

E. Hidden. Sheet 1, 2 Sheets.
Light & Air Port.
Nº 29,079. Patented Jul. 10, 1860.

Fig: 4.

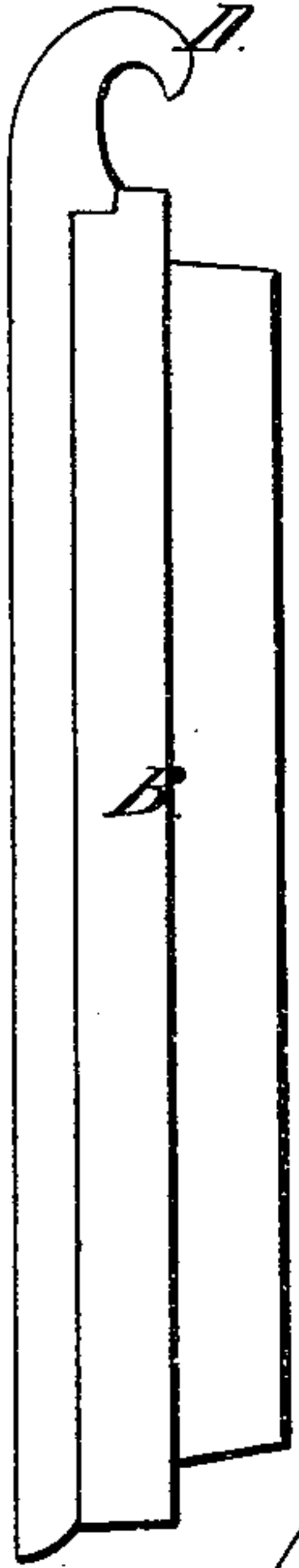


Fig: 7.

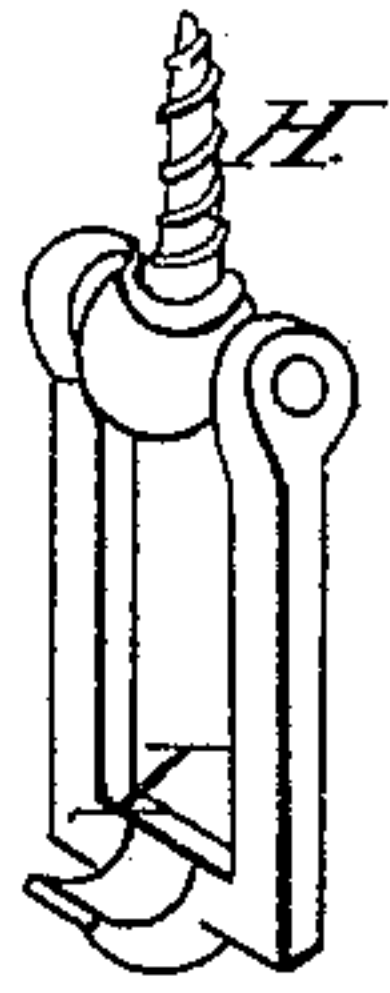


Fig: 8.

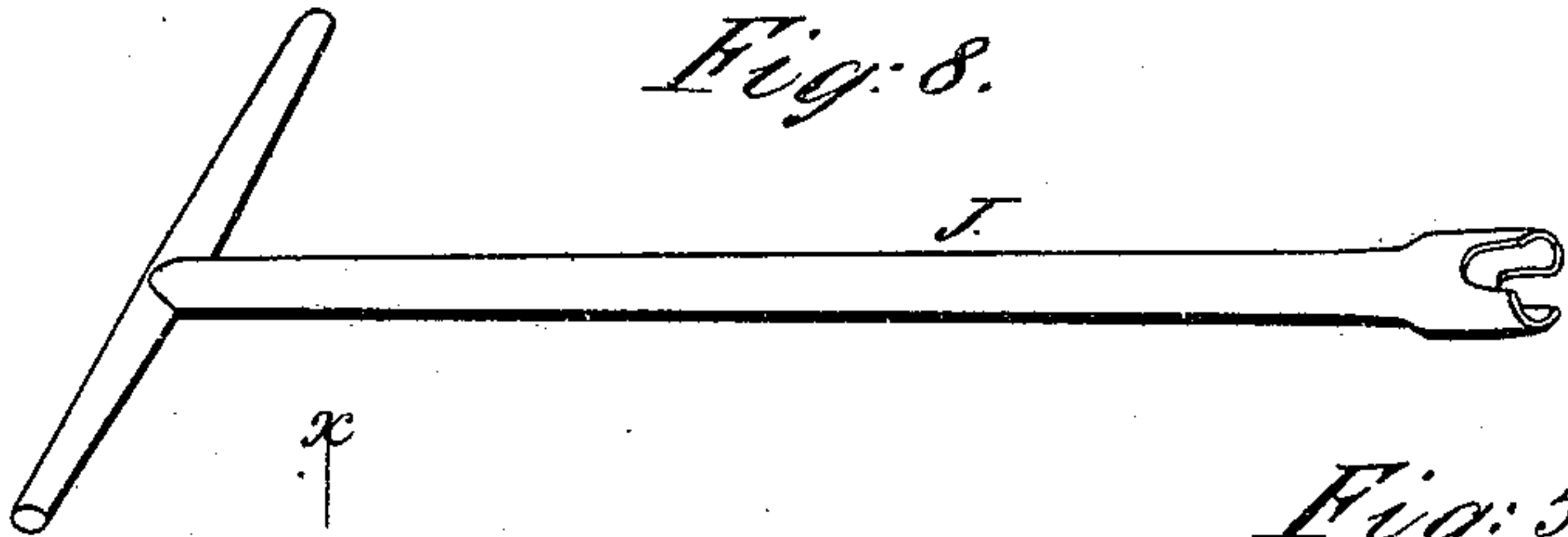


Fig: 5.

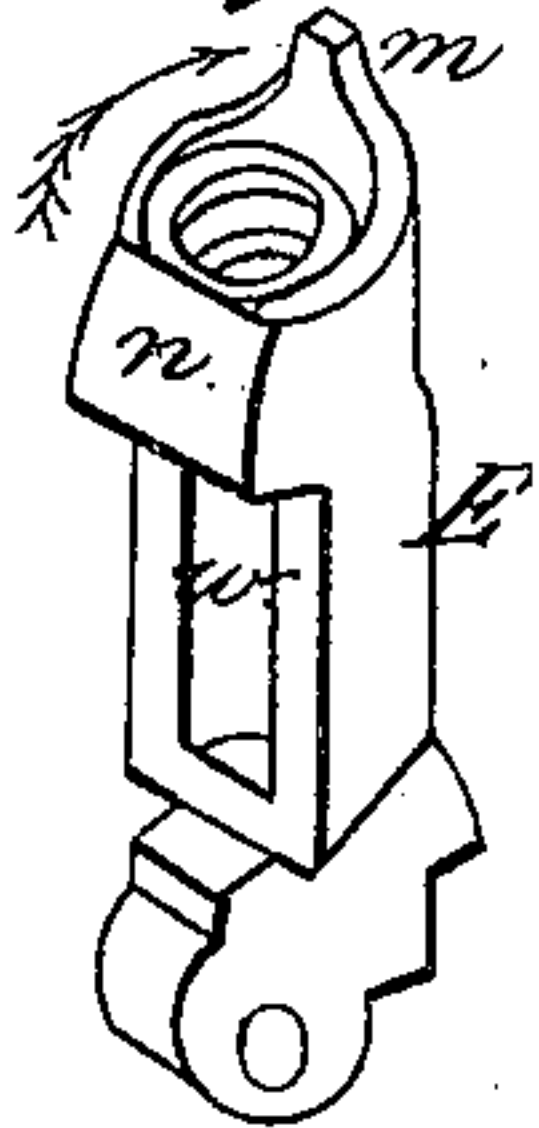


Fig: 6.

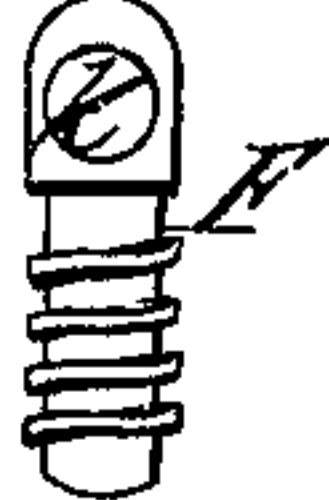
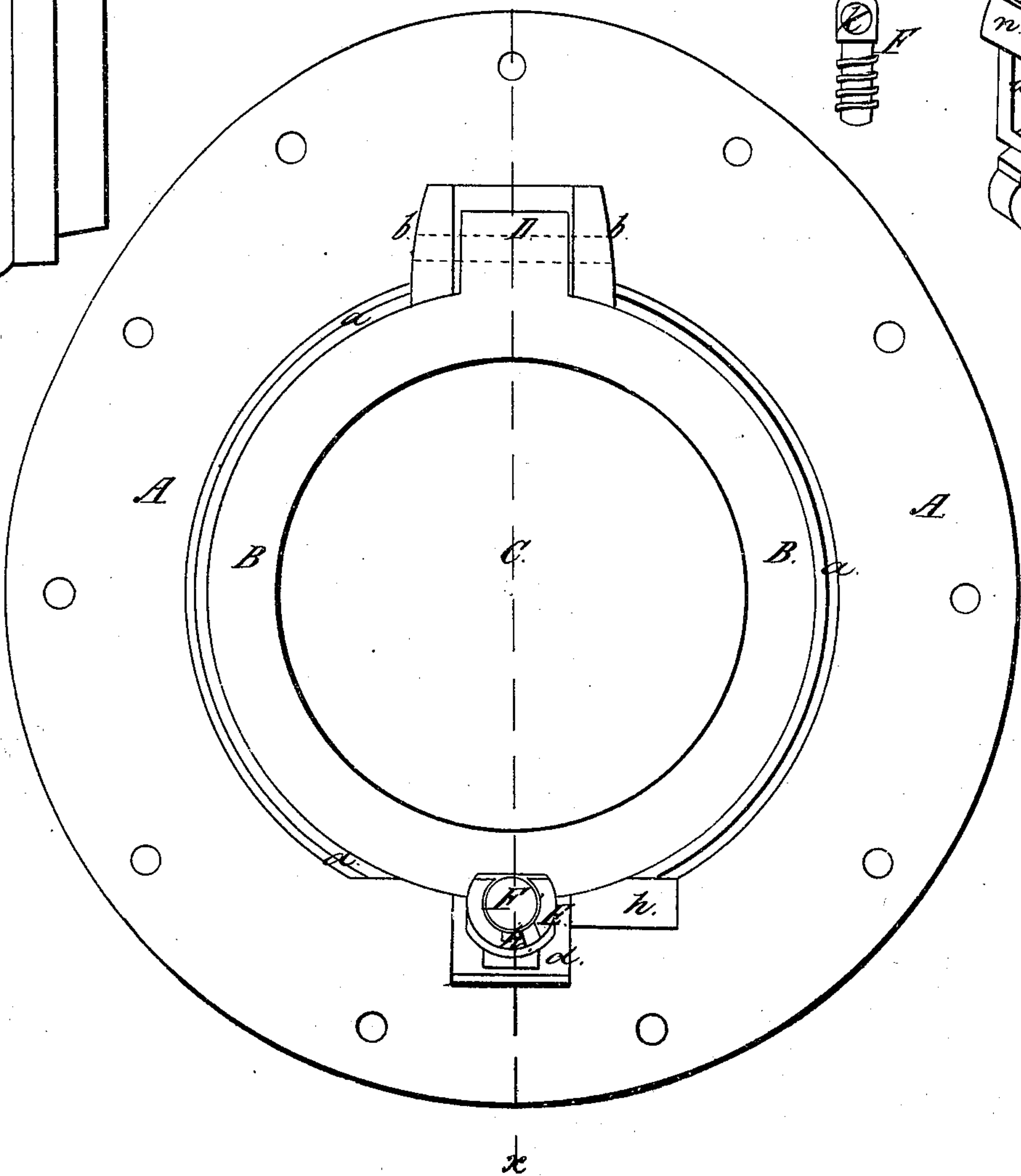
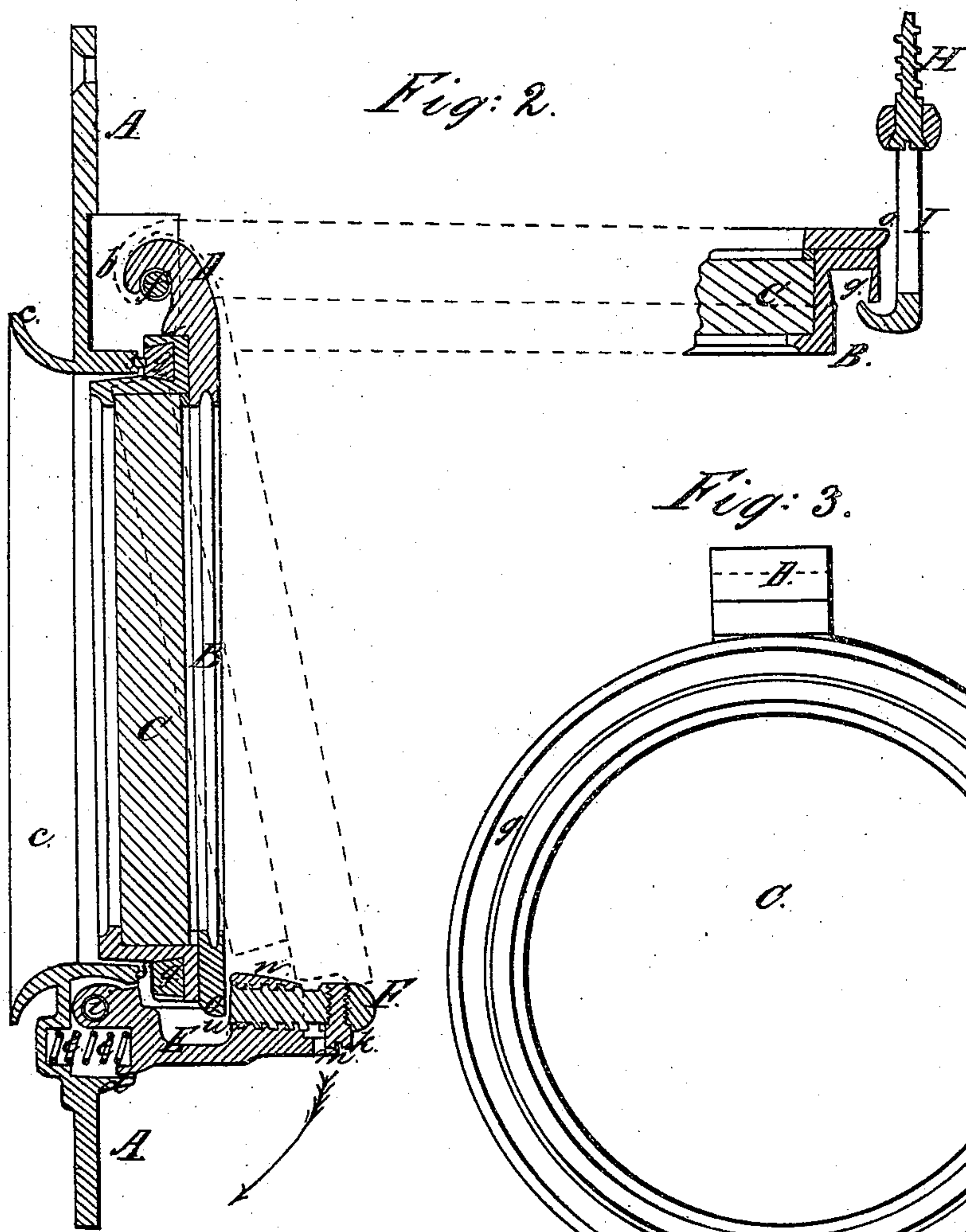


Fig: 1.



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UNITED STATES PATENT OFFICE.

ENOCH HIDDEN, OF NEW YORK, N. Y.

SIDE LIGHT FOR SHIPS.

Specification of Letters Patent No. 29,079, dated July 10, 1860.

To all whom it may concern:

Be it known that I, ENOCH HIDDEN, of New York, in county of New York, in the State of New York, have invented certain
5 new and useful Improvements in Side Lights for Ships; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters
10 of reference marked thereon.

My invention relates to a novel method of hanging side lights of ships and consists in the employment, in connection with a hinged glass frame, of a combined spring and lock
15 catch as hereinafter fully described.

Previous to my invention it has been customary to hang the side lights of ships with various kinds of spring catches and eccentric buttons, &c., &c., but in all instances the
20 catches have been so constructed and arranged that the lights could be readily opened with the hand. Experience has shown the necessity of having the lights so arranged that while they may be instantaneously closed tightly and readily opened
25 when desired they may at the same time be capable of being locked at pleasure and kept under the control of parties having keys. This desideratum I have effectually accomplished without complicating the apparatus,
30 by combining in one device the properties of a simple spring catch, and of an effectual lock—either of which may be employed at option and to enable those skilled in the art
35 to make and use my said improvement—I will now describe the construction and operation of the same referring by letters to the accompanying drawings forming part of this specification and in which—

40 Figure 1, is a rear elevation of a ship's light with my improvement. Fig. 2, is a vertical section at the line *x, x*, of Fig. 1. Fig. 3, is a front view of the glass and its frame. Fig. 4, is a side elevation of the
45 same. Figs. 5 and 6, are perspective views of the catch and locking screw. Fig. 7, is a perspective view of loop, or hook pin holding the light open, and Fig. 8, is a perspective view of the key or lock wrench.
50 In the different views the same parts are indicated by the same letters.

A is the light frame, B, the glass frame or sash which is hung in frame A by means of a hook hinge piece D on a stud, *f*, ar-

55 ranged between the ears, *b*, in the manner shown and described in a patent granted to me on the fifteenth day of March 1859.

The light frame or plate, A, is formed with a bell shaped flange, *c*, on its outer side and with a rim, or annular flange on
60 its inner face provided with V seat S (see Fig. 2) against which the rubber packing ring, *g*, of the sash, B closes.

C, is the glass which is arranged and secured in frame B, in the usual manner. 65

I, is a pendent loop or retaining hook which is secured at the proper place by a screw, H, to catch and hold open the sash frame, B, as illustrated by the red lines at
70 Fig. 2.

E, is the catch bar which is pivoted at its inner, or butt end on a pin, *i*, and in a box, or recess, *d*, formed in frame, A, and is thrown up by a spring, *e*, (as will be presently explained). In the outer or project-
75 ing end of bar E, is arranged a securing screw, F, in the head of which is fixed a stop pin, *k*, which operates in connection with a projection, *m*, on end of bar, E, and with a key in a manner and for purposes to
80 be explained.

J, is a wrench, or key, by which the screw F is turned, to lock the sash, or glass frame, B.

The catch bar, E, as before mentioned is
85 hung on a pivot or pin, *i*. The shape of said bar E, will be readily comprehended from Figs. 2 and 5, of the drawings. The butt end of said bar is formed with a shoulder and recess against which a pressure is con-
90 tinually exerted by a spiral spring, *e*, contained in the box, *d*, (see figure) in such manner as to hold the bar E, in the position seen at Fig. 2 and as to force it into said
95 position when it is depressed by the sash B in closing the latter. It will be seen that the bar, E, is formed with a recess at, *w*, to accommodate the periphery of frame, B, over which the lip, *n*, of said catch bar
100 closes. Said lip, *n*, is inclined as shown at Figs. 2 and 7, so that when the sash, B, is closed, or comes down, its lower edge strikes the inclined lip, *n*, and forcing the bar, E, downward, in the direction indicated by
105 red arrow at Fig. 2, rides over said lip, *n*, when the bar E is immediately returned to its normal position by the spring, *o*, and the frame, B, is held in a closed condition

by the lip of catch bar E (the dotted lines in black at Fig. 2, illustrate the frame B, just about coming into contact with lip *n*.)

It will be seen that if the frame B, be released from the hook, I, which retains it in an opened condition and allowed to fall, or, swing down, its own gravity will cause it to vibrate over the lip, *n*, and fasten itself; the rubber packing, *g*, coming against the rim, or seat flange *s*. It will be understood that by the action of the catch bar alone as just described the frame B, is quickly secured and held closed and so that by simply pressing down the end of said bar, with the finger (in the direction indicated by the red arrow at Fig. 2) the frame, B, may be swung open. Now when it is desired to lock the sash, B, securely onto its seat, to prevent opening by hand, or for other purposes the key, J, is placed over the end of screw, F, its slots fitted down over the pin *k*, and said screw is turned in its nut formed in piece, E, in the direction indicated by the red arrow at Fig. 5, until the pin, *k*, strikes against the projections, *m*. The object of stop, *m*, against which pin *k*, comes is to prevent the screw being turned so far as to injure or cramp the screw which forms a check or stop.

By thus turning the screw, F, with key, J, said screw's inner end is forced down onto

the edge of frame, B, at the point, *o*, (see Fig. 2), and said frame is forced so tightly into its seat, as to create so much friction as to prevent the turning of screw F, by hand, or the forcing down of bar, E, and the frame, B, is securely locked. Duplicate keys may be furnished—the fixtures being all alike, the key of each light will open, or, lock all the others so that all parties desirable on board may have keys and be enabled to govern, or control the ship's lights at pleasure—and also to insure the frames being properly and tightly closed in cases of emergency.

Having described the construction and operation of my improvement, what I claim as of my invention and desire to secure by Letters Patent is—

The employment on a hinged, or swinging ship's light of a spring catch bar, in combination with a locking screw, or its equivalent the two arranged to operate substantially as hereinbefore described for the purposes set forth.

In testimony whereof I have hereunto set my hand this twenty first day of June 1860.
ENOCH HIDDEN.

Witnesses:

J. N. McINTIRE,
WM. C. McINTIRE.