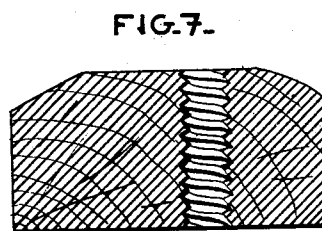
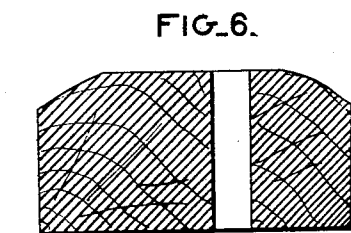
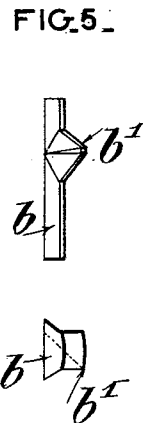
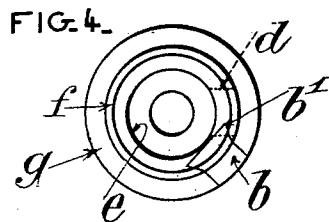
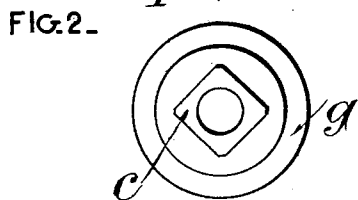
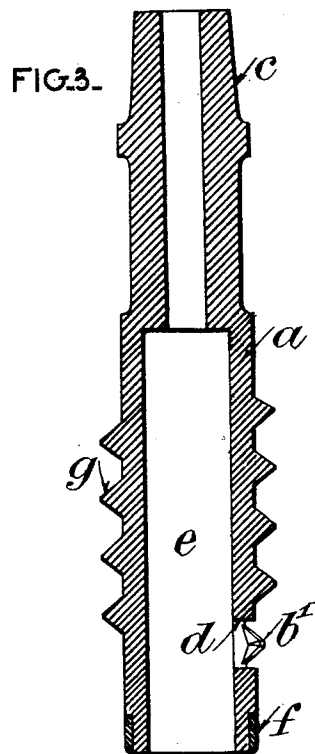


A. COLLET.  
INTERNAL THREAD CUTTER.

Patented July 13, 1897.



**WITNESSES,**

Georges Bordeaux  
Eugene Wathe

**INVENTOR:**

*Richard D. Hall*

# UNITED STATES PATENT OFFICE.

ALBERT COLLET, OF PARIS, FRANCE.

## INTERNAL-THREAD CUTTER.

SPECIFICATION forming part of Letters Patent No. 586,419, dated July 13, 1897.

Application filed April 1, 1897. Serial No. 630,214. (No model.) Patented in France August 5, 1895, No. 249,406.

*To all whom it may concern:*

Be it known that I, ALBERT COLLET, civil engineer, of No. 2 Rue de Berne, Paris, in the Republic of France, have invented new  
5 Improvements in Internal-Thread Cutters to be Employed in Screwing Treenails in Railway-Sleepers or in other Similar Operations, (for which I have obtained Letters Patent of France for fifteen years, No. 249,406, dated  
10 August 5, 1895;) and I do hereby declare that the following is a full and exact description thereof, reference being made to the accompanying drawings.

My invention relates to an improved screw-  
15 tap more particularly intended for screw-cutting the holes already made in railway-sleepers for screw-threaded wood or composition treenails used for fastening the screws, clamps, or spikes in the said sleepers, al-  
20 though the said tap may be used also for screw-cutting cylindrical holes of the required diameter made in any piece of wood.

My improved screw-tap is provided with a removable cutting-piece.

25 In the accompanying drawings, Figure 1 is a perspective view of the screw-tap. Fig. 2 is a plan view of the same. Fig. 3 is a longitudinal section on the line 1 2 of Fig. 1. Fig. 4 is an under side plan view. Fig. 5 represents a side view and a plan view of the re-  
30 movable cutting part. Fig. 6 is a cross-section of a railway-sleeper having a plain-cut cylindrical hole, and Fig. 7 shows the same cross-section having the same cylindrical hole  
35 screw-cut and ready to receive the screw-threaded treenail.

The improved tap comprises the body part *a* and the cutting part *b*, which is removable and readily replaced. The body *a* has a  
40 square-shaped lower end *c*, on which the operating-key directly fits. The screw-thread *g* is triangular, but it might be trapezoidal or of any other suitable shape.

The body of the tap is made in cast-steel, the cost of which is comparatively small, the  
45 cutting part *b* only, which is formed by a small cutter of insignificant weight, being made in fine tool-steel.

The cutter *b* is dovetailed into the body of  
50 the tap, and its cutting edge *b'*, which pro-

jects, comes exactly in line with the triangular thread of the tap. Opposite the cutting edge *b'* is a hole *d*, which opens into an internal hollow space *e*, which extends from one end to the other of the said tap, so that one  
55 hole *d* is sufficient for the escape of the chips, which can be removed from the internal hollow space *e* by inserting a small rod into the upper end of the tap.

The cutting part *b* is fixed in place by means  
60 of a strap *f* at the end of the tap, and which is fixed to the same and its cutting edge by a sunk screw *k*.

I claim—

1. A tap for screw-cutting the holes already  
65 made in railway-sleepers for fastening screw-threaded treenails, or for screw-cutting the holes made in any piece of wood, and which comprises a body part in cast-steel provided with a longitudinal hole opening at both ends  
70 and with a single transverse hole for the escape of the chips, and a cutting part, removable, easily replaced, and formed by a blade of insignificant weight in fine steel as usually  
75 used for tools, and which is dovetailed into the body of the tap and fixed in place by a metal strap placed at the lower end of the tap and which is always connected to the said tap and its cutting part by a sunk screw, sub-  
80 stantially as described and for the purpose specified.

2. A boring-tool having a body with a cavity and with an exterior thread, a metallic plate dovetailed into the body and located  
85 adjacent to the cavity, a portion of the metallic plate having a cutting edge forming the start of the thread, and a band encircling the body portion and holding the metallic plate in position.

3. A boring-tool having a body with a cavity and an exterior thread, the cavity opening through one side of the body, a metallic plate dovetailed into the body and having a  
90 portion formed with an edge located at the cavity so as to throw chips into the same, the edged portion of the metallic plate forming the start of the thread, and a band encircling the body portion and holding the plate in position.

4. A boring-tool having a body with an ex- 100

terior thread, and a cavity opening into the side of the body portion, a metallic plate having a portion edged to form the start of the thread and located at the cavity so as to throw  
5 the chips into the same, and a band encircling the body portion and engaging the plate to hold the same in position.

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

ALBERT COLLET.

Witnesses:

GEORGES BORDEAU,  
EUGENE WATTIER.