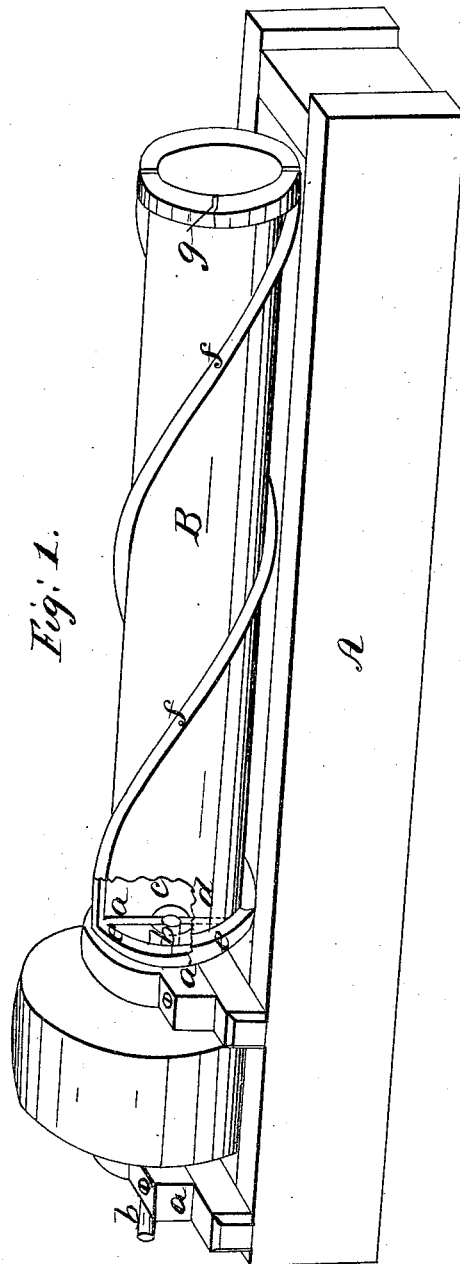
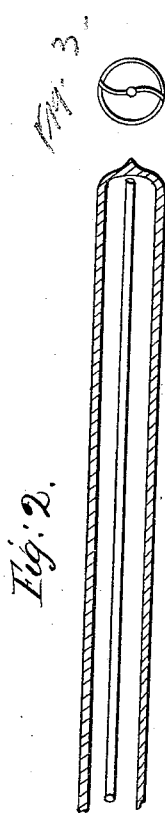


E. Quinn,
Hollow Auger.

No 53,485,

Patented Mar. 27, 1866.



Witnesses;
J. S. Willingham
John D. Blon

Inventor;
Emmett Quinn

UNITED STATES PATENT OFFICE.

EMMETT QUINN, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN BORING-MACHINES.

Specification forming part of Letters Patent No. 53,485, dated March 27, 1866.

To all whom it may concern:

Be it known that I, EMMETT QUINN, of the city of Washington, District of Columbia, have invented a new and Improved Machine for Boring Tubing of Wood; and I do hereby declare the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of this invention is in the construction of a machine for boring tubing, and which, by cutting an annular space within the tube being formed, and allowing a core to be taken therefrom, enables the operator to make out of one piece of timber several tubes of a different diameter, but all of the entire length of the said timber.

The machine consists of a hollow mandrel mounted in boxes, supported on a suitable frame, and supporting on one end a long hollow cylinder concentric therewith, to the outer end of which a cutter-head is attached. Passing in the rear of the mandrel is a pipe, the inner end of which is inserted in a hollow hub in the center of the cylinder at the place of its connection with the mandrel. From this hub two hollow arms radiate in opposite directions, and, passing through the cylinder, communicate with a hollow collar or ring surrounding the cylinder at this point. Connected with this collar, on opposite sides of the cylinder, are two tubes, either straight or spiral, extending longitudinally with the cylinder to the rear of the cutter-head and immediately in front of the orifice, through which pass the chips made by the cutters. Through these tubes, so arranged, water is forced, which, mixing up with the chips, readily finds its exit, carrying the chips with it between the in-

side of the tubing so being formed and the outside of the cylinder, the spiral shape of the outer tubes or pipes assisting in the operation, and for this reason are to be preferred to the straight.

A represents the frame upon which the cylinder B, attached to the mandrel, is supported by the boxes *a a*. The water to the cutters is conveyed, through the pipe *b* in the rear of the cylinder, to the hollow hub *c*, thence through the radial arms *a a* into the hollow collar or ring *e*, to which are connected the spiral or straight tubes *f f*, which, extending from the rings forward to the cutter-head *g*, discharge the water immediately in front of the orifice through which pass the chips or dust made by the cutters. These latter may be formed in many ways; but as they are no part of the invention, and are shown in Figure 1, a description thereof is considered unnecessary.

It is evident that a single tube extending the whole length of the cylinder and centrally within it, as shown in Fig. 3, would answer the same purpose—discharging the chips—as shown in the machine herein described.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The employment, in a machine for boring wooden tubes, of one or more pipes conveying water to the cutters, whereby the chips made by the cutters are discharged from the machine by the force of the water, when constructed and operating substantially as described.

EMMETT QUINN.

Witnesses:

JOHN S. HOLLINGSHEAD,
JOHN D. BLOOR.