

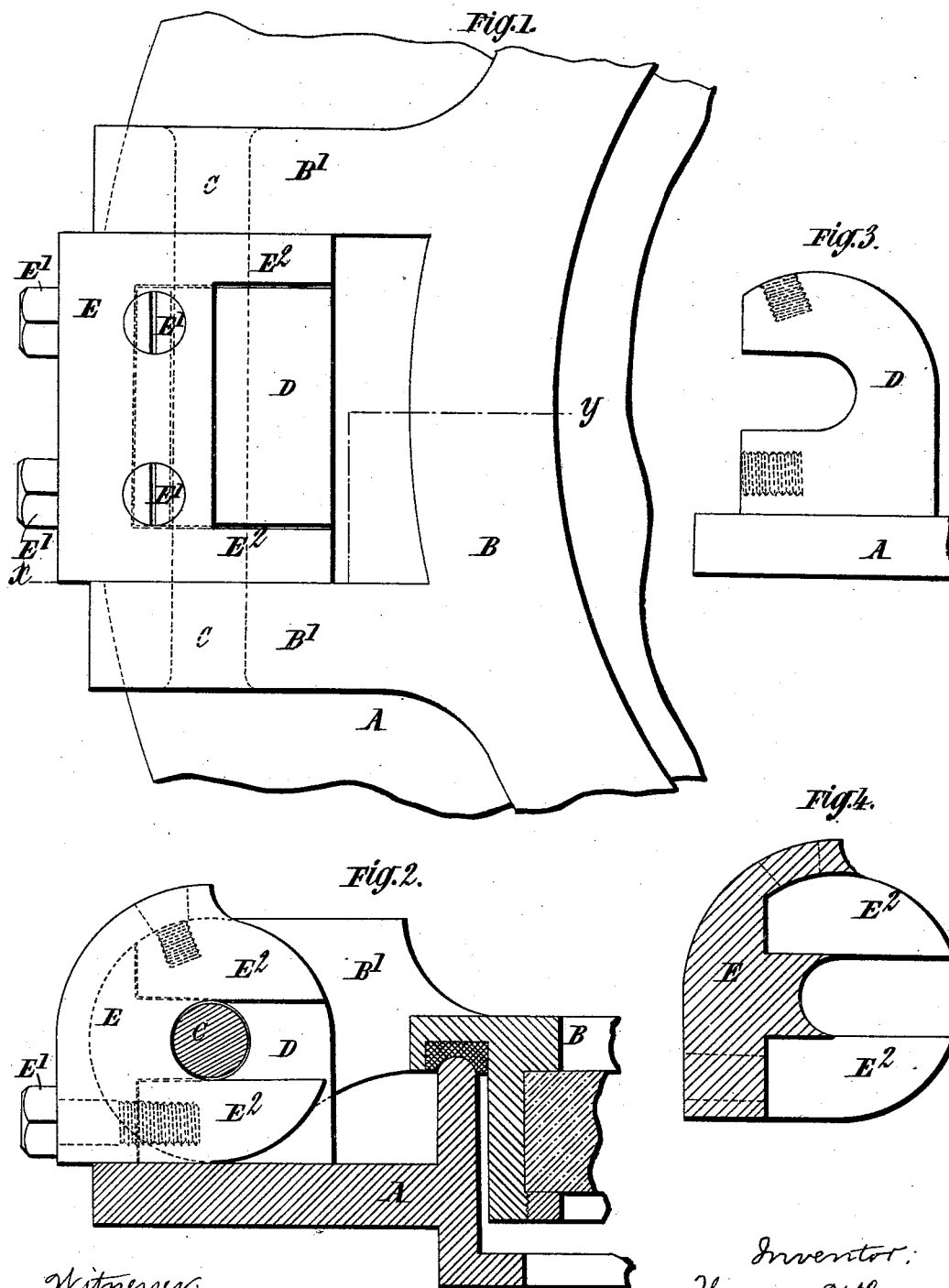
(No Model.)

2 Sheets—Sheet 1.

T. UTLEY.
SHIP'S LIGHT AND AIR PORT.

No. 523,251.

Patented July 17, 1894.



Witnesses:
G. W. Rea.
Hilton Coombs

Inventor:
Thomas Utley
By James L. Norris
Atty.

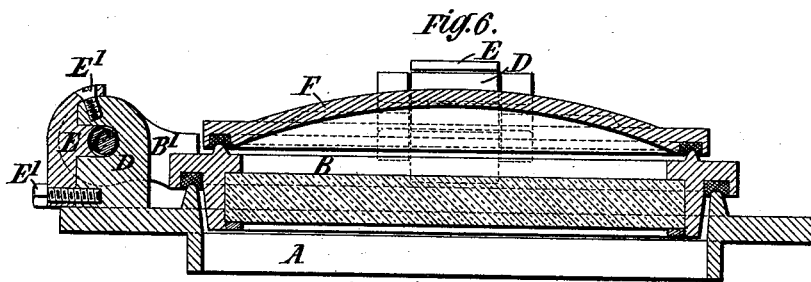
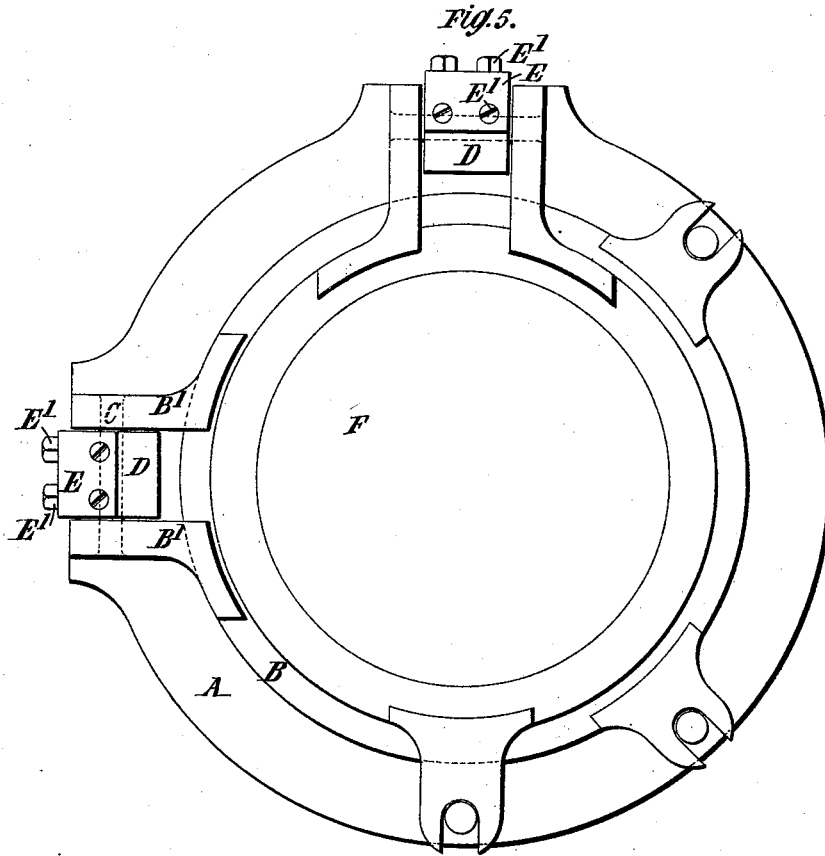
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UNITED STATES PATENT OFFICE.

THOMAS UTLEY, OF LIVERPOOL, ENGLAND.

SHIP'S LIGHT AND AIR PORT.

SPECIFICATION forming part of Letters Patent No. 523,251, dated July 17, 1894.

Application filed February 12, 1894. Serial No. 499,966. (No model.)

To all whom it may concern:

Be it known that I, THOMAS UTLEY, engineer, a subject of the Queen of Great Britain, residing at Sefton House, Crosby Green, West Derby, Liverpool, in the county of Lancaster, England, have invented certain new and useful Improvements in Light and Air Ports for Ships, &c., of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to ships' side lights, and has for its chief object to provide for allowing the glass-holder to be detached from the fixed frame without necessitating the removal of the hinge pin.

The said invention is more especially intended for application to side lights having a steel frame, and steel glass-holder, but it is also applicable to side lights made of brass.

As applied to steel side lights, one feature of the invention is that it obviates corrosion between certain of the parts as hereinafter described.

In the accompanying drawings, Figure 1 is a front elevation of a portion of a side light constructed according to my invention. Fig. 2 is a section of the same taken on the line *x, y*. Fig. 3 shows the knuckle and a portion of the fixed frame separately. Fig. 4 is a section of the hinge piece hereinafter described. Fig. 5 is a side elevation; and Fig. 6 is a section of a slightly modified form of hinge intended for a side light made wholly of brass for example.

A is the fixed frame of the side light which is secured to the ship's side in the usual manner.

B is the glass-holder hinged to the frame A.

C is the hinge pin. The said pin C is fastened in the lugs B' of the glass-holder and bears on one side against a knuckle D formed on or fixed to the stationary frame A, and on the other side against a bearing or piece E preferably made of brass, which piece is removable, but is secured in position to the knuckle by screws E' or equivalent means.

The said piece E is preferably constructed with end wings E² which pass between the ends of the knuckle D and the sides of the lugs B' of the glass-holder so as to form a bearing between said parts. This construction is specially advantageous when the parts B' and D are made of steel (as is the case in Figs. 1 and 2) as it obviates corrosion between said parts which would be likely to occur if the same worked in contact.

The end wings E² may be dispensed with if the whole of the frame and glass-holder are made of brass or like metal. Such a construction is shown in Figs. 5 and 6. These figures also show the same form of hinge applied to the metal cover F for closing the side light when required.

By removing the screws E' the piece E is liberated and can then be withdrawn, whereupon the glass-holder can be removed without disturbing the hinge pin which remains fixed in the lugs B'.

What I claim is—

1. In a ship's side light, the combination of the frame A having the attached knuckle D forming one side of the hinge, the removable piece E secured to the said knuckle and forming the other side of the hinge, and the glass-holder B having the permanently attached hinge-pin C removably seated in the knuckle on the frame and made independent of and rotatable in the said removable piece, substantially as described.

2. In a ship's side light, the combination of the frame A having the attached knuckle D forming one side of the hinge, the removable piece E, secured to the said knuckle and forming the other side of the hinge, the glass-holder B having the pair of projecting arms B' embracing the said knuckle and the said removable piece, and the hinge-pin C permanently attached to said arms and removably seated in the knuckle on the frame and made separate from the said removable piece, substantially as described.

3. In a ship's side light, the combination

of the frame A, the knuckle D forming one side of the hinge, the removable piece E secured to the knuckle D and forming the other side of the hinge, the glass-holder B having
5 the hinge-pin C permanently secured therein, and the side wings E², E² of the piece E which pass between the knuckle D and the lugs B' of the glass-holder, substantially as described and for the purpose specified.

In witness whereof I have hereunto set my hand this 29th day of January, 1894.

THOMAS UTLEY.

Witnesses:

JOHN H. KENION,
Sol., Liverpool.

O. W. OWEN,
His Clerk.