, in which a transversely-movable cutter 7 closely fits, the cutter merging into the lip 5 in the usual way. In the flat face of the head 3 and just above the groove 6 is a circular recess 8, having tapered walls the recess intersecting the groove 6.

Located in the recess 8 is a circular block 9, having tapered walls adapted to closely fit the tapered walls of the recess into which it is forced by a screw 10, having a tapered head

seated in a tapered recess formed in the center of the block. Around a portion of the circumference of the block are a series of teeth which enter corresponding notches 11, 50 formed in the central portion of the upper beveled edge of the adjustable cutter 7. The uncut surface of the block bearing on the tapered walls of the recess forms a clamp whereby the cutter is locked in its groove; but to 55 adjust the cutter it is only necessary to loosen the screw 10, which releases the frictional engagement of the block in its recess, and thereby allows the cutter to be moved back and forth in its groove, the block turning accord- 60 ingly by the engagement of its teeth with the notches in the edge of the cutter. When the cutter is adjusted to the desired degree, the screw is again turned home, crowding the block into engagement with its recess and 65 firmly locking the cutter in place.

I claim—

The herein-described expansible bit comprising a shank, a semicircular head, an undercut transverse groove in the flat face of 70 said head, a circular recess having beveled walls above said groove and intersecting the same, a cutter arranged in said groove the upper edge of said cutter having a beveled edge and formed with notches in the central 75 portion of said upper edge, a beveled-edge block located in the recess above the cutter and formed with teeth in a portion of its circumference, said teeth in the block engaging with notches in the cutter, and a screw 80 extending through said block into said head whereby said block is clamped to the head and the cutter locked in position, substantially as described.

In testimony whereof I have signed this 85 specification in the presence of two subscribing witnesses.

STILES H. TUCKER.

Witnesses:

LOUIS A. BROWN,
S. HART CULVER.