No. 778,845. PATENTED JAN. 3, 1905.

E. T. COX.

WOOD BORING AUGER.

APPLICATION FILED JULY 14, 1903.

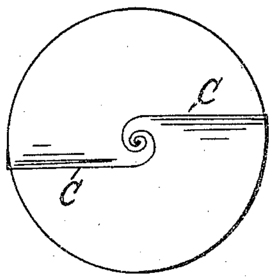
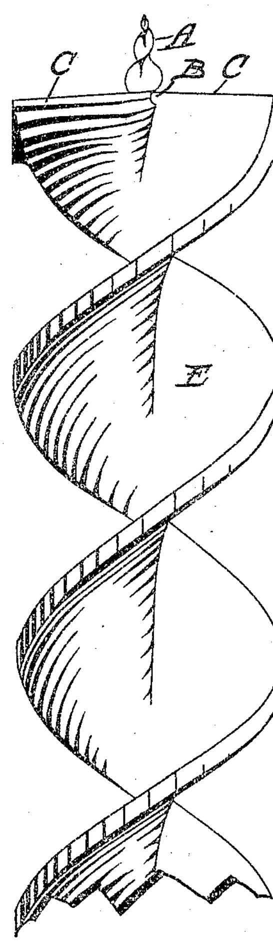


Fig 3



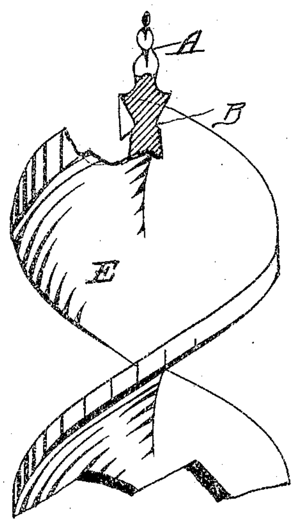


Fig 2

WITNESSES Fig 1

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No. 778,845. Patented January 3, 1905.

UNITED STATES PATENT OFFICE.

EDWARD THOMAS COX, OF YERING, VICTORIA, AUSTRALIA.

WOOD-BORING AUGER.

SPECIFICATION forming part of Letters Patent No. 778,845, dated January 3, 1905.

Application filed July 14, 1903. Serial No. 165,472.

To all whom it may concern:

Be it known that I, EDWARD THOMAS COX, fencer, a British subject, and a resident of Yering, in the State of Victoria, Commonwealth of Australia, have invented a certain new and useful invention entitled "An Improved Wood-Boring Auger," of which the following is a specification.

The objects of my invention are to reduce the force, manual or mechanical, requisite to operate the auger and to materially increase the depth of the cut per complete revolution or turn of the auger, my said improved auger doing with less power and at like revolutionary speed at least a third more boring-work in a given time on like material than the ordinary auger heretofore in common use.

My said invention is confined, chiefly, to the tip or worm of the auger—namely, in the set or taper of the spiral thread of such tip so arranged as to form a double thread, each thread conjoining at its termination with one of the two cutting blades or wings at the head of the auger, and in prolonging or extending the tip spiral grooves from the base of the tip downward into the walls of the auger below the edges of the cutting-blades, whence they taper off to vanishment, whereas in the ordinary or common auger the spirals or thread of the tip is a single thread, the edges of the thread lying horizontal, or nearly so, to the axis of the auger, such single thread conjoining with one of the twin cutting-blades, only the base of the tip merging in and terminating with the line of the cutting-blades, so that the grip or "bite" on the wood depends, chiefly, on the pressure exerted by the rotary force applied to the auger. In my said improved auger in addition to the advantage gained by the double thread of the tip the continuing tapering grooves of such tip extending down the walls of the auger below the cutting-blades serve to grip the wood, causing a continuous downward strain or draw on the auger, thus keeping the cutting-blades continuously to their work, lessening the downward (or forward if auger worked horizontally) pressure indispensable in operating the auger.

Referring to the accompanying drawings, which form a part of this specification, Figure 1 is a side view or elevation of my said improved auger; Fig. 2, an end view thereof; Fig. 3, plan thereof.

In the drawings, A is the double-threaded tip or worm; B, the gripping tapering cavities or grooves in the walls of the auger-shaft below the edges of the cutting-blades; C, the cutting-blades; D, the side or transverse cutting-blades; E, the spiral or twisted auger-shaft.

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

In an auger for boring wood, a tip or worm having the threads of the tip-helices extended or continued down into the auger-shaft or twist below the edges of the cutting-blades so as to form twin concaved tapering recesses in the walls of the auger-shaft as and for the purposes described.

In witness whereof I have hereunto set my hand in presence of two witnesses.

EDWARD THOMAS COX.

Witnesses:

JONATHAN BEUR,

LESLIE LAWTON BEAR.