

C. A. TURNER.
 TOOL SHANK.
 APPLICATION FILED MAR. 11, 1916.

1,209,362.

Patented Dec. 19, 1916.

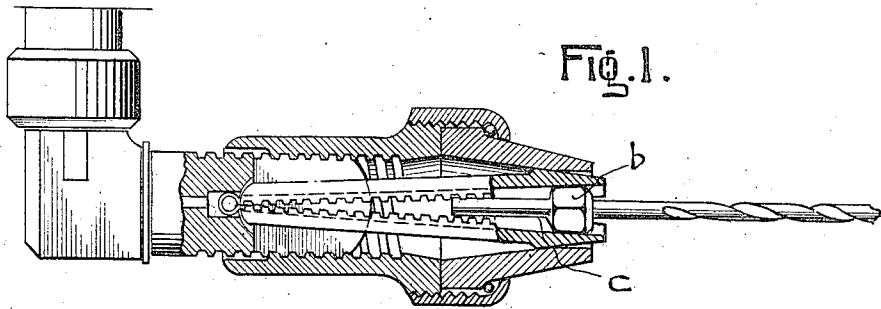


Fig. 1.

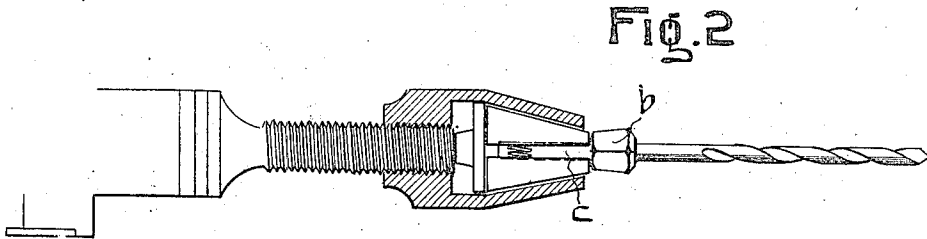


Fig. 2.

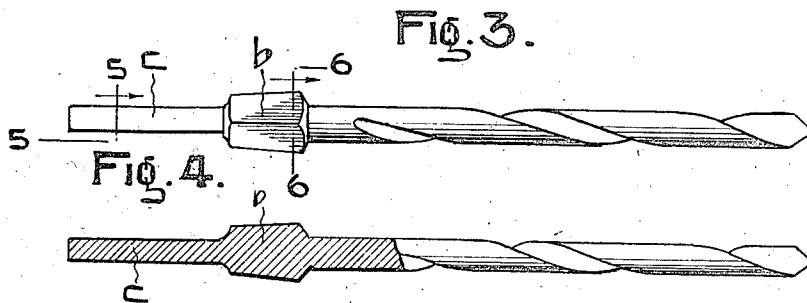


Fig. 3.

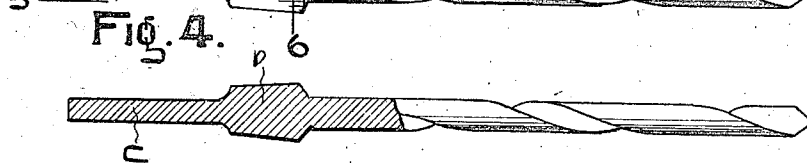


Fig. 4.

Fig. 5.

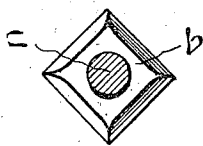
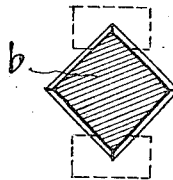


Fig. 6.



Witnesses:

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UNITED STATES PATENT OFFICE.

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TOOL-SHANK.

1,209,362.

Specification of Letters Patent.

Patented Dec. 19, 1916.

Application filed March 11, 1916. Serial No. 83,671.

To all whom it may concern:

Be it known that I, CLAUDE ALLAN TURNER, of the town of Sherbrooke, Province of Quebec, Dominion of Canada, contractor, have invented certain new and useful Improvements in Tool-Shanks; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates particularly to shanks for brace and drill bits and has for its object to provide a tool adapted for use in either a brace, taking a square shank, or a chuck for receiving the usual round drill-shank; and to this end consists of a bit, the shank of which has a head of tapered square cross-section and a projection of round cross-section and of relatively small diameter.

For full comprehension, however, of my invention, reference must be had to the accompanying drawings forming part of this specification in which similar reference characters indicate the same parts, and wherein:

Figure 1 is an elevation of my improved bit applied to a drill brace, a portion of the brace being illustrated in section; Fig. 2 is a similar view to Fig. 1 illustrating my improved bit applied to a chuck for receiving the round shank; Fig. 3 is a side elevation of my improved bit drawn to a larger scale; Fig. 4 is a similar view to Fig. 3 illustrating a portion of the bit in section; Fig. 5 is a transverse sectional view taken on line 5—5 Fig. 3; and Fig. 6 is a transverse sectional view taken on line 6—6 Fig. 3.

My improved shank is made with a head *b* of tapered square cross-section terminating in an integral projecting shank *c* of round cross-section and relatively small diameter; this shank projecting in the axial line of the bit and being of sufficient length to be rigidly held by the usual chuck of a power

or hand drill. When inserted in an auger brace it is received into and steadied by the inner portion of the jaws while the outer portions of these jaws receive and grip the tapered square head. These shanks can be applied with advantage to brace bits, drills, countersinkers and reamers and a single tool embodying this combination idea is capable of being used in either a brace of two-jaw type or a chuck of three-jaw type in all circumstances for which separate tools with separate shanks have heretofore been required.

What I claim is as follows:

1. A unitary bit having a portion of its length in close proximity to one end of comparatively large square cross-section adapted to be received in and held by a brace, said end being elongated and of reduced diameter and round cross-section to present a shank adapted to be received in and held by a chuck, substantially as described and for the purpose set forth.

2. A brace and drill bit substantially as described and having a portion of its length in close proximity to one end of comparatively large tapered square cross-section as at *b*, said end being elongated and of comparatively reduced diameter to present a shank *c* projecting in the axial line of the tool and of round cross-section the said shank being adapted when the portion *b* is gripped to coact with the brace in steadying the bit.

In testimony whereof I have signed my name to this specification in the presence of two witnesses.

CLAUDE A. TURNER.

Witnesses:

GORDON G. COOKE,
WILLIAM HEWETSON.