

G. P. BUTLER.
 AUGER BIT.
 APPLICATION FILED JUNE 18, 1910.

1,025,109.

Patented Apr. 30, 1912.

Fig 1

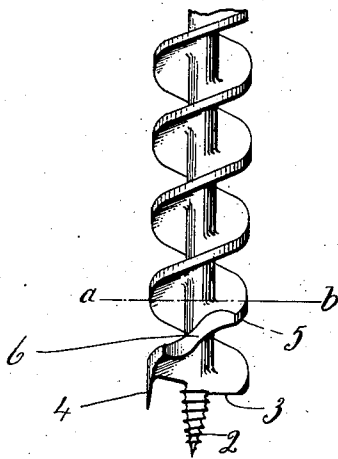


Fig 2

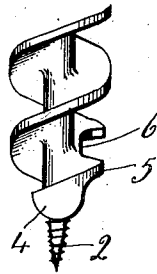


Fig 3

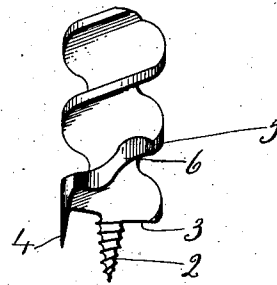


Fig 4

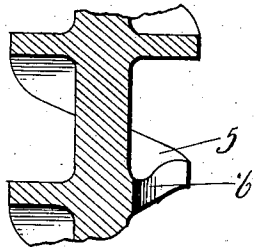
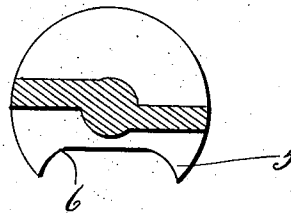


Fig 5



Witnesses
C. J. Reed.
C. L. Reed.

Inventor
George P. Butler
by Seymour T. Carver
Atty

UNITED STATES PATENT OFFICE.

GEORGE P. BUTLER, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE W. A. IVES
MFG. CO., OF WALLINGFORD, CONNECTICUT, A CORPORATION.

AUGER-BIT.

1,025,109.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE P. BUTLER, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Auger-Bits; 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 a side view of a portion of a double twist bit constructed in accordance with my invention. Fig. 2 a similar view turned at right angles to Fig. 1. Fig. 3 a side view of a double twist bit of usual construction having a notch in one of its twists. Fig. 4 a broken sectional view on an enlarged scale of one of my improved bits. Fig. 5 a transverse sectional view on the line *a-b* of Fig. 1.

This invention relates to an improvement in auger and machine bits, and particularly to so called double twist or double crimp bits. The advantage of a double twist or double crimp bit is that the bit will better be supported in a hole than is the case with a single twist or single crimp bit. In the ordinary construction of double twist auger bits the grooves or channels formed by the twists are substantially semi-circular in cross-section, and the result of this is that chips are forced outward and sometimes bind between the edges of the twists or crimp and the walls of the hole being cut, and one object of this invention is to form the bottoms of the grooves or channels substantially straight so as to provide a pocket, as it might be said, to contain the chips which will be gradually lifted by the screw. It sometimes happens with single cut bits

that the floor lip will make so much of a cut as to choke at the first twist, and another object of this invention is to provide a clearance in the first twist above the floor lip; and the invention consists in the construction hereinafter described and particularly recited in the claim.

As shown in Figs. 1 and 2 of the drawings, the bit comprises the usual gimlet point 2, floor lip 3 and spur lip 4. As shown in these two figures the bottom of the channels formed by the twists or crimps are substantially straight forming pockets which will carry the chips and not crowd them outward. The twist or crimp 5 leading from the spur lip may be cut away or formed with a notch 6 above the floor lip so that chips cut by the floor lip will pass through the crimp 5 and so as to relieve congestion at the cutting end of the bit.

In Fig. 3 of the drawings I have shown a double twist bit of the usual construction having a notch 6 formed as before described. One advantage of this construction is that the notch in the twist above the floor lip will relieve the pressure or clogging of the chips so that the formation of a vacuum at the bottom of the cut, as for instance, when cutting wet wood, will be avoided.

I claim:—

A bit having a double twist extending throughout the length of the auger, one of the twists carrying a floor lip and the other a spur lip, a portion of the twist carrying the spur lip cut away.

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

GEORGE P. BUTLER.

Witnesses:

FREDERIC C. EARLE,
CLIFFORD J. REED.