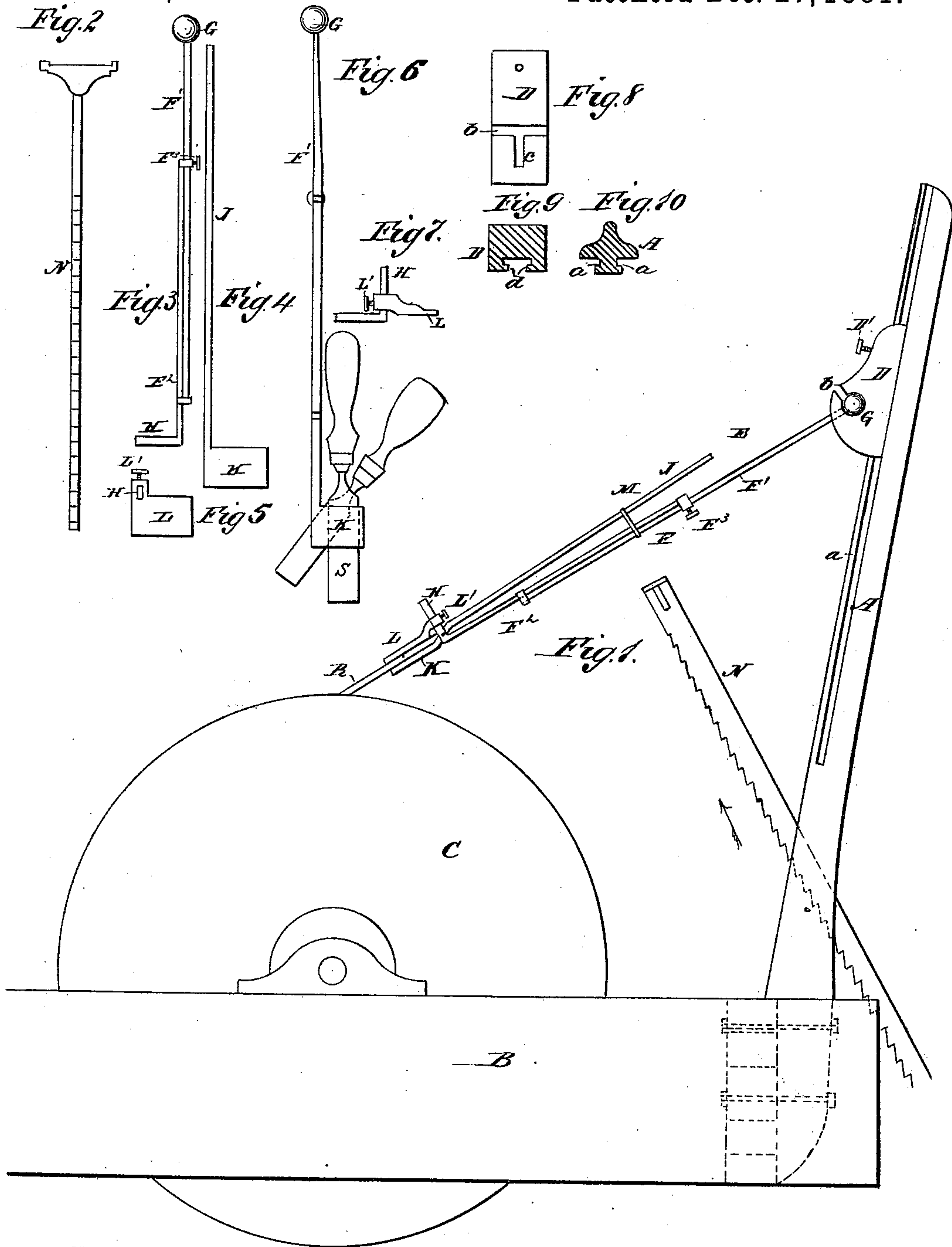


(No Model.)

G. G. & B. D. BAYHA.
TOOL HOLDER FOR GRINDSTONES.

No. 251,510.

Patented Dec. 27, 1881.



WITNESSES:

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UNITED STATES PATENT OFFICE

GEORGE G. BAYHA AND BENJAMIN D. BAYHA, OF NIOBRARA, NEBRASKA.

TOOL-HOLDER FOR GRINDSTONES.

SPECIFICATION forming part of Letters Patent No. 251,510, dated December 27, 1881.

Application filed July 12, 1881. (No model.)

To all whom it may concern:

Be it known that we, GEORGE GOTTLIEB BAYHA and BENJAMIN DAVID BAYHA, of Niobrara, in the county of Knox and State of Nebraska, have invented a new and Improved Tool-Holder for Grindstones, of which the following is a full, clear, and exact description.

The object of our invention is to provide a new and improved device for holding tools—such as chisels, plane-bits, &c.—to a grindstone in such a manner that one person can turn the stone and control the position of the tool at the same time very conveniently and without damaging or mutilating the cutting-edge of the tool and without danger to the operator.

The invention consists in a tongs with adjustable jaws for holding the tool to be sharpened, the end of which tongs is hinged or pivoted removably in a block sliding on an upright of the grindstone-frame, which tool-holding tongs is supported by an adjustable ratchet-bar passing through a slot in the above upright or in the grindstone-frame.

In the accompanying drawings, Figure 1 is a longitudinal elevation of a grindstone provided with our improved tool-holder. Fig. 2 is a longitudinal edge view of the notched bar for supporting the tongs. Fig. 3 is a longitudinal elevation of the lower shank of the tongs-handle. Fig. 4 is a plan view of the upper shank and lower jaw. Fig. 5 is a plan view of the adjustable jaw. Fig. 6 is a plan view of the tongs. Fig. 7 is a longitudinal elevation of the adjustable jaw. Fig. 8 is a plan view of the upper surface of the sliding block to which the tongs is pivoted. Fig. 9 is a cross-sectional elevation of the same. Fig. 10 is a cross-sectional elevation of the standard on which this block slides.

A standard, A, with a longitudinal groove, *a*, in each side along the front edge, is fastened to the frame B of the grindstone C a short distance from the edge of the stone, and on this standard a block, D, slides provided with lugs or grooved flanges *d d*, which pass into the grooves *a* of the standard. This block D is provided with a transverse slot, *b*, the lower part of which is widened, so that a ball or cylinder can slide into this slot, and from this slot *b* a slot, *c*, extends toward the bottom of the block and at right angles to the slot *b*. The

block D is provided with a binding-screw, D', for holding it in any desired position on the standard A.

The tongs E consists of the lower shank, F, formed of a rod, F', having a ball, G, at its handle end and a rod, F², having a rectangular projection, H, at the opposite end, and of the upper shank or lever, J, pivoted to the outer end of the shank F, and having the flat and wide lower jaw, K, at its outer end. The lower shank, F, can be lengthened or shortened, as circumstances may require, and can be locked in position by means of the set-screw F³.

The upper jaw, L, is adjustably mounted on the projection H, and can be held in the desired position by means of a binding-screw, L'. A ring, M, is passed around the upper and lower shanks, F and J, for the purpose of locking the jaws together.

The tongs E is supported by a ratchet-bar, N, passing through a slot in the standard A or in the frame B, which bar N can be adjusted higher or lower by causing one of the upper or lower teeth to catch on the edge or end of the slot.

The operation is as follows: The article to be sharpened—for instance, a plane-bit, R, or a chisel, S—is clamped between the jaws K and L by means of the ring M, which holds the shanks of the jaws together, the upper jaw having been previously adjusted according to the thickness of this plane-bit, chisel, &c. The block D is then adjusted higher or lower, according to the desired bevel of the cutting-edge, for the bevel varies with the inclination of the tongs, and this inclination varies with the position of the block D, on which the end of one shank of the tongs is held by means of a ball-and-socket or knuckle joint. When the tool that is being sharpened is to be held above the grinding-edge of the stone C the bar N is drawn upward, as indicated by the arrow, a suitable distance and the tongs rested on the upper end of the same.

One man can sharpen and grind the tools very conveniently with greater precision than heretofore.

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

1. In a tool-holder for grindstones, the com-

5 combination, with the sliding block D, provided with a transverse slot, *b*, and the slot *c*, at right angles to the slot *b*, of the tongs E, having the ball G, substantially as herein shown and described, and for the purpose set forth.

2. In tongs for holding tools to a grindstone, the upper jaw, L, adjustably mounted on a square projection, H, of the lower rod, F², as and for the purpose specified.

10 3. In a tool-holder, the combination, with the standard A and the block D, sliding thereon, of a longitudinally-adjustable tool-holding tongs, E, substantially as herein shown and described, and for the purpose set forth.

4. In a tool-holder for grindstones, the combination, with the standard A, of the block D, sliding thereon, and the tool-holding tongs E, pivoted to this block, and of the tongs-supporting bar N, substantially as herein shown and described, and for the purpose set forth. 15 20

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