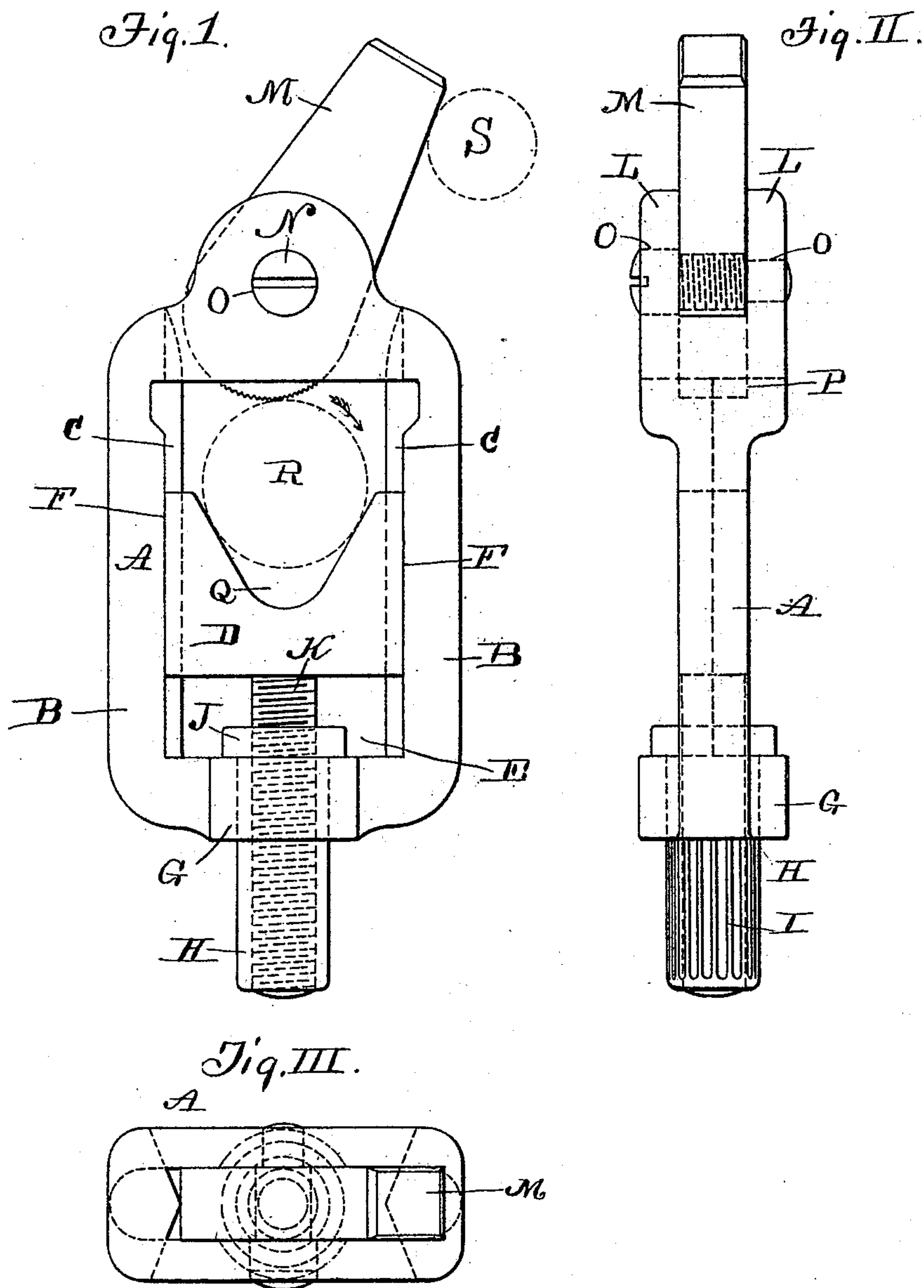


(No Model.)

G. EHRHARDT.
LATHE DOG.

No. 497,517.

Patented May 16, 1893.



WITNESSES:
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GUSTAVE EHRHARDT, OF PITTSBURG, PENNSYLVANIA.

LATHE-DOG.

SPECIFICATION forming part of Letters Patent No. 497,517, dated May 16, 1893.

Application filed July 16, 1891. Serial No. 399,761. (No model.)

To all whom it may concern:

Be it known that I, GUSTAVE EHRHARDT, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Lathe-Dogs; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improvement in lathe-dogs, and has for its object to provide a self-adjusting clutch-device, whereby, as the strain increases, the dog will be caused to grip the article more firmly.

With this object in view, my invention consists essentially in an adjustable block, sliding in a yoke, and co-acting with a serrated cam-lever.

My invention consists, further, in certain details of construction and arrangement which will be more particularly pointed out in connection with the drawings, wherein—

Figure 1, is a face view of a lathe-dog, embodying my invention. Fig. 2, is a side view of the same. Fig. 3, is an end view.

Referring by letter to the drawings, A represents a yoke or guide-frame, having parallel side-bars, B B, which are provided with guiding webs C C, and D, represents a sliding block, which fits snugly in a rectangular opening, E, of the yoke, and is provided at its side edges with channels, F, to engage the guiding webs. The yoke is provided at one end with a collar, G, having a smooth bore or bearing, in which is mounted a tubular adjusting-nut, H, having its outer projecting end milled, as seen at I, and provided at its inner end with a lateral annular flange, J, to bear against the inner end of the collar, G. The tubular adjusting-nut is tapped to engage the threaded shank or stem, K, which is attached at its inner end to the sliding block. The yoke is provided at the opposite ends with parallel ears, L, between which fits the cam-lever, M. The

cam-lever is mounted upon a pivot-screw, N, which fits in registering perforations, O O, in the parallel ears, L. The space, P, between the parallel ears, in which the cam-lever operates, communicates with the rectangular opening, E, in the yoke, whereby the serrated cam-face of the lever projects into the said opening. The sliding block is introduced into the rectangular opening through the space between the parallel ears, the cam-lever being subsequently inserted and engaged by the pivot-screw. The face of the sliding block, opposite the cam-lever, is provided with a V-shaped notch, Q, to engage one side of the bar which is to be clamped by the dog, the opposite side of said bar being engaged by the serrated surface of the cam-lever. This bar is indicated by dotted lines at R.

In operation, the sliding block is moved, by means of the adjusting-nut until its forked or notched end engages one side of the bar, whereupon the cam-lever is turned until its serrated surface bears against the opposite side of the bar and clamps the latter firmly against the sliding block. The cam-lever is locked in its adjusted position by means of a pin which is indicated in dotted lines at S. The strain upon the bar, R, is in the direction indicated by the dart in Fig. 1, and it will be seen that as the strain increases the cam-lever will be operated to clamp the bar more firmly in place, for the reason that the major diameter of the cam will be brought more nearly into alignment with the diameter of the bar.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination with a supporting yoke having an opening provided with side guiding webs, of a sliding block mounted upon the guiding webs and provided with a threaded stem which is engaged by an adjusting nut which is permanently mounted on said yoke, and a serrated cam mounted on the yoke in opposition to the said block, substantially as specified.

2. In a lathe-dog, the combination with a guiding-yoke, and a cam-lever mounted in

one end thereof, of a sliding-block fitting in the yoke and having a V-shaped notch in its face, and provided with a threaded stem to engage an adjusting-nut on the yoke, substantially as specified.

3. In a lathe-dog, the combination with a guiding-yoke carrying a cam-lever, of a sliding-block provided with a threaded stem, and a tubular adjusting-nut fitting in a smooth-

bored collar, and engaging the threaded stem, substantially as specified.

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

GUSTAVE EHRHARDT.

Witnesses:

F. P. HOWLEY,
JOHN GRAEBING, Jr.