

(No Model.)

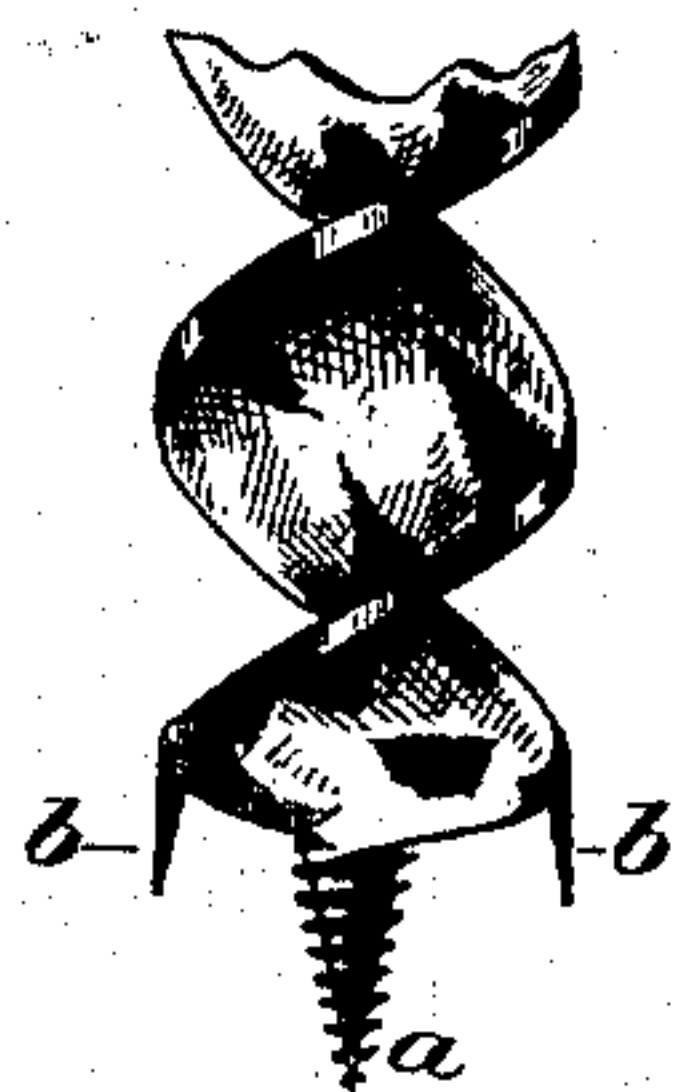
H. HALLIGAN & H. RUGG.

AUGER.

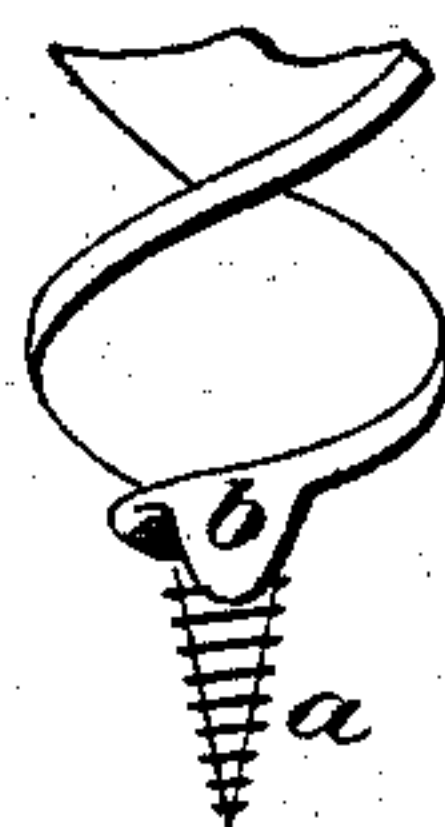
No. 278,539.

Patented May 29, 1883.

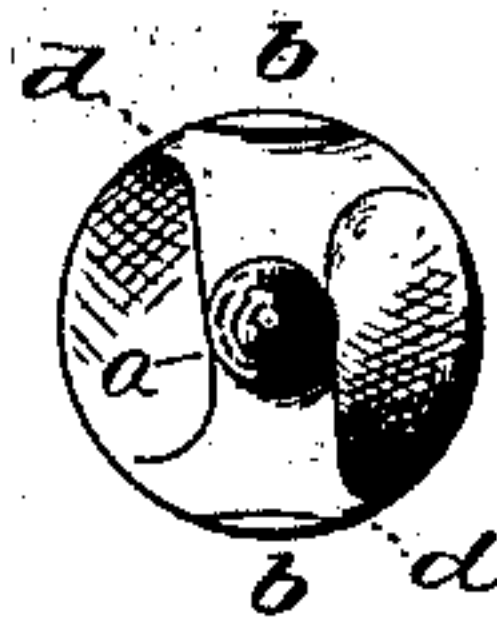
*fig. 1*



*fig. 2*



*fig. 3*



*Witnesses,*

*J. H. Conway*  
*J. S. Earle*

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*and Harvey Rugg.*  
*Inventors.*  
*By atty. J. S. Earle*

# UNITED STATES PATENT OFFICE.

HARVEY HALLIGAN AND HARVEY RUGG, OF SEYMOUR, CONN., ASSIGNORS  
TO THE NEW HAVEN COPPER COMPANY, OF SAME PLACE.

## AUGER.

SPECIFICATION forming part of Letters Patent No. 278,539, dated May 29, 1883.

Application filed March 30, 1883. (No model.)

*To all whom it may concern:*

Be it known that we, HARVEY HALLIGAN and HARVEY RUGG, of Seymour, in the county of New Haven and State of Connecticut, have  
5 invented a new Improvement in Augur-Bits; and we do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description  
10 of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view, showing the two spurs; Fig. 2, a side view turned one-fourth around  
15 from the position seen in Fig. 1; Fig. 3, an end view.

This invention relates to an improvement in auger-bits, the object being to combine a spur with a gouge-shaped lip, whereby the edges of  
20 both the spur and gouge-lip bit may be obtained; and the invention consists in the construction as hereinafter described, and more particularly recited in the claim.

The twist A of the bit and its screw-point a  
25 are of substantially the usual construction, and at each side a spur, b, is formed at a little distance back from the edge of the floor-lip, as seen in Fig. 3. The floor-lip starts from the center-screw and runs outward, preferably inclining slightly upward from the point to near  
30 the edge. There it turns outward, as seen at d, Fig. 1, forming what is known as a "gouge-

shaped cutting-edge" a little in advance of the spur, as shown. The spurs operate in the usual manner of spur-bits, and cut the periph- 35  
ery or circle in which the floor-lip is to follow, and the floor-lip in so following cuts into the wood in the usual manner of gouge-lip bits.

It is well known that the gouge-lip bit is the easiest and most rapidly operating shape 40  
for a wood-boring tool; but such shape bores a hole the surface of which presents a spiral groove corresponding to the gouge shape of the edge of the lip. By combining the spur with this turned-up or gouge-shaped floor-lip 45  
I cut the surface of the hole in advance of the operation of the gouge-lip, and as this spur must necessarily cut in a plane perfectly parallel with the axis of the bit, it follows that the hole must be smooth and will not receive 50  
the spiral-like groove which the gouge-lip would cut without this spur.

I claim—

The herein-described bit, having its floor-lip curved upward at its outer edge to form a 55  
gouge-shape, combined with a spur, b, in rear of said gouge-shaped lip, substantially as described.

HARVEY HALLIGAN.  
HARVEY RUGG.

Witnesses:

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