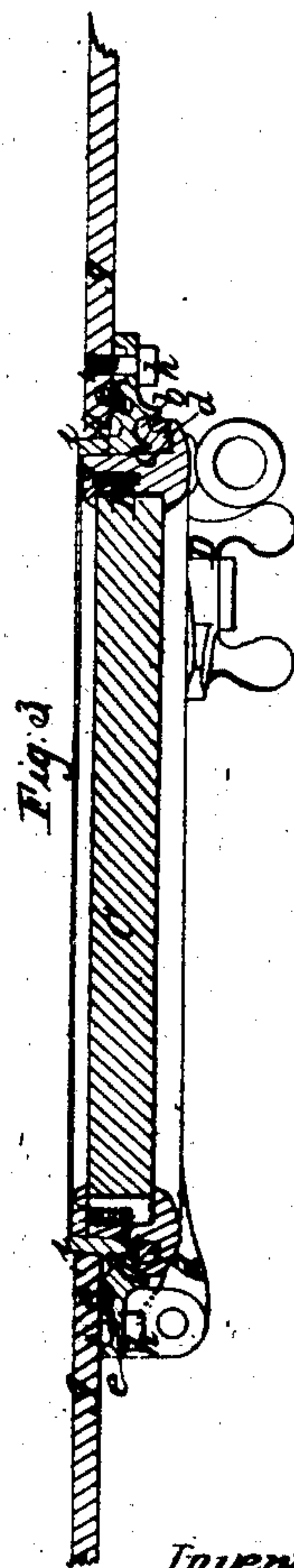
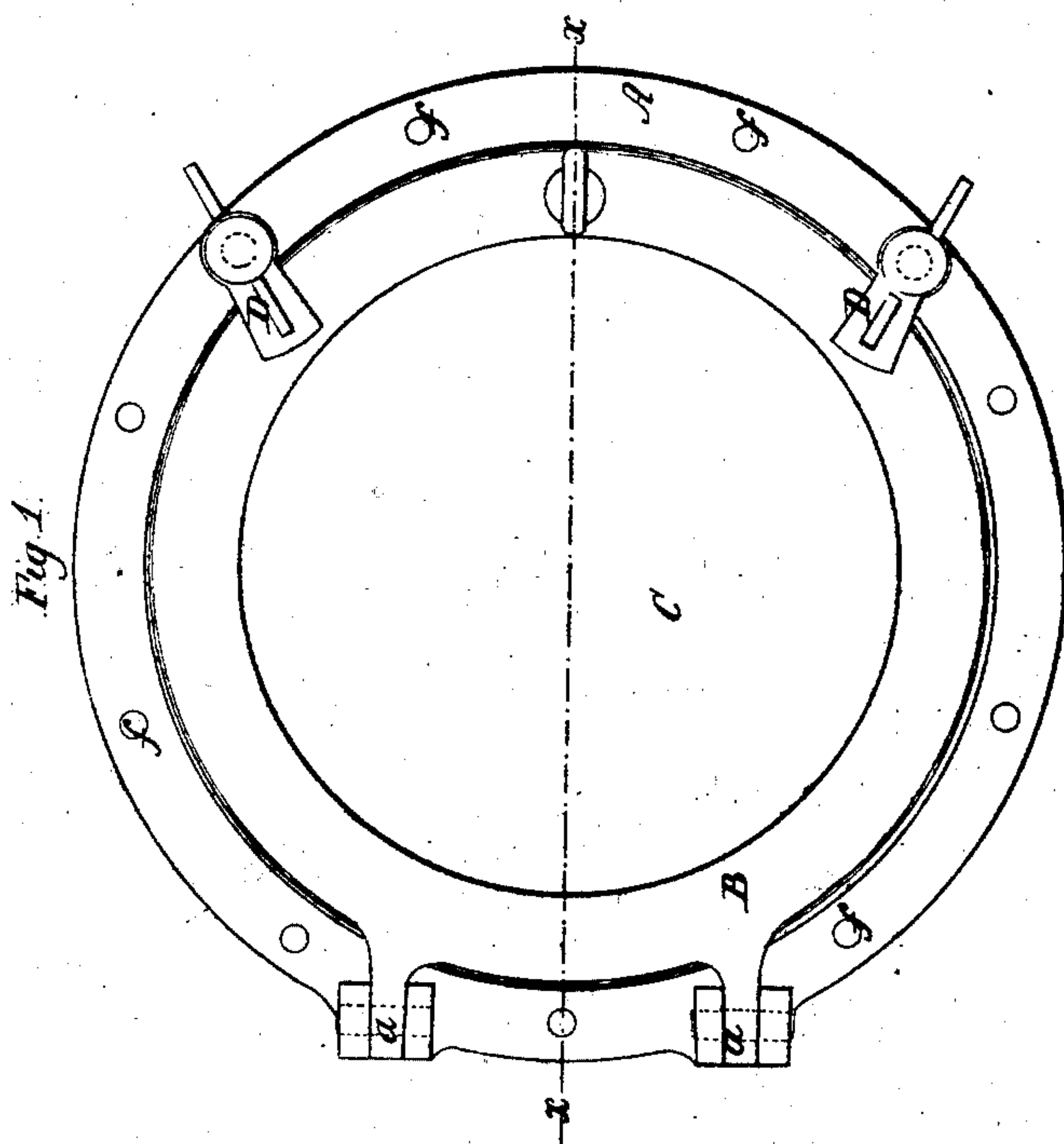
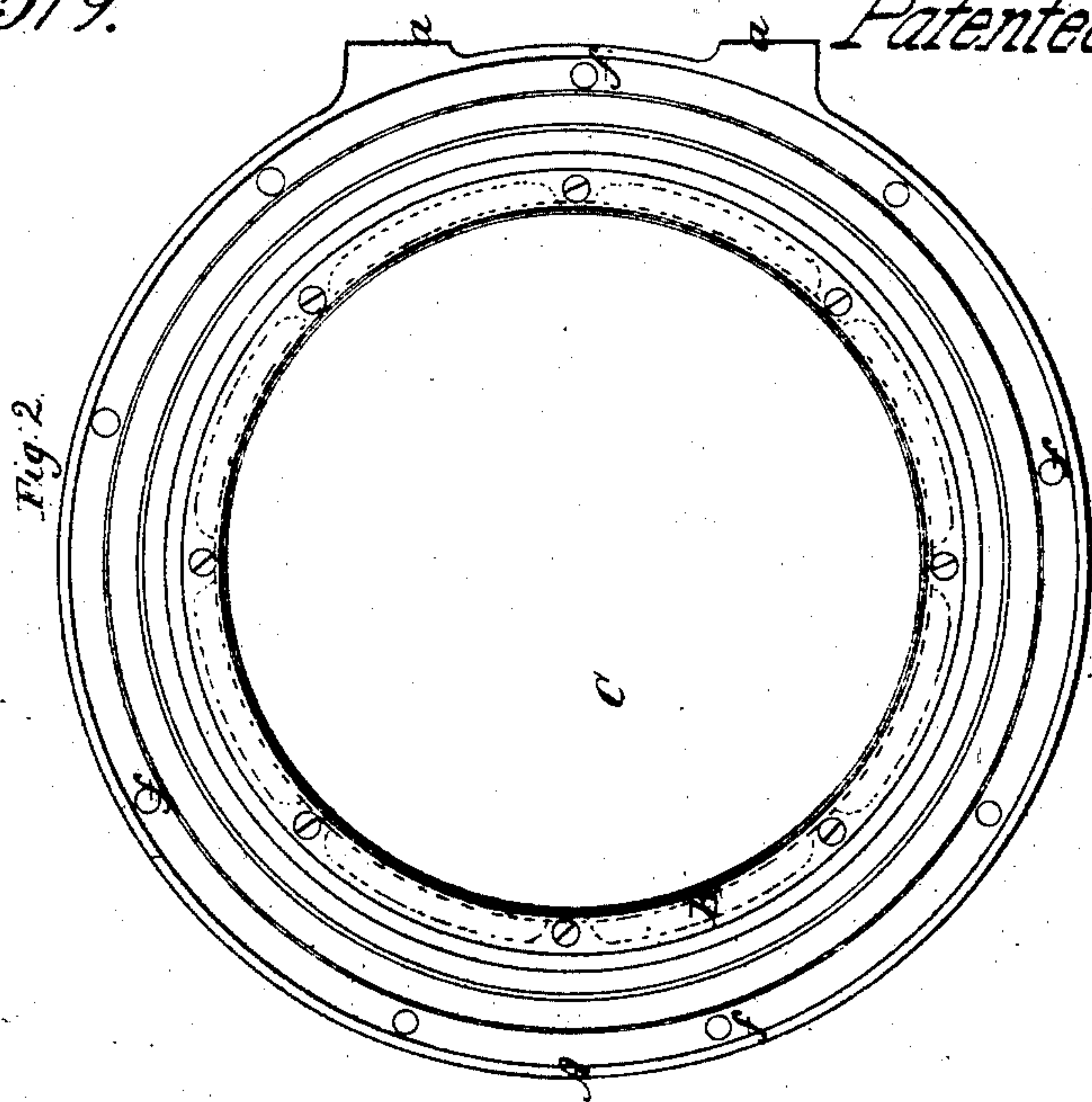


*G. C. Gourlay,
Light & Air Ports*

N^o 30,519.

Patented Oct. 23, 1860.



*Witnesses;
[Signature]*

*Inventor;
G. C. Gourlay*

UNITED STATES PATENT OFFICE.

GEORGE C. GOURLAY, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND ANDREW HUNTLEY, OF SAME PLACE.

PORT-LIGHT FOR VESSELS.

Specification of Letters Patent No. 30,519, dated October 23, 1860.

To all whom it may concern:

Be it known that I, GEORGE C. GOURLAY, of the city, county, and State of New York, have invented a new and useful Improvement in Port-Lights for Vessels of Navigation; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a detached front or face view of my invention. Fig. 2 a view of the outer side of the same detached from the vessel. Fig. 3 a horizontal section of the same attached to a vessel. α, α , Fig. 1, indicate the plane of section.

Similar letters of reference indicate corresponding parts in the several figures.

The object of the invention is to obtain a port-light that may be applied to vessels, either iron or wooden ones, with facility and so as to form a perfectly water-tight joint.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, represents an annular rim or case which may be of brass or cast-iron and B, is an annular frame of the same material and which is connected to the rim or case A, by joints a, a .

The inner side of the rim or case A, has an annular groove or recess b , formed in it, which groove or recess causes an annular edge c , at the inner edge of the rim or case against which an annular rubber packing d , in the frame B, is pressed when the frame B, is closed—see Fig. 3.

The frame B is provided with the usual glass C, and is secured firmly in a properly closed state against the rim or case A by buttons D, D, which are secured to the rim or case A and project over on the frame B when the latter is closed—see Fig. 1.

The outer side of the rim or case A has an annular groove or recess e , in it. This groove or recess e , is about in line with the outer edge of the groove or recess b , as

shown clearly in Fig. 3. The rim or case A extends out from the groove b , sufficiently to admit of screw holes f , being made through it.

The groove or recess e , is filled with a suitable cement e' , white and red lead mixed in about equal proportion will answer a good purpose.

The outer side of the rim or case A is fitted or placed against the inner side of the vessel g , and secured thereto by screws h , the side of the vessel around the port hole being in contact with a flanch i , of the rim or case as shown clearly in Fig. 3.

In screwing up the screws h , the rim or case A is fitted or brought snugly up against the side of the vessel the recesses or grooves b, e , admitting of a requisite degree of yielding of the case transversely so as to form a perfect joint, the packing or cement e' , performing its usual function, and being brought up snugly in contact with the sides of the vessel.

More than one annular cement groove e may be employed if deemed necessary. The grooves serve to retain the cement, preventing it from separating or becoming misplaced. Where a packing such as rubber or other soft material is introduced, between the face of the frame A and the siding of the vessel, the frame A when screwed up is liable to spring or warp and injure the frame and become leaky.

I do not claim the employment or use of the rubber packing d , applied to the frame B, for that has been previously used; but

Having thus described my invention what I do claim as new and desire to secure by Letters Patent is—

The construction of the face of the rim A with one or more annular grooves e , as herein shown and described.

GEORGE C. GOURLAY.

Witnesses:

L. W. BENDRÉ,
J. H. COOKE.