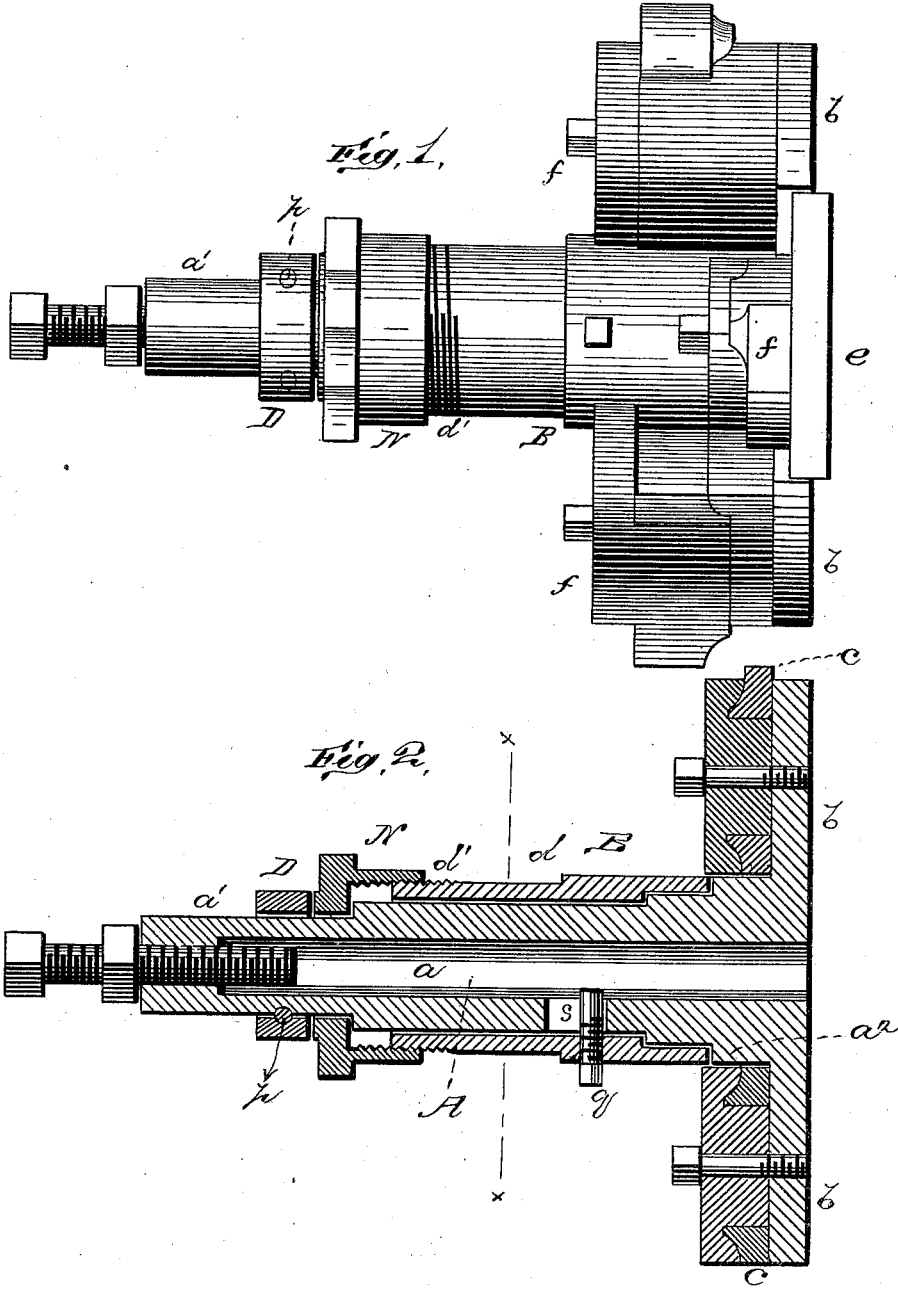


J. H. & H. F. GUILLEY.
Cutter-Head.

No. 210,522.

Patented Dec. 3, 1878.



WITNESSES
E. H. Bates
J. J. Clasi.

INVENTORS
Jacob H. Guiley
Henry F. Guiley
by *E. W. Anderson.*
ATTORNEY

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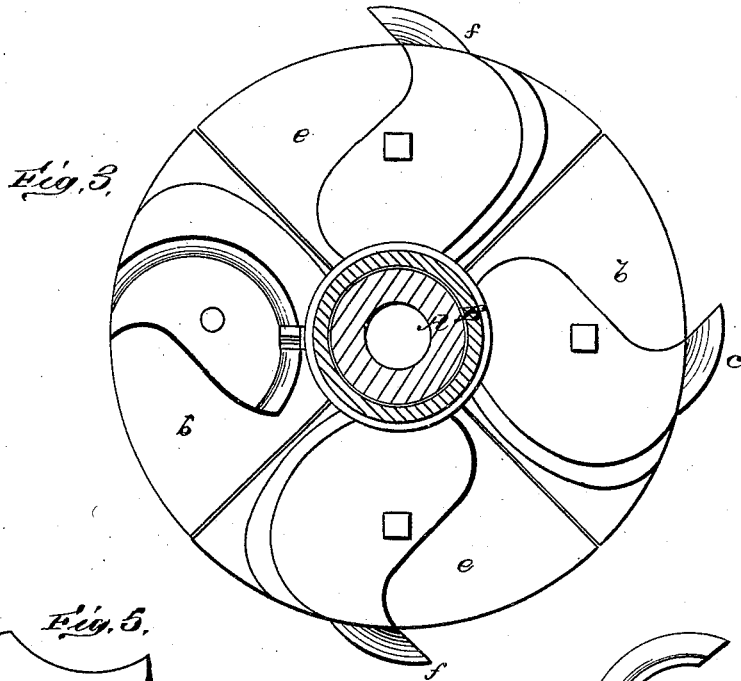


Fig. 3.

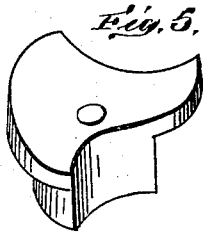


Fig. 5.

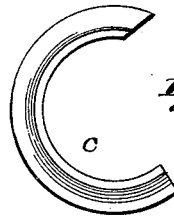


Fig. 6.

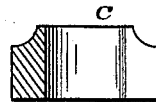


Fig. 7.

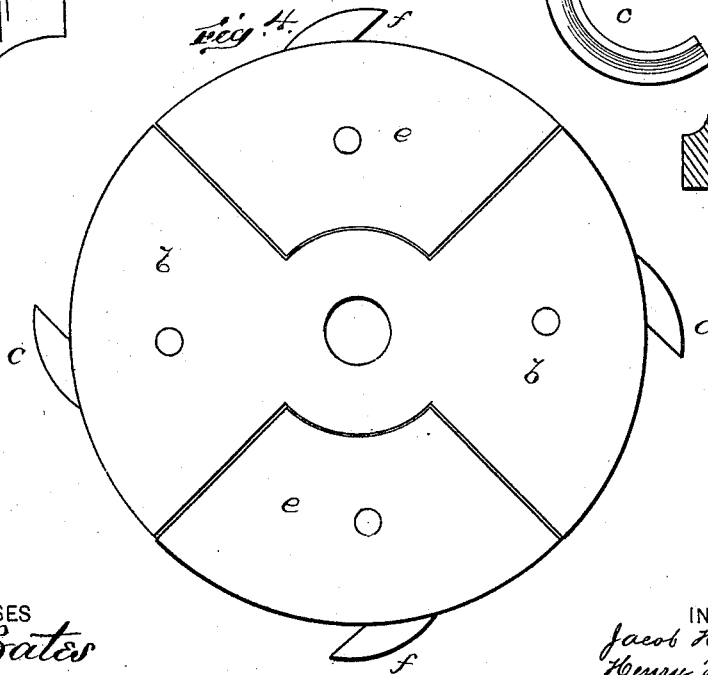


Fig. 4.

WITNESSES
E. H. Bates
A. J. Mabi.

INVENTORS
Jacob H. Guiley
Henry F. Guiley
 by *C. W. Anderson*
 ATTORNEY

UNITED STATES PATENT OFFICE.

JACOB H. GUILLEY AND HENRY F. GUILLEY, OF EAST SAGINAW, MICHIGAN.

IMPROVEMENT IN CUTTER-HEADS.

Specification forming part of Letters Patent No. **210,522**, dated December 3, 1878; application filed November 9, 1878.

To all whom it may concern:

Be it known that we, JACOB H. GUILLEY and HENRY F. GUILLEY, of East Saginaw, in the county of Saginaw and State of Michigan, have invented a new and valuable Improvement in Matcher-Heads; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of our improved matcher-head. Fig. 2 is a longitudinal central section of the same. Fig. 3 is a horizontal section taken through $x x$, Fig. 2. Fig. 4 is a bottom view, and Figs. 5, 6, and 7 are details.

This invention has relation to improvements in matcher-heads for tonguing and grooving lumber.

The object of the invention is mainly to devise a matcher-head that may be adjusted to tongue and groove lumber of different thicknesses without disturbing the knives upon the head, while in devices for similar purposes the same results can only be obtained by changing the knives, or by interposing washers between them and the head.

The nature of the invention consists in combining, with a stationary section of the matcher-head carrying a pair of knives, a second section, sliding thereon, and likewise provided with a pair of knives, and an adjusting-nut rotating on the fixed section and engaging a threaded portion of the movable section, as will be hereinafter more fully set forth.

In the accompanying drawings, the letter A designates the main portion or body of our improved matcher-head, consisting of a shaft, a , having at its upper end a rabbet, a^1 , and at its lower end an annular re-enforce, a^2 , from which project, in planes at right angles to the axis of the shaft a , and directly opposite each other, the segmental flanges b . These flanges constitute one-half of the knife-carrying disk, and they are each provided with a cutting-knife, c . This section is passed from below upward through the second half-section,

B, consisting of a hollow stem, d , having at its upper end an exterior screw-threaded portion, d' , and at its lower end an annular recess adapted to snugly receive the re-enforce a^2 of the part A. This sleeve-section B is provided with two opposite segment-shaped flanges, e , that are received between the corresponding flanges of the part A, and are each provided with a cutting-knife, f .

As shown in Fig. 4, the flanges b and e form a circular disk, and their respective knives, c f , are sufficiently far apart to cut a tongue of normal size. This is illustrated in Fig. 1, where the knives f are shown above the knives c , with an interval between about equal to the thickness of an ordinary tongue for flooring-boards. The sleeve-section slides freely upon the fixed section, thus lessening or increasing the interval between the cutters, and correspondingly lessening or increasing the thickness of the tongue at pleasure. This is accomplished by means of a nut, N, rotating freely on the rabbeted portion a^1 of the shaft of the fixed section, which nut engages the threaded upper end of the sleeve-section B, and is maintained in a constant position relative to the shoulder of the rabbet by means of a collar, D, applied upon section A, and confined thereto by means of a pin, p .

The sliding sleeve-section of the matcher-head is guided during its adjustments by means of a guide-pin, q , extending through it and engaged in an oblong slot, s , in the fixed section A. This pin also limits its adjustment and securely holds it against rotation on section A.

The knives may have cutting-edges of any desired form for shaping out the various moldings, and may be secured to the head in any suitable manner.

We are aware that a cutter-head having quadrant-shaped segments and a hub provided with cutters and bits combined, with a graduated series of gaging-collars, is not new; hence we make no claim to such devices.

What we claim as new, and desire to secure by Letters Patent, is—

The combination, with a fixed section, A, having segmental flanges b , provided with a

cutting-knife, *c*, of the sliding sleeve B, having segmental flanges *e*, adapted to be received between the flanges *b* aforesaid, and provided with cutting-knives *f* and a screw-thread, *d'*, the adjusting-nut N, engaging said thread and turning loosely on section A, and the stop-collar D, rigidly secured to said section, substantially as set forth.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

JACOB HARTMAN GUILLEY.

HENRY FRANKLIN GUILLEY.

Witnesses:

GEORGE MAURER,

GEO. B. BROOKS.