

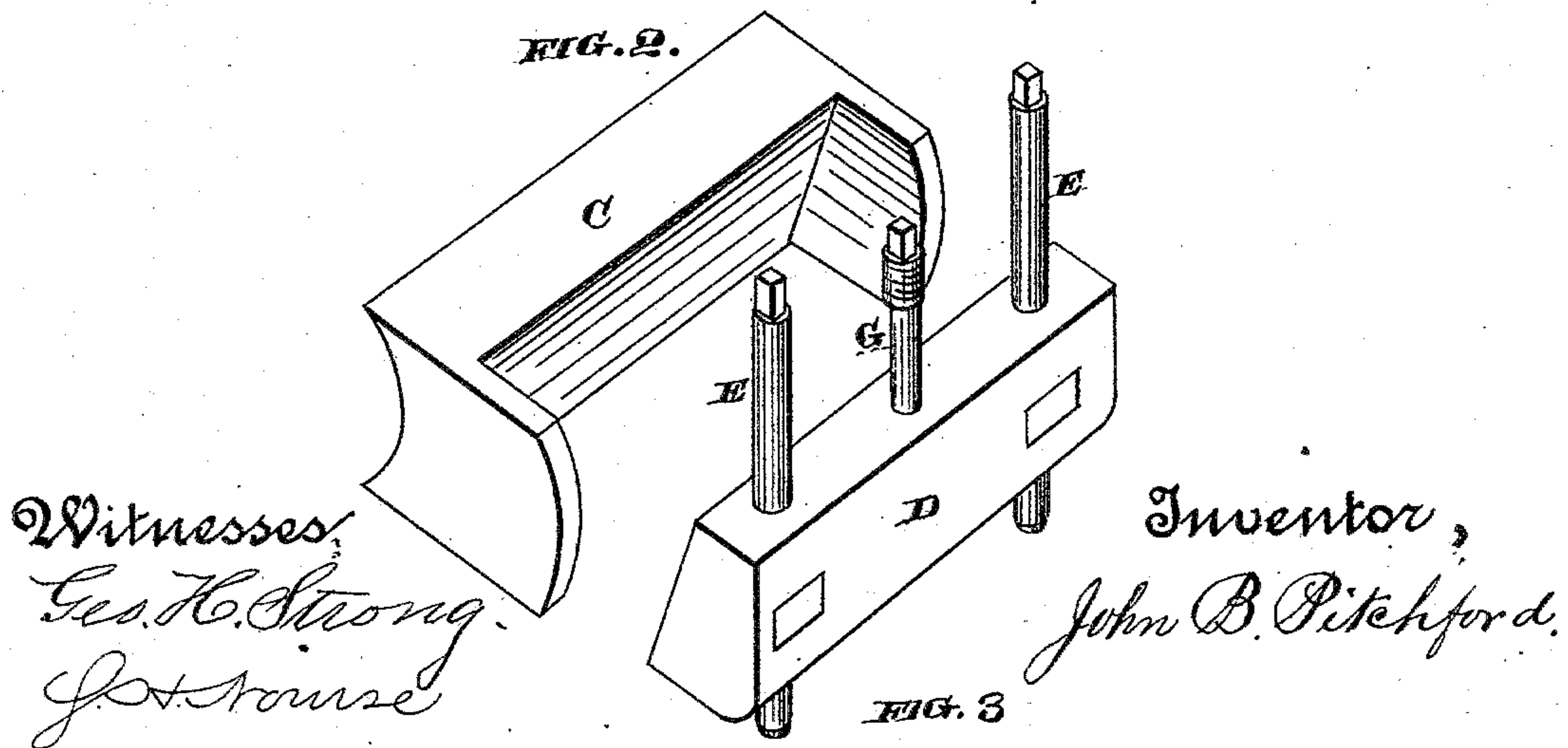
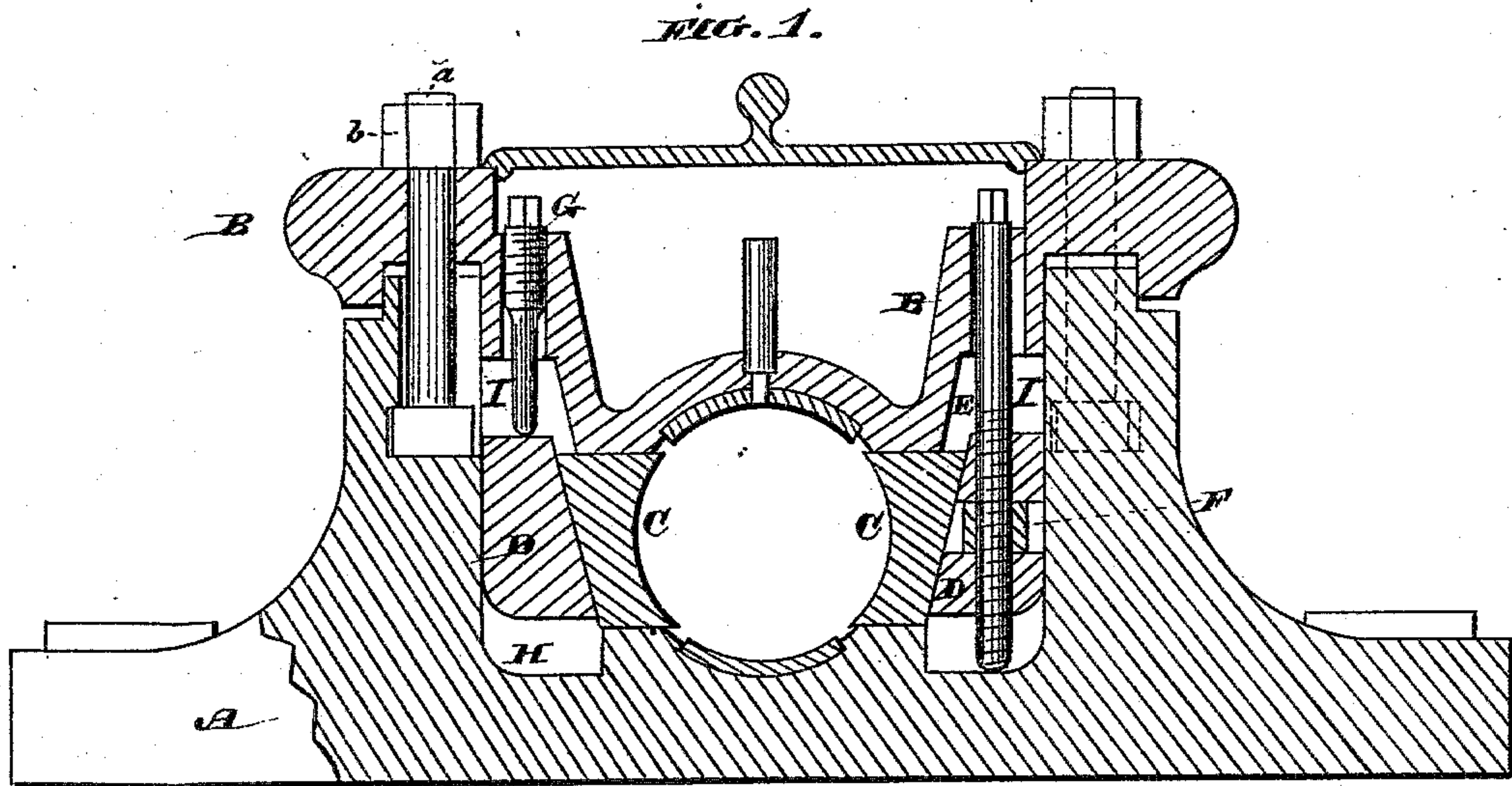
(No Model.)

J. B. PITCHFORD.

PILLOW BLOCK.

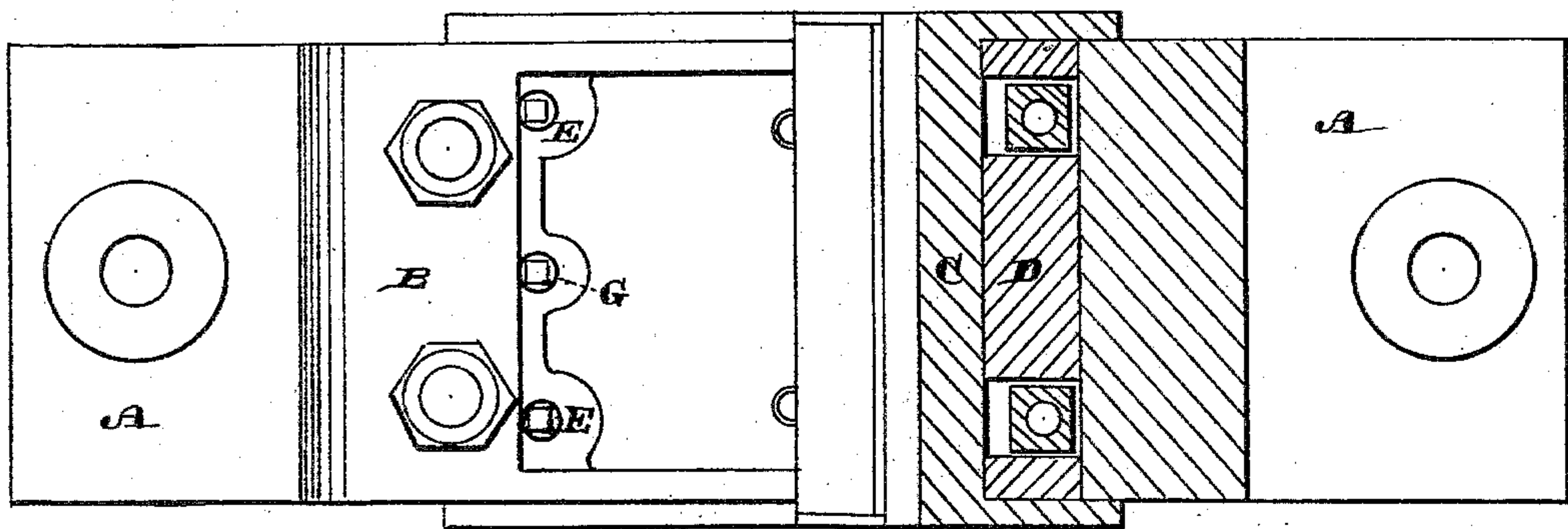
No. 283,657.

Patented Aug. 21, 1883.



Witnesses,
Geo. H. Strong.
J. H. House

Inventor,
John B. Pitchford.



UNITED STATES PATENT OFFICE.

JOHN B. PITCHFORD, OF SAN FRANCISCO, CALIFORNIA.

PILLOW-BLOCK.

SPECIFICATION forming part of Letters Patent No. 283,657, dated August 21, 1883.

Application filed May 31, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. PITCHFORD, of San Francisco, county of San Francisco, and State of California, have invented an Improvement in Pillow-Blocks; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to certain improvements in pillow-blocks for engine-shafts, line-shafts, &c.; and it consists of a means for adjusting the quarter-brasses of a pillow-block with reference to the shaft by means of vertically-moving wedges and thrust-screws, which are so arranged that the cap of the pillow-block can be taken off without allowing the shaft to lose its proper position.

In the ordinary construction of pillow-blocks the wedges have been adjusted by screws passing through the pillow-block cap, and suspending them so that the cap could not be removed without moving them and disturbing the adjustment, so that if the shaft were subjected to the strain of a heavy belt or the thrust of gear it was liable to be thrown out of line. In my device the cap can be entirely removed without in any manner disturbing the shaft or its adjusting mechanism. Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a longitudinal vertical section of the pillow-block, taken through the brasses at right angles with the shaft. Fig. 2 is a perspective of the quarter-brass and wedge with thrust-screw. Fig. 3 is a plan view of pillow-block, partly in horizontal section.

A is the body of a pillow-block, and B is the cap, which is retained in place by bolt *a* and nut *b*.

C C are the quarter-brasses, which are forced against the shaft from opposite sides by the wedges D. These wedges are as long as the width of the box, and have slots or openings formed in them to receive nuts F, through which screws E turn. These screws are long enough to extend from the base of the pillow-block up through the wedges and through the cap. The openings in the cap and in the brasses are large enough to allow the screws E to pass freely, and their upper ends are made square to receive a wrench, by which they are turned. As the lower ends of these screws rest upon the base of the pillow-block, and then

pass through the nuts F, which lie within the openings in the wedges, it will be seen that when the screws are turned in one direction the nuts will travel up the screws and lift the wedges, and as the inclined faces of the wedges press against corresponding inclined faces upon the quarter-brasses the latter will be forced against the shaft as closely as may be desired. There is a recess, I, in the cap, into which the upper part of the wedge enters as it is drawn up. When it is desired to relax the pressure, the screws E are turned in the opposite direction, and they may also be forced down by means of the following screws G, which serve to hold them to their places.

When the cap B is to be removed, the nuts *b* are removed, and the cap is lifted off without touching the screws E, on account of the space around them.

If it is necessary to remove the quarter-brasses C, the wedges may be lowered into the recesses H in the pillow-block until there is sufficient space above to allow the brasses to be turned out of their places. By this construction it will be obvious that when the wedges D are set up, so as to bring the quarter-brasses C C in contact with the shaft, the cap can be taken off without any possibility of the shaft getting out of line.

By having a recess in the pillow-block to admit the large end of the wedge, and a recess in the cap for its small end, it is possible to cover the whole surface of the back of the quarter-brass with the wedge.

By supporting the screws E upon the base of the pillow-block and lifting the wedges from these points of support the strain upon the screws is one of compression, instead of tension, and the screws are much less liable to become broken.

By operating the wedges from the top it is possible to have the hubs of large wheels running close to each side of the pillow-block, which cannot be done with a horizontally-moving wedge.

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

1. In a pillow-block, the means for adjusting the quarter-brasses, consisting of vertically-moving wedges, having nuts within them, through which vertical screws pass, and hav-

ing their lower ends resting upon the pillow-block, while their upper ends pass through openings in the caps without contact or support therefrom, substantially as herein described.

5 scribed.
2. In a pillow-block for shafting, and in combination with the quarter-brasses, wedges moved vertically by means of vertical screws passing through nuts within them, and having their lower ends supported upon the bed

of the pillow-block, in combination with set-screws passing through the cap and passing upon the upper surfaces of the wedges, substantially as herein described.

In witness whereof I have hereunto set my hand.

JOHN B. PITCHFORD.

Witnesses:

S. H. NOURSE,
G. B. STUDLEY.