No. 816,432. PATENTED MAR. 27, 1906.

J. CHARKY.

JOURNAL BOX.

APPLICATION FILED DEC. 13, 1905

Fig. 1.

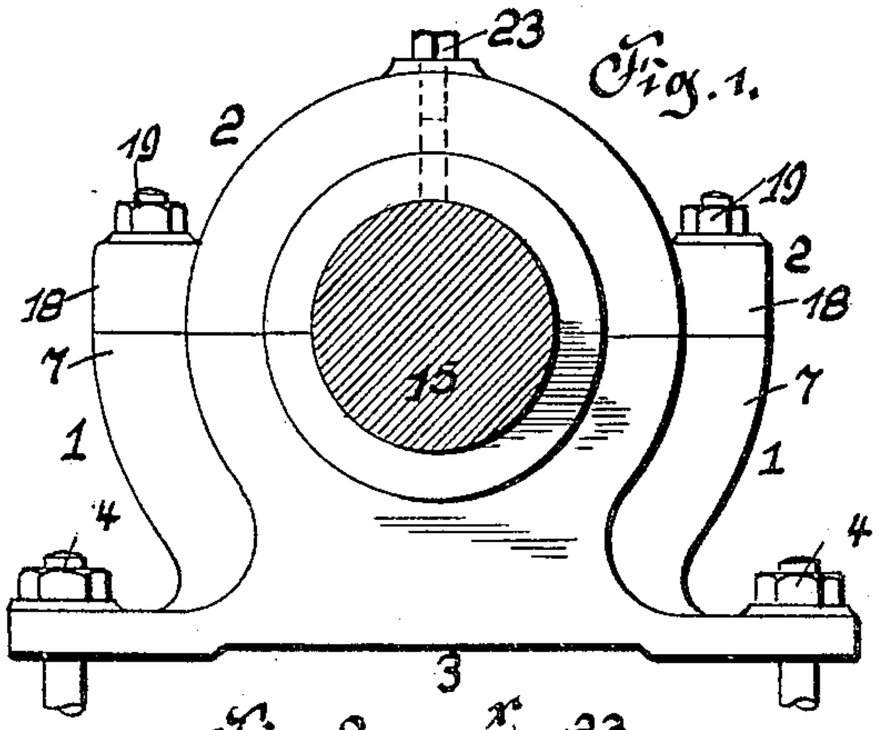


Fig. 4.

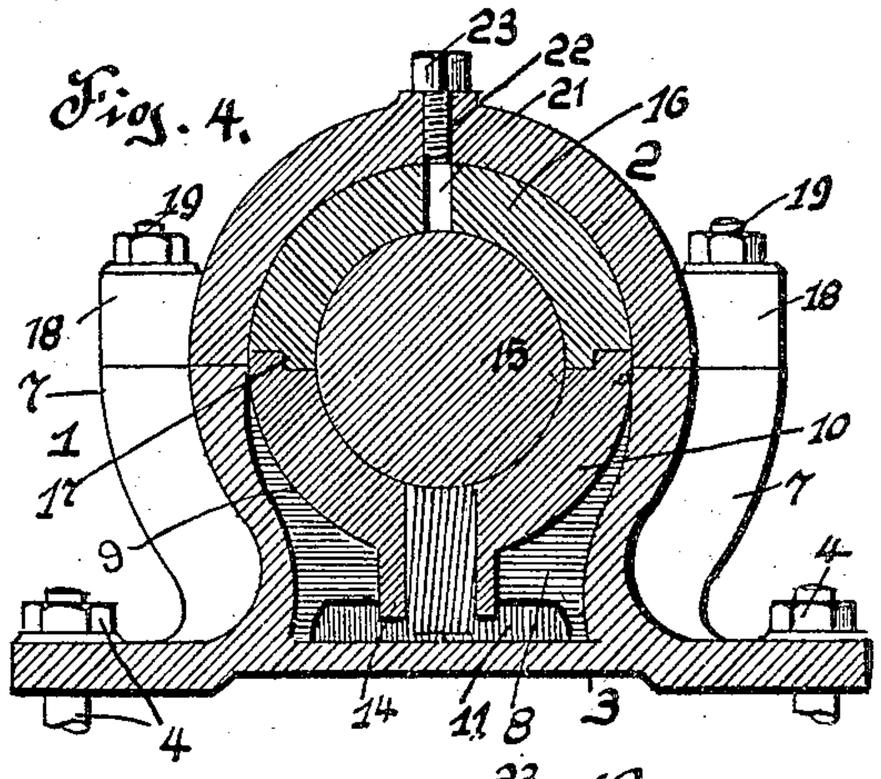


Fig. 2.

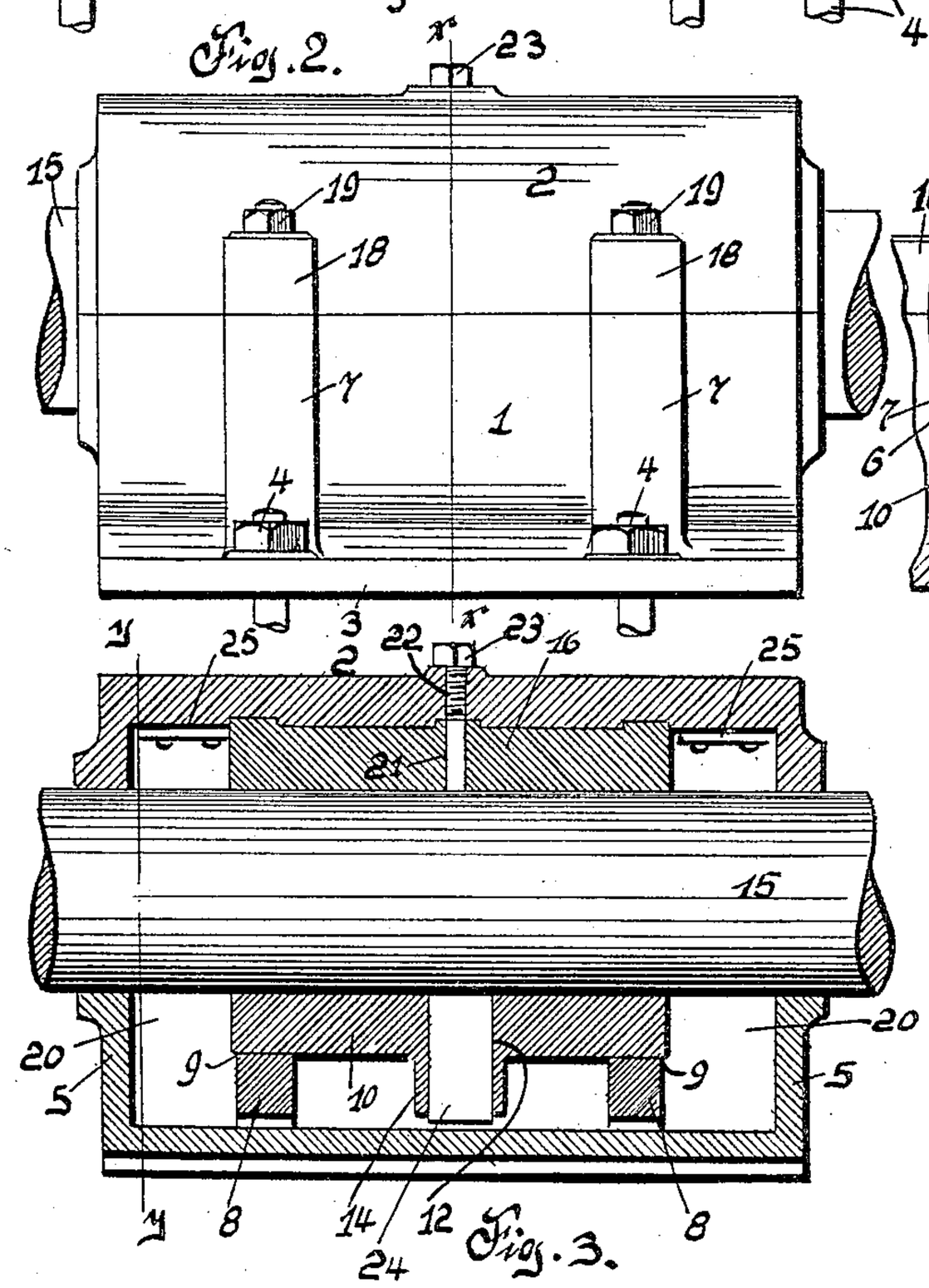
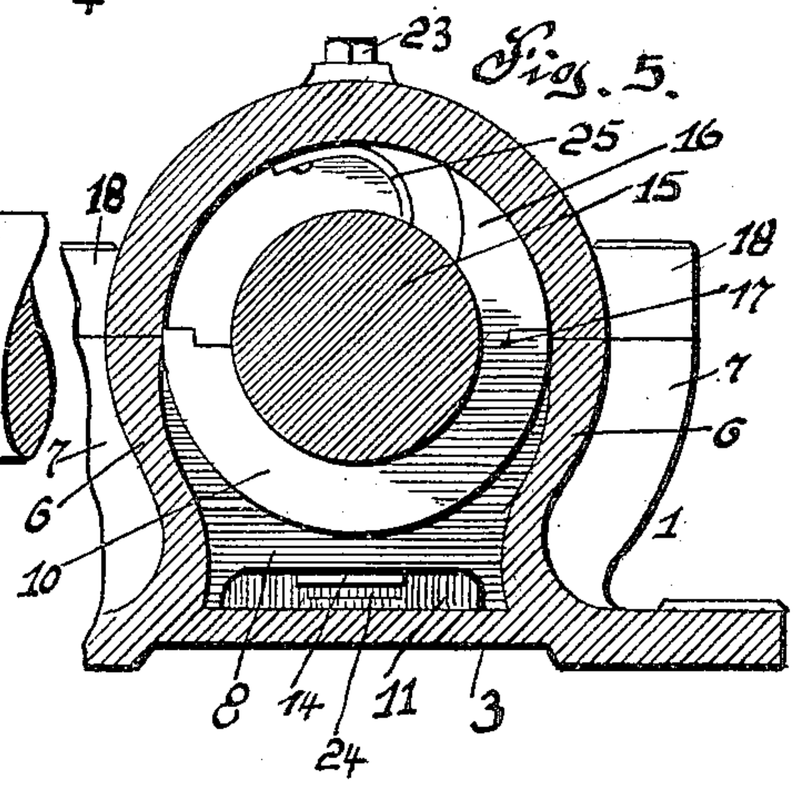


Fig. 5.



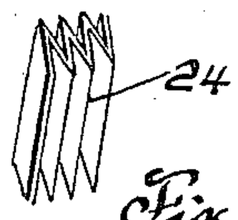


Fig. 6

Witnesses:
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UNITED STATES PATENT OFFICE.

JOHN CHARKY, OF ESPLEN BOROUGH, PENNSYLVANIA.

JOURNAL-BOX.

No. 816,432. Specification of Letters Patent. Patented March 27, 1906.

Application filed December 13, 1905. Serial No. 291,606.

To all whom it may concern:

Be it known that I, JOHN CHARKY, a citizen of the United States of America, residing at Esplen Borough, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Journal Boxes and Bearings for Shafts or Axles, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in journal boxes and bearings for shafts or axles; and the primary object of the invention is to provide a novel form of journal-box having a lubricant-receptacle from which the lubricant is conveyed to the shaft in order to insure a perfect and non-frictional rotation of the same within the journal-box.

Another object of this invention is to provide a journal-box having a lubricant-receptacle adapted to lubricate the shaft journaled in the box, wherein novel means is employed for removing an excess amount of lubricant from the shaft, thereby preventing the same from being coated and frictionally engaging its bearing blocks or brasses.

With the above and other objects in view, which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described and claimed, and, referring to the drawings accompanying this application, like numerals of reference designate corresponding parts throughout the several views, in which—

Figure 1 is an end view of my improved journal-box, illustrating a section of the shaft journaled therein. Fig. 2 is a side elevation of the same. Fig. 3 is a longitudinal sectional view of the journal-box. Fig. 4 is a cross-sectional view taken on the line $x\,x$ of Fig. 2. Fig. 5 is a similar view taken on the line $y\,y$ of Fig. 3, and Fig. 6 is a perspective view of a lubricant-conveyer used in connection with the journal-box.

To put my invention into practice, I construct my improved journal-box of two parts—a main supporting-housing 1 and a cap or cover 2. The main supporting-housing embodies a base-plate 3, which may be secured to a suitable foundation by bolts and nuts 4, and has end walls 5 5 and curved side walls 6 6. The curved side walls are provided with peripheral strengthening-ribs 7 7 upon each side of the casing, said ribs also serving another function, which will be presently described.

In the casing of the main supporting-housing are formed two partitions 8 8, said partitions having their upper edges cut away to form semicircular recesses 9 to support the lower bearing block or brass 10, while the lower edge of each partition is cut away, as at 11, to establish communication between the ends of the casing and the central portion thereof, as clearly illustrated in Fig. 3 of the drawings. The lowermost bearing block or brass 10 is provided with a central vertically-disposed opening 12, which terminates in a depending portion 14, carried by the bearing-block. In the bearing-block and the end walls 5 5 is journaled a shaft 15, and to retain said shaft therein another bearing block or brass 16 is employed in connection with the cap 2.

The bearing block or brass 16 is adapted to interlock with the lowermost bearing block or brass 10, as at 17, and thereby prevent lateral displacement of one block relative to the other. The cap 2 snugly fits upon the bearing-block 16 and is provided with outwardly-extending lugs 18 18, which are adapted to register with the strengthening-ribs 7 7 of the main supporting-housing. Nuts and bolts 19 are adapted to extend through the lugs 18 18 and enter the strengthening-ribs, whereby the cap 2 will be rigidly held upon the main supporting-housing.

By referring to Fig. 3 of the drawings it will be observed that the bearing-blocks 10 and 16 are shorter than the casing and cap of the main supporting-housing, thereby forming an annular compartment 20 at each end of the journal-box, these compartments being in communication with one another through the openings 11 in the partitions 8 8. The annular compartments 20 20, together with the compartment formed between the partitions 8 8, serve as a lubricant-receptacle, and in order to fill said receptacle the uppermost bearing block or brass 16 is provided with a vertically-disposed opening 21, access being had to said opening by an opening 22 formed in the top of the cap 2, said opening being normally closed by a set-screw 23. By slowly pouring the lubricant into the opening 21 the same travels around the shaft 15 and the bearing-blocks 16 and 10 into the lubricant-receptacle formed in the bottom of the main supporting-housing.

To convey the lubricant from the lower part of the main supporting-housing to the shaft 15, I mount in the opening 12 and the depending portion 14 of the lowermost bearing-block 10 a lubricant-conveyer material 24, such as felt, usually employed in plaited form, as shown in Fig. 6, said material being adapted to absorb the lubricant and convey it to the periphery of the shaft 15.

When the lubricant-receptacle of the main supporting-housing is filled, he lubricant contacts with the shaft 15 in the end compartment 20, and when the shaft rotates a quantity of lubricant will be carried upon the surface of the shaft 15 at the ends of the brasses 10 and 16, and apart of this lubricant will be conducted along the shaft, and to prevent this lubricant from caking on the shaft I provide the cap 2 at each end thereof with a resilient scraper or flexible arm 25, adapted to contact with the surface of the shaft 15 and remove any excess of lubricant that may accumulate thereon. The absorbent lubricant-conveyer 24 carries the lubricant to the surface of the shaft intermediate the ends of the brasses.

It is obvious that my improved journal-box can be readily constructed to be used as a hanger for shafts, my invention particularly residing in the novel form of lubricant-receptacle and the manner of conveying the lubricant to the shaft to be oiled or lubricated.

The journal-box is preferably constructed of strong and durable metal similar to the ordinary journal-box at present used.

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

1. The combination with a shaft, of a two-part journal-box, consisting of a main supporting-housing, said housing embodying a base-plate, a casing, partitions mounted in said casing, a bearing-block supported by said partitions and adapted to support said shaft, a bearing-block adapted to fit upon said shaft and the first-named bearing-block, a cap adapted to fit over said bearing-block and rest upon said housing, means to convey a lubricant from the bottom of said casing to said shaft, substantially as described.

2. The combination with a shaft, of a two-part journal-box, consisting of a main supporting-housing, said housing embodying a base-plate and a casing, partitions mounted in said casing, a bearing-block supported by said partitions and engaging said shaft, a bearing-block adapted to fit upon said shaft and interlock with the first-mentioned bearing-block, a cap fitting over the second-named bearing-block and resting on said housing, scrapers carried by said cap and engaging said shaft, and means for conveying a lubricant from the bottom of the casing to said shaft.

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

JOHN CHARKY.

Witnesses:
H. C. EVERT,
E. E. POTTER.