Rice & Millen,

Journal Box,

No. 49,591, Patented Aug. 22, 1865.

Fig. 1

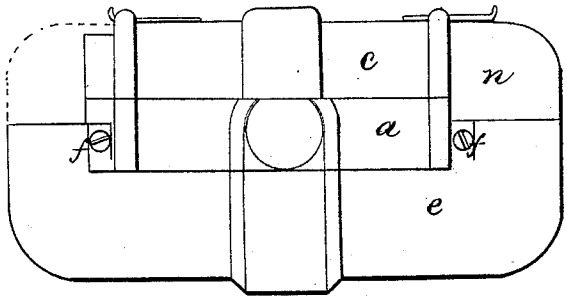


Fig. 3

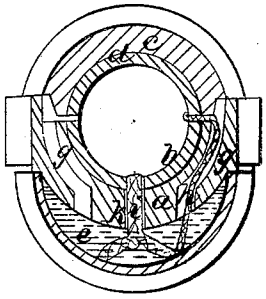


Fig. 2

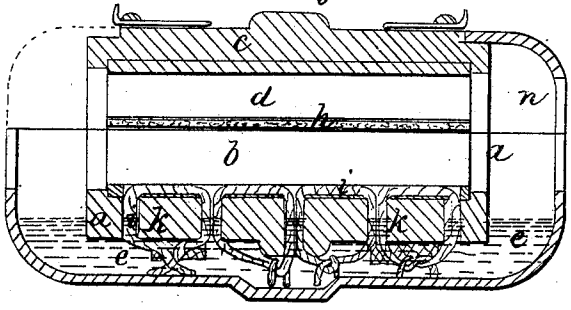


Fig. 6

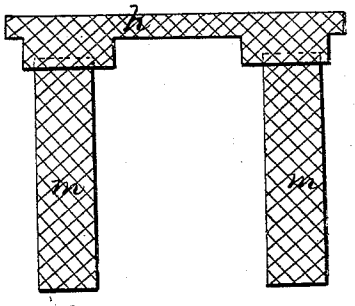


Fig. 5

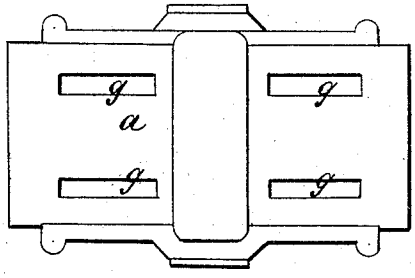
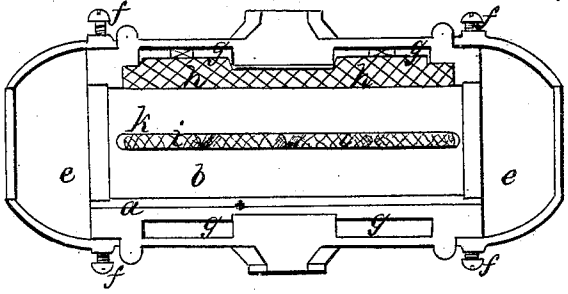


Fig. 4



Witnesses

J. Gould

W. B. Gleason

Inventor

J. W. Rice

W. H. Millen

by their Atty

W. B. Crosby

UNITED STATES PATENT OFFICE.

MATTHIAS J. RICE AND WM. H. MILLEN, OF BOSTON, MASSACHUSETTS, ASSIGNORS TO MATTHIAS J. RICE.

IMPROVED JOURNAL-BOX.

Specification forming part of Letters Patent No. **49,591**, dated August 22, 1865.

To all whom it may concern:

Be it known that we, MATTHIAS J. RICE and WILLIAM H. MILLEN, both of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Journal-Box; and we do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of our invention sufficient to enable those skilled in the art to practice it.

Letters Patent of the United States numbered 46,823 were granted to us on the 14th day of March, 1865, for an improved journal-box. Our present invention relates to further improvements made by us in the construction of journal-boxes; and the invention consists in the manner of combining the lower half of the journal-box and its oil-reservoir; also, in the peculiar construction of the lower half of the box with reference to oil-passages running from the upper surface thereof through the box and into the oil-reservoir beneath; also, in the combination of a lubricator which conveys oil (by capillary attraction) to the upper side of the box, or to the surface of the shaft on one side adjacent to the cap, with a return-passage on the opposite side, by which the superfluous oil carried over by the rotating shaft runs back into the reservoir.

A hanger journal-box embodying the invention is shown in the drawings, Figure 1 showing a side elevation, Fig. 2 a longitudinal central section, and Fig. 3 a cross-section, of the same, the latter section being taken through the oil-passages. Fig. 4 is a plan of the lower half of the box and its reservoir; Fig. 5, a bottom view of the lower half of the box.

a denotes the lower half of the box; *b*, the babbitting or bearing surface thereof; *c*, the upper half or cap, and *d* its babbitting. *e* is the oil-reservoir.

By the construction shown in our previous patent, in order to obtain access to the oil-reservoir it was necessary to remove the entire box from the shaft or disconnect the shafting and box. In our present arrangement, however, the reservoir does not form a direct part of the box, but is so applied beneath the same that it may be at any time easily removed without interfering with the shaft or the bearing-surface of the box, that part of the box constituting the lower half of the box proper being, with the exception of its babbitting, cast in one piece, as will be readily understood from Fig. 3. The reservoir *e* may therefore be made as a mere shell fitted to the under part of the box, and being fastened thereto by screws *f* or other suitable means.

The oil-passages *k* and the wicking or lubricator *i* are applied to the lower half of the box in the same or substantially the same manner as in our previous construction.

The passages *g*, running from the reservoir to the sides of the box adjacent to the opposite sides of the shaft, are made directly in or through the casting constituting the lower half of the box, as seen in Figs. 3, 4, and 5.

While the passages *g* on one side of the box serve to convey the oil which may flow from the side of the shaft back into the reservoir, the passages in the opposite side we fill or provide with an oil-conveyer or lubricator, *h*. This conveyer, as seen in Fig. 6, which represents a detail view of it, is made of a long strip, *h*, of flat wicking or other fibrous material, which lies in the space between the adjacent surfaces of the two parts of the box, as shown by Figs. 2, 4, and 5, and has tail-pieces *m*, which extend down through the passages *g* and into the oil-reservoir, as seen in Fig. 5. The upper edge of this lubricator abuts against the side of the shaft, and the whole material is kept saturated by capillary attraction, while the superfluous oil is led back into the reservoir on the opposite side of the shaft, as will be readily understood. Beside the advantage afforded by this oiler as an auxiliary to the oiler *i* at the bottom of the box, it is additionally valuable in that it may be easily withdrawn by simple removal of the cap *c*, and its place supplied by fresh material.

The reservoir *e* is extended endwise beyond the ends of the box, as seen in Figs. 1, 2, and 3, thus forming, in combination or connection with the oil-reservoir, a drip-box to catch any oil which may flow beyond the ends of the box

and drop from the shaft. These ends are provided with caps or hood-pieces *n*, fitting over them and to the cap *c* in such manner as to present a neat appearance and protect the box and reservoir from dust and other extraneous matters. By removal of either of the hoods the reservoir can be readily supplied with oil.

We claim—

1. The application of the oil-reservoir to the lower half of the box, so as to be removable from and without disturbance of the box, substantially as set forth.

2. The extension of the reservoir beyond the ends of the box, when made separate from the box, and the employment of the hoods *n*, fitting over such extensions and against the cap *c*, substantially as shown and described.

3. The oil-passages *g*, leading to the top of the box or the part *a* thereof, made directly through and in the body of the casting constituting the lower half of the box.

4. The combination of the oil-conveyer *h*, for lubricating the shaft on one side of the box, with the return-passage *g* on the other side of the box, substantially as set forth.

In witness whereof we have hereunto set our hands this 12th day of July, A. D. 1865.

MATTHIAS J. RICE.
WM. H. MILLEN.

Witnesses:
J. B. CROSBY,
F. GOULD.