(No Model.)

C. H. REID.

HAT BLOCK CHUCK.

No. 421,513. Patented Feb. 18, 1890.

Fig 1

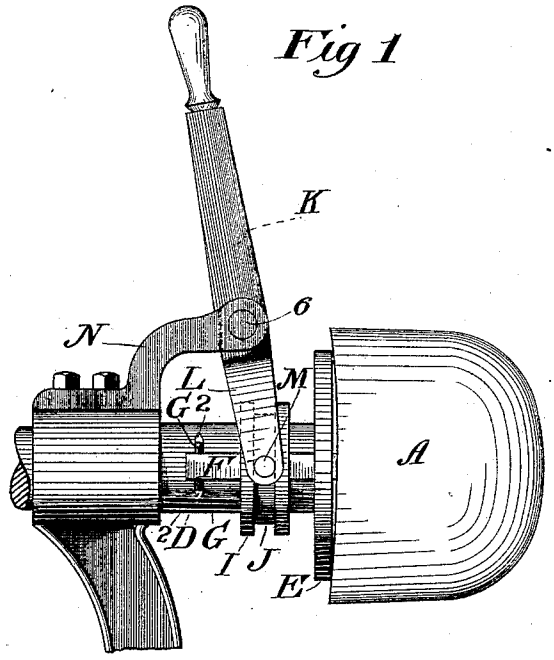
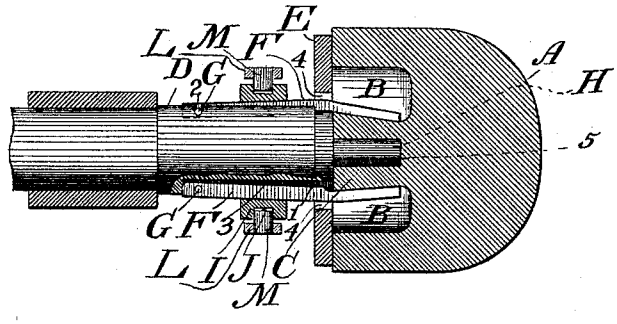


Fig 2



Witnesses
S. S. Williamson.
F. W. Gilhuley

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By J. J. Smith & Co.
Atty.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

CHARLES H. REID, OF DANBURY, CONNECTICUT.

HAT-BLOCK CHUCK.

SPECIFICATION forming part of Letters Patent No. 421,513, dated February 18, 1890.

Application filed May 13, 1889. Serial No. 310,614. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. REID, a citizen of the United States, residing at Danbury, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Hat-Block Chucks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in hat-block chucks, and has for its object to provide such a chuck which shall be readily secured to and detached from the lathe-spindle while the latter is revolving; and with these ends in view my invention consists in the details of construction and combination of elements, such as will be hereinafter fully set forth, and then specifically designated by the claim.

In the accompanying drawings, Figure 1 is an elevation of my improvement in position on a lathe-spindle, the lathe and the lathe-standard being broken away; and Fig. 2, a horizontal section of the same.

Similar letters denote like parts in the several figures of the drawings.

A is the hat-block, having within its rear face an annular recess B, the inner wall whereof is inclined from the bottom toward the outer wall thereof, so as to afford a central hub C in the block widest at the head and narrowest at the base.

D is the lathe-spindle, having at the end thereof the chuck-head E, against which latter the block has a firm and extended bearing, as will be presently set forth.

F are the chuck-jaws, having at the heel ends cross-pins G. The spindle is grooved, as seen at 1, to accommodate the bodies of the jaws, (only one of these grooves being shown,) and at the rear of each groove is a countersink 2 for the pins G, whereby said jaws are secured as against creeping or lengthwise movement on the spindle. A small bow-spring 3 is preferably placed within the grooves immediately underneath the jaws in order to normally distend the latter. The jaws extend forward through apertures 4 in the head E. A centering-pin H projects beond the spindle at the end thereof, and the hub is provided with a corresponding socket 5, within which said pin is adapted to center.

I is a collar around the jaws and of an interior diameter about equal to the distance between the outer edges of the heel ends of two diametrically-opposite jaws, so that it will be readily understood that the outward movement of said collar will depress the jaws within the grooves 1.

J is a circumferential groove around said collar, and K is the operating-lever, pivoted at 6 to the lathe-stand N and having at its lower end forks L, which straddle said collar and are provided with shoes M, extending within the groove J. By throwing the lever K forward the collar is forced backward, thereby relaxing the jaws.

The operation of my improvement is as follows: The block is placed against the head E and the lever K thrown back, thereby driving the collar forward and forcing the jaws firmly against the hub C. While it is not absolutely necessary that this hub should be widest at its head and narrowest at the base, still such construction is obviously advantageous, since it effectually prevents any accidental withdrawal of the block; also, the centering-pin, while it affords a substantial support for the block and facilitates the chucking of the latter, might be dispensed with, as the jaws can be made sufficiently heavy and strong to support the block.

What I claim as new is—

The combination of the spindle having grooves and countersinks at the rear of said grooves, the jaws provided at their heel ends with cross-pins, the sliding circumferentially-grooved collar around said jaws, and the forked operating-lever pivoted to the lathe-stand and engaging with the groove of said collar, substantially as set forth.

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

CHARLES H. REID.

Witnesses:
F. W. GILHULEY,
S. S. WILLIAMSON.