J. B. TOMLINSON.

BOXES FOR SHAFTING.

No. 191,901. Patented June 12, 1877.

Fig. 2.

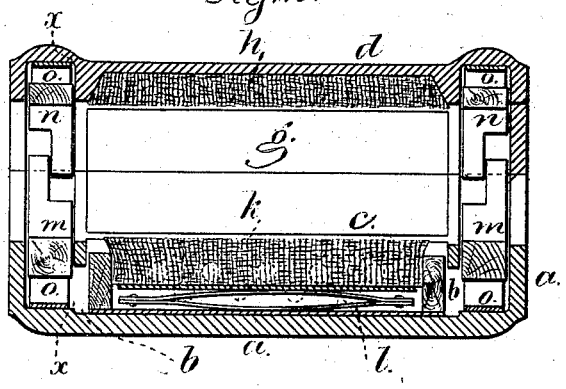



Fig. 3.

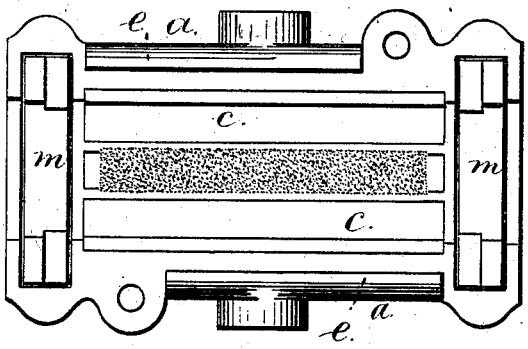



Fig. 4.

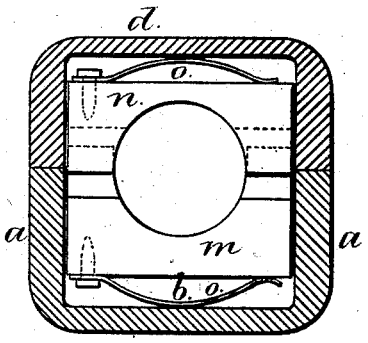
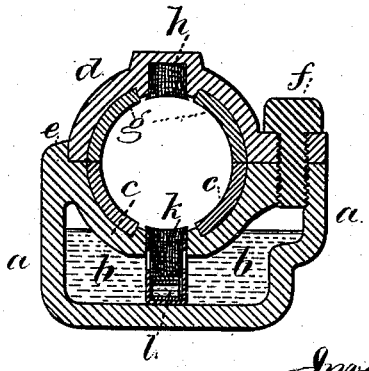



Fig. 1




Witnesses

Chas. H. Smith

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per Samuel W. Serrell Atty

# UNITED STATES PATENT OFFICE.

JOSEPH B. TOMLINSON, OF BLACK HAWK, COLORADO, ASSIGNOR TO HIMSELF AND GIBBONS L. KELTY, OF BROOKLYN, NEW YORK.

## IMPROVEMENT IN BOXES FOR SHAFTING.

Specification forming part of Letters Patent No. **191,901**, dated June 12, 1877; application filed May 7, 1877.

*To all whom it may concern:*

Be it known that I, JOSEPH B. TOMLINSON, of Black Hawk, in the State of Colorado, have invented an Improvement in Boxes for Shafting, of which the following is a specification:

I make use of a pad of fibrous material in the upper half of the box to receive and retain any surplus oil that would otherwise escape toward the ends of the bearing. I also provide an oil-well and lubricating-pad in the lower half of the box, and fit at the ends of the bearing segmental cut-offs, pressed to the shaft by springs, that serve to exclude dust, and to retain within the box oil that might otherwise escape, thus rendering the bearing as free from friction as possible, and lessening the amount of attention required in keeping the box in order.

In the drawing, Figure 1 is a cross-section of the box. Fig. 2 is a longitudinal section of the same. Fig. 3 is a plan of the lower half-box, and Fig. 4 is a cross-section at the line *x x*.

The shell *a* is made hollow, with an oil-chamber, *b*, below the bearings *c*, that are preferably faced with Babbitt-metal, and of a size to fit the journal. The upper half *d* is received between the flanges *e e*, and bolted to the shell *a* by the screws *f*. The bearing-surfaces *g* are preferably faced with Babbitt-metal, and between these there is a channel for receiving a piece of felt or similar material at *h* that forms an upper pad that aids in the lubrication of the axle, and should there be any superfluous oil upon the journal it absorbs the same, and returns it gradually to the journal. In the oil-chamber *b* there is a capillary pad, *k*, that passes up between the bearing-surfaces *c*, and is kept to the journal by a spring, *l*. This pad is in a perforated case that sustains the same, and allows free access of the oil.

By this means a large quantity of oil can be retained in the well, and supplied gradually and uniformly to the journal. The bolts *f* pass through the top part of the shell *a*, so that oil can be introduced into the chamber *b* by removing either of the screws. At the ends of the bearing-surfaces there are cut-offs *m n*, that are preferably of wood, and introduced into chambers provided for them in the upper and lower portions of the shells *a* and *d*, and there are springs *o* that serve to press the cut-offs toward each other. These cut-offs serve to exclude dust, and also to prevent oil passing off outside the bearings. The lower cut-offs, entering chambers at the ends of the oil-chamber, insure the return to said oil-chamber of any oil that passes off the ends of the journal.

I claim as my invention—

1. The combination, in the journal-box, of the upper bearings *g g*, pad *h* between such bearings, the lower bearings *c c* and pad *k* between said bearings, the oil-chamber *b* in the bottom of the shell *a*, and the spring cut-off plates *m n* in the recesses at the ends of boxes, substantially as specified.

2. The combination, in the journal-box, of the oil-chamber *b*, spring-pad *k* between the bearings *c c*, and the spring cut-off plates *m n*, and thin recesses at the ends of the journal-box, substantially as set forth.

Signed by me this 30th day of April, A. D. 1877.

J. B. TOMLINSON.

Witnesses:

GEO. T. PINCKNEY,

CHAS. H. SMITH.