[61.]

JOHN SAULT.

Improvement in Self-Oiling Journal-Boxes.

No. 119,412. Patented Sep. 26, 1871.

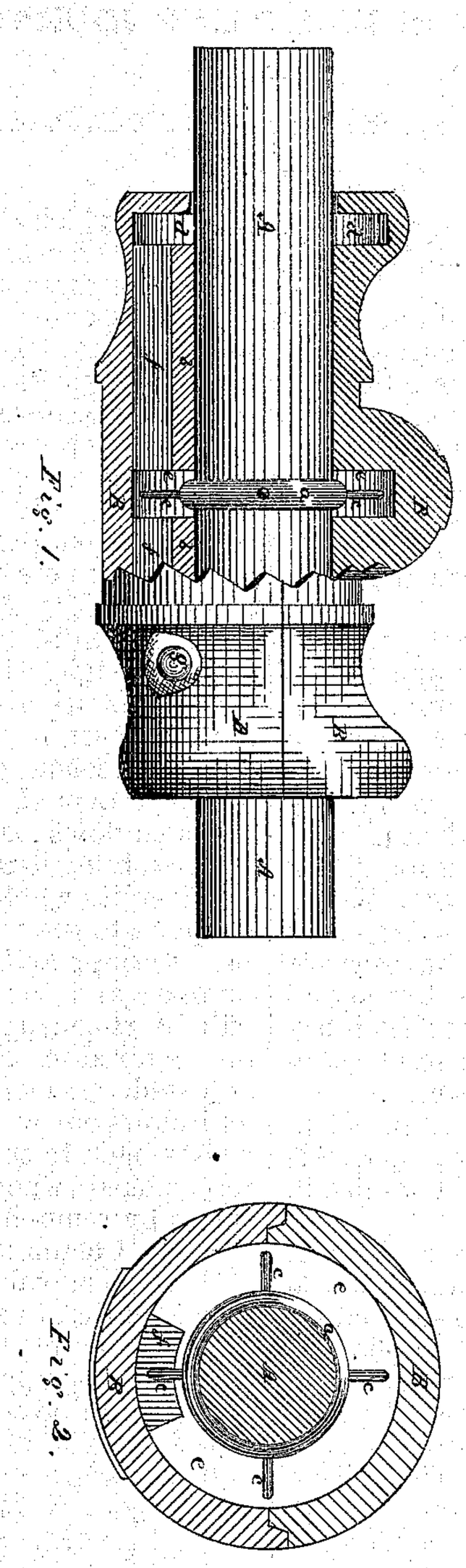

Fig. 1.

Fig. 2.

Witnesses.

L. Häfelin

Buckwoxe

Inventor.

John Sault

By Theo. G. Ellis

Attorney.

UNITED STATES PATENT OFFICE.

JOHN SAULT, OF SOUTH MANCHESTER, CONNECTICUT.

IMPROVEMENT IN SELF-OILING JOURNAL-BOXES.

Specification forming part of Letters Patent No. 119,412, dated September 26, 1871.

To all whom it may concern:

Be it known that I, JOHN SAULT, of South Manchester, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Self-Oiling Journal-Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, whereby a person skilled in the art can make and use the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

Like letters in the figures indicate the same parts.

My invention relates more especially to that class of boxes generally used for supporting a line of shafting for communicating motion to machinery. It consists in a device for raising a sufficient quantity of oil from a cistern in the bottom of the box to the top of the revolving-journal so as to keep it constantly lubricated; it also consists in placing the opening for filling the oil-reservoir in such a position that the oil can be seen when the plug is removed, so that its height and the quantity of oil in the reservoir can at any time be known. The object of my invention is to provide for the more perfect lubrication of the bearing without the constant attention necessary with the ordinary boxes.

Figure 1 shows a part side view and part longitudinal section of my improved box. Fig. 2 is a section through the middle at right angles to the axis.

A is the journal of the shaft. B is the box which supports it. This is usually made in two parts, top and bottom, which can be secured together by bolts or any of the usual appliances after the shaft has been put into its place. The bearings at *b b* may be made of any usual metal. To the middle of the revolving-journal is fixed the ring *a* by small screws or otherwise. This carries the projecting points or arms *c c*, &c. The middle portion of the box B forms a chamber, *e*, in which these arms revolve, and the bottom part of which forms an oil-reservoir into which the arms dip as they revolve. The ends of the box extend out past the ends of the bearings *b b* and form chambers *d d* for receiving such oil as flows out from the ends of the bearings. Between these chambers *d d* and the central chamber *e* are the communicating channels *f f*, so that the bottom of the box forms, in fact, one oil-reservoir from end to end. In the side of the bottom part of the box, at *g*, is the feeding-hole for pouring oil into the reservoir. It is so placed that it comes just above the proper level of the oil, and can be looked into to ascertain its height when desired.

The operation of my invention is as follows: As the shaft revolves the arms *c c* dip into the oil and become covered with it. As they rise and pass over the top of the shaft the oil carried by them flows back downward onto the top of the revolving journal and lubricates it by flowing over its whole surface. The quantity of oil supplied to the journal is regulated by the number of arms *c* and their length. The greater the number, and the longer they are, the more oil will be taken up. In this way the quantity of oil required for any given speed can be nicely adjusted. If more oil is carried up than is needed it flows out at the ends of the journal-box and passes back to the central reservoir. The oil is replenished, when exhausted, through the aperture *g* by removing the plug.

What I claim as my invention is—

1. The removable arms or pins *c c*, &c., attached to the journal in such a manner that a greater or less number of them can be used at a time to regulate the supply of oil.

2. The oil-box, having the feed-hole *g* placed in the position indicated.

Witnesses:
O. P. WILKES,
CHARLES S. CHENEY.

JOHN SAULT.

(61)