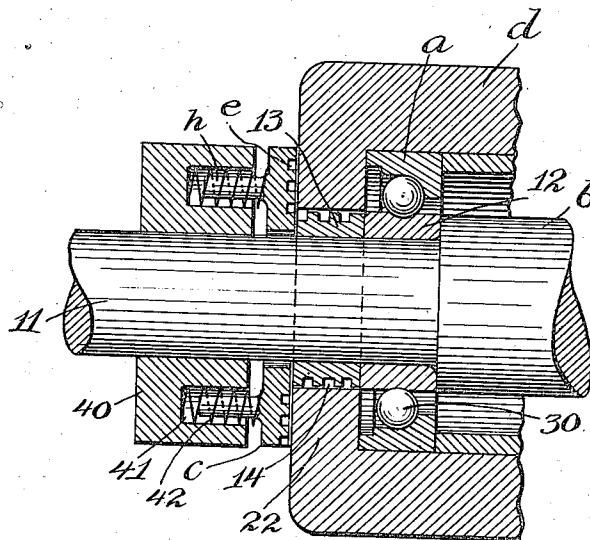


A. HIRTH.
 PACKING FOR JOURNALS.
 APPLICATION FILED DEC. 13, 1913.

1,168,002.

Patented Jan. 11, 1916.



Inventor:
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 by Carl P. Goepel
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UNITED STATES PATENT OFFICE.

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PACKING FOR JOURNALS.

1,168,002.

Specification of Letters Patent.

Patented Jan. 11, 1916.

Application filed December 13, 1913. Serial No. 806,587.

To all whom it may concern:

Be it known that I, ALBERT HIRTH, a citizen of the German Empire, and residing at Cannstatt-Stuttgart, Germany, have invented a new and useful Improvement in Packing for Journals, of which the following is a full and accurate disclosure.

This invention relates to an oil packing for journals in which the oil is made to flow axially between the journal and the end of the journal box through which it projects, such flow tending to prevent breakage of the lubricating film and avoiding clogging by dirt.

The drawing represents a longitudinal section of a journal box embodying this invention.

A shaft *b* is preferably provided with an extension 11 which projects through the end of the journal box and is of smaller diameter than the body of said shaft. A ball bearing ring 12 is preferably disposed on the reduced extension adjacent to the shoulder formed between said extension and said body. A spirally grooved lubricating ring 13 is also disposed on said reduced extension adjacent to said ball bearing ring, the spiral grooves 14 being disposed on the periphery of said lubricating ring.

A journal box *d* is provided with an inward flange 22 which constitutes an end wall of the box and forms a central opening of a size to permit the lubricating ring 13 to rotate therein. This journal box is provided with a ball bearing ring *a* of larger diameter than the ball bearing ring 12 of the shaft. Balls 30 traverse the annular space between the rings *a* and 12 in the usual manner.

A collar 40 is fixed on the shaft portion 11 outside the journal box and adjacent thereto. This collar is provided on its inner face with a series of sockets 41. An annular lubricating plate *c* is disposed between said collar and said journal box. This lubricating plate has a broad contact face for engaging the end 22 of the journal box *d* and

a series of studs *h* disposed at its back and projecting into the sockets 41 of the collar 40. The broad contact face of the plate *c* has a spiral groove *e*. This plate overlaps the end of the lubricating ring 13 on the shaft 11 and the joint between said ring and the end wall of the journal box, so that the spirals of said ring communicate with the spirals of said plate. Springs 42 are disposed in the sockets 41 of the collar 40 around the studs *h* and operate to press the annular plate *c* against the end wall of the journal box around the opening thereof. This means for holding the annular lubricating plate *c* in yielding contact with the journal box or casing causes said plate to maintain its normal position under longitudinal play of the shaft.

According to the invention, the spirals employed are preferably proportionately shallow, so that there is no danger, during the period of rest, that the contents of the spiral, by sinking, should be impelled in the opposite direction to that desired.

Having thus described my invention, what I desire to claim by Letters Patent is:—

A journal box provided with an opening at one end, a shaft projecting through said opening and provided in said opening with a spirally grooved lubricating ring, an annular lubricating plate surrounding said shaft and having a broad spirally grooved contact face engaging the end wall of said box and overlapping the joint between said end wall and said lubricating ring, and means for holding said lubricating plate in yielding contact with said end wall.

In testimony that I claim the foregoing as my invention, I have signed my name in presence of two subscribing witnesses.

ALBERT HIRTH.

Witnesses:

WOLDEMAR HAUPT,
HENRY HASPER.