(No Model.)

F. B. TORREY.

SIDE LIGHT FOR VESSELS.

No. 439,312. Patented Oct. 28, 1890.

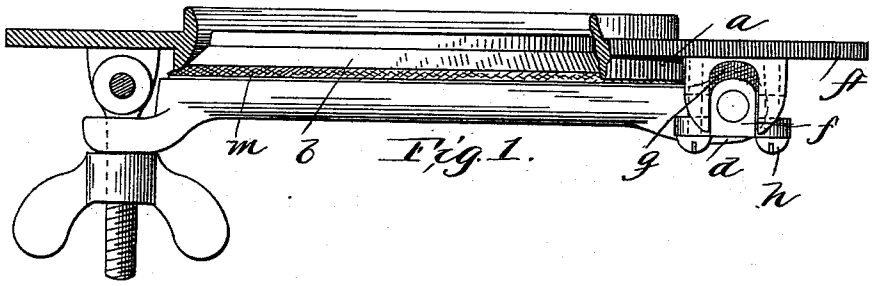


Fig. 1.

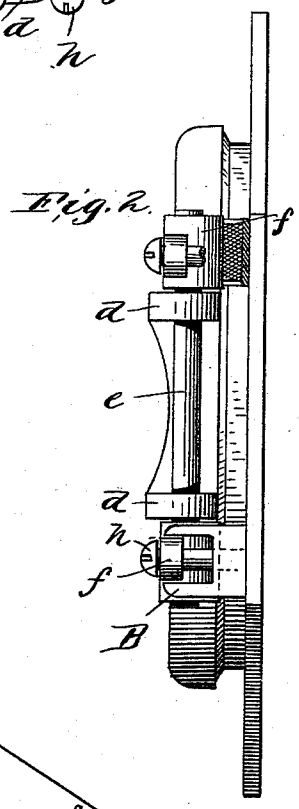


Fig. 2.

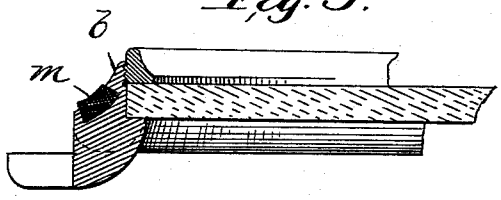
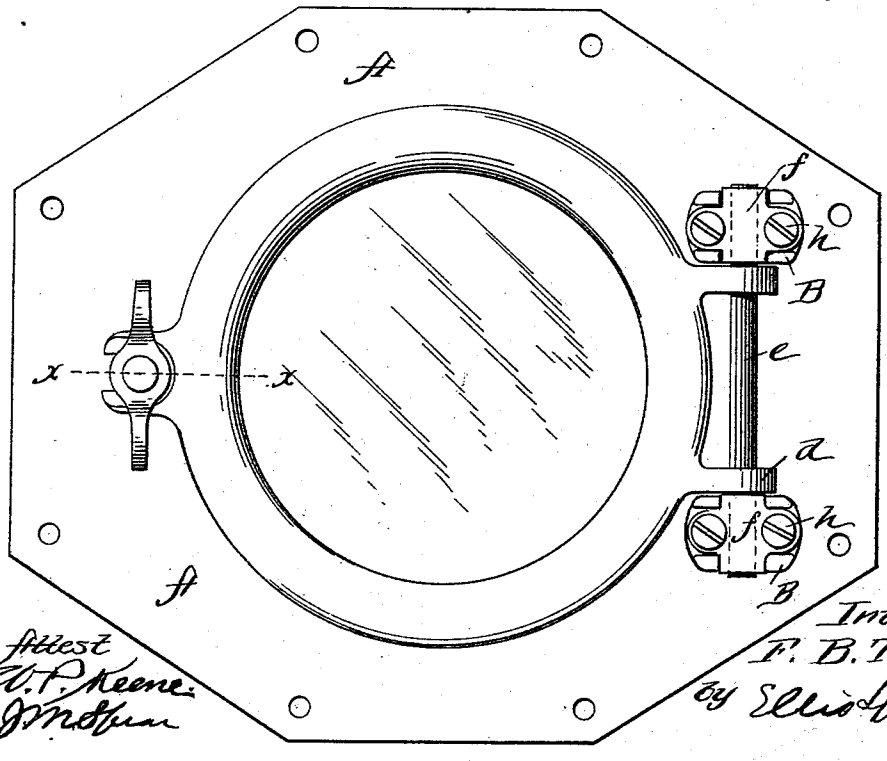


Fig. 3.

Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANCIS B. TORREY, OF BATH, MAINE.

SIDE LIGHT FOR VESSELS.

SPECIFICATION forming part of Letters Patent No. 439,312, dated October 28, 1890.

Application filed February 11, 1890. Serial No. 340,025. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS B. TORREY, of Bath, in the county of Sagadahoc and State of Maine, have invented a new and useful Improvement in Side Lights for Vessels; and I do hereby declare that the following is a full, clear, and exact description of the same.

The invention referred to in the foregoing petition relates to the side lights for ships and like structures or situations. It is of that class in which the frame holding the glass is hinged upon one side and is pressed down by a suitable clamp on the other against a packing to form a water-tight joint about the opening in the plate, against which the glass-frame bears.

The object of my invention is to secure readily and easily an accurate fit of the glass-frame and packing upon its seat, and, further, to readjust the frame when from any cause—such as unequal yielding of the packing—the joint leaks.

My invention consists, essentially, of an adjustable hinge by which the frame is connected to the plate or wall, whereby the said frame may be adjusted on its seat; and it consists also of a hinge, independently adjustable to bear accurately upon its seat.

My invention also consists of an improved form of packing.

In the accompanying drawings, Figure 1 shows a top view of the form in which I have embodied my invention, partly in section. Fig. 2 represents a side view of the same. Fig. 3 is a section through the ring on line *x x* of Fig. 1, and Fig. 4 a plan view.

In the drawings, A represents the plate adapted to be attached to the side of the ship or any similar wall. It is provided with a circular opening having, preferably, a flange *a* around it, the flange being slightly beveled on its inner face, so as to form a slightly-flaring opening or seat. The ring or frame is in general form like those in ordinary use. It has a beveled flange *b*, which fits the seat, and is provided with ears *d d*, through which are inserted the spindle *e*, on which the frame or ring is pivoted. The ends of the spindle project beyond the ears and are supported in blocks *f f*. These blocks are inserted in slots formed in studs B on the plate A. The blocks are provided with ears which extend laterally into recesses in the sides of the studs. In the bottoms of the slots underneath the blocks are placed springs of rubber or other material. As shown, these are of rubber and marked *g*. Through the ears are inserted screws *h* which pass into holes tapped in the sides of the studs. When the screws are turned in, they press upon the ears and force the blocks against the rubber spring underneath. The construction is the same at both ends of the hinge. No very great amount of movement is required for the adjustment, and this is permitted by the yielding of the rubber underneath the blocks. The blocks are independently movable—one may be adjusted more or less without reference to the other—so that the frame may be arranged to bear upon its seat accurately by simply adjusting the screws more or less upon the blocks. The under side of the ring is formed with a groove at the base of the bevel, having undercut edges fitted to receive and hold a packing-ring *m*. This is formed with its bearing-face also beveled, but more closely approaching a level surface than the bevel of the flange at the base of which it is located. The frame is so arranged in relation to the beveled seat that the packing bears partly on the inner beveled face of the seat and partly against the edge of the seat.

By my construction the rubber packing, being in the general shape of a frustrum of a low cone, is crowded into a bevel or conical seat, and this of itself forms a very effective and durable joint, and it has, besides, the joint caused by the edge bearing upon the packing-ring nearer to the outside edge.

I do not limit myself in respect to the adjustable hinge to the precise construction shown, as the adjustment may be secured in many other forms of construction.

The positions of the packing and the beveled edge may be reversed, the packing being placed on the seat instead of the ring or frame. The general effect would be the same; also, the bevel may be on the outside instead of the inside of the part which has the edge.

I claim as my invention—

1. In combination, the plate A with the seat, the ring having journals, the blocks for receiving said journals, movable toward and from the plate, and means for adjusting said blocks, substantially as described.

2. In combination, the plate A with the seat, the ring having journals, the movable blocks for receiving said journals, and means for adjusting said blocks toward the plate independently of each other, substantially as described.

3. In combination, the plate A with the seat, the ring having journals, the blocks for said journals, movable to and from the plate, the means for adjusting the blocks, and the springs under the blocks, substantially as described.

4. In combination with a seat beveled on its inner face and having an edge, a ring or frame having a beveled packing-ring adapted partly to enter the seat and partly to bear upon the edge thereof, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANCIS B. TORREY.

Witnesses:
WALTER DONALDSON,
FRANK L. DYER.