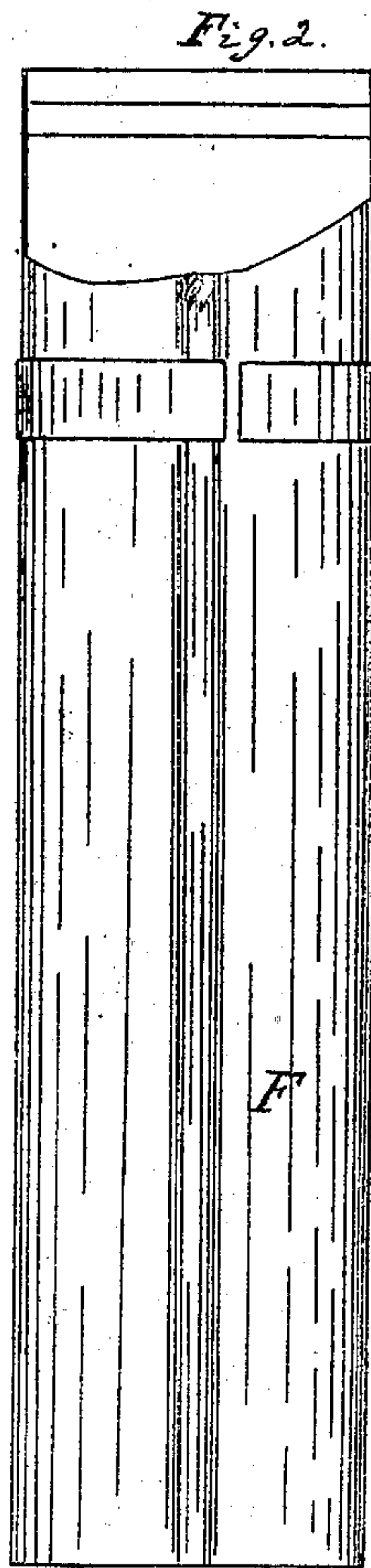
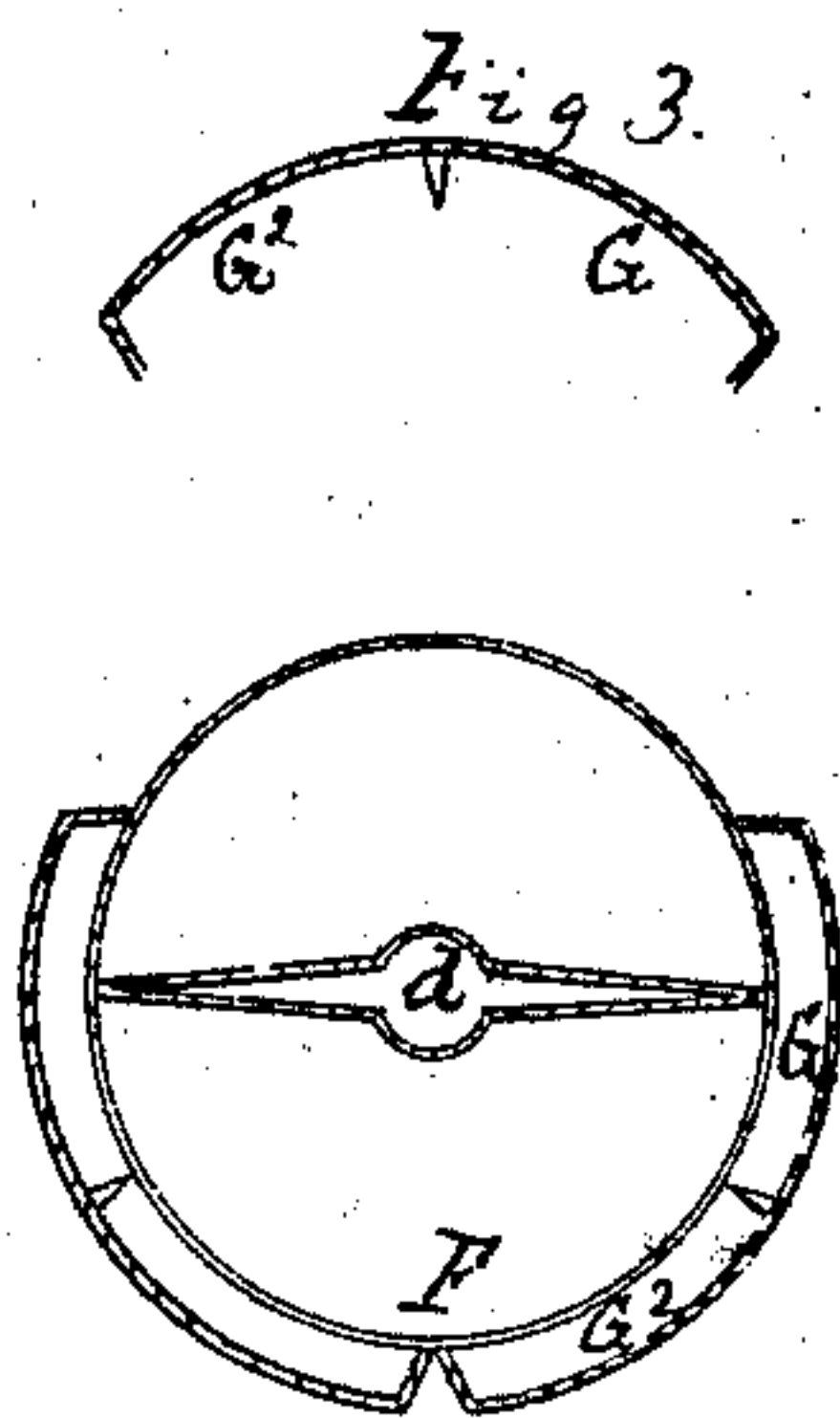
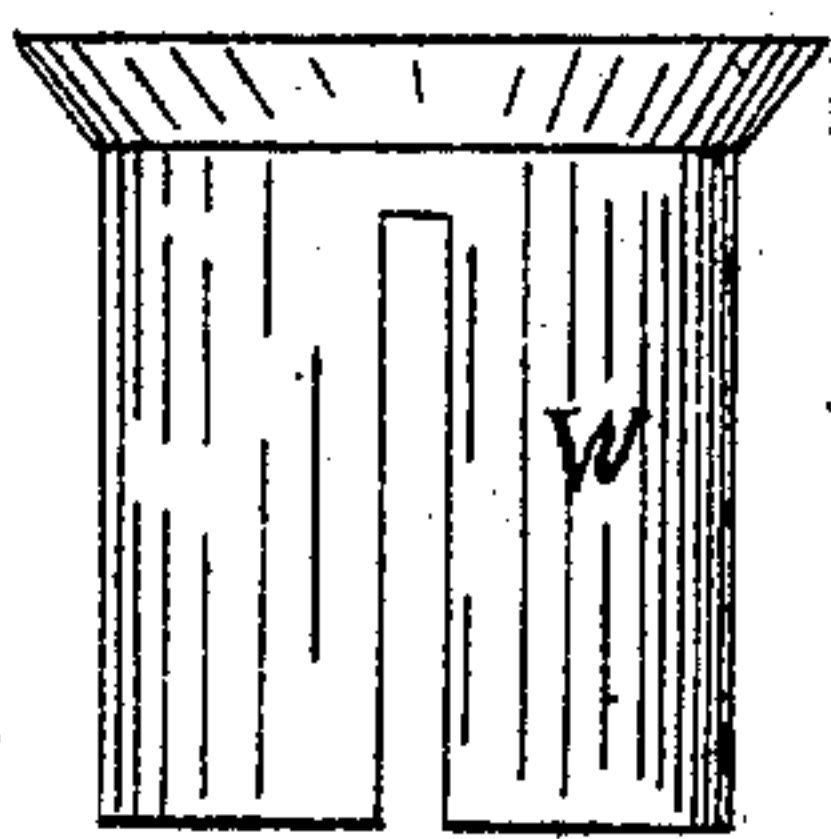
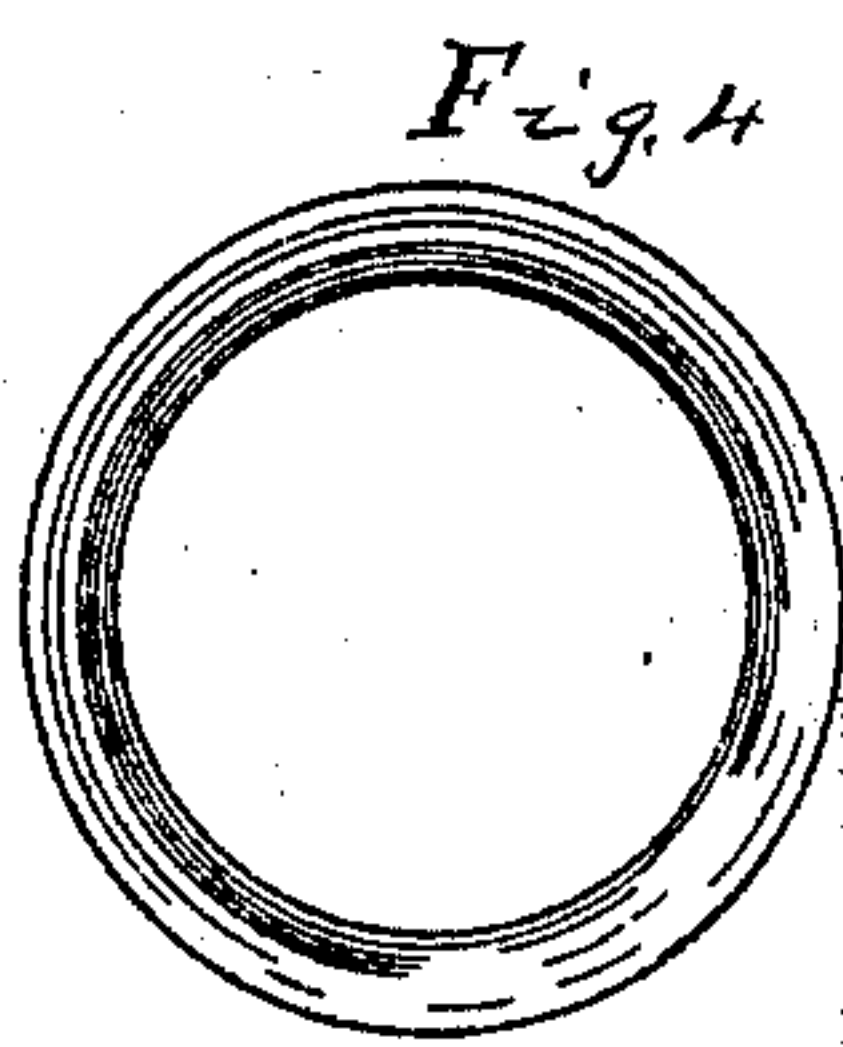
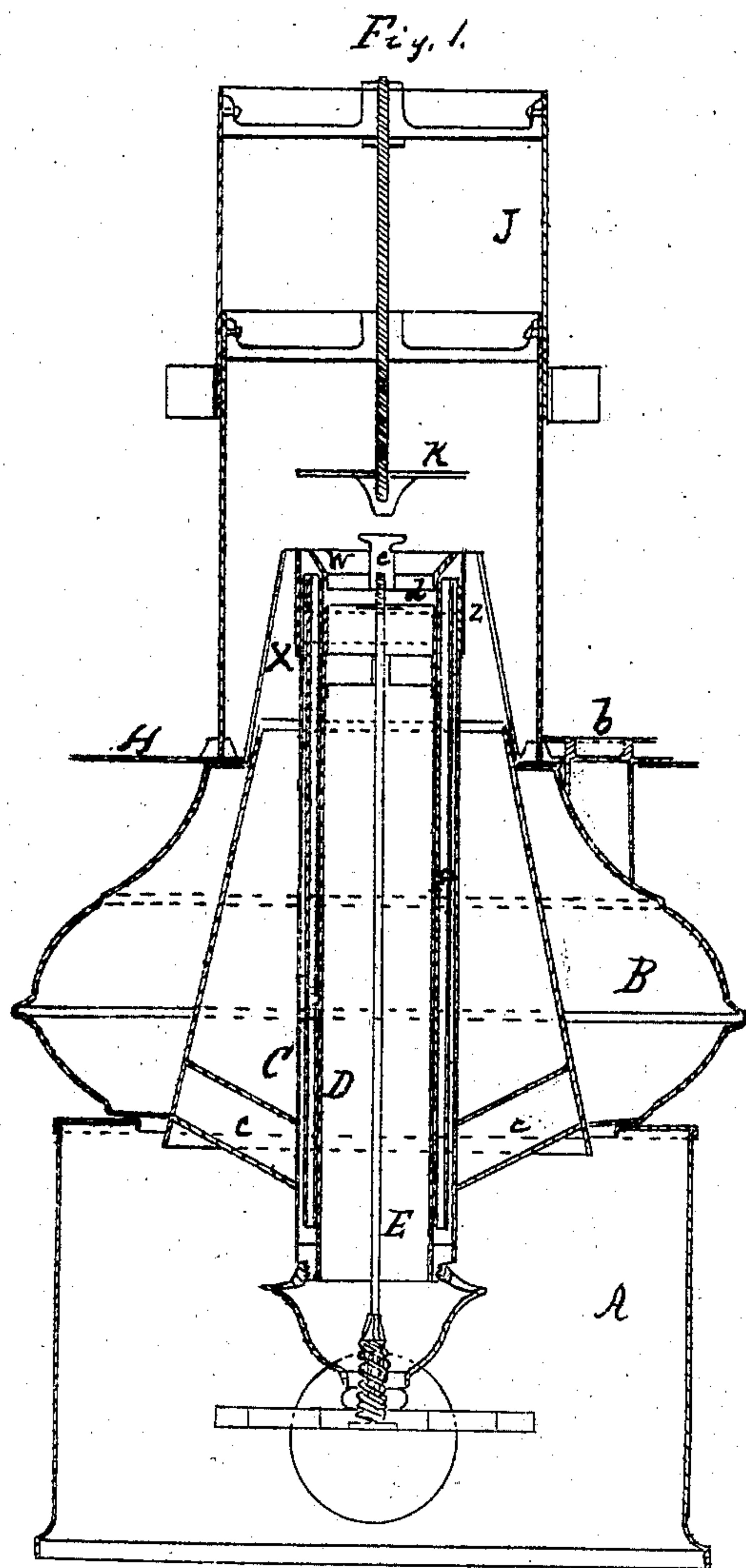


S. T. McDougall,
Lamp,

Nº 74,563.

Patented Feb. 18. 1868.



Witnesses.

A. J. Sherman
James Podge.

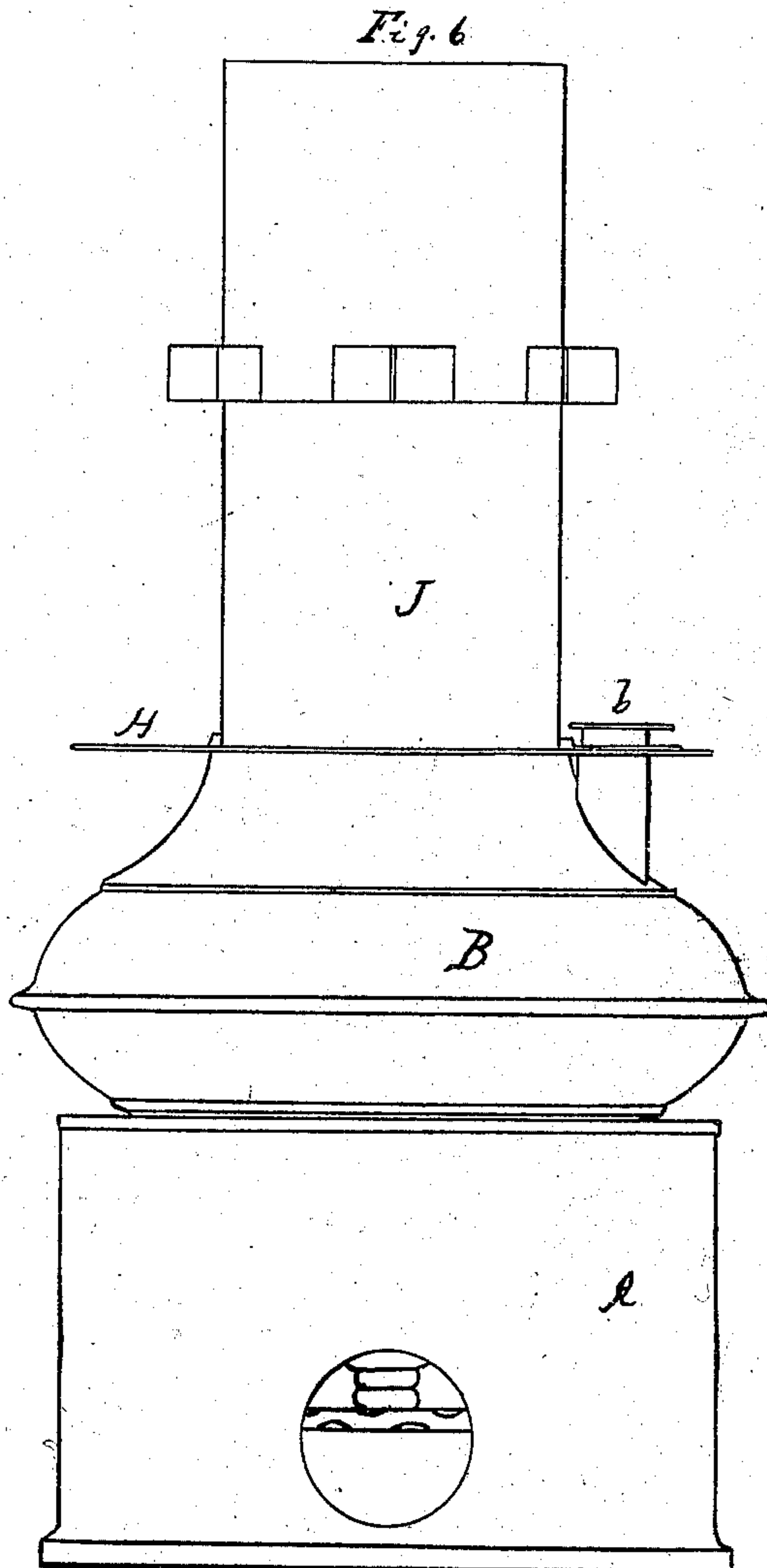
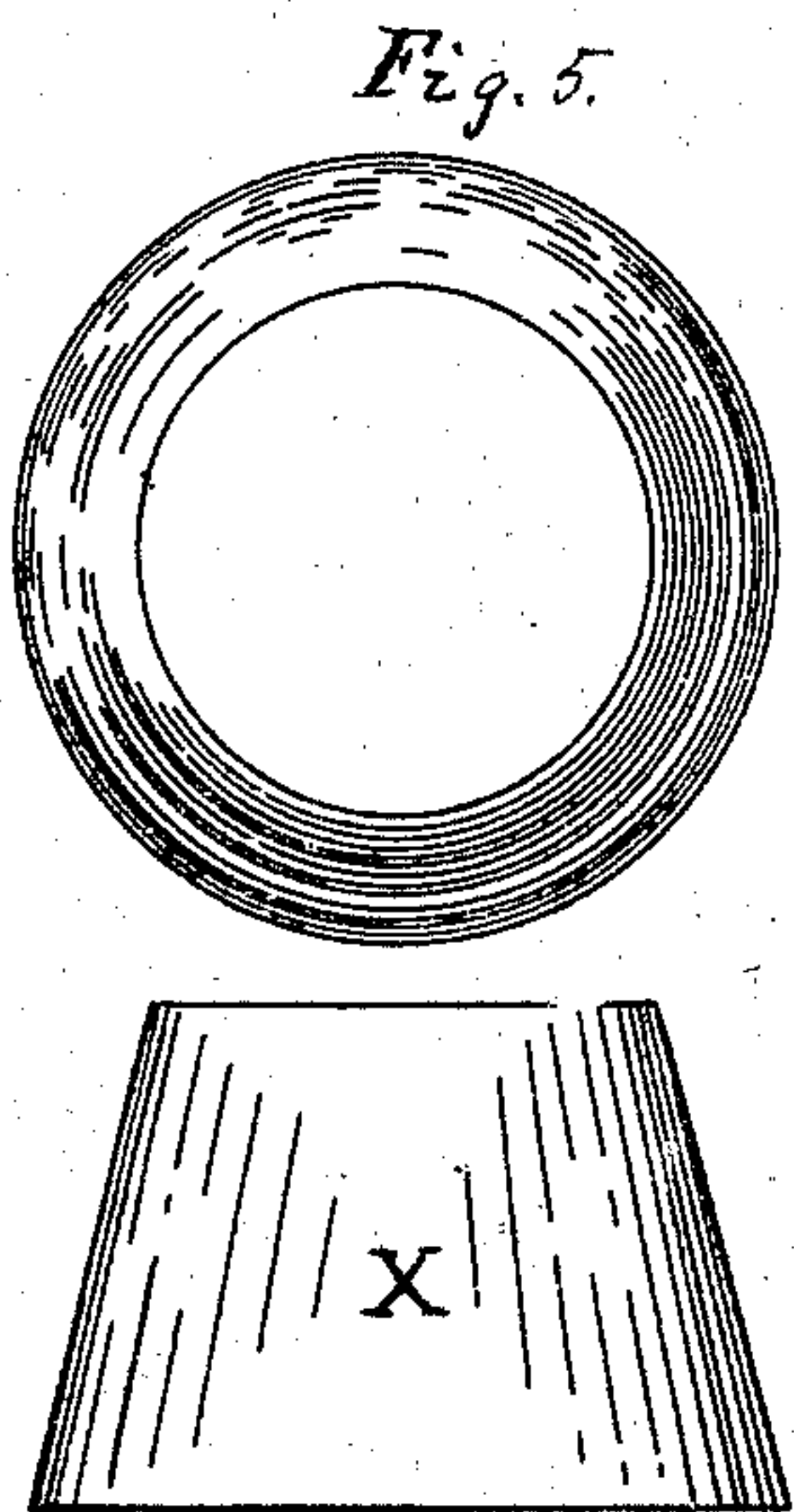
Inventor.

S. T. McDougall by his atty
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Nº 74.563

Patented Feb. 18. 1868.



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United States Patent Office.

S. T. McDOUGALL, OF BROOKLYN, NEW YORK.

Letters Patent No. 74,563, dated February 18, 1868.

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, S. T. McDOUGALL, of Brooklyn, in the county of Kings, and State of New York, have invented, made, and applied to use certain new and useful Improvements in the Construction and Operation of Lamps for burning hydrocarbon oils; and I do declare the following to be a full, clear, and correct description of the same, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a sectional view of my improved lamp for burning hydrocarbon oils.

Figure 2 is a view of the wick-tube detached from the lamp.

Figure 3 is a top view of the wick-tube, when arranged to burn flat wick.

Figures 4 and 5 are views of the pieces W, X, and Z, referred to in specification.

Figure 6 is a front view of my improved lamp.

In the drawings, like parts of the invention are designated by the same letters of reference.

The nature of my invention consists (a) in the construction of a wick-tube, so that either flat or round wicks may be used; (b) in the construction and operation of what I term a telescopic chimney, as more fully hereinafter described; (c) in suspending the button employed to deflect the flame within the chimney, as more fully hereinafter set forth.

To enable those skilled in the arts to make and use my improvements, I will proceed to describe the construction and operation of the same.

A shows a stand for supporting my improved lamp; and B is the oil-fount, into which oil is supplied through the opening b, and from which it is supplied to the wick through the arms c.

C is a central chamber, in which the wick-tube is inserted, which chamber C communicates with the oil-fount surrounding it, through the arms c. Within this central chamber C is placed a tubular support, D, for supporting the wick-tube. Through the centre of this tubular support passes the rod E, having a screw-thread cut upon its lower end, to which is attached a wheel, by which the rod may be operated.

F is the wick-tube, formed of any suitable metal, and being simply a tube sufficiently large to readily be passed over the support D. This tube is so constructed as to allow the use of either round or flat wicks.

When flat wicks are to be used, the secondary plates of metal G G², having their edges bent down a short distance, to form sides, as it were, are placed over the wick-tube, and held in position thereon by an encompassing spring, or in any convenient way, the wicks used being inserted between the tube F and the plates G G². When round wicks are to be employed, these plates G G² are not necessary. The wick-tube is placed over the tubular support, and a cross-piece, d, is placed upon the end of the rod E, and secured thereon by means of a screw, e, thus holding the wick-tube securely in position.

The object of thus constructing and securing the wick-tube is, that the wick may be adjusted by raising or lowering the wick-tube, instead of raising or lowering the wick, and this is done by turning the wheel upon the bottom of the rod E.

The peculiar advantage arising from thus adjusting the wick is that, in trimming the same, the wick can be raised sufficiently high above the end of the wick-tube, so that the wick will not require to be moved upon the tube for several days.

W and Z are parts placed over the wick-tube to protect the wick, preventing, as they do, the heat from passing from the flame to the wick. The piece W is cap-shaped on one end, its upper edge being turned outward, and it is placed upon the cross-piece d, so that the projecting top shall project above the wick-tube.

The part Z consists simply of a band, placed over the top of the central chamber, its upper edge being parallel with the upper edge of the part W.

X shows an inverted cone, placed outside the wick-tube, and resting upon the collar H. This is employed, as in many other lamps, to throw the air down to the base of the flame.

The chimney, J, of my improved lamp is made in sections, connected together by a rod provided with a screw-thread, and passed between cross-pieces upon the inside of the sections of which the chimney is formed. The object in thus constructing the chimney is that it may be made longer or shorter, as occasion requires,

and this is done by turning either the upper or lower section, so that the two sections may be extended or brought together.

Thus I form what I term a telescopic chimney, the employment of which enables me to use hydrocarbon oils of various grades. Within this telescopic chimney, attached to the lower end of the rod which connects the sections of the same, is the deflecting button or disk K, placed above the flame, and attached as shown, that its position relatively to the flame may be adjusted with the lengthening or shortening of the chimney.

Such being the construction, the operation of my improved lamp is the same as the ordinary lamps for burning hydrocarbon oils.

It will be observed that, by constructing the wick-tube as I do, either round or flat wicks may be used—an advantage not heretofore presented; that, by adjusting the chimney and deflector, I can use all the various grades of hydrocarbon oils, and greatly increase the flame in brilliancy and heat; that the parts W and Z fully protect the heat from passing from the flame to the wick, while my means of regulating the position of the wick, as already stated, enables the wick to be used several days without the necessity of frequent trimmings.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. So constructing a wick-tube that either round or flat wick can be employed, substantially in the manner as described.
2. The construction and operation of a telescopic chimney, substantially as and for the purposes specified.
3. Suspending the button to deflect the flame within the chimney, for the purposes fully described.

S. T. McDOUGALL.

Witnesses:

A. SIDNEY DOANE,
JAMES POUGE.