

(No Model.)

C. L. GOEHRING.
CUTTER HEAD.

No. 480,463.

Patented Aug. 9, 1892.

Fig. 1.

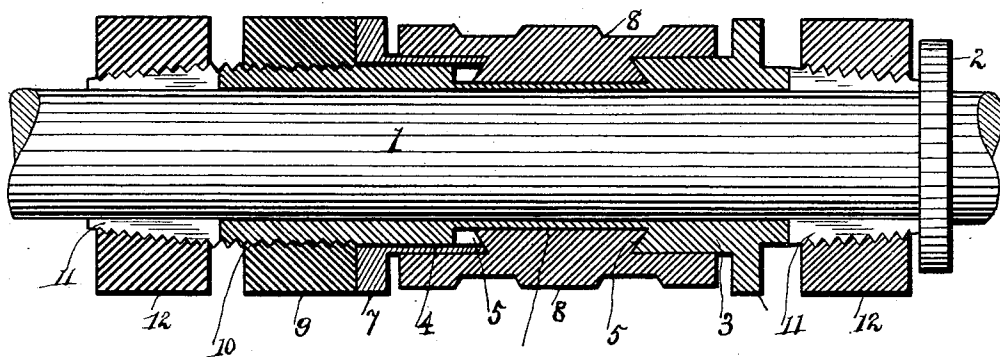
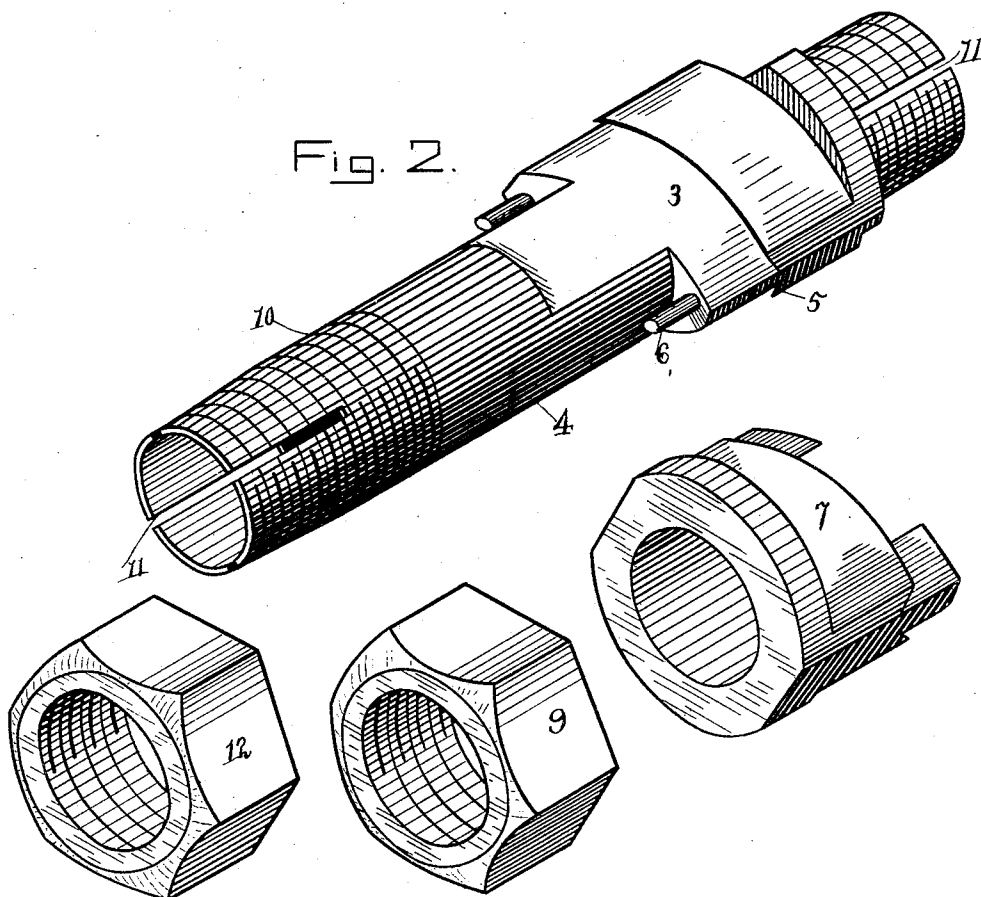


Fig. 2.



WITNESSES:

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CHARLES L. GOEHRING, OF ALLEGHENY, PENNSYLVANIA.

CUTTER-HEAD.

SPECIFICATION forming part of Letters Patent No. 480,463, dated August 9, 1892.

Application filed January 5, 1891. Renewed July 6, 1892. Serial No. 439,183. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. GOEHRING, of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain
5 new and useful Improvements in Cutter-Heads; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the figures of reference marked
10 thereon.

My present invention has for its objects to improve the construction of cutter-heads particularly adapted for use on wood-working
15 machines, though equally adapted to be used in other connections; and it consists in certain improvements in construction and combinations of parts, all as will be hereinafter fully described, and the novel features pointed
20 out particularly in the claims at the end of this specification.

In the drawings, Figure 1 is a longitudinal sectional view of a cutter-head constructed in accordance with my invention mounted on a
25 spindle, and Fig. 2 a view of the parts separated.

Similar figures of reference indicate similar parts.

I have illustrated my invention as applied
30 to a cutter-head, such as shown in my patent, No. 445,335, dated January 27, 1891, and while it is especially adapted to this form, I do not desire to be understood as confining myself to this construction, except as specified
35 in the claims.

The figure 1 indicates a shaft or spindle to which the head is applied, either perfectly round or tapered, as may be desired, and preferably having a collar 2 thereon merely for
40 the purpose of positioning the device in the present arrangement.

Heretofore the general custom has been to clamp the cutter-head on the shaft between suitable nuts, the central bore of the head fitting the spindle more or less accurately, or to
45 clamp it between a nut on the outer end and a collar on the spindle, substantially such as shown; but this construction in machines for performing fine work I find is unreliable, as
50 any dirt or grit on the spindle or between the end of the head and the collar is apt to cant the head and throw it out of true, and with

the object of obviating this objection I provide each head with a simple form of chuck, by which it is accurately centered on the spindle and may be securely fastened in any position of adjustment. As in my prior patent referred to, the head shown is provided with an abutment 3, formed integral with or connected to a sleeve or tubular portion 4, fitting
55 on the spindle, said block being provided with an undercut recess or groove 5 and with guideways and pins 6. Sliding on said ways is a block or jaw 7, having a corresponding undercut groove 5, the cutting knife or knives
60 8 being provided with a dovetail extension 9, fitting said grooves 5 and adapted to be clamped between the abutments or jaws 3 and 7 by screwing up a nut 9, operating on the threaded portion 10 of the sleeve 4, the parts
70 so far described being the same as in my prior application.

In carrying out my present invention I preferably extend the tubular part 4 at the ends, at one end beyond abutment 4 and at the other
75 beyond the threaded portion 10, form slots 11 therein, and taper and thread the ends, on which threaded portions are arranged nuts 12 12, correspondingly threaded and tapered, as shown, so that when the nuts 12 are screwed
80 on the ends the jaws formed thereon will be forced down and firmly grasp the spindle, when the knives may be secured or adjusted, as will be understood. By this arrangement of parts the head may be secured at any position desired on the spindle, and that without possibility of slipping or of being thrown out of true by any dirt getting between its end and the collar 2, as in the other construction.

I may retain the collar on the spindle, if
90 desired, and use it simply as a means of properly positioning the head in the manner shown, or it may be dispensed with entirely.

Other modifications will readily occur to those skilled in the art, and I therefore do not
95 wish to be confined to precisely the construction shown, and while, as before stated, this improvement is especially applicable to my cutter-head it can as well be applied to other forms.

I claim as my invention—

1. In a cutting mechanism, the combination, with a live spindle or shaft, of a cutter-head comprising bit-holding devices and a sup-
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porting-sleeve or tubular portion encircling the shaft, said sleeve being slotted at points on opposite sides of the cutters or bits and provided with compressing or wedging devices, such as nuts 12, operating to compress the slotted sections of said sleeve and cause it to firmly bind upon the spindle, substantially as described.

2. The combination of the live-spindle, the sleeve with split externally-tapered ends, the

conical nuts engaging the tapered sections, the bit-clamping sections formed upon the sleeve, and the co-operating bit-clamping section adjustably mounted upon the sleeve, substantially as described.

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Witnesses:

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