

(No Model.)

4 Sheets—Sheet 1.

T. ANDREASEN.
SHIP'S SIDE LIGHT.

No. 454,198.

Patented June 16, 1891.

Fig. 1.

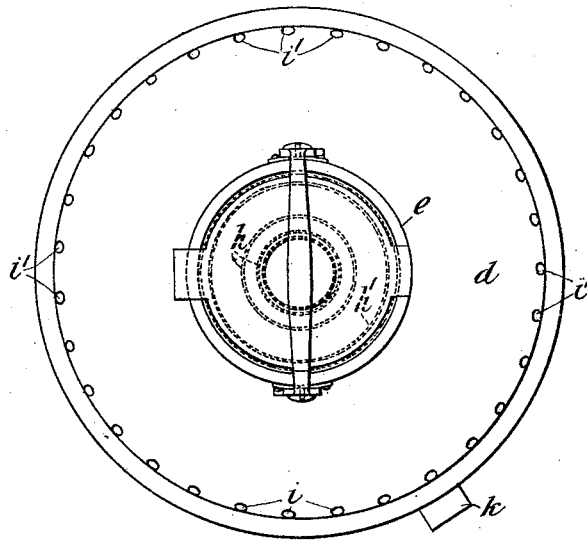
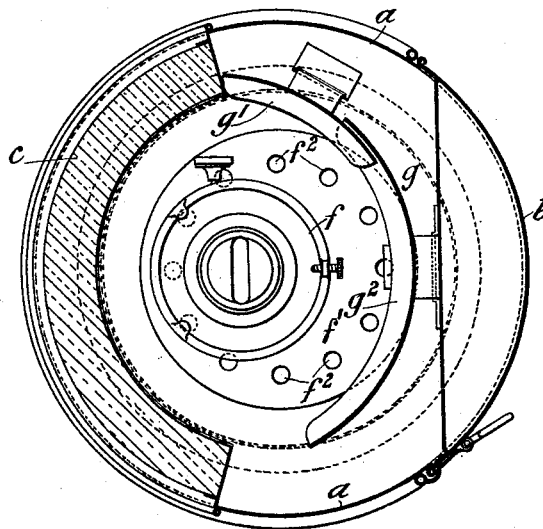


Fig. 2.



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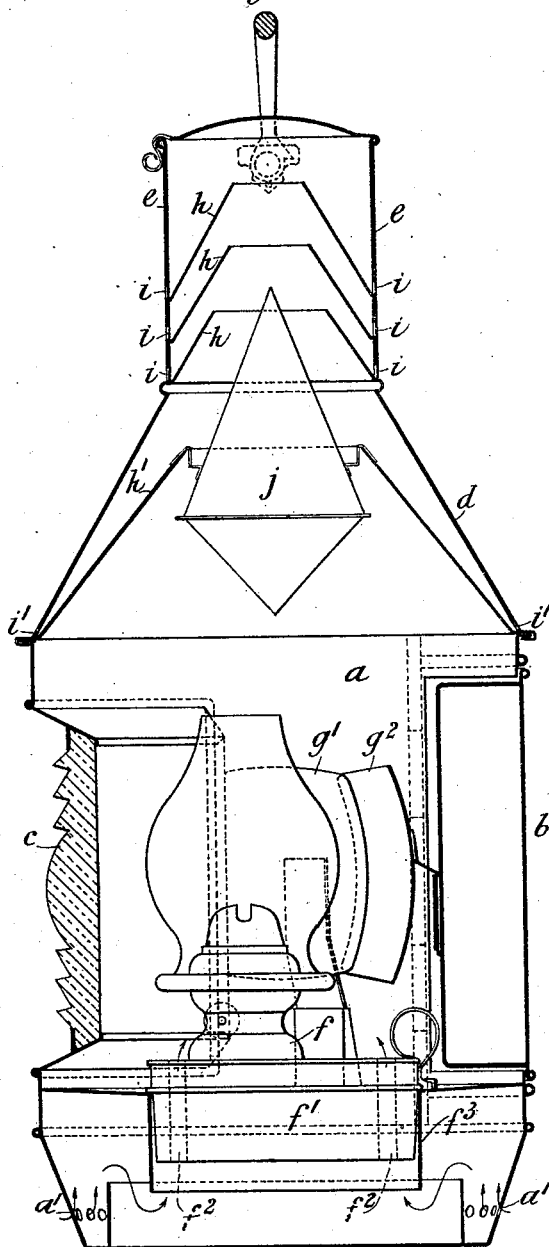
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Fig. 3.



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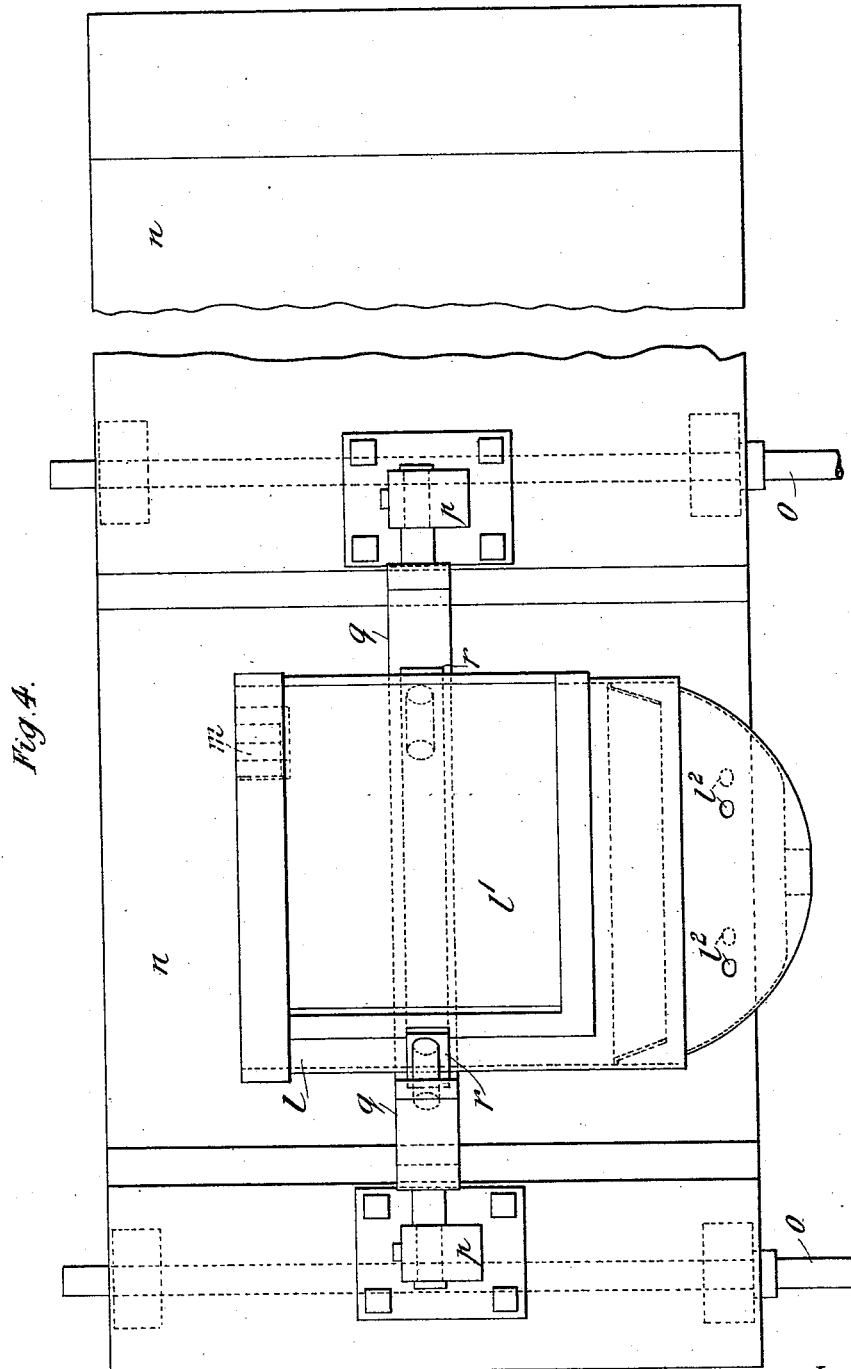
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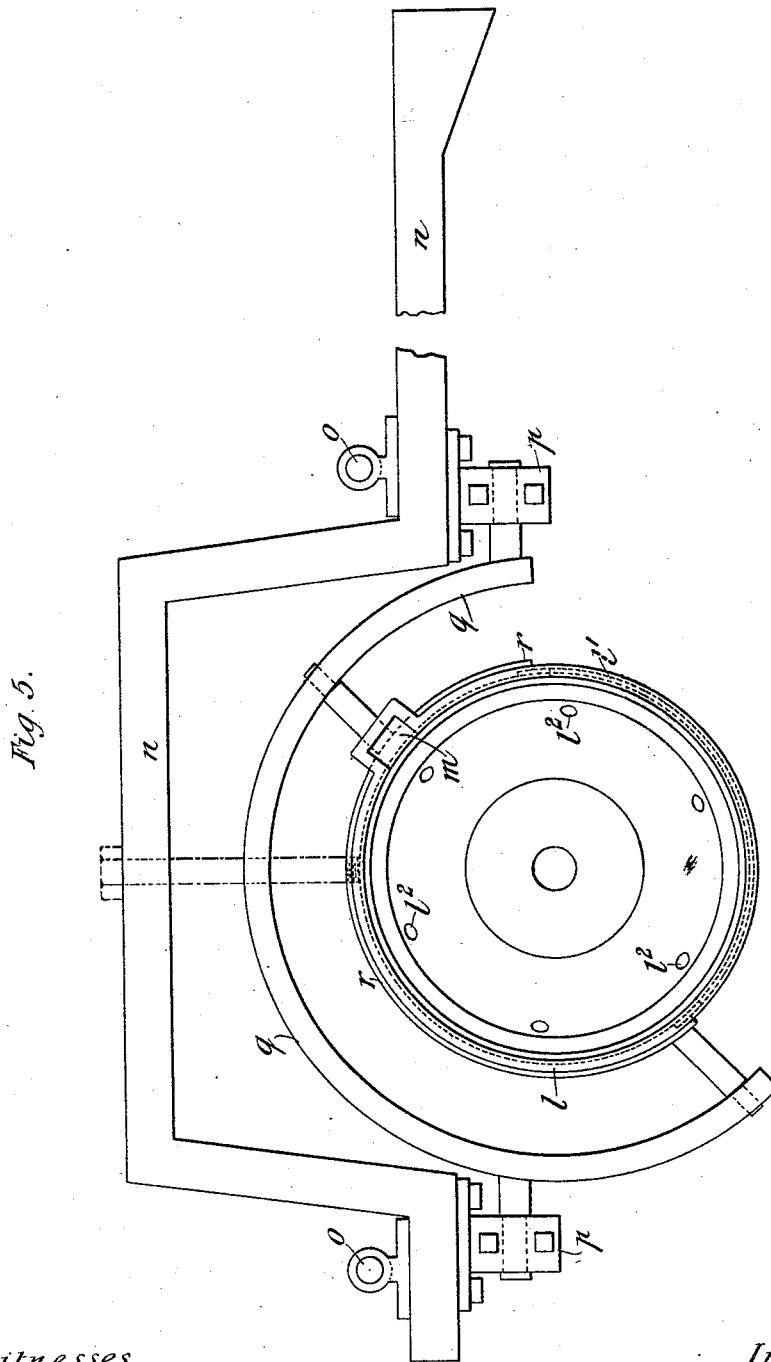
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UNITED STATES PATENT OFFICE.

TÖNNES ANDREASEN, OF CARDIFF, ENGLAND.

SHIP'S SIDE LIGHT.

SPECIFICATION forming part of Letters Patent No. 454,198, dated June 16, 1891.

Application filed October 20, 1890. Serial No. 368,768. (No model.)

To all whom it may concern:

Be it known that I, TÖNNES ANDREASEN, a subject of the Queen of Great Britain, residing at Cardiff, England, have invented new and useful Improvements in Ships' Side Lights, of which the following is a specification.

My invention relates to ships' side lights or lanterns and to means for mounting the same.

My improvements relating to ships' side lights have for their object to prevent the entrance of wind or water into the lanterns more effectively than heretofore, and consist, essentially, in the novel arrangement of cone-frustums hereinafter described; and my improvements relating to the mounting of ships' side lights have for their object to provide means whereby the lantern will practically always maintain a vertical position, notwithstanding the movement of a vessel, and consist in suspending the lamp in gimbals, as hereinafter described.

To enable my invention to be fully understood, I will describe the same with reference to the accompanying drawings, in which—

Figure 1 is a plan of a ship's side light provided with my improvements; Fig. 2, a horizontal section, and Fig. 3 a vertical section. Fig. 4 is an elevation of the arrangement of gimbals for supporting a ship's side light, and Fig. 5 is a plan.

In Figs. 1, 2, and 3, *a* indicates the body of the lantern, provided with the door *b* for affording access to the interior thereof, and with the lens *c*; *d* the dome, and *e* the head, of the lantern.

f is the lamp proper, and *g* is the reflector, which reflector is made in two parts *g'* *g''*, the former being connected to the body of the lamp, while the latter is connected to the door. The object of thus constructing the reflector in two parts is to provide for reflecting the light more forward than reflectors as ordinarily constructed. The reservoir *f'* of the lamp *f* is provided with a series of holes *f''*, through which the air for supporting the combustion of the flame passes, thus tending to maintain this part of the lamp as cool as possible. The said reservoir is located in a tubular aperture *f'''* near the bottom of the lantern, and the air for supporting the combustion passes through the openings *a'* *a''* in

the body of the lantern in the direction of the arrows, as shown in Fig. 3.

h h h' are the cone-frustums which I provide for preventing the admission of wind or water into the lantern, the frustums *h h h'* being secured at their larger ends inside the head of the lantern, in which, near the bases of the frustums, are holes *i i* for allowing the escape of the products of combustion and of any water which may enter the head of the lantern. It will be obvious that any wind passing through the holes *i i* will be directed upward, so as not to interfere with the burning of the lamp. The cone-frustum *h'* is secured around the base of the dome *d*, in which holes *i' i'* for a similar purpose to that of the holes *i* are provided.

j is a double deflecting-cone, which is supported at the smaller end of the frustum *h'*, so as to contract the opening thereof and to direct the products of combustion from the flame in such a manner that they will pass around the cone and so tend to prevent any downdraft. The use of this cone-frustum *h'*, in addition to assisting in preventing a downdraft, also serves to prevent the dome *d* of the lamp from becoming overheated.

k is a lug, which is used for a purpose hereinafter described.

In Figs. 4 and 5, *l* is a bucket or receptacle into which a ship's side light may be placed, the said bucket being provided on one side with an opening *l'*, as shown most clearly in Fig. 4, through which the lens *c* of the lantern is visible, and on its under side with openings *l'' l''*, through which the air for supporting the combustion of the lamp passes. *m* is a recess formed at one part of the upper edge of the bucket, to receive the projection *k* upon the lantern, in order to insure the latter being placed in its proper position relatively to the said bucket.

n is the usual screen, which is employed in conjunction with a ship's side light, and *o o* are the stanchions upon which the same is mounted.

As hereinbefore stated, the lantern, and consequently also the bucket in which it is carried, is mounted upon gimbals, which gimbals are carried in bearings *p p* upon the screen *n*. Instead, however, of employing rings for the gimbals, as has hitherto been usual, I em-

ploy segmental gimbals $q\ r$, so that no obstruction is placed before the lens, as would be the case if rings were employed. It is of course to be understood that if the lens is placed
 5 below the gimbal, then a couple of gimbal-rings may be employed. This arrangement, however, is not so advantageous as that described, for the reason that, owing to the greater length of lamp below the gimbals, more
 10 space would be required than if mounted as above described to allow of the requisite movement of the lamp during the rolling of the ship. When the bucket is mounted, as shown, it is preferably weighted with lead or
 15 other suitable material to insure its hanging vertically.

It is obvious that the arrangement of gimbals hereinbefore described is very advantageous for use in cases where the lanterns,
 20 instead of being arranged in conjunction with screens, are placed in what are known as "light-houses" upon a ship's deck.

If it is desired that the side lights should remain stationary, it is obvious that the gimbals may be locked—for instance, by means of
 25 a pin passed through the segments $q\ r$ and the screen n , as indicated by dotted lines in Fig. 5. Any other suitable means may, however, be used for the purpose.

30 Having now particularly described and ascertained the nature of my said invention

and in what manner the same is to be performed, I declare that what I claim is—

1. A ship's light having a series of cones $h\ h\ h$ secured to and inside the lantern-head
 35 and a cone-frustum h' secured within and around the base of the drum, combined with the double deflecting-cone β , supported by such frustum, all substantially as described.

2. In a ship's light, the reflector made in
 40 sections, one of which is connected to the body of the lamp and the other to its door, substantially as set forth.

3. A ship's side-light support composed of the following devices in combination, namely:
 45 screen n , having bearings pp , segmental gimbal q , supported in said bearings, segmental gimbal r , supported in gimbal q , and a bucket l , having a side opening l' and air-passages $l^2\ l^3$, all substantially as set forth. 50

4. The combination of a bucket or receptacle in which a ship's side light can be placed and gimbals upon which the said bucket is free to move, the said gimbals being segmental, so as not to interfere with the light
 55 emitted from the lantern, substantially as described.

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Witnesses:

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