

Charles E. McBeth's Cutter-Head

No. 119,632.

Patented Oct. 3, 1871.

Fig. 5.

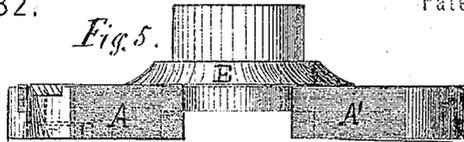


Fig. 4.

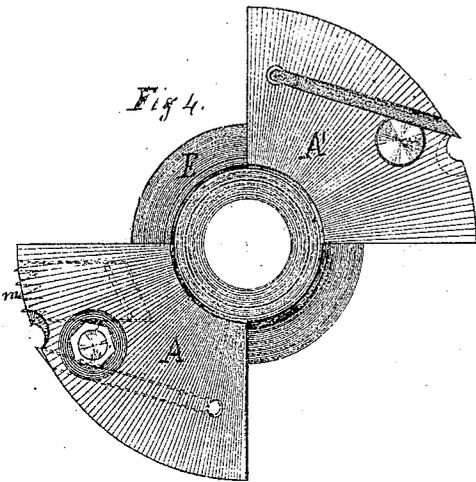


Fig. 3.

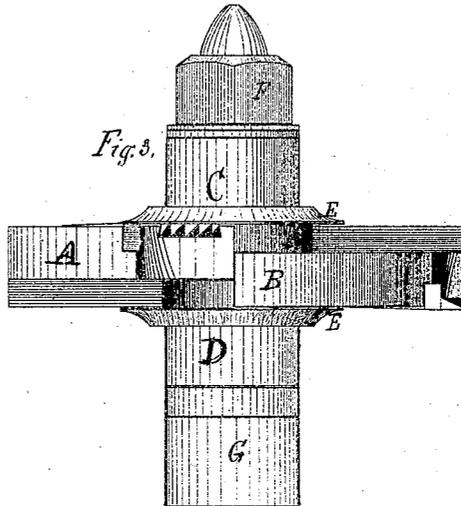


Fig. 1.

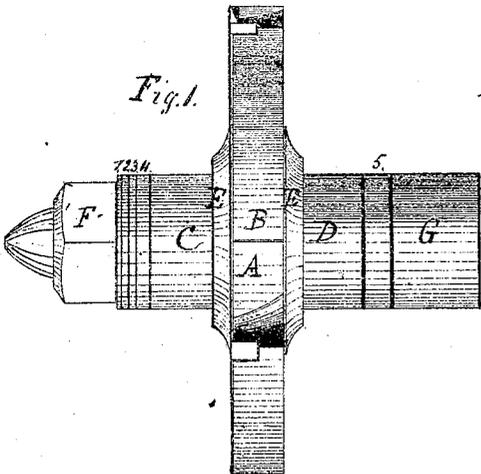
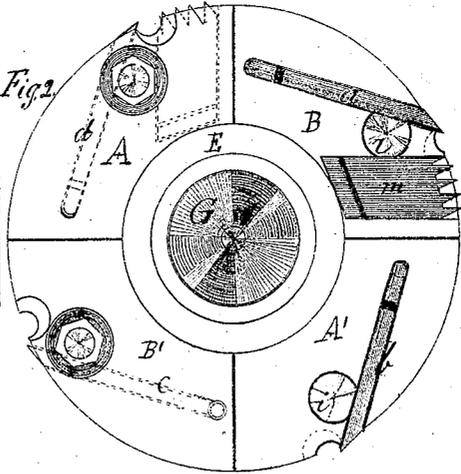


Fig. 2.



Witnesses.

Geo. W. K. County
S. E. Peck.

C. E. McBeth, Inventor.
S. E. Peck
his atty.

UNITED STATES PATENT OFFICE.

CHARLES E. MCBETH, OF HAMILTON, OHIO.

IMPROVEMENT IN CUTTER-HEADS.

Specification forming part of Letters Patent No. 119,632, dated October 3, 1871.

To all whom it may concern:

Be it known that I, CHARLES E. MCBETH, of Hamilton, in the county of Butler and State of Ohio, have invented a new and useful Improvement in Cutter-Heads for Planing-Machines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

Figure 1 represents an edge view of my adjustable cutter-head as secured upon its mandrel. Fig. 2 represents a plan or side view of the same. Fig. 3 represents an edge view of the cutter-head adjusted upon its mandrel to form a wider groove than as shown in Fig. 1. Fig. 4 represents one-half of the cutter-head removed from its mandrel. Fig. 5 represents an edge view of one-half of the cutter-head detached from its mandrel to exhibit the connection of the quadrant-shaped segments with the hub.

The leading object of the present invention is to provide such an adjustable cutter-head for planing-machines as may, by the combination of a series of collars of different thicknesses, be used for gaining and to form grooves of different widths, and at the same time the adjustable collars will serve to gauge the width of the work being done.

The cylindrical hubs C D have the quadrant-shaped segments A A' B B' connected to them, as represented in Figs. 4 and 5 of the drawing. The collars E serve to strengthen the segments at their connections with the hubs. The hubs C D fit upon the mandrel, and are secured thereon by the nut F. Between the head G of the mandrel and the nut there are five collars, 1 2 3 4 5, besides the hubs C D. Any one or more of these collars may be placed between the hubs C D upon the mandrel to adjust the segments A A' and B B' with their cutters for different kinds of work. In Fig. 3 the hubs, with their segments, are ad-

justed so as to admit two of the removable collars to be interposed between them, which widens the head, as represented.

The four bits *a b c d* are inserted in grooves in the sides of the cutter-head, which extend to the depth of only one-half of the thickness of the segments. The two toothed cutters *m* serve to cut out the sides of the groove, and they work at right angles to the bits, and prevent tearing or breaking the wood at the angular corners either in gaining or plowing. The cutters and bits are secured by the heads *i* of bolts, as represented in Figs. 2 and 4. These bolts are fastened by nuts which are countersunk in the cutter-head.

My adjustable cutter-head can be used for gaining (cutting across the wood) as well as for plowing or grooving. When made in accordance with my invention it may be adjusted to cut various widths, and when the thickness of the head is made three-fourths of an inch the adjustments by the use of the collars will enable it to be expanded to cut one and a half inch; and the same rule will apply in making the cutter-head of any necessary or desired size and thickness.

Having fully described the construction and manner of using my adjustable cutter-head for planing-machines, what I claim, and desire to secure by Letters Patent, is—

The quadrant-shaped segments A A' B B' and hub C D furnished with the cutters and bits *a b c d*, in combination with the graduated series of gauging-collars 1 2 3 4 5, constructed and operating in the manner shown and described, for the purpose specified.

In testimony hereof I have hereunto set my name this 31st day of May, A. D. 1871.

C. E. MCBETH.

Witnesses:

A. W. SCOTT,
LOUIS PFAFFLIN.

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