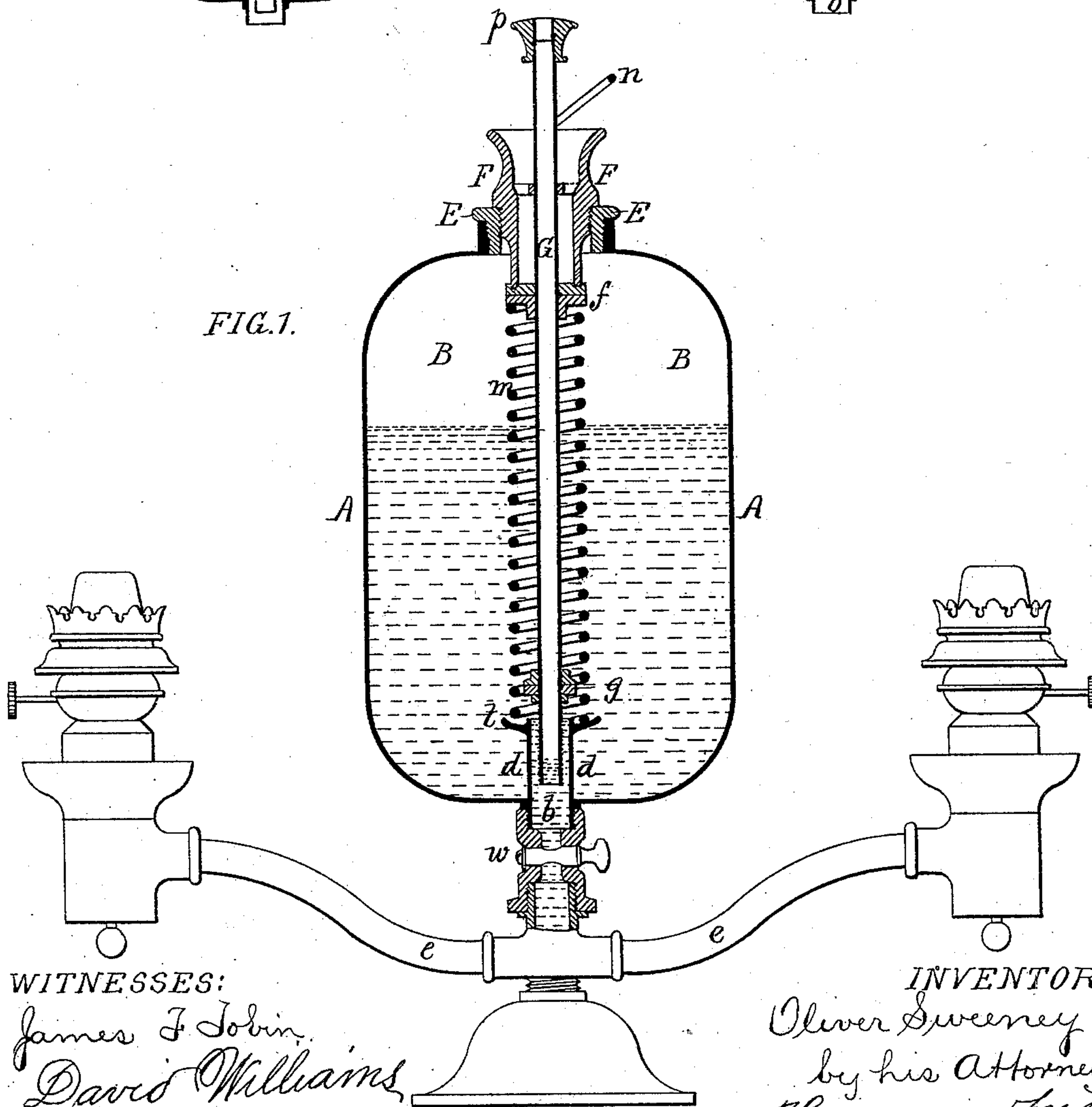
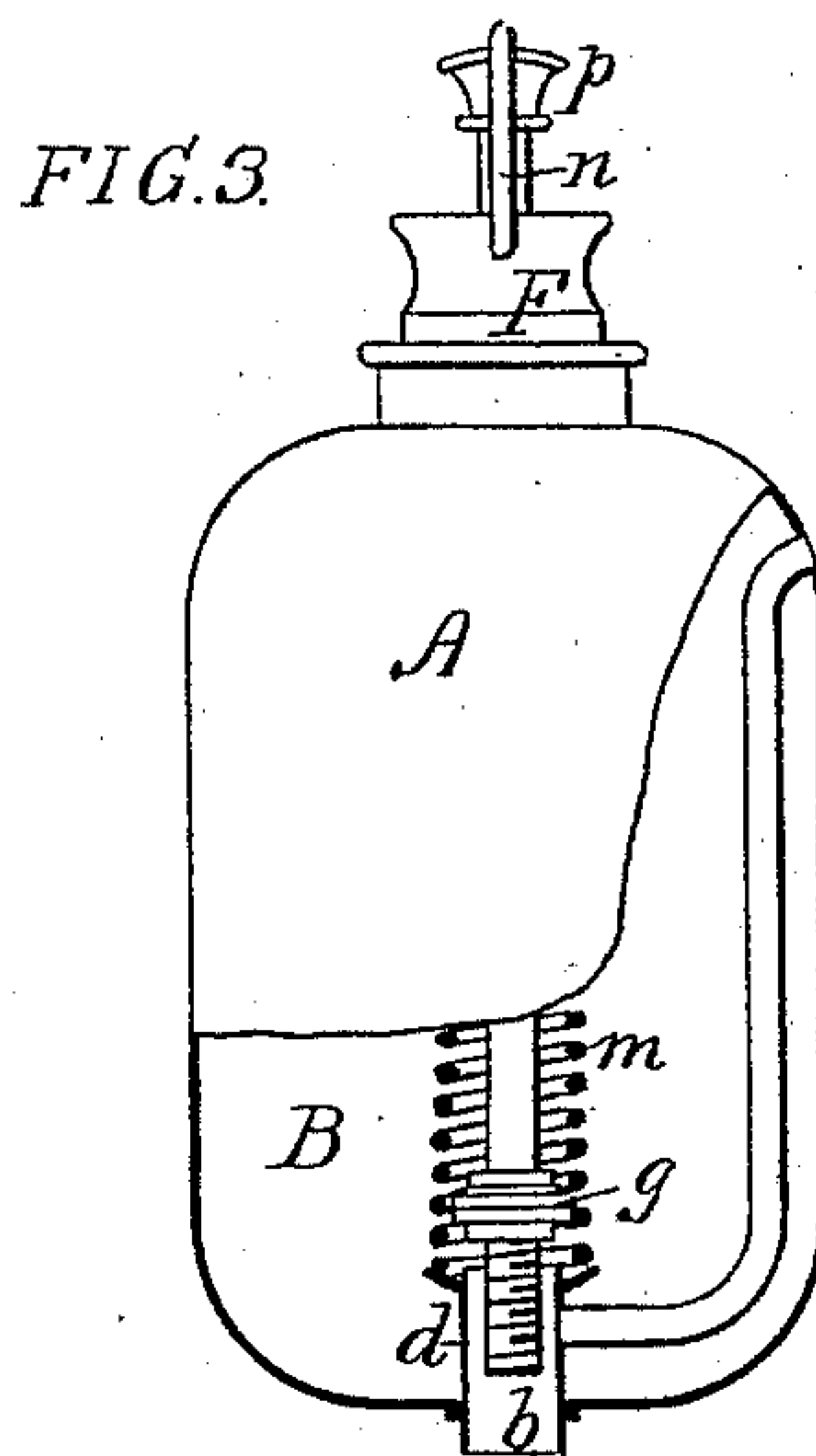
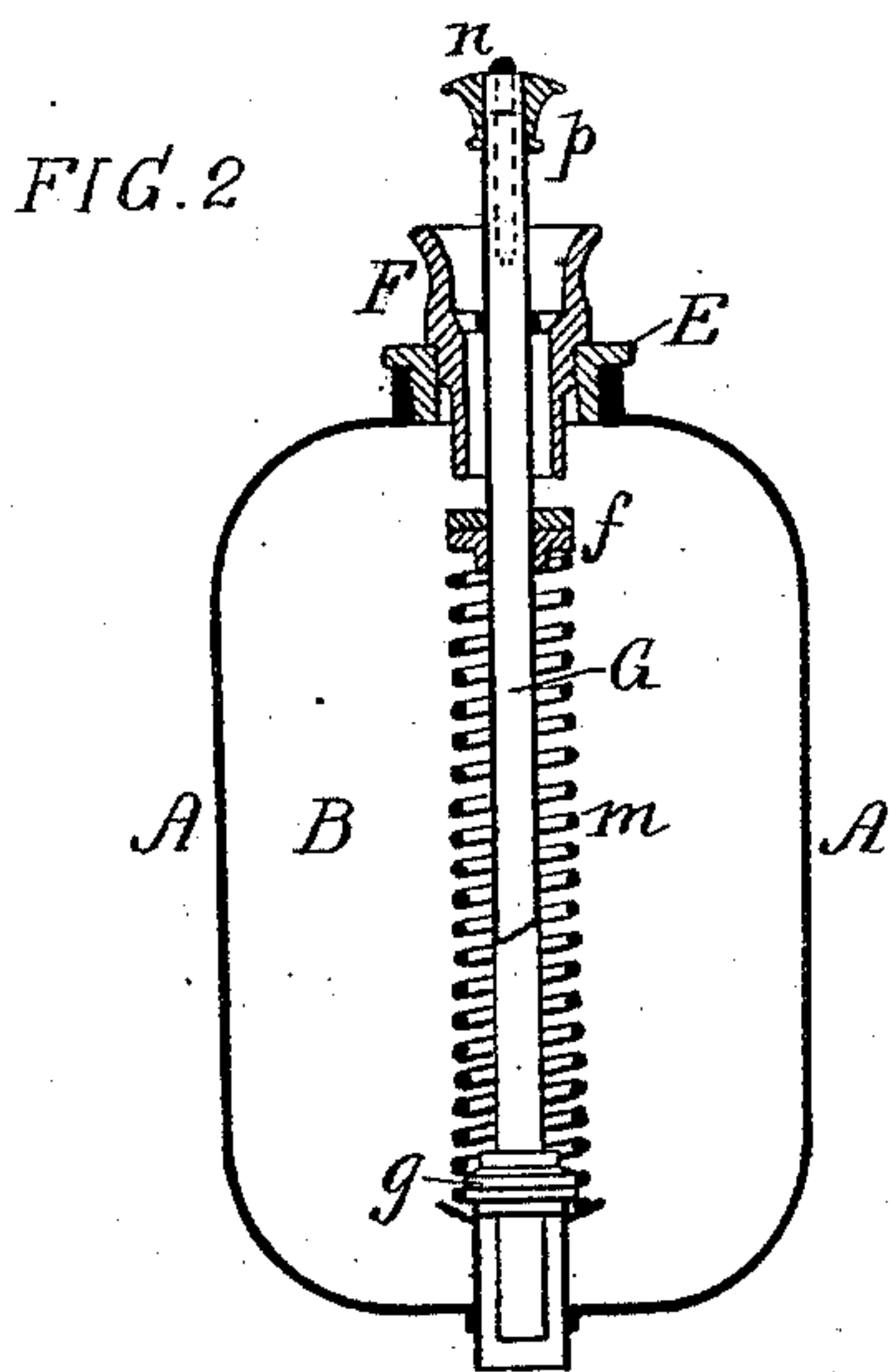


(No Model.)

O. SWEENEY.
RESERVOIR LAMP.

No. 277,808.

Patented May 15, 1883.



WITNESSES:

James F. Tobin.
David Williams.

INVENTOR:

Oliver Sweeney
by his Attorneys
Howson and put

UNITED STATES PATENT OFFICE.

OLIVER SWEENEY, OF PHILADELPHIA, PENNSYLVANIA.

RESERVOIR-LAMP.

SPECIFICATION forming part of Letters Patent No. 277,808, dated May 15, 1883.

Application filed November 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, OLIVER SWEENEY, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Reservoir-Lamps, of which the following is a specification.

My invention relates to certain improvements in that class of lamps in which the flow of oil to the burners is regulated by the intermittent admission of air to the closed oil-reservoir, the objects of my invention being to simplify the construction of such lamps and to lessen the cost of the same without sacrifice of efficiency.

In the accompanying drawings, Figure 1 is a vertical section of a lamp with my improvements, the burners and wick-tubes being in outside view; Fig. 2, a vertical section of part of the same on a smaller scale, and with some of the parts in a different position; and Fig. 3, a view showing a modification of part of the invention.

A is the casing of the lamp, which incloses the oil-chamber B, the discharge-opening *b* of which is surrounded by an upwardly-projecting flange, *d*. The chamber B communicates through tubes *e* with any desired number of burner-tubes having the usual burners and wicks, and said chamber is closed at the top by a cap, E, to a central threaded opening in which is adapted a threaded tubular plug, F. Through this plug passes a tubular stem, G, carrying two valves, *f* and *g*, the former opening downward and being adapted to the seat formed by the lower end of the plug F, and the valve *g* opening upward and being adapted to a seat formed by the upper edge of the flange *d*, surrounding the discharge-opening *b*. The valves *f* and *g* are so arranged that when the upper valve is closed the lower valve, *g*, will be open, and vice versa. The stem G is open at both ends, as shown in Fig. 1, and is acted upon by a spring, *m*, and a yoke, *n*, the spring being interposed between the valve *f* and an annular rib, *t*, on the flange *d*, and the yoke being pivoted to a flange on the plug F, and adapted to act upon a cap, *p*, on the stem

G, so as to hold the said tube in position after it has been depressed.

The operation is as follows: The stem G is first depressed, so as to open the valve *f* and close the valve *g*, as shown in Fig. 2, and the oil is then introduced into the chamber B, in which it rises to the proper height. The stem G is then released from the control of the yoke *n* and allowed to rise, so as to close the valve *f* and open the valve *g*. Oil will flow from the chamber B through the outlet *b* and the distributing-pipes to the wick-tubes as long as the lower end of the stem G is unobstructed, air passing down through the stem and up through the oil in the chamber B to the space above the same. The flow of oil in this manner continues until the level of oil in the wick-tubes and in the chamber within the flange *d* reaches such a height as to prevent the further ingress of air through the stem G. The flow then ceases, there being no access of air to the space above the oil in the chamber B. There is a slight rise of oil in the stem G, and as the oil is consumed in the wick-tubes the oil falls in said stem G until air can again pass through the same, when there is a further flow of oil into the stem, and these operations are repeated until all of the oil is consumed, the level of the oil in the wick-tubes never rising above the level of the lower end of the stem G. Simplicity of construction is the result of placing on the stem G the two valves, one opening downward and the other upward, and utilizing said stem G as the air-supplying tube. The latter feature, however, is not essential to the invention, as the air-supplying tube may, if desired, be independent of the stem G, as shown in Fig. 3.

A stop-valve, *w*, is placed between the oil-reservoir and the distributing-pipes *e*, in order to cut off the flow of oil to the wick-tubes and burners in the event of leakage of air into the chamber B, or when it becomes necessary from other causes.

I claim as my invention—

1. The combination of the casing A of the oil-chamber, having the internal valve-seats, *d*

and F, with the stem G, having the two valves *f* and *g*, closing in opposite directions and adapted to the seats *d* and F, and with means for supplying air to the chamber at a fixed point, as set forth.

2. The combination of the casing A of the oil-chamber, having the opposite internal valve-seats, *d* and F, with the tubular stem G, having the two valves *f* and *g*, and serving as

a means of supplying air to the oil-chamber at a fixed point, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

OLIVER SWEENEY.

Witnesses:

HARRY DRURY,
HARRY SMITH.