

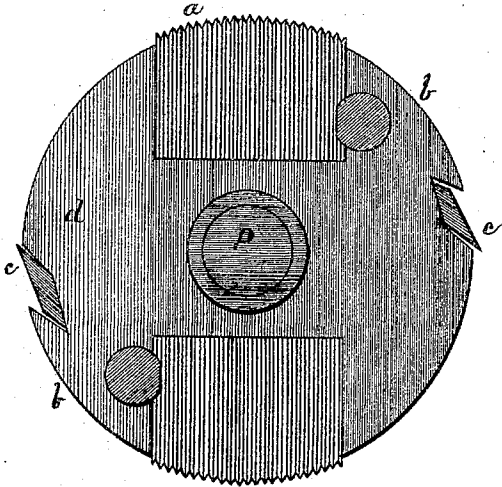
*D. W. Perry,*

*Cutter Head.*

*No. 109,244.*

*Patented Nov. 15, 1870.*

*Fig 1.*



*Fig 2.*



*Witnesses*  
*C. A. Ziegler*  
*W. M. Shepherd*

*Inventor.*  
*D. W. Perry*

# United States Patent Office.

DANIEL W. PERRY, OF WILKESBARRE, PENNSYLVANIA.

Letters Patent No. 109,244, dated November 15, 1870.

## IMPROVEMENT IN CUTTER-HEADS.

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

I, D. W. PERRY, of Wilkesbarre, county of Luzerne and State of Pennsylvania, have invented a new and useful Improvement in Shoulder-bits for Wood-working Machinery, of which the following is a specification.

This invention has for its object to enable the rotary head of a tenoning-machine to form the shoulder of a tenon at the same time that it cuts the side of the same; and, to this end,

The invention consists in the combination of bits constructed as shown, and placed at right angles with its shaft for forming the shoulder of the tenon, and bits placed parallel with the shaft for cutting the side of the tenon.

In Figure 1 is shown the face of a cutter-head for a tenoning-machine, containing the shoulder-bits *a a*, attached to the same by the bolt-heads *b b* in the usual manner, said bolt-heads having tightening-burs on the back of the face of the head.

The shoulder-bits are let into the face-plate with a dovetail edge.

*c c* show the edges of the plane-bits, which are so formed as to protrude to the edge of the face-plate *d* and come into line with the shoulder-bits.

*D* shows the journal-end coming through the face-plate of the cutter-head.

It must be understood that in cutting a tenon it will require two such heads to be running at the same

time, and in opposite directions; but, as this shoulder-bit may be used in various ways, the one attachment is deemed sufficient to illustrate its use and novelty of application.

In Figure 2 is shown an edge of the shoulder-bit, with the grooved face *a* and beveled back and edge of the bit *b*.

The grooves in the face of said bit may be inclined or pitched in any way to make them stand in the direction most favorable for cutting their way, as fancy may dictate, and when once properly sharpened, may be tempered up as hard as any ordinary bits are, as the back part of the bit may be ground off when requiring sharpening, and whet up on an oil-stone in the usual manner without touching the face of the bit.

Having thus clearly pointed out the advantages of this improvement and explained its application in use,

What I claim, and desire to obtain Letters Patent for, is—

The combination of the rotary head of a tenoning-machine, with shoulder-bits, *a*, placed at right angles to the shaft of the head, and plane-bits *c* placed parallel to said shaft, as and for the purpose specified.

D. W. PERRY.

Witnesses:

C. A. ZIEGLER,  
W. H. SHEPHERD.