

(No Model.)

2 Sheets—Sheet 1

J. J. BUSENBENZ.
PILLOW BLOCK.

No. 547,844.

Patented Oct. 15, 1895.

FIG. 1.

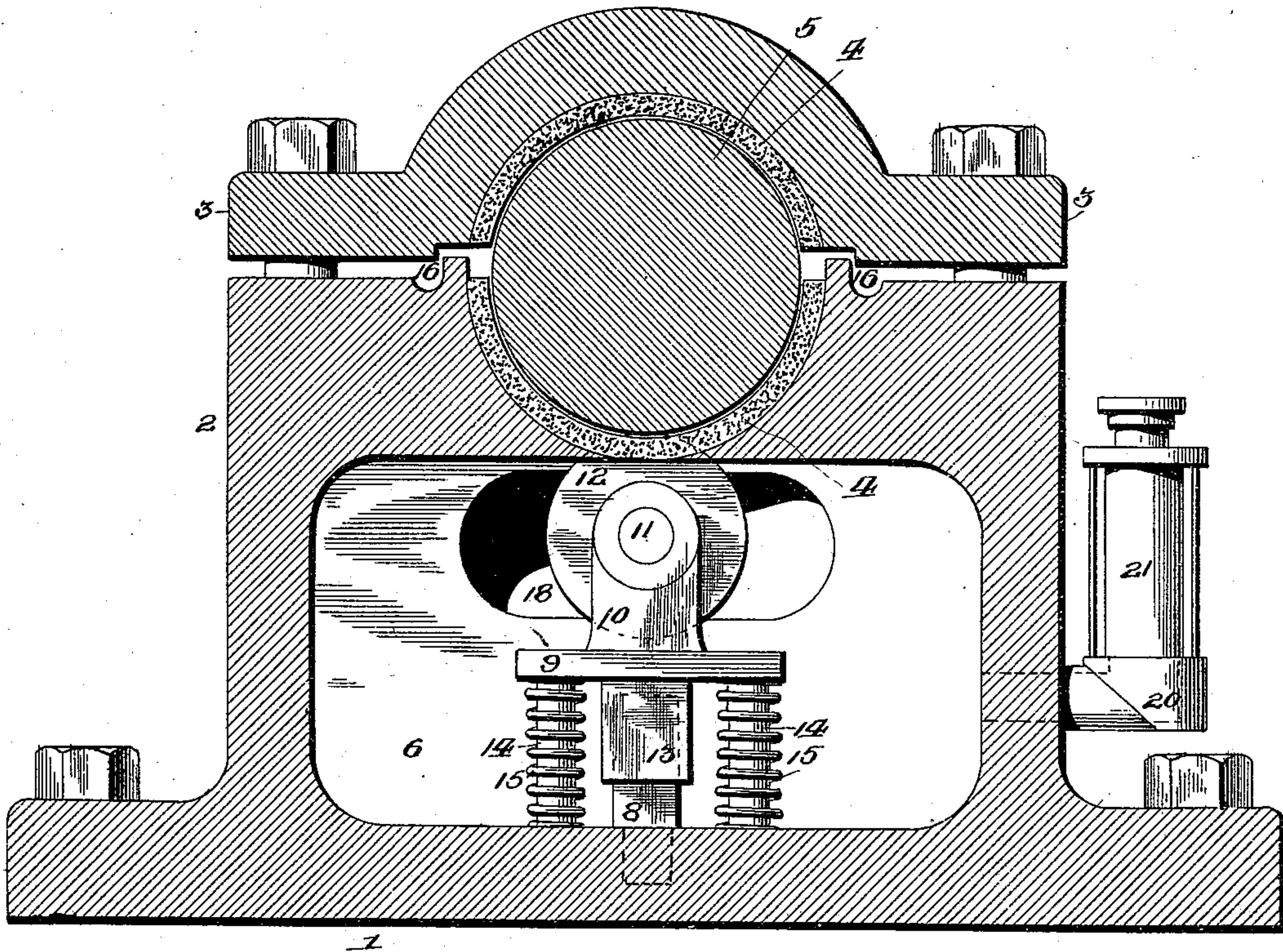
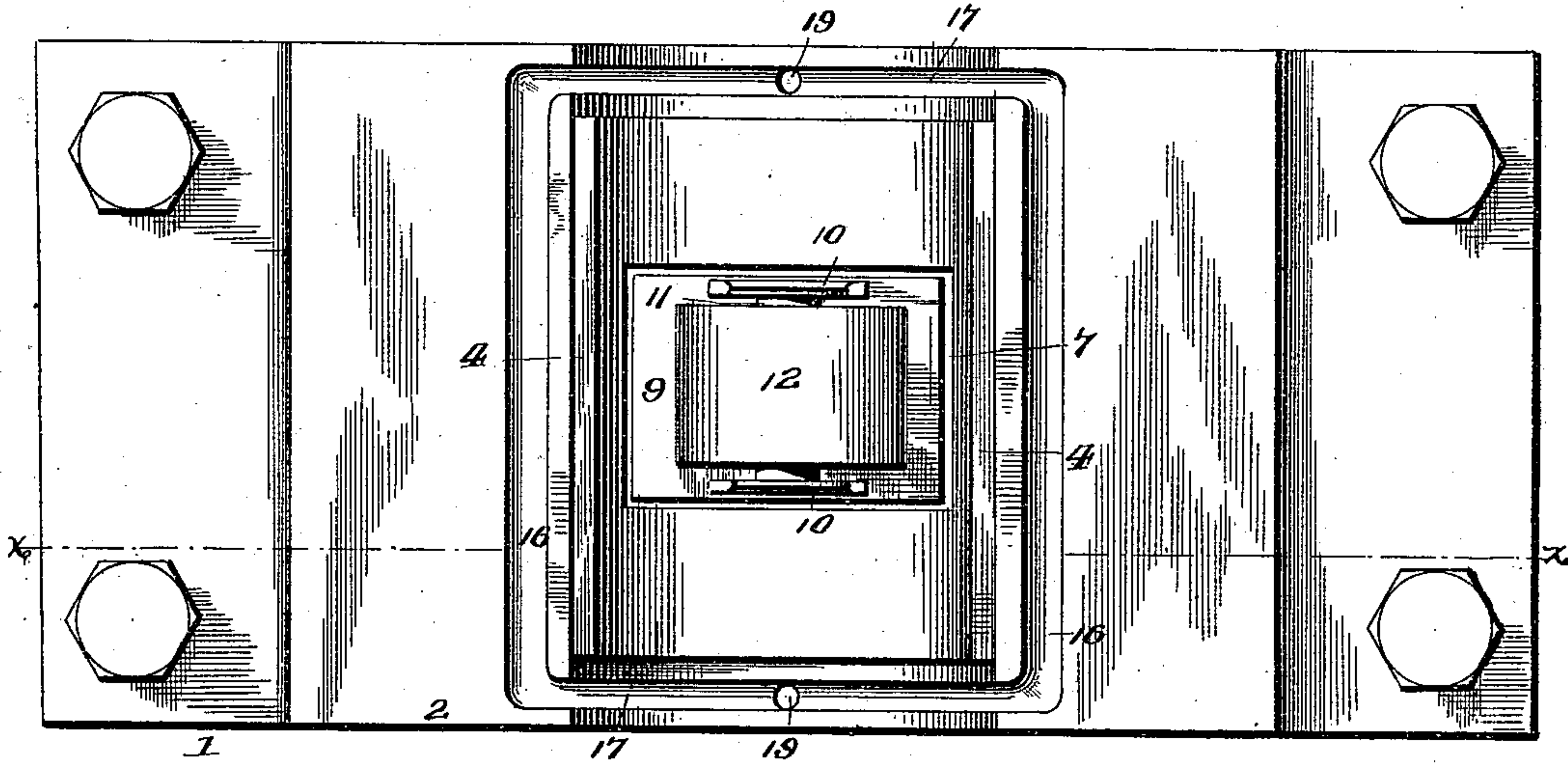


FIG. 2.



Witnesses
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(No Model.)

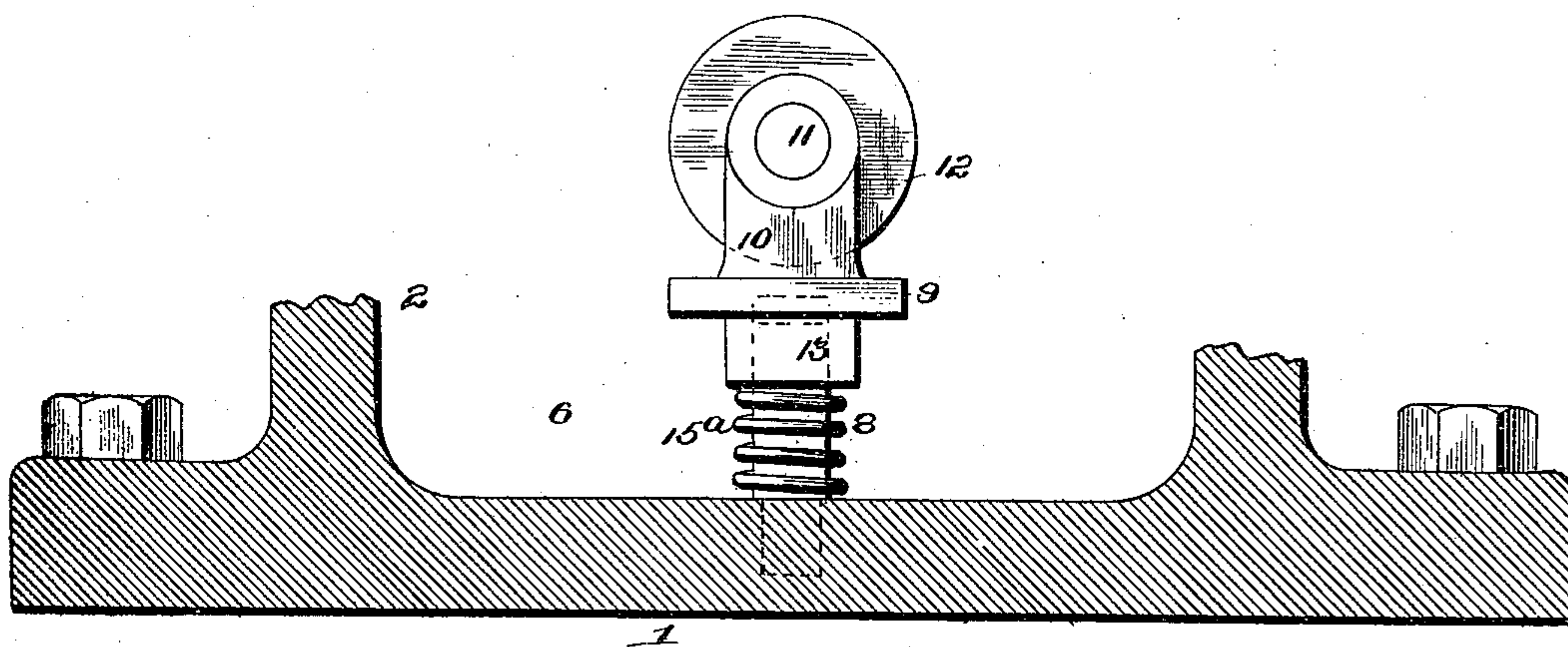
2 Sheets—Sheet 2.

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FIG. 3.



Witnesses
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UNITED STATES PATENT OFFICE.

JACOB J. BUSENBENZ, OF ROCK ISLAND, ILLINOIS, ASSIGNOR TO THE
ROCK ISLAND AUTOMATIC CAR JOURNAL LUBRICATOR COMPANY,
OF SAME PLACE.

PILLOW-BLOCK.

SPECIFICATION forming part of Letters Patent No. 547,844, dated October 15, 1895.

Application filed July 26, 1892. Renewed March 18, 1895. Serial No. 542,270. (No model.)

To all whom it may concern:

Be it known that I, JACOB J. BUSENBENZ, a citizen of the United States, residing in Rock Island, in the county of Rock Island and State of Illinois, have invented a new and useful Improvement in Pillow - Blocks, of which the following is a specification.

My invention relates to that class of pillow-blocks provided with a base, block, and box; and the objects of my invention are those which are hereinafter stated and claimed. I accomplish these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a longitudinal sectional view of the pillow-block, taken on the line xx of Fig. 2. Fig. 2 is a plan view of the pillow-block, the cap and lubricant-indicator being removed; and Fig. 3 is a view of a detail modified and will be hereinafter fully explained.

Similar numerals of reference refer to similar parts throughout the several views.

In the drawings, 1 represents the base of the pillow-block; 2, the lower part of the body of the block; 3, the upper part of the body of the block or cap, and 4 the box, composed of two parts or halves extending through the box and in which the journal-axle 5 rotates. In the lower part of the body of the block 2 is a lubricant compartment or cell 6, of such form and size as may be desired, having an opening in the top of sufficient size and through the lower part or half of the box for the accommodation of the lubricant-roller, as will be hereinafter fully explained. This opening through the lower part or half of the box 4, communicating with the lubricant compartment or cell 6, is shown at 7 in Fig. 2. The floor or bottom of the lubricant compartment or cell 6 is provided with a square vertical post 8, or, if desired, such post may be of any form in cross-section except round or a true circle.

The lubricant-roller frame consists of a horizontal plate or bar 9, provided with two parallel vertical uprights 10, supporting a horizontal cross-shaft 11, upon which is suitably mounted the lubricant-roller 12, and the under side of the horizontal plate or bar 9 in

line with the axis of the lubricant-roller is provided with a vertical pendent guide-cap 13, adapted to fit over the post 8, as shown by the broken lines in Fig. 1, and the extremities of said plate 9 are each provided with a short pendent rod 14, each of which is surrounded by a coiled spring 15, which springs are suitably interposed between the floor of the lubricant compartment or cell 6 and the under surface of said plate or bar 9. It will be observed that when the lubricant-frame and its roller are thus placed in position such roller will press against the under side of the journal-axle. In Fig. 3 I have shown a modification of said frame by omitting the pendent rods 14 and coiled springs 15 and instead using a coiled spring 15^a, which surrounds the post 8 and is interposed between the floor of the lubricant compartment or cell 6 and the bottom of the guide-cap 13. In either method of construction it will be understood that the springs force the lubricant-roller against the journal-axle.

In the upper surface of the lower part of the body of block 2 are longitudinal troughs 16, parallel with and adjacent to the journal-axle, such troughs being connected at the respective ends of the block by cross-troughs 17. The respective ends of the lubricant compartment or cell 6 are cored out at 18, and in the cross-troughs 17 are apertures or conduits 19, which lead into such cored-out portions of the lubricant compartment or cell. An indicator may be used, if desired, to indicate the quality of lubricant in the lubricant compartment or cell, and in Fig. 1 I have shown such an indicator consisting of a horizontal tube 20, communicating with such compartment or cell, having an elbow-joint in which is secured a vertical glass tube 21 outside of such compartment or cell, and the oil or other lubricant placed in said compartment or cell will enter said glass tube and rise to the level of that in said compartment or cell, thus constantly indicating the quantity therein.

I do not claim, broadly, a lubricant-roller as the means for transmission of the lubricant from its place of storage to the journal-

axle, because the same is old; but it will be observed that while I utilize this old method, and also another old method—that is, forcing the lubricant-roller against the journal-axle by spring-power—I make certain new and novel constructions for utilizing these old methods—that is, I seat the lubricant-roller frame within the lubricant compartment or cell upon a stationary post, constructing the parts so the frame may move vertically—that is, upward or downward—and at the same time I prevent both lateral and swinging motion to said frame.

Heretofore in pillow-blocks the lubricant has been supplied to the axle-journal by means of a slot or opening in the cap and upper half of the box, in which slot or opening the lubricant was stored or placed; but my invention contemplates the storage of the lubricant in a compartment or cell in the lower part of the body of the block and beneath the journal-axle, and heretofore much wastage of the oil or lubricant has been occasioned by the same being thrown off of the journal-axle in its revolutions and such lubricant working out or flowing between the lower surface of the cap and upper surface of the lower part of the block. To obviate this wastage or loss, I have constructed or formed the troughs aforesaid in the surface of such block into which the oil or lubricant enters which has thus been thrown off said axle-journal, and the same is returned or carried back to the lubricant compartment or cell through the apertures or conduits 19 and cored-out parts 18.

It will be understood that modifications and changes may be made in my device without departing from the scope of my invention, and from the description given persons skilled in the art will understand the construction and operation of my device.

What I claim as new, and desire to secure by Letters Patent, is—

1. A pillow block, comprising, in combination the following elements: the lower body having the internal chamber 6 and cup-shaped recess in its upper face receiving the lower half of the box 4, and an aperture affording communication between the chamber and recess, a lubricant roller and its frame in said compartment, said roller projecting through the recess and said frame having a guide pin and spring to retain it in its position with relation to the compartment and to the recess, the cap 3 formed to receive the upper half of the box 4, said lower member having an oil groove communicating through a passage with the lubricant chamber, the parts being arranged to operate substantially as described.

2. A pillow block, comprising, in combination the following elements: the lower block 2 having the lubricant compartment 6 in its body and semi-circular recess in its top, said recess and compartment communicating as described, a lubricant roller 12 supported on a frame 9 10, said frame having the central depending tube and lateral depending lugs, springs encircling said lugs and bearing against the bottom of the compartment and a central stud 8, entering said depending tube and serving to retain the frame in fixed position with relation to the compartment, a cap 3 having the central semi-circular recess to receive the upper half of the box 4, said lower block provided with the grooves 16 and cored opening 18 and passage 19, all as and for the purpose described.

JACOB J. BUSENBENZ.

Witnesses:

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