W. M. MILLS.

Adjustable Pillow-Block.

No. 220,487. Patented Oct. 14, 1879.

Fig. 1.

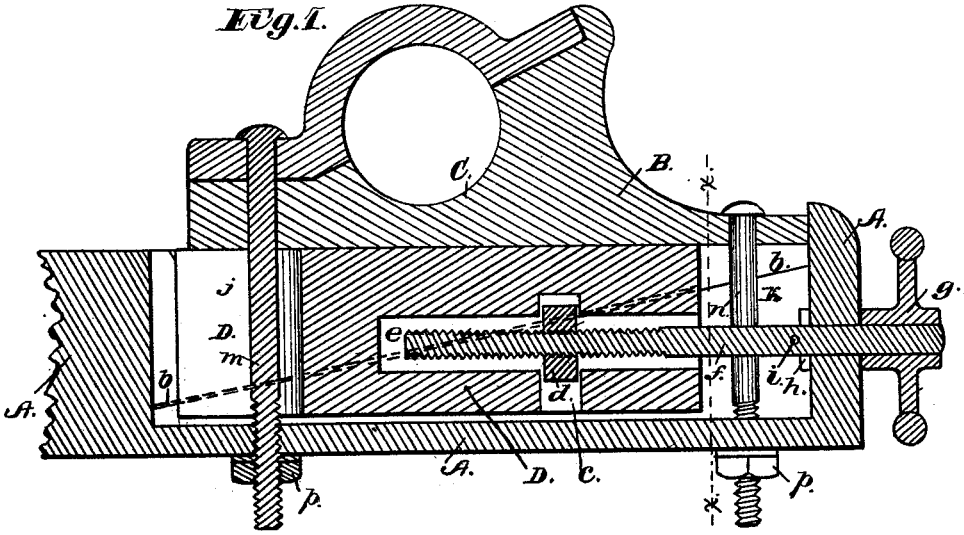
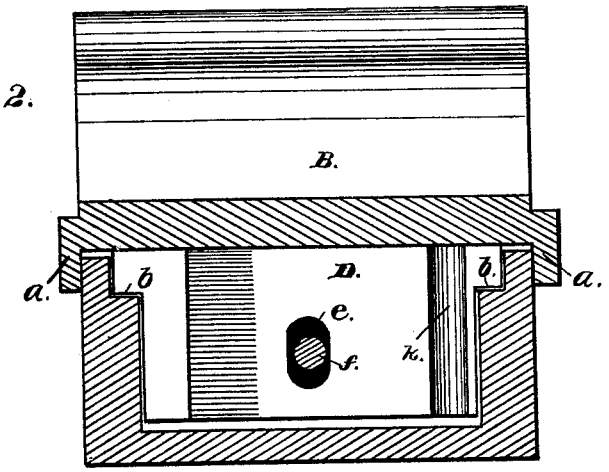


Fig. 2.



Witnesses;
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his Attys;

UNITED STATES PATENT OFFICE.

WILLIAM M. MILLS, OF DAYTON, OHIO.

IMPROVEMENT IN ADJUSTABLE PILLOW-BLOCKS.

Specification forming part of Letters Patent No. **220,487**, dated October 14, 1879; application filed July 30, 1879.

To all whom it may concern:

Be it known that I, WILLIAM M. MILLS, of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Adjustable Pillow-Blocks; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an improvement in adjustable pillow-blocks and bearing-boxes, designed particularly for supporting and adjusting heavy grinding-rolls, though capable of use in all classes of bearings.

The nature and novelty of the invention consist in the construction and arrangement of the parts, and can be best understood by reference to the following description and the accompanying drawings, in which—

Figure 1 represents a central section, in side elevation, of my improved adjusting pillow-block. Fig. 2 is a sectional end elevation through the line *x x* of Fig. 1.

A represents the support for the pillow-block. This support, whatever it may be, whether the side rail of the frame of a machine, or any other fixed portion of the machine, has an oblong cavity in its upper surface, over which the pillow-block B fits, with its sides flanged to embrace the top edges of the support, as seen at *a*, Fig. 2. This block may have any desired configuration, and carries with it the bearing-box C. In this instance the bearing-box is formed partly in the pedestal, whose cover C forms the cap, though this construction is immaterial.

The cavity in the support has on each side an inclined rib or shoulder, *b*, extending the entire length thereof. Snugly fitting in this cavity is a solid metal block, D, having its sides recessed to form inclined shoulders, which rest upon the ribs or shoulders *b*. This block is somewhat shorter than the cavity, as seen in Fig. 1, and has a rectangular recess, *c*, cut in its under surface to receive a nut, *d*, Fig. 1.

Extending about half-way through the block D is a horizontal recess, *e*, Figs. 1 and 2, into which and through the nut *d* screw-shaft *f* passes, as seen in Fig. 1. This shaft *f* projects through the end of the support A, and has keyed upon it a hand-wheel, *g*, Fig. 1. A washer, *h*, is secured by a pin, *i*, upon the inner side of the end of the support, as represented in Fig. 1.

Cut vertically through the front and rear ends of the block D are slots *j* and *k*, through which bolts *m* and *n*, extending down through the pillow-block and its support, pass. These bolts serve to secure the pillow-block to its support, and are held in place by the nuts *p*.

The operation of the device is as follows: The block D, by traveling upon the inclined shoulders *b*, becomes in effect a wedge, directly upon which the pillow-block rests. When the nuts upon the bolts *m* and *n* are removed or sufficiently loosened, the block D may be made to travel upon the inclined shoulders *b* by turning the hand-wheel *g* in the proper direction, and thus rotating the screw-shaft *f*, which, bearing in the nut *d*, draws upon the block D, and causes it to ascend and carry with it the pillow-block. By this means the pillow-block can be raised vertically to adjust the bearing, and when so adjusted it is firmly held by replacing and tightening the nuts *p*.

By reversing the motion of the shaft *f* the pillow-block may be lowered.

By this construction and arrangement the pillow-block always has a firm unyielding support, no matter in what position it is adjusted.

The cavity for the screw-shaft should be sufficiently large to allow for all positions of the block D.

What I claim as new is—

The combination, with the pillow-block B, of the recessed support A, provided with inclined ribs *b*, and the contained adjustable wedge-block D, provided with an adjusting-screw, *f*, substantially as and for the purpose specified.

Witness my hand this 29th day of May, A. D. 1879.

WILLIAM M. MILLS.

Witnesses:

PATRICK H. GUNCKEL,

WM. C. THOMPSON.