C. Perley.

Deck & Side Lights.

No. 48,836. Patented Jul. 18, 1865.

Fig: 1.

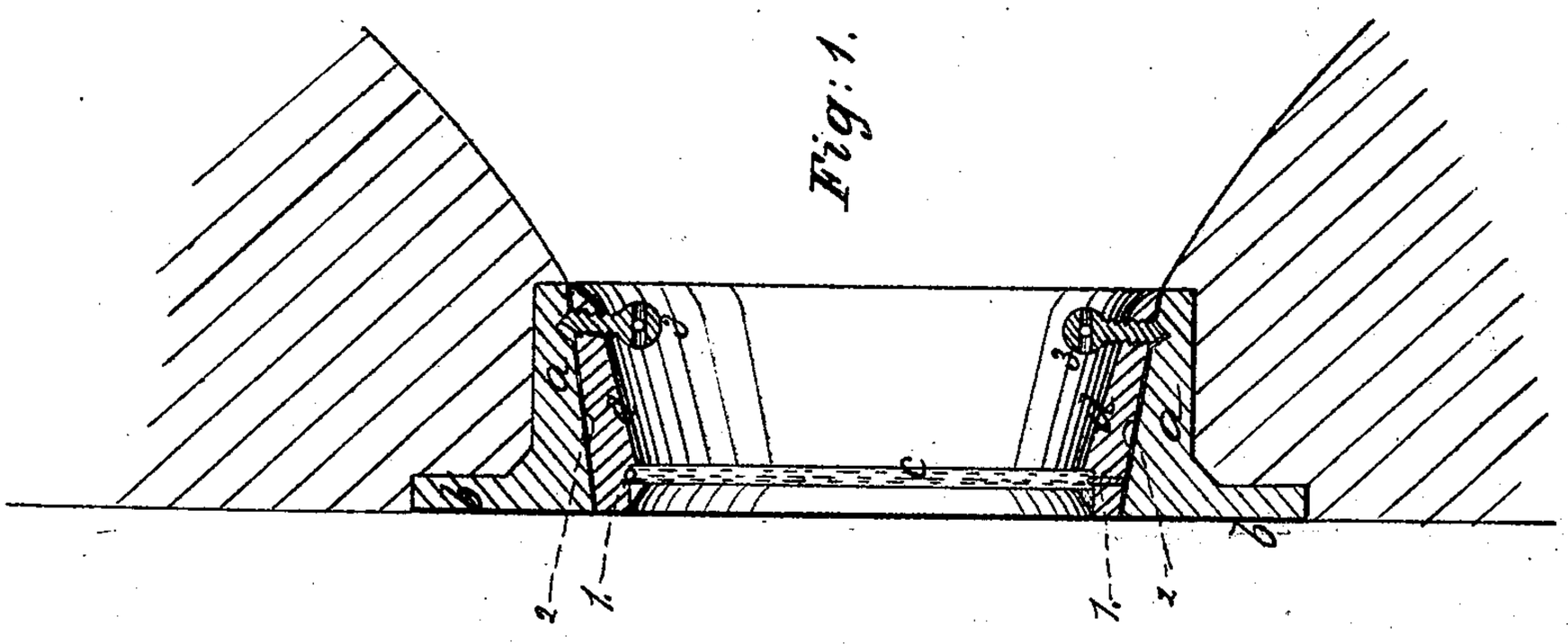
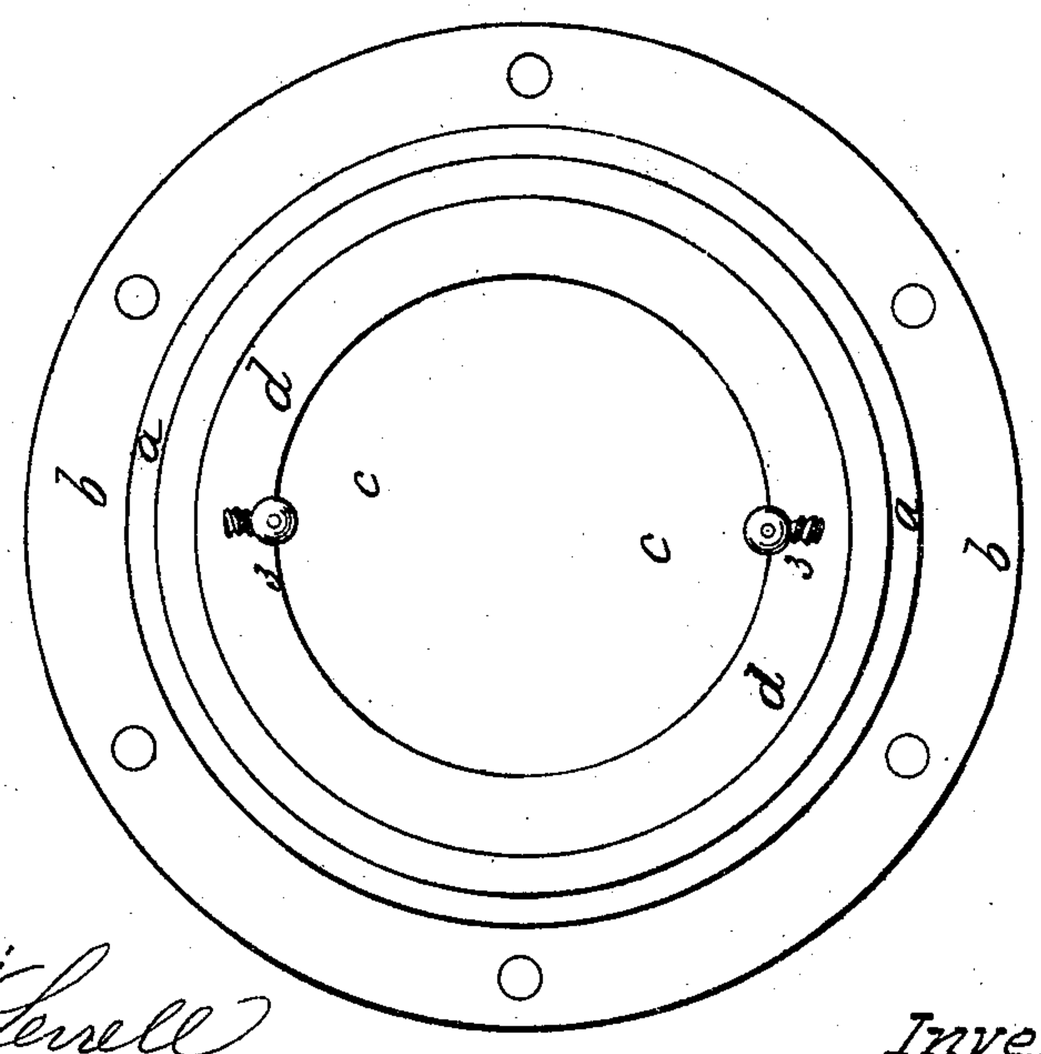


Fig: 2.



Witnesses:
Lemuel W. Serrell
Jas. C. Serrell Jnr

Inventor:
Charles Perley

UNITED STATES PATENT OFFICE.

CHARLES PERLEY, OF NEW YORK, N. Y.

IMPROVED DECK AND SIDE LIGHT FOR VESSELS.

Specification forming part of Letters Patent No. **48,836**, dated July 18, 1865.

To all whom it may concern:

Be it known that I, CHARLES PERLEY, of the city and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Deck and Side Lights for Vessels, &c.; and I do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a section of said side light, and Fig. 2 is an elevation of the same.

Similar marks of reference denote the same parts.

Deck and side lights have heretofore usually been made with the glass set in a ring that is pressed against a flat seat formed of india-rubber or other yielding material. In use it is found that the india-rubber adheres to the metal of said frame, so that great difficulty is experienced in opening the light, particularly in warm weather. These lights have usually been hinged so as to swing in opening, and have been secured by a screw or screws to press the frame against the rubber packing. In closing these lights, particularly when done suddenly, the end of the screw is often battered and injured, so that it will not enter its nut. For these reasons deck and side lights are constantly requiring repairs, often become bent and leaky, and are also very costly to manufacture, there being so many parts to be accurately fitted.

The nature of my said invention consists in a tapering side or deck light or glass setting into a corresponding ring-flange secured to the vessel, whereby the tapering surfaces in contact render the light water-tight, and the necessity of rubber packing, hinges, compressing-screws, and nuts is dispensed with, as the light can be lifted out of its place and set down into a suitable ring or holder, or replaced within the ring-flange to close the opening against the water; and to steady or hold the light in place I make use of a screw or screws the points of which enter inclined recesses in the interior of the ring-flange.

In the drawings, *a* represents a cylinder or ring with a flange, *b*. This ring is tapering on the inside, and is to be fitted externally into an opening formed in the side of the ship or in the deck.

c is the circular glass set into the metallic frame *d*. I prefer that the ring *a b* should be formed of iron galvanized, and that the ring or frame *d* should be of some non-corrosive material, such as brass. A recess is formed in the frame *d* for the reception of the glass *c*, and the same is to be rendered water-tight by putty or cement.

In order to hold the glass in place, particularly until the cement thoroughly hardens, I employ metal pins passed through the frame *d* into notches at the edges of the glass, as seen at 1 1.

The periphery of the deck or side light is formed tapering to correspond with the interior of the ring *a*. I however prefer that the frame *d* should, when in place, only touch the interior of the ring *a* at the outer part, as shown, so that this portion may be easily rendered water-tight by grinding the frame into the ring, and also that any slight obstruction—such as dust or dirt—may not interfere with the tightness of the light.

I prevent the frame and glass falling out of the ring *a* by the pressure of water or rolling of the vessel by means of a button or any analogous device. I however prefer and use two or more screws, 3 3, passing through the frame *d*, the points of which screws enter an inclined or V-shaped groove around the inside of the ring *a*, so that the points of the screws pressing against the inclined side of the said groove shall tend to force the frame *d* forward and make it tighter within the ring *a*. These screws 3 also serve for handles in moving the side light. The points of the screws should be battered or rivet-headed, so that they will not become disconnected from the ring *d*.

A groove may be provided around the said deck or side light, as at 2, into which a winding cotton or twine may be introduced in case of an elastic packing being required.

For a deck-light the glass *c* may be placed at the larger instead of the smaller end of the ring *d*, and the ring-flange *b* at the same end of the ring *a*, so that the light may be inserted from above and either lifted out or forced up from below.

What I claim, and desire to secure by Letters Patent, is—

1. The fixed conical ring *a b*, in combination with the conical deck or side light, fitted and acting substantially as specified, and in combination therewith the packing-groove 3, for the purposes specified.

2. In combination with the deck or side light and ring *a*, the screws 3 and groove 4, as set forth.

3. Retaining the glass in the metallic frame by pins passing into notches in the edges of the glass, in combination with a cement surrounding said glass, whereby any movement of the glass previous to the hardening of such cement is effectually prevented, as set forth.

In witness whereof I have hereunto set my signature this 21st day of May, 1865.

CHARLES PERLEY.

Witnesses:

LEMUEL W. SERRELL,

JAMES E. SERRELL, Jr.