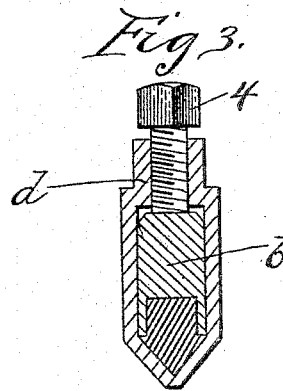
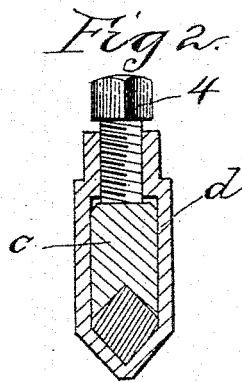
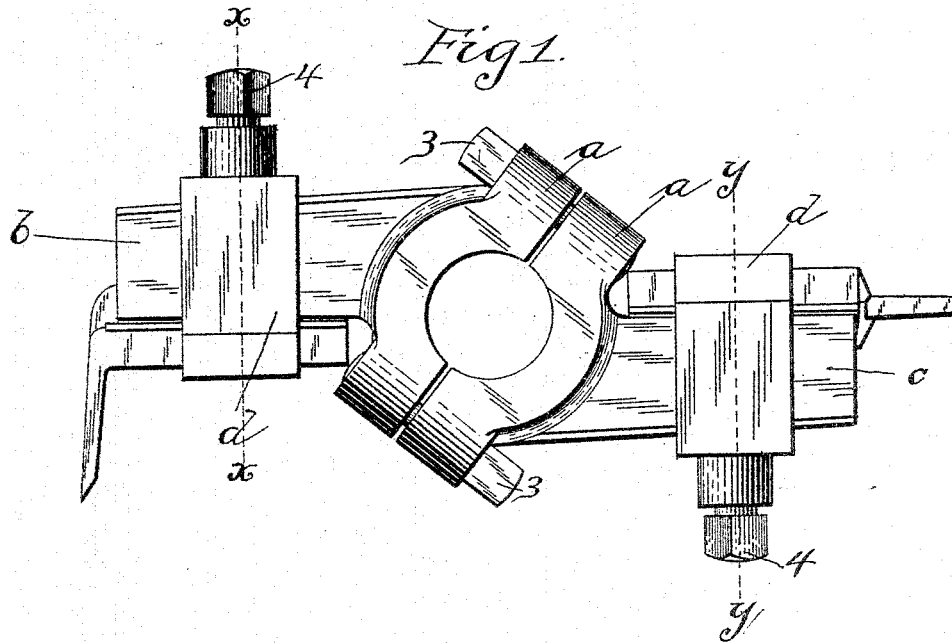


(No Model.)

T. B. REESE.  
CUTTER HEAD.

No. 491,373.

Patented Feb. 7, 1893.



Attest  
Wm. J. Hall.  
F. L. Middleton

Inventor  
Thomas B. Reese  
by Ellis Spear -  
Atty

# UNITED STATES PATENT OFFICE.

THOMAS B. REESE, OF MANSFIELD, OHIO.

## CUTTER-HEAD.

SPECIFICATION forming part of Letters Patent No. 491,373, dated February 7, 1893.

Application filed July 2, 1892. Serial No. 438,812. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS B. REESE, a citizen of the United States of America, residing at Mansfield, in the county of Richland and State of Ohio, have invented certain new and useful Improvements in Cutter-Heads, of which the following is a specification.

My invention is an improvement in devices for holding cutters in the cutter head; these devices as improved by me being designed to secure the cutter firmly and readily, and to provide also for balancing the head when the cutters on opposite sides are of unequal weight.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 shows the head in side elevation. Fig. 2 shows a section on line  $x-x$  and Fig. 3 a section on line  $y-y$  of Fig. 1.

In the drawings the central portion of the head is shown at  $a, a$ . It consists of two sections adapted to be placed together to form a ring fitted to the arbor on which it is carried. The ends of each section are provided with bosses, and when the head has been placed upon the arbor or mandrel the bosses can be drawn together by screws 3, which pass through one boss and are tapped into the other upon each side of the arbor, thus firmly clamping the head in place. Upon the ring are oppositely placed arms  $b, c$ , which carry cutters. These arms are grooved on one edge, the grooves receiving the shank of the cutter. The grooves

may be formed with a plain bottom and rectangular set sides, as shown in Fig. 3, or it may be V-shaped in cross section as shown in Fig. 2. Whatever be the form of cross section, it is made to fit the shank of the cutter which is laid in the groove. It is held by a stirrup  $d$ , in which is tapped a set screw 4 arranged to bear upon the back of the arm. The stirrup is fitted to the cutter shank and arm, and when drawn up by the set screw clamps the shank firmly upon the arm. As shown in the drawings different kinds of cutters may be used upon the arms of the same head, and these may differ in weight. In order to balance the head under such circumstances it is necessary only to adjust the clamp in or out, to a proper position.

Having thus described my invention what I claim is—

A cutter head having oppositely set arms provided with longitudinal grooves fitted to receive the cutter shanks, combined with stirrups encircling said arms and provided with set screws, said stirrups being adjustable toward and from the center of the head for the purpose of balancing the same, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS B. REESE.

Witnesses:

LEROY PARSONS,  
WM. M. HARRIS.