

No. 876,403.

PATENTED JAN. 14, 1908.

C. SEIDEL.
LUBRICATING JOURNAL BOX.
APPLICATION FILED NOV. 24, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

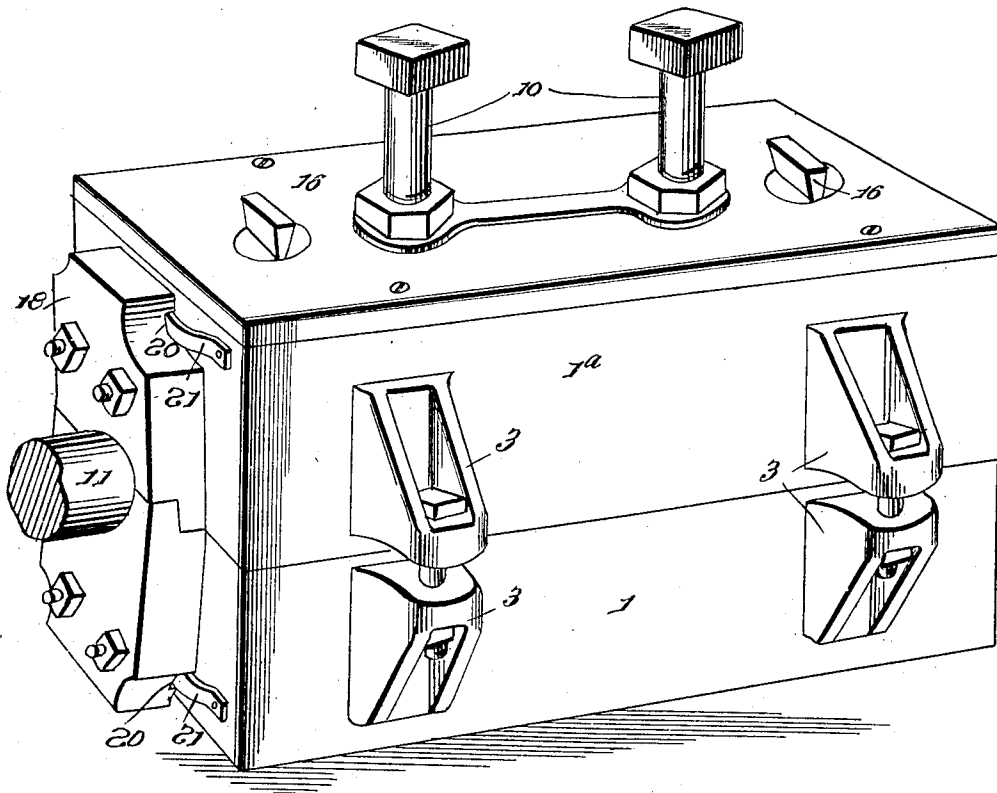
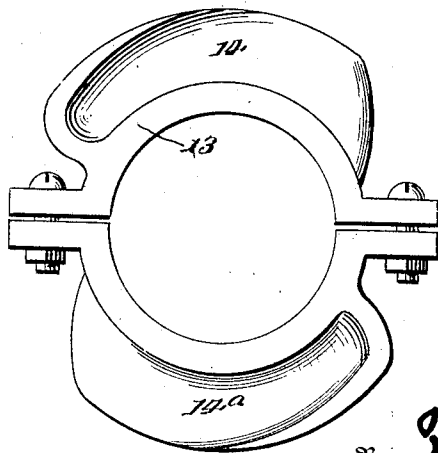


Fig. 5.



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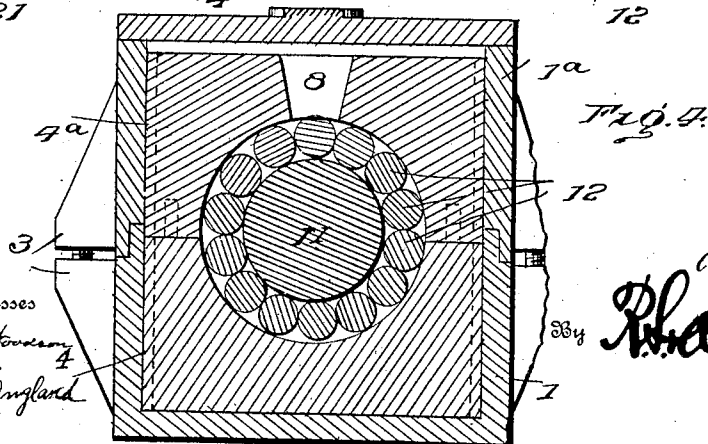
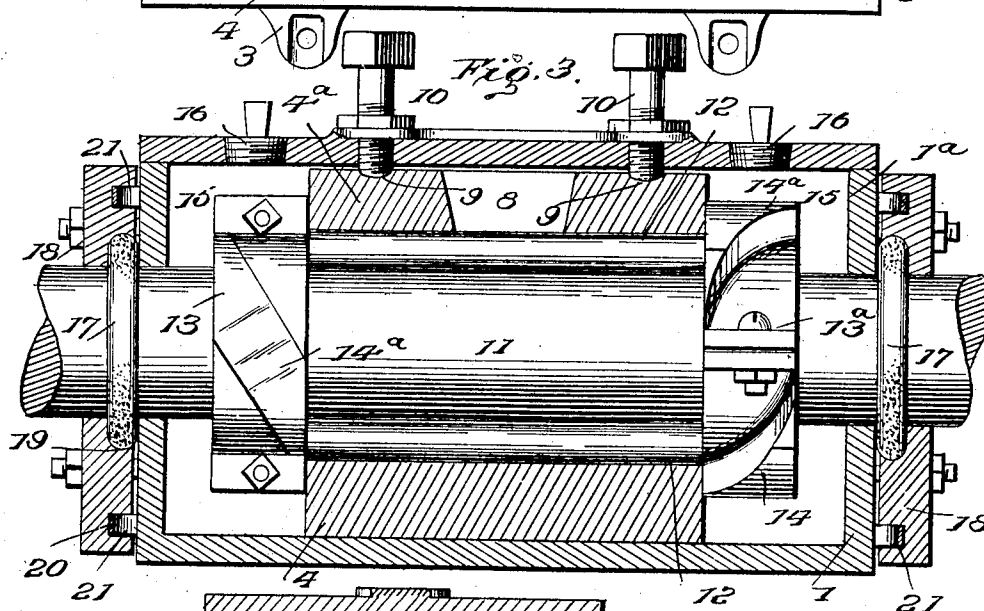
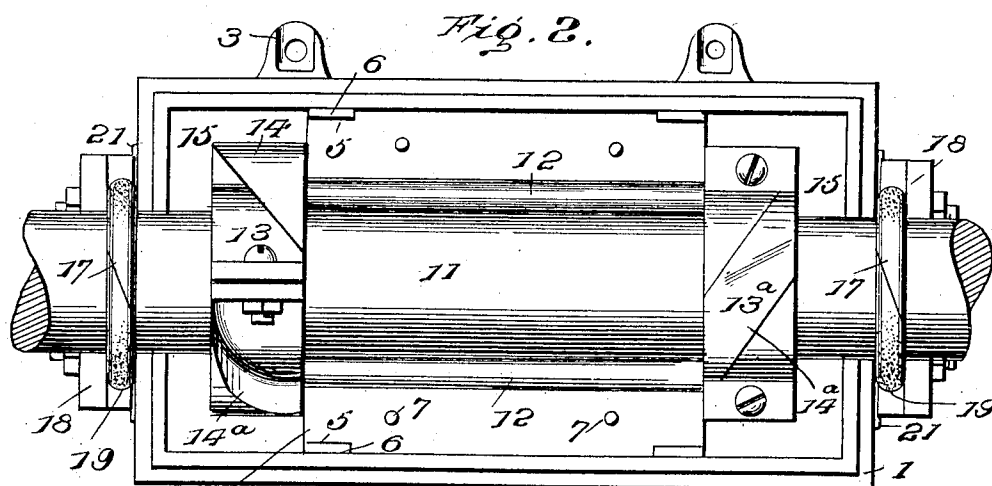
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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

CHRISTIAN SEIDEL, OF YOUNGSTOWN, OHIO.

LUBRICATING JOURNAL-BOX.

No. 876,403.

Specification of Letters Patent.

Patented Jan. 14, 1908.

Application filed November 24, 1906. Serial No. 344,969.

To all whom it may concern:

Be it known that I, CHRISTIAN SEIDEL, citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Lubricating Journal-Boxes, of which the following is a specification.

This invention contemplates certain new and useful improvements in lubricating journal boxes, and the object of the invention is to provide an improved construction of lubricating journal box which will be efficient in operation to supply and automatically feed a dry lubricant such as graphite, mica, or the like, without the use of oil or other carrying liquid, in other words, a bearing that will operate absolutely dry with an automatic force feed device to supply any dry lubricant.

With this and other objects in view as will more fully appear as the description proceeds, the invention consists in certain constructions, arrangements and combinations of parts hereinafter described and particularly pointed out in the appended claims, reference being had to the accompanying drawings, in which:

Figure 1 is a perspective view of my improved lubricating journal box; Fig. 2 is a top plan view thereof with the upper half or section of the box removed; Fig. 3 is a longitudinal sectional view; Fig. 4 is a transverse sectional view, the section being taken at the center; and, Fig. 5 is a detail view illustrating one of the force feeding devices.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The box proper of my invention is constructed in two halves, namely a lower half 1 and an upper half 1^a designed to fit snugly together and secured together by means of bolts working through lugs 3 secured to the respective halves or sections.

4 and 4^a designate respectively the bearing blocks or "brasses" which are designed to be superposed one upon the other around the shaft and each of which is provided with corner recesses 5 into which guide and retaining strips 6 fit, said strips being secured to and extending vertically within the lower half of the journal box. The two brasses 4 and 4^a are preferably held together by means of dowels 7 on one block extending into sockets in the other as indicated in dotted lines in

Fig. 4. The upper block 4^a is provided with an opening 8 in its top and on each side of said opening with the sockets 9 which latter are adapted to accommodate the lower ends of the adjusting screws 10 working through the top of the box.

The shaft 11 is mounted between the bearing blocks or brasses 4, 4^a, with its ends projecting out of the ends of the box sections 1 and 1^a, and said shaft is mounted within a circle of rollers 12 located within the bearing blocks 4 and 4^a, as shown.

It is to be noted that the bearing blocks terminate some distance from each end of the box or casing of the device so as to produce two chambers 15 designed to receive a quantity of graphite or other dry lubricant, the same being fed to such chambers through the openings in the top of the section 1^a, such openings being normally closed by means of plugs 16.

In order to forcibly feed the graphite or other dry lubricant into the circle of rollers 12 and around the shaft and between it and the bearing blocks or brasses, I provide two force feeders 13 and 13^a securely held upon the shaft within the respective chambers 15. These force feeders are composed of semi-circular rings that are bolted tightly around the shaft, as shown, and a series of spiral blades 14 and 14^a on the respective feeders. These spiral blades are oppositely disposed as shown, so that as the shaft turns, the said blades will positively feed the graphite, or other dry lubricant inwardly toward the shaft and consequently thoroughly lubricate the rollers 12 and the said shaft.

Packing rings 17 are provided, said rings being located at the ends of the box on the outer side thereof and being held in place by means of sectional glands 18 which are bolted to the ends of the blocks so as to form complete circular glands provided with recesses 19 which receive the said packing rings. Each section of the gland is preferably provided outside of said bolts, or near its outer edge, with an inwardly facing groove 20, and springs 21 are mounted in these grooves and bear against the outer ends of the box 1 so as to cause the innermost ends of the gland sections to tightly bind against the packing rings.

From the foregoing description in connection with the accompanying drawings, it will be seen that I have provided a lubricating journal box of simple and durable con-

struction and one which will effectively feed dry lubricant, such as mica or graphite, without the use of oil or other carrying liquid and in an absolutely dry manner.

5 My improved journal box is dust proof, preventing all dust or grit from obtaining access to the bearings.

It is obvious that the feeding devices may be reversed on the shaft, so that one-half of
10 each will feed when running forward and the other half of each will feed when running backward.

Having thus described the invention, what is claimed as new is:

15 1. In a lubricating journal box, the combination of a box proper, bearing blocks mounted within the box, a chamber being formed at each end of the bearing blocks, a shaft journaled within the bearing blocks,
20 rollers interposed between the shaft and bearing blocks, a force feeding device mount-

ed upon the shaft and serving the double function of retaining the rollers in position and of feeding lubricant from the chambers to the rollers. 25

2. In a lubricating journal box, the combination of a box proper, bearing blocks mounted within the box, a chamber being formed at each end of the bearing blocks, a shaft journaled between the bearing blocks, 30 rollers interposed between the shaft and bearing blocks, collars applied to the shaft at each end of bearing blocks and serving to retain the rollers in position, and blades carried by the collars for feeding lubricant from 35 the chambers to the rollers.

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

CHRISTIAN SEIDEL. [I. s.]

Witnesses:

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