C. W. GLOVER.

Hat-Block and Spindle for Hat-Pouncing and Finishing Machines.

No. 206,171. Patented July 23, 1878.

Fig. 1.

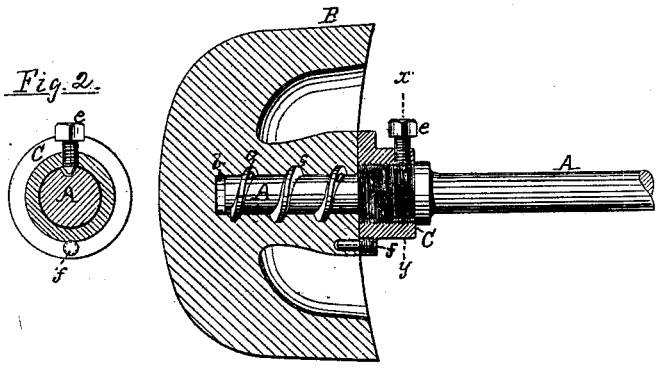


Fig. 2.

Fig. 3.

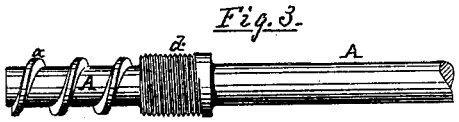
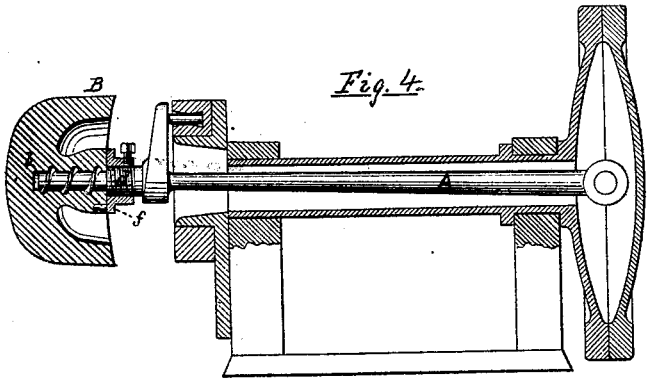


Fig. 4.



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CARLOS W. GLOVER, OF DANBURY, CONNECTICUT.

IMPROVEMENT IN HAT-BLOCKS AND SPINDLES FOR HAT POUNCING AND FINISHING MACHINES.

Specification forming part of Letters Patent No. **206,171**, dated July 23, 1878; application filed June 28, 1878.

To all whom it may concern:

Be it known that I, CARLOS W. GLOVER, of Danbury, in the county of Fairfield, in the State of Connecticut, have invented certain new and useful Improvements in Hat-Blocks and Spindles for Hat Pouncing and Finishing Machinery; and I do hereby declare that the following specification, taken in connection with the drawings furnished and forming a part of the same, is a clear, true, and complete description thereof.

Heretofore hat-blocks and their spindles have been connected by means of a threaded or otherwise fitted chuck, involving such bulk or weight of metal as to cause undue vibration, especially when employed in oval hat-lathes, and this, in connection with the considerable cost of such chucks, has generally operated as an objection to the use of such lathes, regardless of the superiority of finish which is attainable therewith.

The object of my invention is to secure a firm and reliable connection of block and spindle in an economical manner, having due reference to ready detachment, and to do this with the use of a minimum of metal, thereby securing light weight and reducing the liability of undue vibration to a minimum.

The main feature of my invention consists in the combination, with a coarse-threaded hat-lathe spindle, of a hat-block with an axial opening threaded to receive the spindle; and, further, my invention consists in the combination, with a hat-lathe spindle having a coarse thread at its end, of an enlargement at the inner end of the coarse thread, which is finely threaded, a threaded collar fitted to the enlarged threaded portion of the spindle, and a hat-block with a coarse-threaded axial opening.

With this combination of devices, which is of special value in oval lathes, the block and spindle are connected by the coarse threads and firmly secured by the threaded collar, operating as a jam or set nut against the inner surface of the hat-block, and admits of the adjustment of the block in any desired position on the face of the lathe for locating in its proper position the dead-point at which the sand-paper is applied.

My invention further consists in the combination, with the threaded block and collar, of a set-screw in the collar, and the spindle enlarged, threaded, and provided with a longitudinal score or groove in the enlarged threaded portion for receiving the end of the set-screw, whereby the collar and block are firmly secured, regardless of the direction in which the spindle is driven.

Another feature of my invention consists of a hat-lathe spindle which at its end has a coarse thread and a fine thread of different diameters, a finely-threaded collar, a hat-block, and a pin, which occupies coincident holes in the hat-block and collar, whereby a block or a number of blocks properly fitted may always be adjusted in proper position for pouncing, the same having been predetermined prior to boring the hole for the pin in the block.

To more particularly describe my invention, I will refer to the accompanying drawing, in which—

Figure 1 represents a hat-block in section applied to a hat-lathe spindle in accordance with my invention. Fig. 2 represents the collar and spindle in lateral section on line *x y*. Fig. 3 represents, in side view, the lathe-spindle detached. Fig. 4 represents, in longitudinal section, one form of lathe with my improvements embodied therein.

The hat-lathe spindle A, so far as relates to my improvements, is constructed substantially the same for use in all kinds of lathes or pouncing-machines. The outer end of the spindle is provided with a spiral thread or feather, *a*, which should be strong and full, so as to afford broad contact-surfaces with the spiral grooves or threads, with which it engages.

The block B is varied in form to meet special requirements, and is provided with a central axial opening, *b*, traversed from end to end with a spiral groove, *c*, constituting a coarse-threaded tap for the reception of the correspondingly-threaded end of spindle A. At the inner end of the coarse thread the spindle A is enlarged at *d*, and finely threaded for the reception of the correspondingly-threaded flanged collar C, the face of which abuts against the inner face of the block B. This collar is provided with a radial set-screw, *e*, which enters a longitudinal groove in the spindle, and it is also drilled through its flange to receive a

pin, *f*, which occupies a corresponding hole in the rear of the hat-block.

It will be seen that the coarse heavy thread or spiral feather enables the block to be quickly removed from the spindle, affords sufficient bulk of wood between the spirals or threads in the block to secure the requisite strength, and to obviate liability of stripping, even from long usage, and also, incidentally thereto, that the weight of the block may be reduced to a minimum by removing a portion of its interior, leaving only a sound shell and sufficient bulk to afford a strong neck to receive the spindle. The collar and its set-screw enable the spindle and block to be so firmly connected that the spindle may be revolved in either direction without liability of loosening the block. The weight of metal employed in effecting the connection is reduced much below that required in chucks, as heretofore, and the metal which is used is located as nearly as possible to the axis of the spindle.

To persons skilled in hat machinery the effective value of my improvements will be obvious for the attainment of the several ends before herein recited.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a coarse-threaded hat-lathe spindle, of a hat-block having an axial opening threaded to receive the spindle, substantially as described.

2. The combination, with a hat-lathe spindle having a coarse thread at its end, and a finely-threaded enlargement at the inner end of the coarse thread, of a hat-block and a collar, respectively threaded to receive the coarse and fine threads of the spindle, substantially as described.

3. The combination of the threaded block and collar, of a set-screw in the collar, and the spindle threaded, enlarged, and provided with a longitudinal groove in the enlarged threaded portion thereof, for receiving the set-screw, substantially as described.

4. The combination of the hat-lathe spindle, the block, and the collar, of a pin occupying coincident holes in the block and collar, substantially as described.

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