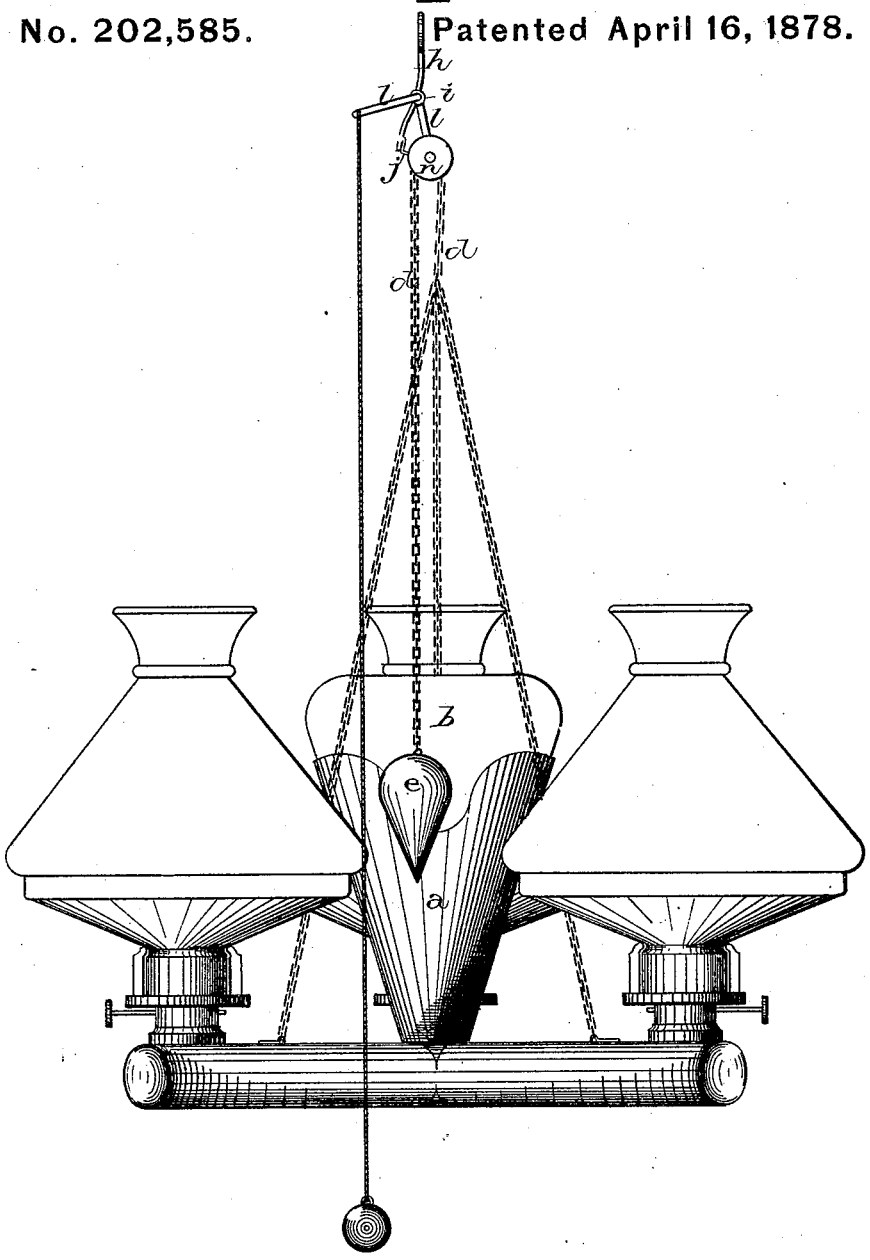
3 Sheets—Sheet 1

F. RHIND.

Oil-Chandelier.

Fig. 1.

No. 202,585. Patented April 16, 1878.



Witnesses:

J. W. Garner

W. L. D. Haines

Inventor:

F. Rhind

per

A. A. Lehmann,

Atty.

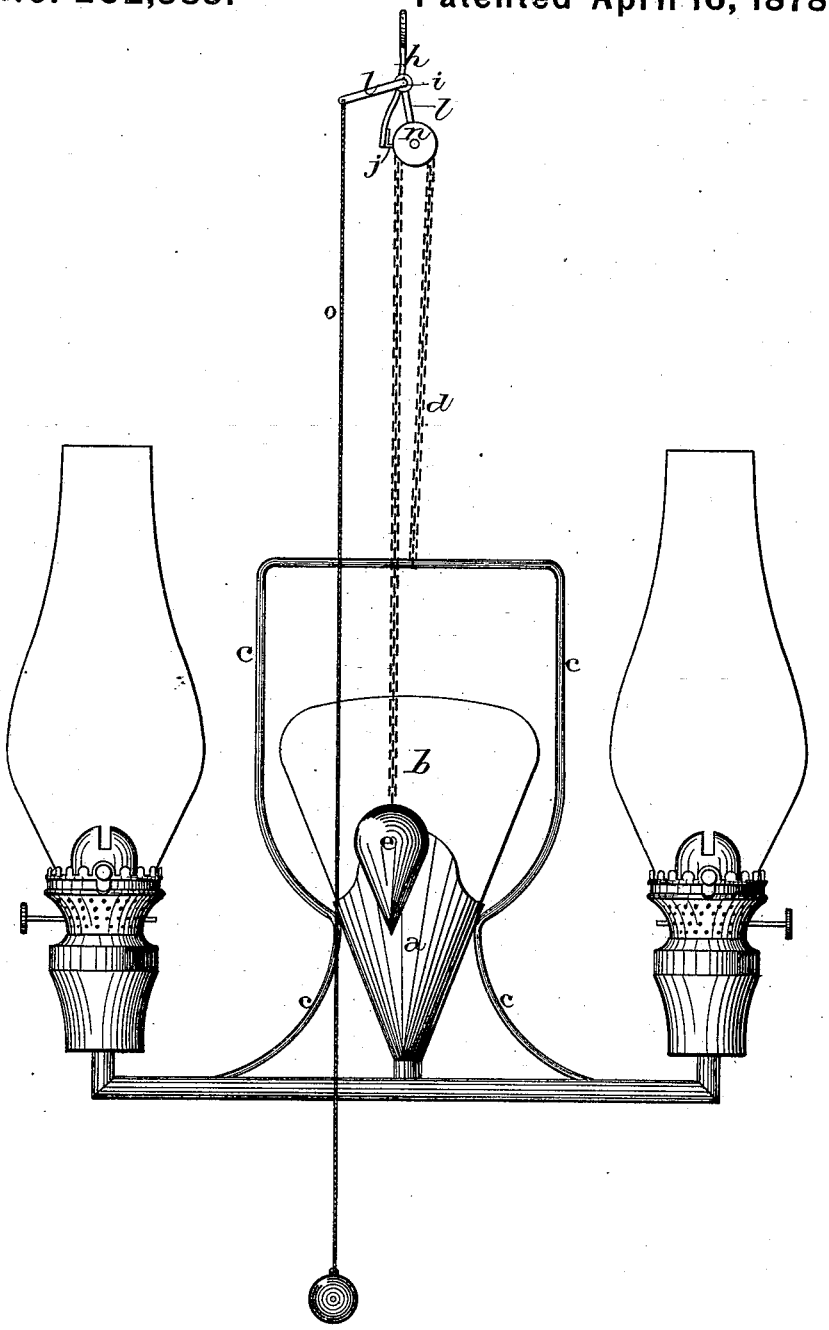
3 Sheets—Sheet 2.

F. RHIND.

Oil-Chandelier

No. 202,585. Patented April 16, 1878.

Fig. 2.



Witnesses:
J. W. Garner
W. S. O. Haines.

Inventor:
F. Rhind,
per
F. A. Lehmann,
Atty.

3 Sheets—Sheet 3

F. RHIND.
Oil-Chandelier

No. 202,585. **Patented April 16, 1878.**

Fig. 3.

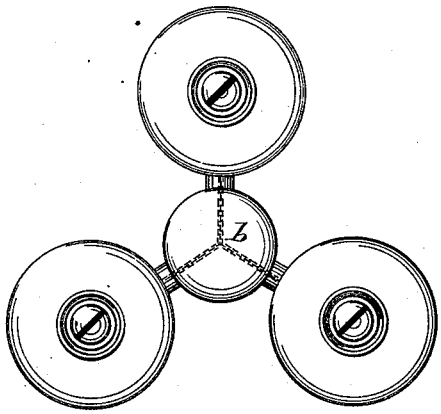


Fig. 4.

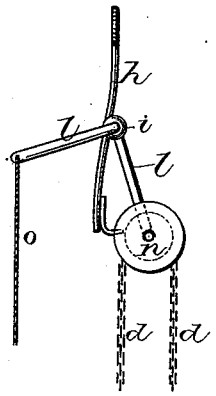


Fig. 6.

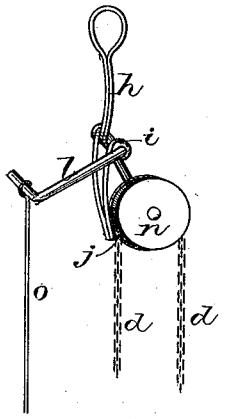
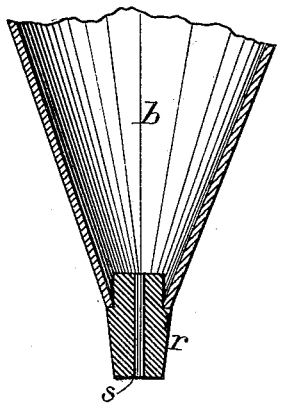


Fig. 5.



Witnesses.
J. W. Garner
Will H. Kern

Inventor
F. Rhind,
per
F. A. Lehmann,
Atty.

UNITED STATES PATENT OFFICE.

FRANK RHIND, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO FRED. A. LEHMANN, OF WASHINGTON, D. C.

IMPROVEMENT IN OIL-CHANDELIERS.

Specification forming part of Letters Patent No. **202,585**, dated April 16, 1878; application filed March 28, 1878.

To all whom it may concern:

Be it known that I, FRANK RHIND, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Oil-Chandeliers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in oil-chandeliers; and it consists in the arrangement and combination of parts that will be more fully described hereinafter, whereby the chandelier can be raised and lowered to any desired extent.

It further consists in the construction of the stopper for closing the end of the oil-reservoir, whereby the oil will be fed down to the burners only in the precise quantity necessary for the wicks.

The accompanying drawings represent my invention.

a represents the body or socket, made preferably of a conical shape, and in which the oil-reservoir *b* is placed. From the lower end of this body *a* extend two, three, or any desired number of arms, upon the outer ends of which are screwed any of the well-known lamp-burners. Upon these burners may be used the ordinary chimney, or the clear-glass base and the opal reflector, as may be preferred. Where but two arms are used a light rod or wire, *c*, will project up from them and be fastened to the sides of the body *a*, so as to support and brace it in position; and to the upper part of this rod or wire will be fastened the supporting-chain *d*. Where three, four, or more arms are used, a chain or wire will be fastened to each one, and, extending upward through small rings on the side of the body, all of them will be united together at their upper ends, so as to form a single chain. To the other end of the chain *d* will be fastened a counter-weight, *e*, of any desired size. As the only office that this weight performs is to draw the chain down over the pulley when the chandelier is raised upward, it should be just heavy enough to make the chain run readily.

Fastened to the ceiling of the room in which the chandelier is to be used is a small hook, by means of which the chandelier is supported. Catching over this hook is the brake *h*, which has a loop or bearing, *i*, formed near its center, and a suitable stop, *j*, upon the inside of its lower end, to catch in between the links of the chain and hold the chandelier in any desired position.

Passing through the loop or bearing *i* is the bent rod *l*, which has one end turned downward, and the loose pulley *n* placed upon it, while the other end projects almost horizontally outward, and has the brake-rod, chain, cord, or wire *o* fastened to it, as shown.

As the supporting-chain *d* passes up over the loose pulley *n*, the weight of the whole chandelier is brought to bear directly upon it, and this weight has a tendency to draw that portion of the bent rod *l* upon which the pulley is placed down into a vertical position. The weight of the chandelier has also a tendency to draw the brake down into a vertical position; but, owing to the stop *j* on its end, which bears against the links of the chain, it cannot do so. The consequence is that the lower end of the brake and the roller are forced toward each other in proportion to the weight of the chandelier, and, as the suspending-chain passes in between them, the heavier the chandelier the more securely the brake holds the chandelier in any desired position.

Before the chandelier can be either raised or lowered the brake chain or wire *o* must be drawn downward at the same time that the other hand is applied to the under side of the center of the chandelier. The pull exerted on the chain or wire *o* forces the pulley *n* away from the stop *j*, which leaves the suspending-chain free to move in either direction, when the chandelier can be moved freely either up or down. When it has reached the desired position, the chain or wire *o* is released, when the pulley and brake will instantly come together again, and the brake will prevent the chain moving in either direction.

In order that the oil-reservoir *b* may be filled quickly and readily from a common oil-can, a tolerably large opening is made in its lower end. With such a large opening the oil would be fed down faster than is necessary, and a cork, *r*, having a small metal tube, *s*, running through its center, or a stopper made of wood and having a small hole through it, is inserted in the opening after the reservoir is filled and before it is placed in the body *a*. As the oil is kept in the reservoir by atmospheric pressure, it will be fed down, a few drops at a time, just as the wicks need it.

A chandelier thus constructed is not only very useful, but is always safe, and makes an elegant ornament for a room.

Instead of a loose pulley, as here shown, a stationary grooved block may be used, and will answer almost as well. Instead of the reservoir being made of glass, it may be made of any sheet metal; but it is then not so easy to see when it is full.

As seen in Fig. 2, when only two burners are used, the rod *c* is provided with notches in its under edge, so that the supporting-chain *d* can be moved slightly to one side when the chimney is taken from one side, so as to prevent the other arm from tipping downward.

Having thus described my invention, I claim—

1. The combination of the chandelier, a supporting-chain, a counter-weight, an automatic brake, a brake chain or rod, and a supporting pulley or block, substantially as set forth.

2. The combination of the brake *h* and a bent rod, *l*, with a cord or chain for operating the brake and a supporting-chain of a chandelier, substantially as described.

3. In an oil-chandelier, the combination of the reservoir *b*, the conical receiving-body *a*, and plug *r*, having the hole *s* through it, the plug being kept submerged in the oil in the body, so that the oil will be fed down in a few drops at a time, just as it is needed by the wicks, substantially as specified.

In testimony that I claim the foregoing I have hereunto set my hand this 23d day of March, 1878.

FRANK RHIND.

Witnesses:
WM. APGAR,
W. M. STONE.