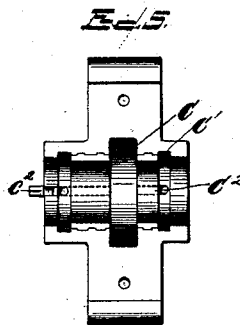
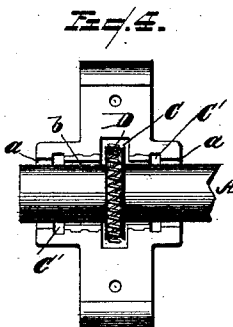
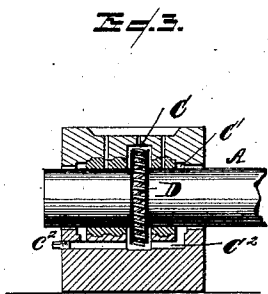
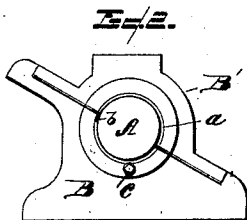
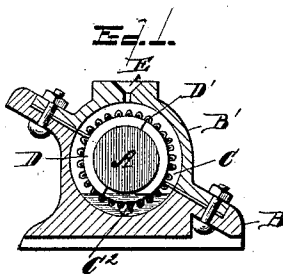


(No Model.)

J. LAUHOFF.
LUBRICATING DEVICE.

No. 333,868.

Patented Jan. 5, 1886.



WITNESSES

Samuel C. Thomas
M. B. O'Grady

INVENTOR

Joseph Lauhoff
By W. W. Leggett
Attorney

UNITED STATES PATENT OFFICE.

JOSEPH LAUHOFF, OF DETROIT, MICHIGAN.

LUBRICATING DEVICE.

SPECIFICATION forming part of Letters Patent No. 333,868, dated January 5, 1886.

Application filed September 21, 1885. Serial No. 177,718. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH LAUHOFF, of Detroit, county of Wayne, State of Michigan, have invented a new and useful Improvement in Lubricating Devices; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form a part of this specification.

My invention consists of the combinations of devices and appliances hereinafter specified, and more particularly pointed out in the claims.

In the drawings, Figure 1 is a longitudinal section of a shaft or journal and its boxing embodying my invention. Fig. 2 is an end elevation of the same. Fig. 3 is a sectional view of a journal-box illustrating the invention. Fig. 4 is a view of a journal-box with the shaft or journal in its bearing, and with the cap removed. Fig. 5 is a view of the same with the cap and journal or shaft removed.

The purpose of this invention is to produce a journal-box mechanism which shall serve to maintain the shaft constantly lubricated.

In carrying out my invention, A represents the shaft; B, the lower section of the journal-box; B', its cap.

C is a cavity formed in the box and cap.

C' represents a groove in the interior of the journal-boxing near the ends thereof, and extends entirely around said boxing, forming a continuous annular channel for catching any oil that may flow along the journal or the boxing and direct it downward into a duct, C², which conveys it again to the cavity C. A plug, c, serves to permit of admission of a wire or tool for cleaning out the said duct.

D represents a collar made in two or more sections, with a groove about the periphery, and D' is a spiral spring of wire, which surrounds the periphery of the collars, and serves to bind them together upon the shaft and to hold them in place. The convolutions of this spring also serve to catch up the oil in the cavity C and carry it over and drip it onto the top of the shaft or journal. A small lon-

gitudinal channel, b, is also formed across the Babbitt metal, in order that oil may traverse across this space and be thereby applied directly to the whole length of the journal-bearing.

I also purpose generally to divide the boxing on an angle, as shown in Figs. 1 and 2, although this is not essential, since the invention is equally applicable to journal-bearings where the division is horizontal, and I would have it understood that my invention applies to all forms of journal-boxes.

E represents the filling-cavity with several passages leading down onto the shaft and into the cavity C. It is apparent that this device may be quickly applied to any shaft. The collars D, being divided, may be readily applied to the shaft and fastened by the spiral spring. The ends of the boxing beyond the channels C' are formed of somewhat larger diameter than the bearings proper, as shown at a, in order that oil passing upward along the shaft may not be carried beyond the channels C'.

What I claim is—

1. A lubricating device for journals, consisting of a journal-box having an oil-cavity, and a collar, D, encircling the journal, with a spiral spring, D', upon its periphery, to dip into and lift the oil, substantially as described.

2. A lubricating device for journals, consisting of a journal-box having an oil-cavity, and a collar, D', encircling the journal, made in two parts, and secured together by a spiral spring, D, upon the peripheries thereof, said spring also serving to dip into and lift the oil, substantially as described.

3. A journal-box provided with a cavity, C, and groove C' at each side thereof, near the ends of the boxing, extending entirely around the interior surface of the boxing, forming a continuous annular channel, with a returning-duct, C², located in the lower section of the box below the surface thereof, and connecting the channels C' and cavity C, so that oil passing along the shaft or journal will be carried back to the central cavity through said channels and duct, substantially as described.

4. The journal-box provided with an oil-cavity, C, and grooves C', at each side thereof, near the ends of the boxing, and extending entirely around the interior surface of the box-

ing, forming a continuous annular channel of an enlarged bore, *a*, between said channels and the ends of the boxing, substantially as and for the purpose described.

- 5 5. The combination, with the boxing provided with central cavity, *C*, and grooves *C'* at each side thereof, near the ends of the boxing, extending entirely around the interior surface of the boxing, forming a continuous

annular channel, of a longitudinal channel 10 adjacent to the surface of the shaft, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

JOSEPH LAUHOFF.

Witnesses:

M. B. O'DOHERTY,
SAMUEL E. THOMAS.