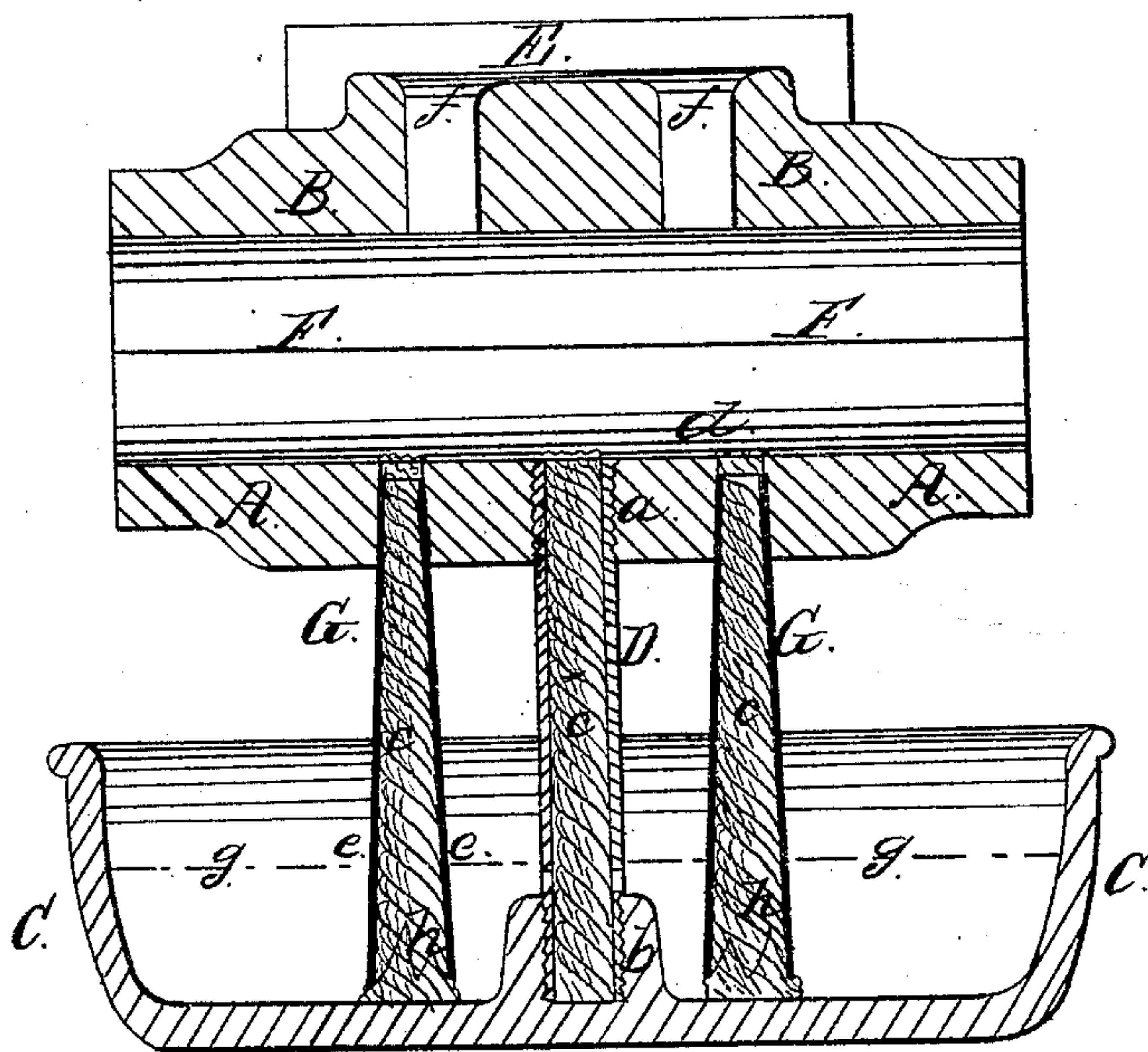


*J. F. Light,*  
*Journal Box.*

N<sup>o</sup> 50,143.

*Patented, Sep. 26, 1865.*



Witnesses:  
Jos. H. Dodge.  
H. H. Miller.

Inventor:  
J. F. Light.

# UNITED STATES PATENT OFFICE.

JOSEPH F. LIGHT, OF WORCESTER, MASSACHUSETTS.

## IMPROVED METHOD OF LUBRICATING JOURNAL-BOXES.

Specification forming part of Letters Patent No. 50,143, dated September 26, 1865.

*To all whom it may concern:*

Be it known that I, J. F. LIGHT, of the city and county of Worcester, and State of Massachusetts, have invented certain new and useful Improvements in Devices for Oiling Journal-Boxes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification.

The drawing represents a longitudinal section of a journal-box with my improvements applied thereto.

Referring to the drawing, A represents the lower half of the box, and B the upper half.

C is the drip-pan cup, which in this instance is attached to the part A by the tubular stem D, which has a screw-thread, *a*, cut on each end, the lower end of D screws into a hole in the projection *b* in cup C. Before being screwed into the projection *b* a wick, *c*, is applied to its inner surface, as indicated in the drawing, the top of the wick reaching quite or nearly to the lower surface, *d*, of the lower half of the bearing A. Holes *e e* are made in the lower end of the stem D.

E represents the back of the box, which is connected with the lower half, A, only.

*ff* are oil-holes in the cup B.

The operation is as follows: The journal rests and turns in the space F, and may be lubricated by turning oil into the holes *ff*, or by turning it into the cup C. In the former case, if much oil should be applied it would run out at the ends of the box and drop down into cup C, from which it will be taken up by the wick *c* and carried up against the journal-box, when it will be forced laterally each way, and after having well lubricated the journal it will run or drop down from the ends of the bearing into the cup C again, the operation continuing in the same manner whenever the journal is in motion. The cup C may be first partially filled—say to line *g*—with oil or some proper lubricating compound, when it will be drawn or taken up the wick *c* to the journal, by which it will be forced out at each end, as above described.

It will be observed that the lubricating compound is well filtered each time before it reaches

the journal, and consequently no dirt or grit is allowed to reach the journal with the lubricating compound. Hence journals with my oiling device applied always wear even and smooth. When wick *c* becomes filled with dirt it may easily be removed to be cleaned or a new wick substituted.

In some cases I use tubes G, not connected with the cup C. The lower ends of these tubes project down nearly to the bottom of the cup, and may be notched, as seen at *h h* in the drawings. Tubes G are to be supplied with wicks *c*, and the operation of oiling the journal is the same as described in reference to the wick in stem D.

The invention can be easily applied to old journal-boxes, no matter how the cup or drip-pan is supported, all that is necessary being to drill a hole into the box and insert a tube, G, inclosing a wick, one end of which connects with an oil-cup or drip-pan. Two forces act to elevate or draw the oil into the journal-box—viz., capillary attraction and the motion of the journal, which causes a partial vacuum in the upper part of the wick tube or tubes, or in that part of the wick-tube which enters the box. The rapidity with which the oil is supplied to the journal may be regulated by the compactness with which the wick is pressed into the tube. If the wick be pressed in hard and compact the supply of oil to the journal will be much slower than when the wick is put in loosely.

Having described my improved device for oiling journal boxes or bearings, what I claim therein as of my invention, and desire to secure by Letters Patent, is—

1. The combination, with the box of a journal or bearing, of a tube or tubes, G, and wick or wicks *c*, substantially as and for the purposes set forth.

2. The combination, with the oil-cup or drip-pan and lower half, A, of a journal box or bearing, of a hollow supporting-stem, D, and wick *c*, substantially as set forth.

JOSEPH F. LIGHT.

Witnesses:

THOS. H. DODGE,  
J. HENRY HILL.