G. F. STEARNS.

Augers.

No. 205,218. Patented June 25, 1878.

Fig. 1.

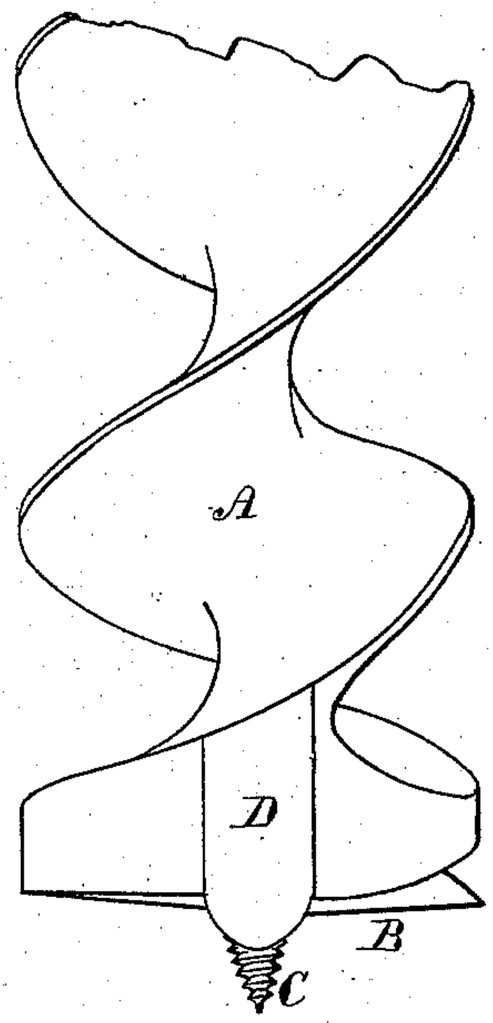


Fig. 2.

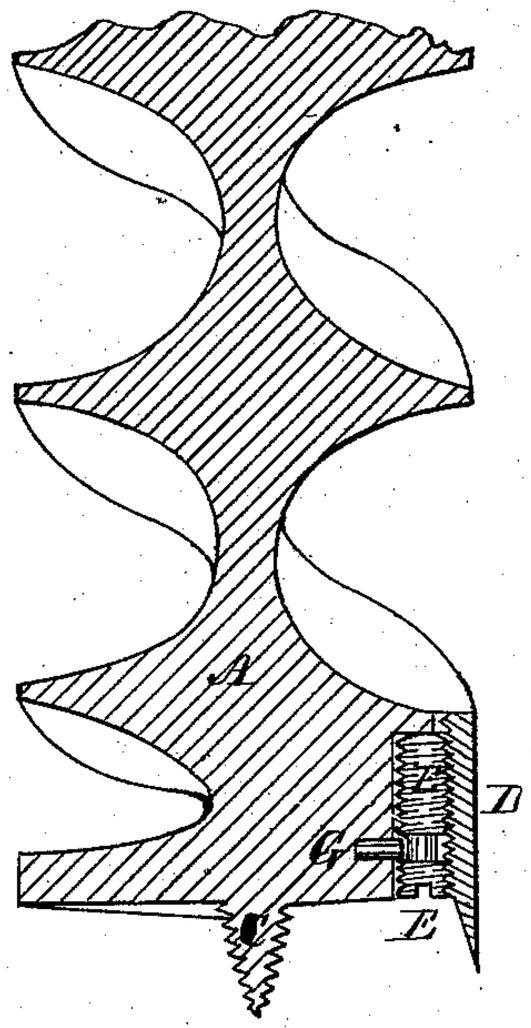
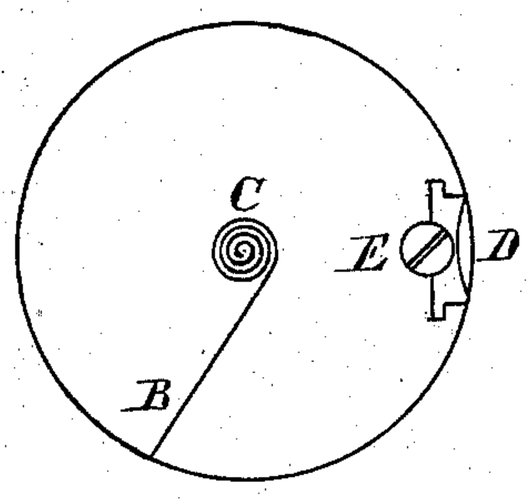


Fig. 3.



Witnesses.

Elisha J. Mertin

Geo. D. Jewett

Inventor.

George F. Stearns

by Theo. G. Ellis,

attorney

UNITED STATES PATENT OFFICE.

GEORGE F. STEARNS, OF FORESTVILLE, ASSIGNOR TO HIMSELF AND RICHARD J. ALLYN, OF HARTFORD, CONNECTICUT.

IMPROVEMENT IN AUGERS.

Specification forming part of Letters Patent No. **205,218**, dated June 25, 1878; application filed May 22, 1878.

To all whom it may concern:

Be it known that I, GEORGE F. STEARNS, of Forestville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Augers; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

My improvement relates to augers which have a cutting-lip upon the circumference of the twisted shank to form a circular cut or groove, from which the interior is removed by a horizontal radial edge, and in which the said cutting-lip is made adjustable.

The object of my invention is to provide a cutting-lip which can be readily adjustable by means of a screw, and can be easily removed for the purpose of sharpening.

My invention consists in the construction and arrangement of the several parts, as will be hereinafter described.

In the accompanying drawing, Figure 1 is a side view of the end of the twisted shank of an auger provided with my improvement. Fig. 2 is a vertical section through the same from front to rear of the view shown in Fig. 1. Fig. 3 is a bottom view of the same.

A is the twisted shank of the auger, constructed in the usual manner, except that the web at the bottom is thickened in the portion to which the cutting-lip is attached. B is the horizontal cutting-edge for removing the wood from the hole bored. C is a central leading-screw of the ordinary construction. D is a slide, upon the lower end of which is formed the cutting-lip, which cuts the circumferential groove around the outside of the material to be removed by the edge B.

The slide D moves in a slot in the shank A, furnished with two entering angles, so that the slide can have only a longitudinal motion in the slot, and cannot be pressed out laterally. Upon the inner side of the slide D there is a part of the circumference of a hollow nut which fits upon the screw.

E is a screw, which rests in a socket in the shank A, as shown in Fig. 2, and projects sufficiently to engage with the hollow thread upon the inner side of the slide D.

The screw E is held in place and prevented from moving longitudinally by means of a pin, G, the end of which projects into a groove in the body of the screw, and also by the end of the screw resting against the end of the socket, as shown in Fig. 2.

The operation of my invention is as follows: When it is desired to advance the cutting-lip upon the lower end of D, so as to make a deeper cut around the circumference of the hole, the screw E is turned as if to force it inward. This draws out the slide as desired. A reverse motion of the screw throws the slide upward.

If it is desired to remove the slide entirely for the purpose of sharpening or otherwise, the screw E is turned sufficiently to draw the slide down until it is released from the slot in which it moves. It is replaced by again inserting the end and turning the screw back. The screw is turned by means of an ordinary screw-driver inserted in a slot in the end of the screw.

By means of my improvement the lip and slide D can be firmly held in any desired position without danger of slipping by any pressure that can come upon the lip.

What I claim as my invention is—

The combination, with the shank of an auger, of the longitudinally-moving lip-slide D, having a thread upon its inner side, and the adjusting-screw E, engaging in said thread and turning in a socket in the shank, substantially as herein described.

GEORGE F. STEARNS.

Witnesses:

THEO. G. ELLIS,

EDWIN S. WESTCOTT.