

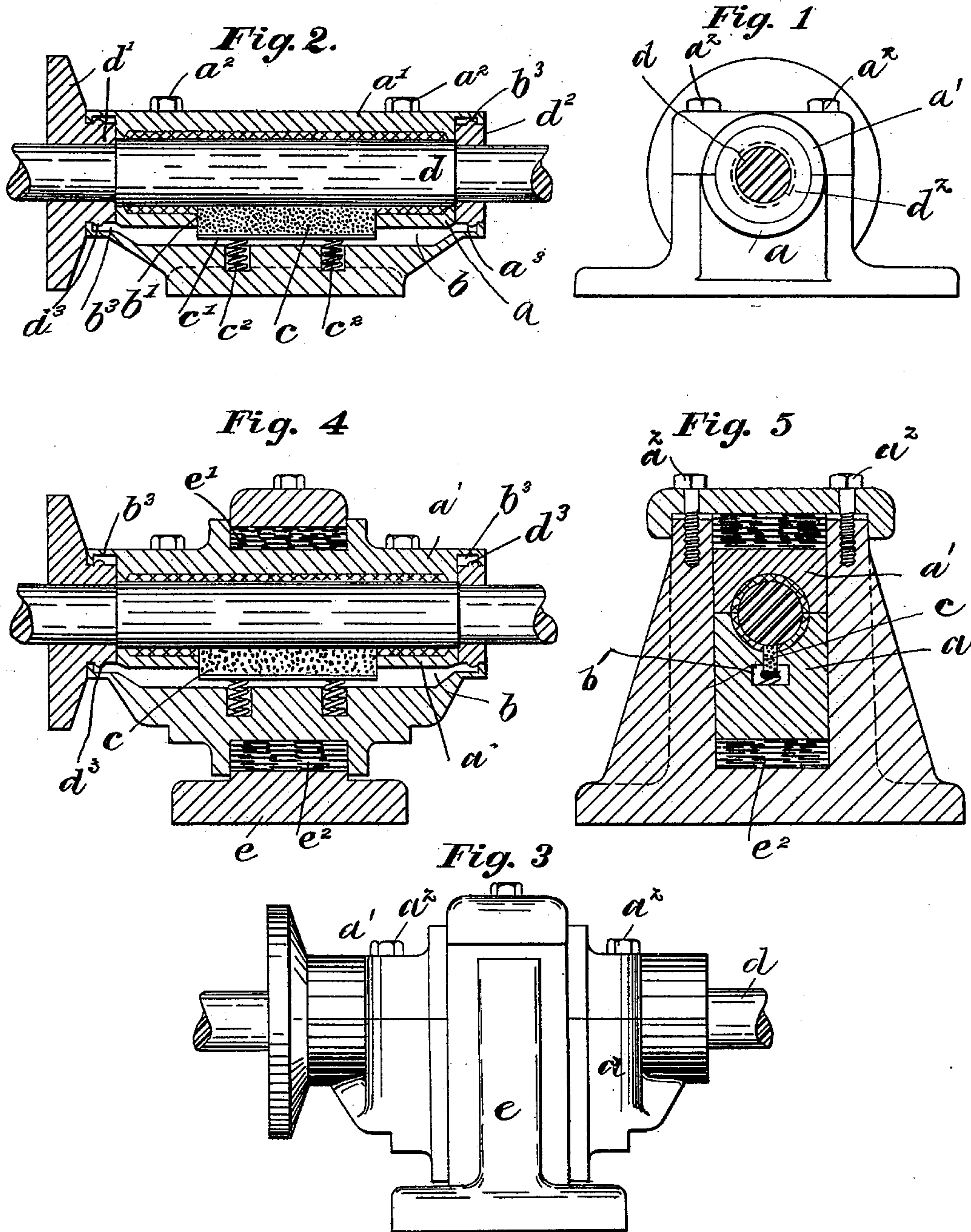
No. 622,231.

Patented Apr. 4, 1899.

D. B. HYDE.
SELF OILING JOURNAL BOX.

(Application filed Aug. 25, 1898.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

DAVID B. HYDE, OF SPRINGFIELD, OHIO, ASSIGNOR TO THE SAFETY EMERY WHEEL COMPANY, OF SAME PLACE.

SELF-OILING JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 622,231, dated April 4, 1899.

Application filed August 25, 1898. Serial No. 689,480. (No model.)

To all whom it may concern:

Be it known that I, DAVID B. HYDE, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Self-Oiling Journal-Boxes, of which the following is a specification.

My invention relates to improvements in journal-boxes, and it especially relates to boxes designed for use with grinding machinery, such as emery-wheels, where a high rate of speed is maintained.

My invention consists in the constructions and combinations of parts hereinafter described, and set forth in the claim.

In the drawings, Figure 1 is an end view of a device embodying my invention. Fig. 2 is a longitudinal sectional view of the same. Figs. 3, 4, and 5 are respectively a side elevation and a transverse and longitudinal sectional view of a similar device, showing a slight modification.

Like parts are represented by similar letters of reference in the several views.

In carrying out my invention I construct a journal-box in two parts a and a' , a being the base and a' the top or cover portion, the parts being adapted to be held together by bolts a^2 . Within the base portion I construct a reservoir b , which extends substantially the entire length of the box, but is of narrow dimensions. This reservoir b comes below the box or journal proper; but at the center thereof there is formed an opening b' , in which is inserted an absorbent oil-distributor c , which may be of felt or similar substance. This absorbent oil-distributor c is formed of sufficient depth to reach down into the oil-reservoir b , so that the bottom of said oil-distributor shall always be seated in the oil. The absorbent material is supported on a suitable plate or support c' , which is pressed upwardly by springs c^2 , thus holding the top of the oil-distributor in contact with the journal or shaft d , which is within the box.

The shaft or journal d is provided at the end of the box with collars d' and d^2 , each of which is provided with a beaded projection d^3 . The collar d' is shrunk on said journal, while

the collar d^2 is journaled loose thereon. The ends of the journal-box are cored out both in the base and top portions a and a' at the respective ends, so that an oil-receiving chamber b^3 is formed around the beaded projections d^3 , the beaded collars d' and d^2 being each formed at a point beyond the ribs or beads d^3 with a peripheral groove or reduced portion to fit the outer ends of the box, and thus prevent the escape of the oil or the entrance of dirt or dust.

In Figs. 3, 4, and 5 I have shown my improved self-oiling journal-box as applied to a cushioned box. In this case an auxiliary frame e is employed and the journal-box proper is mounted within this frame, with cushions e' and e^2 , of rubber or other similar material, placed at the bottom and top of the box, respectively, and within the frame e , thus forming a yielding or cushion box which is at the same time self-oiling.

In operation the reservoir b is filled with oil. The absorbent oil-distributor c , pressing against the shaft or journal d , furnishes the same with a proper amount of lubricant. This oil will by the speed of the shaft be naturally distributed to the ends thereof and by centrifugal force be thrown out in the auxiliary chambers or reservoirs b^3 , from whence it will follow down the walls of said chambers or reservoirs into the main reservoir b , thus producing a circulation. This circulation of the lubricant also carries any dust or dirt which might enter at the joints between the collars and the extreme outer ends of the box down into the reservoir b , where it settles to the bottom. The absorbent oil-distributor carrying only the fresh clean oil to the bearing keeps it at all times not only properly oiled, but free from dirt and grit.

Having thus described my invention, I claim—

The combination with a journal-casing consisting of two parts, the upper or covered portion thereof formed solid and the lower portion having an oil-reservoir below the journal or box proper extending substantially throughout the length thereof, there being a slotted opening in said journal-box commu-

5 communicating with said oil-reservoir, the journal having a shrunk collar with a beaded projection at one end of same, and a loose collar with a beaded projection journaled at the opposite end thereof, said beaded collars formed with flanges to fit the outer ends, forming oil-receiving chambers around said beaded projections and adapted to prevent the es-

cape of oil and further adapted to keep the bearing free from dirt or dust.

In testimony whereof I have hereunto set my hand this 27th day of July, A. D. 1898.

DAVID B. HYDE.

Witnesses:

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A. M. GOVER.