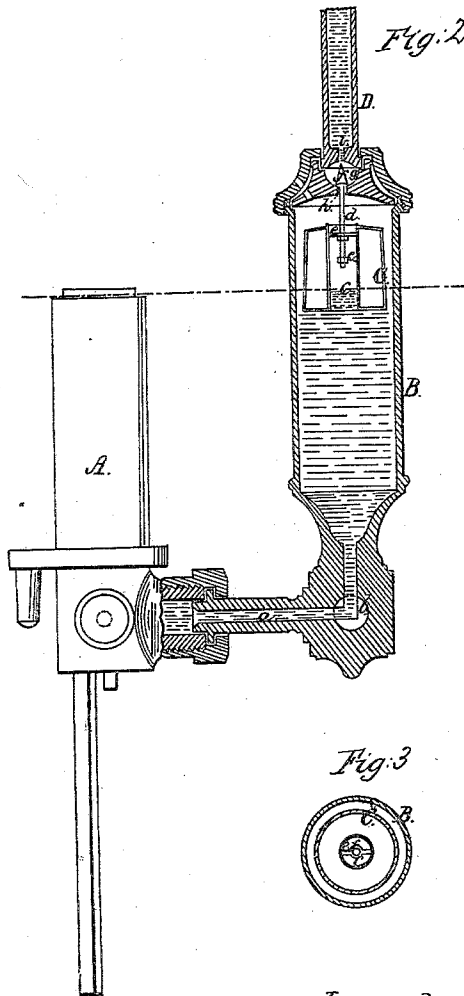
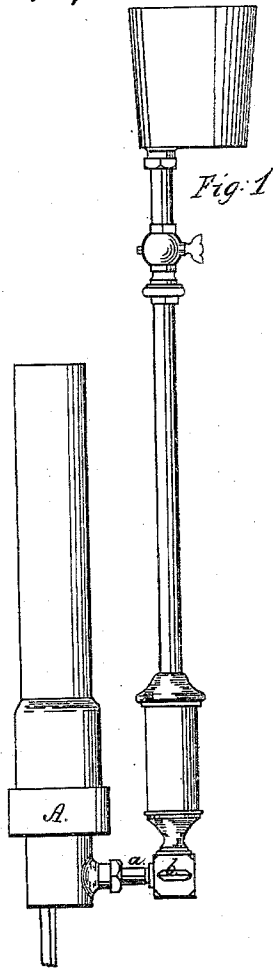


*J. Funck.*

*Lamp.*

*N<sup>o</sup> 93,871.*

*Patented Aug. 17, 1869.*



*Witnesses,*  
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# United States Patent Office.

JOSEPH FUNCK, OF TOMPKINSVILLE, NEW YORK.

Letters Patent No. 93,871, dated August 17, 1869.

## IMPROVEMENT IN LAMPS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOSEPH FUNCK, of Tompkinsville, in the county of Richmond, and State of New York, have invented a new and improved Hydraulic Float-Lamp; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which drawing—

Figure 1 represents a side elevation of my lamp when put up for use.

Figure 2 is a central section of the regulating float-mechanism in a larger scale than the previous figure.

Figure 3 is a horizontal section of the same.

Similar letters indicate corresponding parts.

This invention consists in the arrangement of an adjustable float and valve in the oil-supply pipe of a lamp, in such a manner that by the combined action of said float and valve, the supply of oil to the wick-tube is regulated, and the oil supplied automatically, just as fast as it is consumed. The valve and valve-stem are both notched and grooved, and said stem is secured in a cross-bar or bridge in a tubular space in the float, in such a manner that the oil, on passing down from the supply-pipe into the float-chamber, will trickle down on the valve-stem without coming in contact with the surface of the float, and the weight of the float is not changed by the oil which would necessarily adhere to said float if it should be permitted to run down over the surface of the same.

In the drawing, the letter A designates the wick-tube or burner, which connects, by a channel, *a*, with a chamber, B, enclosing the float C.

A suitable stop-cock, *b*, serves to close the channel *a*, whenever it is desirable to take off the wick-tube.

The float C is perforated throughout its length with a tubular space, *c*, and it is suspended from a rod, *d*, which screws into one or more cross-bars or bridges, *e*, and to the upper end of which is secured a conical valve, *f*.

This valve is enclosed in a valve-chamber, *g*, which communicates with the float-chamber B through a channel, *h*, and with the supply-pipe D through a channel, *i*, as shown in fig. 2 of the drawing.

When the oil in the float-chamber B rises to a certain level, the float is raised to such a height that the valve *f* closes the supply-channel *i*, and the further supply of oil is stopped, but if the oil sinks down in the float-chamber, the valve is carried down by the gravity of the float, and it rests on top of the channel *h*.

The oil, however, runs past the valve through said channel into the float-chamber, both the valve and its stem being provided with notches or grooves, so that the oil will trickle down through these grooves, and thereby be prevented from accumulating on the bridges *e*, or on the surface of the float, whereby the specific gravity of the float would be changed, and its correct operation impaired.

The supply-pipe D is intended to connect with a suitable reservoir, as indicated in fig. 1, and if the communication between this reservoir and the supply-pipe is opened, the oil flows down to the burner just as fast as it is consumed by the flame, and no further attention is required as long as the reservoir contains a sufficient supply of oil.

This lamp is intended particularly for light-house purposes, where the burner is placed opposite to a reflector, and a sufficient supply of oil must be provided to support the flame during the whole night. The oil reservoir, therefore, must be of considerable capacity, and if it should be placed in the field of the reflector, it would necessarily decrease its effect.

By my improvement, I am enabled to feed the oil to the burner, with the requisite regularity, from a reservoir situated at any desired height above said burner, the float being so adjusted that it allows the oil to rise to the top of the burner with a moderate overflow to control the correct action of the feeding-mechanism.

When the oil has reached the required level, the float carries the valve *f* up into the channel *i*, and the supply of oil is momentarily stopped, until the flame has consumed a small portion of the oil in the burner, then the float sinks down, and the supply of oil is re-established.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The arrangement within the separated oil-chamber B, of the tubular float C, suspended from rod *d*, which carries a valve, *f*, playing in a chamber, *g*, and operating relatively to chambers, *h* *i*, the parts being combined substantially and for the purpose as described.

2. The arrangement of notches or grooves in the valve and its stem, in combination with the bridges *e*, float C, and channel *h*, substantially as set forth.

JOSEPH FUNCK.

Witnesses:

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