C. F. A. HINRICHS & W. STAEHLEN.

Ships' Lamps.

No. 146,180. Patented Jan. 6, 1874.

Fig. 1.

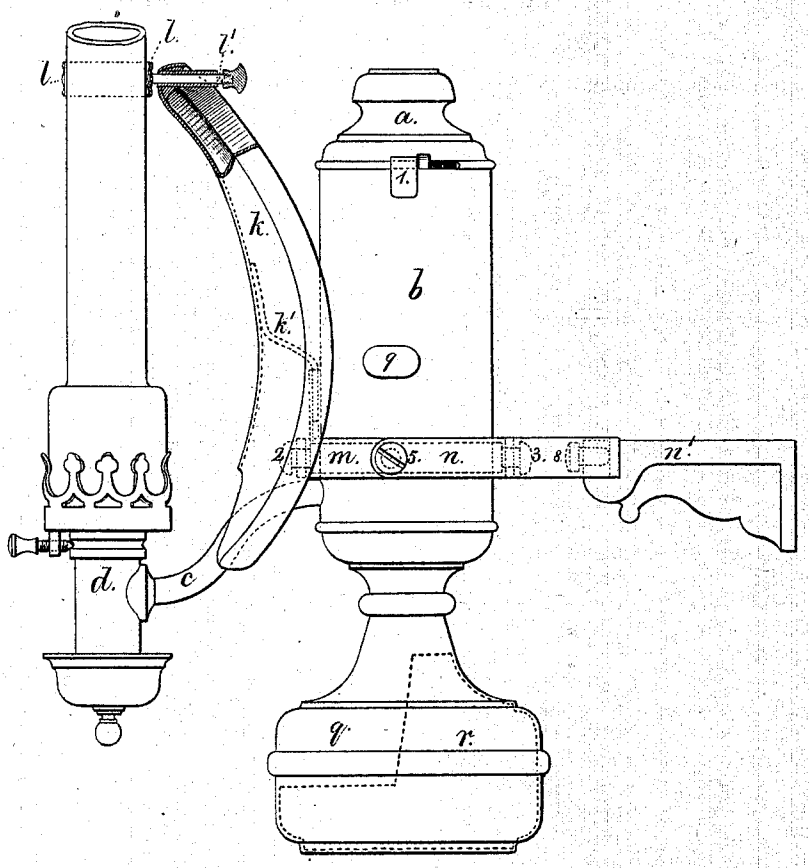
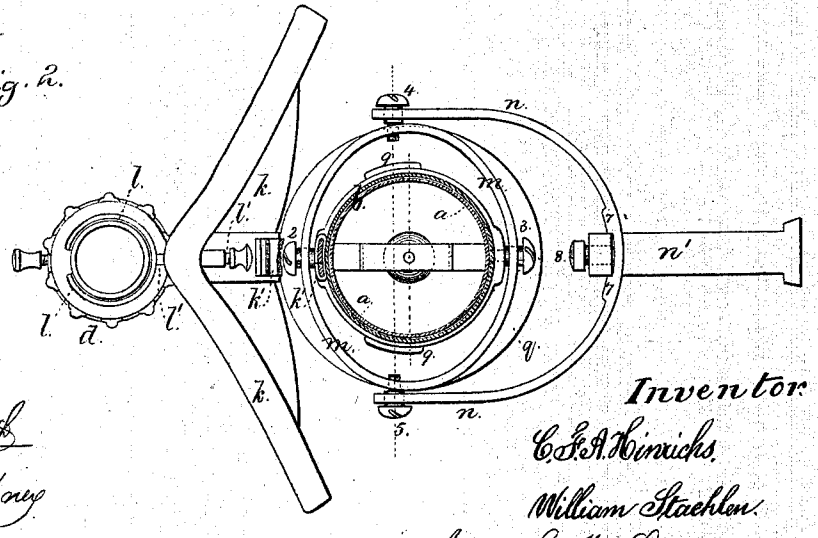


Fig. 2.



Witnesses.

Chas. H. Smith

Geo. T. Pinckney

Inventor.

C. F. A. Hinrichs.

William Staehlen.

per L. W. Serrell Atty.

UNITED STATES PATENT OFFICE.

CHARLES F. A. HINRICHS AND WILLIAM STAEHLEN, OF BROOKLYN, NEW YORK, ASSIGNORS TO CHARLES F. A. HINRICHS, OF SAME PLACE.

IMPROVEMENT IN SHIPS' LAMPS.

Specification forming part of Letters Patent No. **146,180**, dated January 6, 1874; application filed June 13, 1873.

To all whom it may concern:

Be it known that we, CHARLES F. A. HINRICHS and WILLIAM STAEHLEN, of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Ships' Lamps, of which the following is a specification:

This invention relates to a fountain-lamp suspended in gimbals to allow the lamp to hang vertically, regardless of the vessel's movement.

Lamps with central burners have been hung in a gimbal to accommodate the movement of a vessel or otherwise. Fountain-lamps have also been employed; but, in consequence of the burner projecting at one side of the fountain, this class of lamps has not been adapted to use in vessels, because of the difficulty in applying the gimbal so that the lamp will hang even, regardless of the weight of oil in the reservoir. We overcome this difficulty by applying the gimbal around the reservoir or fountain, so that the same will be supported in a given position, whether full or empty, and the burner or the burner and reflector that project from one side of the reservoir are counterpoised, so that the lamp will remain in an upright position.

In the drawing, Figure 1 is a side view of the lamp with the reflector in section; and Fig. 2 is a plan of the lamp, partially in section.

The reservoir *a* is of the ordinary character—such as that shown in the patent of C. A. Kleemann, reissued March 29, 1870—with a valve in the bottom. The reservoir is inverted when being filled; and when placed into the lamp, the reservoir passes into the cylinder *b*, from which the tube *c* leads to the lamp-burner *d*, the parts of which are of any ordinary character, according to the oil that is to be burned. A locking-lip, 1, over the flange of the reservoir, prevents the reservoir being raised until it is rotated to bring the notch of the flange around to the lip 1. The reflector *k* is supported by an arm, *k'*, that enters a loop upon the cylinder *b* of the lamp, and at the upper end there is a swivel-ring, *l*, that is made to receive the upper part of a glass chimney. This ring is open on one side, and yields to the chimney, and, being upon the swivel-rod *l'*, the ring turns freely to one side sufficiently to allow the chimney to be passed up into the ring, and swing back over the burner, and then moved down to place. The gimbal is made of an elliptical ring, *m*, attached at 2 and 3 to the cylinder of the lamp-reservoir, and the arms or half-ring *n* extends from the bracket *n'* to the joints or pivots 4 and 5, and these are slightly forward of the center of the reservoir toward the burner, so as to partially counteract the weight and leverage of the burner and reflector. The elliptical ring allows a free movement of the parts without contact of the ring with the cylinder *b;* but to prevent bruises, a plate, 9, is applied at each side of the cylinder *b*. In the base *q* of the lamp there is a weight, *r*, that is placed, or is largest, at the side opposite the burner, so as to counterbalance the burner and reflector, and cause the lamp to hang evenly. This weight is shown by dotted lines in Fig. 1. The half-ring *n* is received into a notch in the bracket *n'*, and is held in place by the side plates 7 and a screw, 8, that passes endwise into the arm to connect the parts and strengthen them. The end of the bracket *n'* is made as a tapering dovetail, entering a corresponding recess in a wall-plate. These parts wedge firmly together, but can easily be disconnected.

The reflector *k* may surround the chimney, where it is desired to direct the light downward, the ring *l* being held by a standard above the reflector.

We do not claim a spring-ring to surround the chimney and receive the joints of a suspended reflector. Neither do we claim two separate spring-guides bolted to a reflector to sustain the chimney.

We claim as our invention—

1. The segmental spring-ring *l* at one end of the rod *l'*, forming a swivel-connection between the ring and the reflector *k*, as and for the purposes set forth.

2. A fountain-lamp in which the burner is at one side of the fountain, and connected

thereto by a tube, in combination with a gimbal surrounding the fountain only, and a counterpoise to the burner, substantially as set forth.

3. The lamp reservoir and burner, supported by a gimbal, in which the joints are placed nearest to the burner, to aid in counterbalancing the weight, substantially as set forth.

Signed by us this 5th day of June, A. D. 1873.

C. F. A. HINRICHS.
W. STAEHLEN.

Witnesses:
GEO. T. PINCKNEY,
CHAS. H. SMITH.