

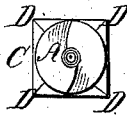
*A. T. Perrine,*

*Auger.*

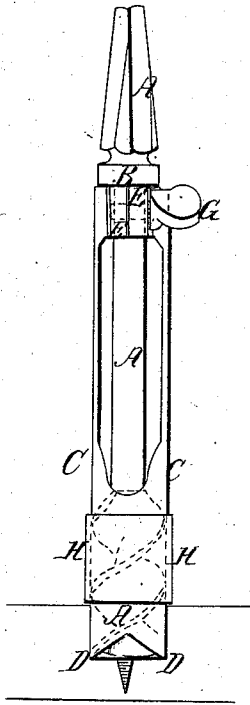
*N<sup>o</sup> 100,440.*

*Patented Mar 1, 1870.*

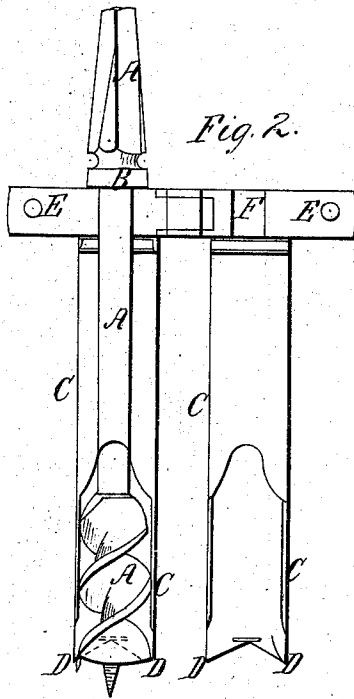
*Fig. 1.*



*Fig. 3.*



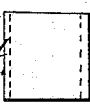
*Fig. 2.*



*Fig. 4<sup>a</sup>*



*Fig. 4<sup>b</sup>*



*Witnesses;*  
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*George H. McCann*

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# United States Patent Office.

ALFRED T. PERRINE, OF LOUISVILLE, KENTUCKY, ASSIGNOR TO HIMSELF  
AND WILLIAM C. CHASE, OF PROVIDENCE, RHODE ISLAND.

Letters Patent No. 100,440, dated March 1, 1870.

## IMPROVEMENT IN AUGER FOR BORING SQUARE HOLES.

The Schedule referred to in these Letters Patent and making part of the same.

### To all whom it may concern:

Be it known that I, ALFRED T. PERRINE, of the city of Louisville, in the county of Jefferson, in the State of Kentucky, have invented a new and improved Auger for Boring Square Holes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters and figures of reference marked thereon.

In the drawings—

Figure 1 shows the auger-point and the under side of the cutters.

Figure 2 shows the case open, with the auger in its place, the shoulder, and the mode of holding the two parts of the cylinder.

Figure 3 shows the auger in working order, with the band about the case, and resting on the block of wood.

Figures 4<sup>a</sup> and 4<sup>b</sup> show the slide-band.

In the drawing, like letters refer to like parts.

The object of my invention is, by the combination of a rectangular case, having cutting-edges at its lower end, with an auger, to bore out square holes, for the purpose of making a mortise, or any other requirement in the arts—a result long sought for.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I take a common auger-bit, A, such as is used by joiners, to which I attach a shoulder, B, (this, of course, will be cast or forged at the time of making the blank for the bit,) which holds the case C in place.

This shoulder must be firmly made, as it receives the pressure, which it communicates to the case C.

The square cylinder of metal C is made either in one single piece, cast in shape, or in two pieces, as shown in the drawings, for convenience of adjustment, with each of the corners ground into cutters, D D, triangular in shape, the side being cut away, the points of the cutters being the corners of the case C, and the four cutters or corners making the square, within which the auger, in its revolution, describes a circle, as shown in fig. 1.

Two sides of the cylinder C must be cut away, to allow the chips brought up by the auger to pass out, as shown in fig. 3.

The two remaining sides of the case are fixed into a metallic head, E, made in two parts, with or with-

out a hinge-joint, as two set-screws like that shown at G would accomplish the same result.

Through this head E, a hole, F, is made, in which the neck of the auger is placed, and wherein it works.

The upper side of this head rests against the shoulder B of the auger.

The two parts of the head E form a clasp around the neck of the auger, and are kept in place by a screw, G, as shown in fig. 3.

As there is a tendency of the parts of the case, when made in two parts, to spread apart as the cutters D D are drawn down upon and into the wood, there should be used a band, H, shown in figs. 4<sup>a</sup> and 4<sup>b</sup>, which slides easily upon the case C, and is placed upon the surface of the block as the auger begins to enter the wood, as shown in fig. 3.

Having now described the various parts of my invention, I will briefly state the practical use of the same.

I place the screw of the bit or auger A, as ordinarily, in the wood into which it is desired to make a hole or cavity, by a gentle thrust, which brings the cutters D D of the case C very near to the wood. I then slide the band H down upon the wood, firmly keeping the two parts of the case in place. I then turn the stock, pressing down upon the same in the usual manner, and the bit or auger A is forced into the wood, cutting away the same, and carrying up the chips in the twist or thread of the auger. The shoulder B of the bit working upon and pressing down the head E of the case C, the whole is carried downward, and, as the case reaches the wood, the cutters D D enter the same, and, following down with the auger, cut away the corners which the auger has left, and finish a square hole. The chips from the corners, following those from the auger, are thrown out of the open sides of the cylinder.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of an auger, A, with the rectangular cutting-case C, longitudinally divided, and connected by means of the yoke or head E and band H, substantially as shown and described.

The above specification of my invention is signed by me this 28th day of June, A. D. 1869.

ALFRED T. PERRINE.

Witnesses:

J. ERASTUS LESTER,  
GEORGE H. MCANN.