

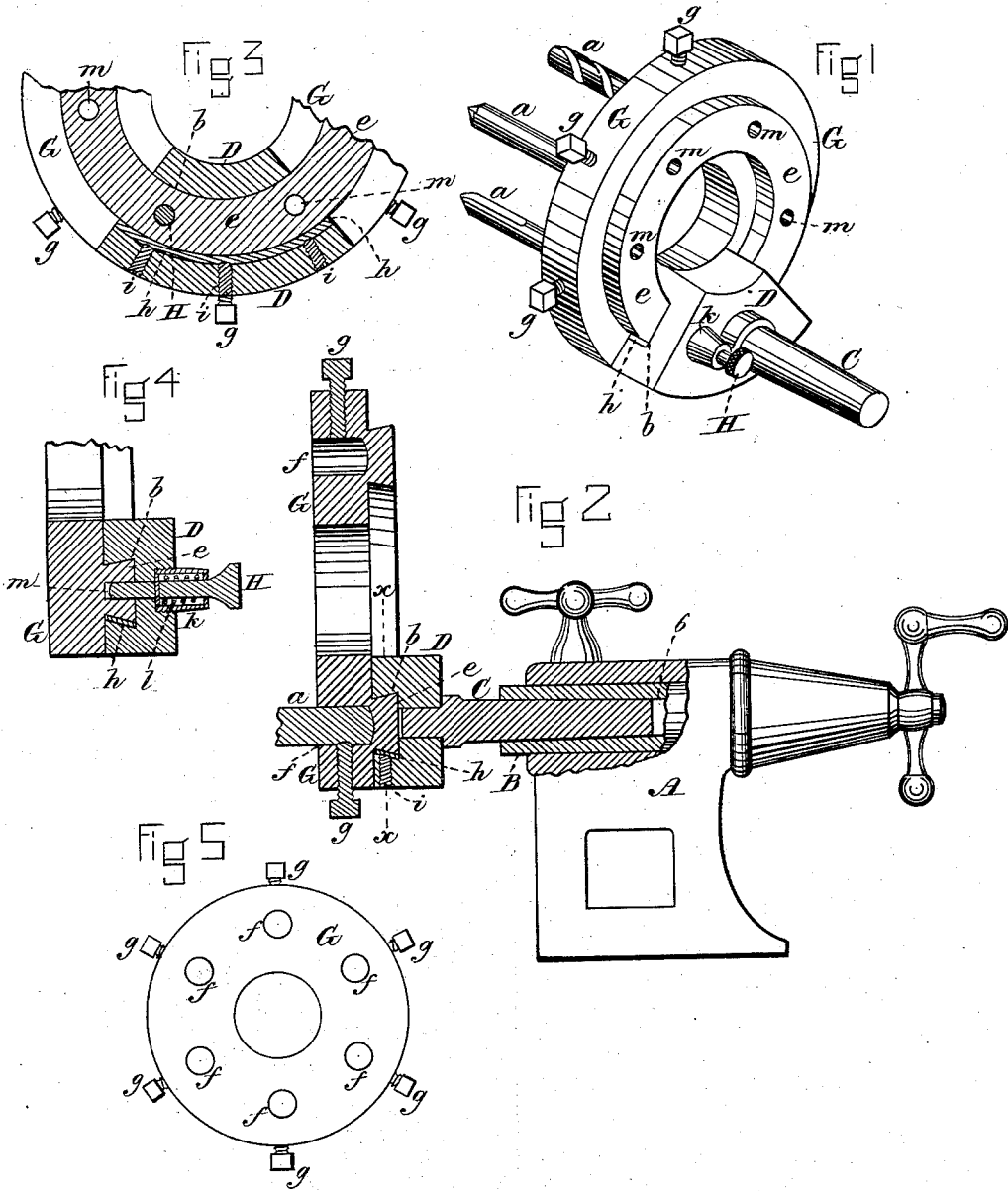
(No Model.)

C. H. KELLEY.

TOOL HOLDING ATTACHMENT FOR LATHES.

No. 318,261.

Patented May 19, 1885.



WITNESSES
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TOOL-HOLDING ATTACHMENT FOR LATHES.

SPECIFICATION forming part of Letters Patent No. 318,261, dated May 19, 1885.

Application filed January 29, 1885. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. KELLEY, a citizen of the United States, residing at Revere, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Revolving Tool-Holders for Lathes, Milling-Machines, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my improved revolving tool-holder. Fig. 2 is a central vertical section of the same, applied to the tail-stock of a lathe. Fig. 3 is a vertical section of a portion of the same on the line x x of Fig. 2. Fig. 4 is a sectional detail of the locking device. Fig. 5 is a front elevation of the tool-holder.

My invention has for its object to provide a cheap, simple, and effective substitute for the ordinary tool-holding turret-head for lathes, whereby the necessity of removing the tail-stock from the lathe is avoided.

To this end my invention consists in the combination, with a supporting block or rest provided with a shank adapted to enter the tapering hole or socket of the dead-spindle of the tail-stock, of a tool-holding head or disk supported by and adapted to revolve in a vertical plane upon the said supporting block or rest, which is provided with a suitable catch or spring-bolt, which serves to lock the revolving head immovably in place when any one of the series of tools which it carries is brought into line with the center or axis of the spindles, as hereinafter more particularly set forth.

In the said drawings, A represents the tail-stock of a lathe, and B the dead-spindle of the same, within the tapering hole or socket 6 of which is inserted the tapering shank C of my improved tool-holder. This shank C carries at its outer end a segmental block or rest, D, which is provided on its front face with a curved dovetail groove, b , within which fits a portion of an annular dovetail rib or flange, e , projecting from the rear side of a circular head or disk, G, which is provided on its front face with a series of sockets, f , for the reception of the various tools, a , required for use, the sockets f being arranged in a circle

intersecting a prolongation of the axis of the spindles of the lathe, and each tool being held in place by a set-screw, g , on the periphery of the head G. The width of the groove b in the block D exceeds that of the flange e , leaving a space between the two for the reception of a curved gib, h , which is kept firmly up against the edge of the flange e by means of set-screws i , and by this device the wear is taken up and the parts kept tightly together, as required, while when the gib h is removed the flange e can be withdrawn from the groove b , thus avoiding the necessity of making a portion of the block D removable to allow of the putting together or separation of the disk G and block D. The tool-holding head or disk G thus arranged is free to be revolved by hand in a vertical plane upon the supporting-block D, to bring any one of the tools a carried thereby into line with the center or axis of the spindles of the lathe, and when so adjusted is held immovably in position by a bolt or catch, H, which is fitted to slide in a guide, k , in the block D, and is pressed forward by a spring, l , which causes its front end to snap into one of a series of apertures, m , formed in the rear side of the flange e . This bolt H is provided with a milled head, by taking hold of which it can be drawn forward against the pressure of its spring l when it is desired to release the head G, to allow of its being rotated on the block D to bring another tool into line with the center.

The above-described tool-holder is simple, strong, and durable, and can be afforded at much less cost than an ordinary turret-head, while it performs its work equally as well, and has the advantage that it can be applied directly to the dead-spindle of the tail-stock, thereby avoiding the necessity of removing the latter from the lathe, which is a great convenience and effects a considerable saving in time and labor.

Although my improved tool-holder is particularly designed for lathes, it is evident that it may be applied to milling and other machines in which the work is carried by a rotating spindle or chuck.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The herein-described tool-holding attach-

- ment for lathes, consisting, essentially, of a block or rest provided with a shank adapted to fit within the dead-spindle, a tool-carrying head or disk supported by and revolving in a vertical plane on said block, and means, substantially as described, for locking the rotating head immovably in place when adjusted, all operating substantially in the manner and for the purpose set forth.
- 10 2. The combination, with a block or rest, D, provided with a shank, C, adapted to fit within the dead-spindle of a lathe, of the tool-holding head or disk G, supported by and revolving in a vertical plane on the said block D, and
- 15 a spring-catch or locking device, H, for holding the head G immovably in place when adjusted, to bring any one of its tools into line with the center, substantially as set forth.
- 20 3. The combination, with the block D, provided with a shank, C, adapted to fit within the dead-spindle of a lathe, and having the curved dovetail groove *b*, of the head or disk G, adapted to revolve in a vertical plane, and

provided on its front face with sockets for holding a series of tools, and having on its rear side an annular dovetail rib or flange, *e*, fitting within the groove *b* of the block D, and the spring bolt or catch H, for holding the head G immovably in place when adjusted, substantially as described.

4. In a tool-holder, the combination, with the block D, provided with a shank, C, and having a dovetail groove, *b*, and the vertical revolving head or disk G, with its annular flange *e* fitting within the groove *b*, of the curved gib *h*, introduced into the space between the flange *e* and the side of the groove *b*, and the set-screws *i*, arranged to bear upon the gib *h*, all operating substantially in the manner and for the purpose described.

Witness my hand this 9th day of January, A. D. 1885.

CHARLES H. KELLEY.

In presence of—

P. E. TESCHEMACHER,
W. J. CAMBRIDGE.