(No Model.)

E. D. JOHNSTON & W. W. WAINWRIGHT.

JOURNAL BOX.

No. 588,529. Patented Aug. 17, 1897.

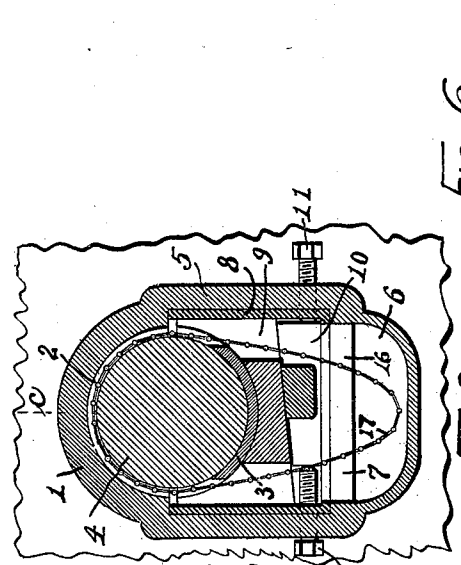


FIG. 3.

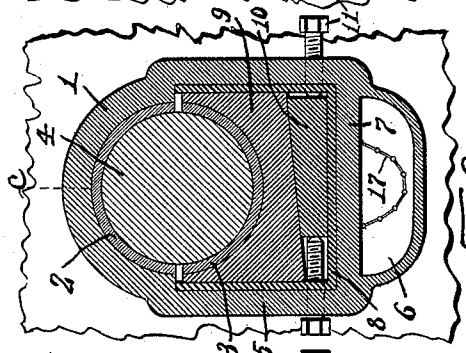


FIG. 2.

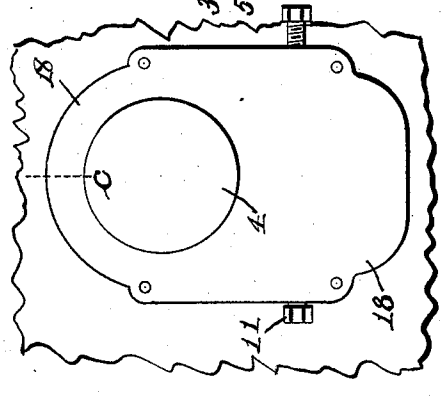


FIG. 1.

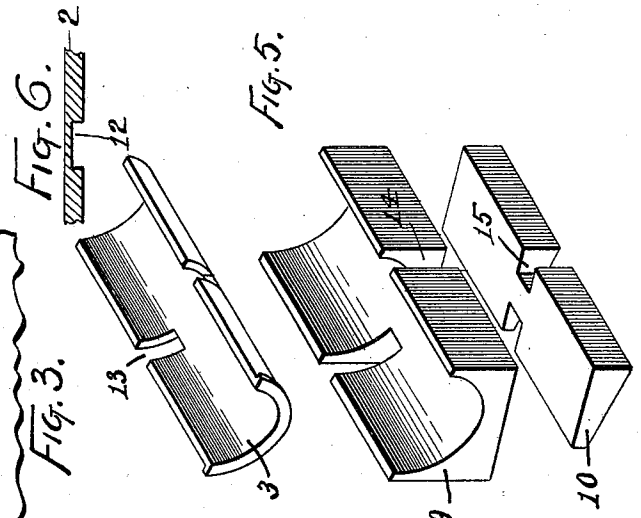


FIG. 5.

FIG. 6.

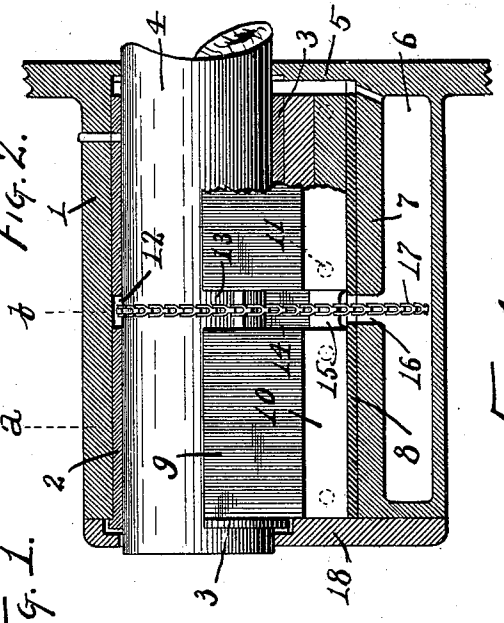


FIG. 4.

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UNITED STATES PATENT OFFICE.

EDGAR D. JOHNSTON AND WILLIAM W. WAINWRIGHT, OF CONNERSVILLE, INDIANA, ASSIGNORS TO THE P. H. & F. M. ROOTS COMPANY, OF SAME PLACE.

JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 588,529, dated August 17, 1897.

Application filed January 2, 1897. Serial No. 617,757. (No model.)

To all whom it may concern:

Be it known that we, EDGAR D. JOHNSTON and WILLIAM W. WAINWRIGHT, of Connersville, Fayette county, Indiana, have invented certain new and useful Improvements in Journal-Boxes, of which the following is a specification.

This invention pertains to improvements in journal-boxes, and will be readily understood from the following description, taken in connection with the accompanying drawings, in which—

Figure 1 is an end elevation of a journal-box embodying our invention; Fig. 2, a vertical transverse section of the same in the plane of line *a* of Fig. 4; Fig. 3, a similar section on the plane of line *b* of Fig. 4; Fig. 4, a vertical longitudinal section in the plane of line *c* of Figs. 1, 2, and 3; and Fig. 5, a perspective view of the lower half-bearing with its lining and wedge shown dissected. Fig. 6 is a detail section, broken away, of one form of the upper half-lining, showing the groove or channel.

A box-like structure 5 has formed in its roof the upper half-bearing 1, preferably provided with the half-lining 2. This half-lining is provided with an interior groove or channel 12, open to the journal.

4 is the journal. Below the journal is formed a chamber whose side walls and floor are formed with a soft-metal lining 8, as of Babbitt metal.

9 is the lower half-bearing removably disposed within the chamber before referred to, its side edges fitting neatly the side walls of the chamber, this half-bearing being preferably provided with the lining 3. The under surface of the half-bearing 9 is beveled transversely, and between this beveled surface and the floor 7 of the chamber referred to is disposed the wedge 10, having a length corresponding substantially with that of the lower half-bearing and the chamber containing it and having a width less than that of the chamber. The wedge supports the lower half-bearing in engagement with the journal, and set-screws 11, passing through the walls of the chamber, impinge upon the edges of the wedge and serve in adjusting it transversely in the chamber, and thus adjusting the lower half-bearing into proper engagement with the journal. Below the floor 7 of the chamber on which the wedge rests is an oil-chamber 6. One end of the main chamber is open and closed by a removable plate 18. Hanging upon the central portion of the journal 4 is an endless chain 17, its lower portion extending into the oil-chamber 6. This chain lies within the groove 12, previously referred to, and passes down through notches 14 in the lower half-bearing 9 and notches 13 in the lining 3 and through a slot 16, formed in the floor 7 of the main chamber. The side edges of wedge 10 are also provided with notches 15, through which the chain passes.

By means of screws 11 the lower half-bearing may be neatly adjusted to the journal. The chain carries the lubricant from the oil-chamber to the central upper portion of the journal, from whence it becomes distributed over the journal, the surplus lubricant flowing back into the oil-chamber. The lower half-bearing and the wedge are inserted into the chamber through the open end thereof before plate 18 is applied. In constructing the journal-box the side walls and the floor of the main chamber are left as cast, and then a suitably-dressed metal form is inserted into the chamber through its open end and the soft-metal lining poured around it, thus forming fair bearing-surfaces for the sides of the lower half-bearing and for the bottom of the wedge. If the upper half-bearing is provided with a removable lining 2, made in two pieces or halves, as is preferable, then the inner end of the outer half-lining forms one of the walls of groove 12, and when plate 18 is removed then the outer half may be withdrawn along with the lower half-bearing and wedge, thus permitting the ready withdrawal of the chain. This construction is shown in Fig. 4, where the adjacent edges of the two halves of the upper lining 2 form the side walls of the groove or channel 12 and the upper half-bearing 1 the roof of the groove.

We claim as our invention—

1. In a journal-box, the combination, substantially as set forth, of a box-like structure having in its roof an upper half-bearing and having a rectangular chamber below, a lower half-bearing disposed within said chamber

and having a width less than that of said chamber in said box-like structure and having its lower surface beveled, a wedge disposed below said half-bearing and having a width less than that of said chamber, a soft-metal lining disposed between the walls of said box-like structure and the sides of said lower half-bearing and between said wedge and the floor of said chamber, and set-screws through the walls of said chamber and through said lining and engaging the edges of said wedge.

2. In a journal-box, the combination, substantially as set forth, of a box-like structure containing an upper half-bearing circumferentially grooved upon its interior and having a rectangular chamber formed below and having an oil-chamber formed below the floor of said first-mentioned chamber, said floor being slotted in the vertical plane of said groove, a lower half-bearing fitting the side walls of said first-mentioned chamber and having side notches in the vertical plane of said groove, a wedge disposed between said half-bearing and the floor of said first-mentioned chamber and having side notches in the vertical plane of said groove, screws for adjusting said wedge, a journal engaging said half-bearings, and an endless chain engaging said journal within said grooves and passing through said notches into said oil-chamber.

3. In a journal-box, the combination, substantially as set forth, of a box-like structure containing an upper half-bearing and having a rectangular chamber formed below and open at one end of the journal-box and having an oil-chamber formed below said first-mentioned chamber, a half-bearing fitting sidewise within said first-mentioned chamber and provided with side notches, a wedge disposed below said half-bearing and provided with side notches, screws for adjusting the wedge transversely in the chamber, a plate removably secured against the open end of said chamber, a lining disposed in said upper half-bearing and extending from the outer end thereof inwardly to the vertical plane of said notches, a journal engaging said half-bearing, and an endless chain engaging said journal at the inner end of said lining and passing through said notches into said oil-chamber.

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