

R. C. Holmes. Sheet 1.3 Sheets

Ship's Hatch.

N^o 4,397. Patented Mar. 7, 1846.

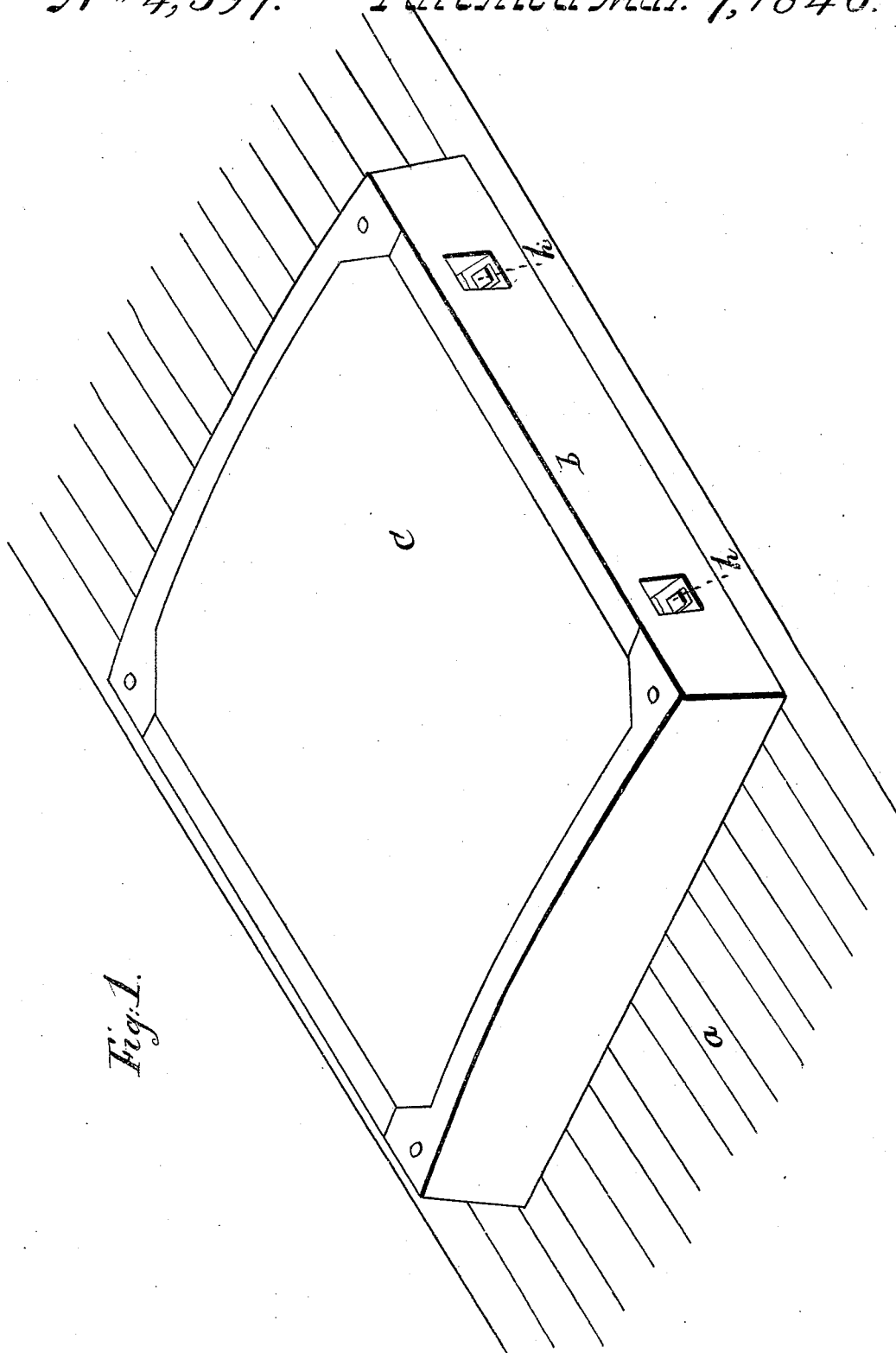


Fig. 1.

Sheet 2. 3 Sheets

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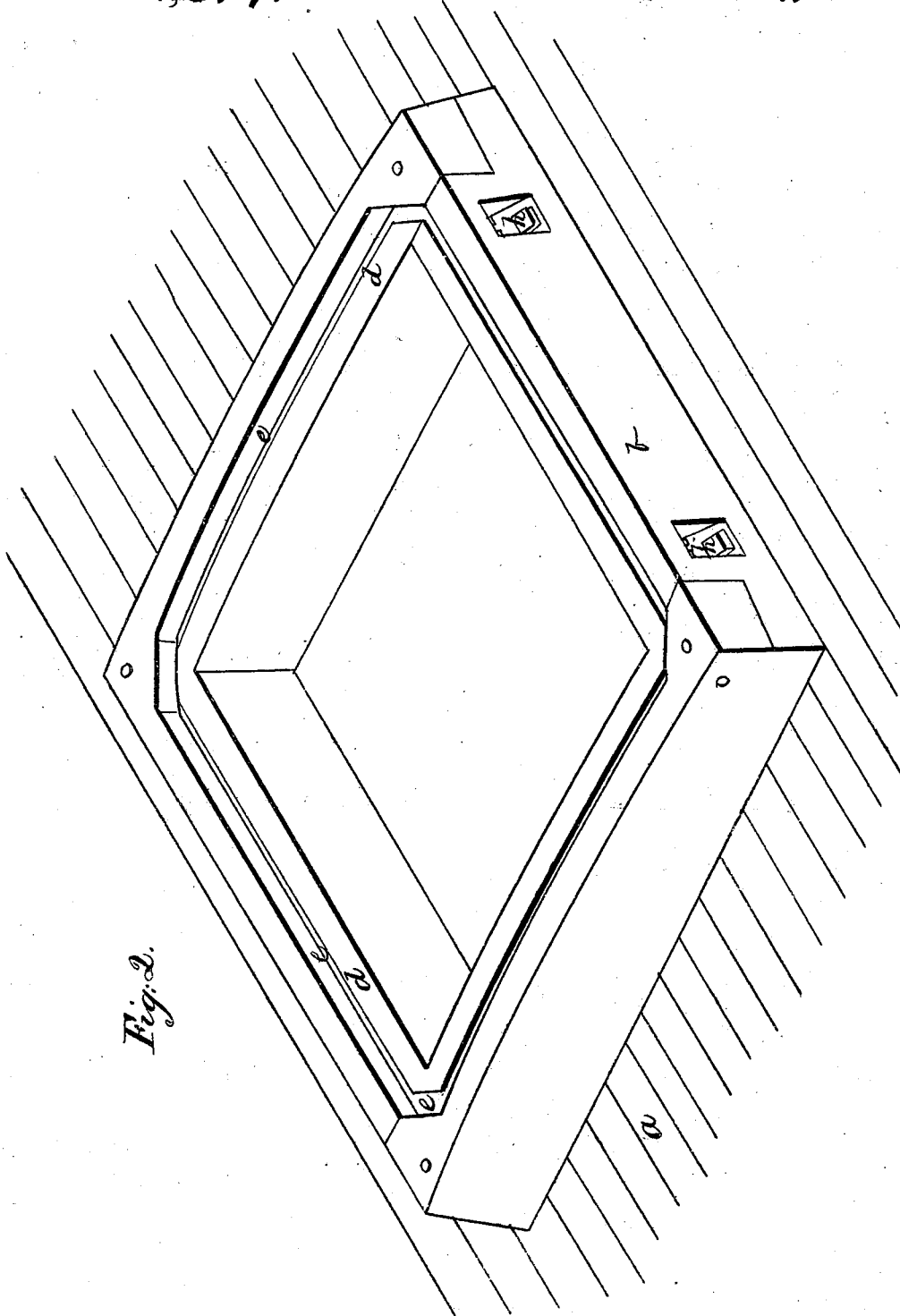


Fig. 2.

Sheet 3. 3 Sheets.

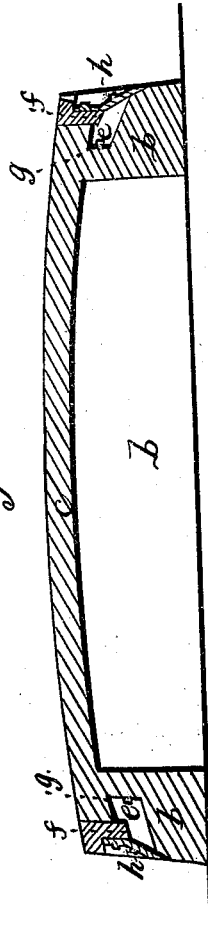
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Fig. 3.



UNITED STATES PATENT OFFICE.

RICHD. C. HOLMES, OF CAPE MAY, NEW JERSEY.

HATCH FOR VESSELS.

Specification of Letters Patent No. 4,397, dated March 7, 1846.

To all whom it may concern:

Be it known that I, RICHARD C. HOLMES, of Cape May, in the county of Cape May and State of New Jersey, have invented a new and useful Method of Preventing Hatches of Vessels from Leaking, and that the following is a full, clear, and exact description of the principle or character thereof which distinguishes it from all other things before known, and of the manner of making, constructing, and using the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of the hatch covered, Fig. 2, a perspective view of the same uncovered and Fig. 3, a transverse vertical section thereof.

The same letters indicate like parts in all the figures.

The nature of my invention consists in making a groove or gutter in the upper face of the frame of the hatch-way over which the hatch or cover rests, to catch the water that may leak through the joints, and discharge it on to the deck, through apertures or tubes leading from the bottom of the groove or gutter to the outside of the frame, the said apertures being governed by valves opening outward to permit the escape of the water, and prevent a sea, passing over the deck, from entering the valves.

In the accompanying drawings (*a*) represents a part of the deck of a vessel, (*b*) the framing which surrounds the hatchway, and (*c*) the hatch or cover. A rabbet *d* is formed around the inside of the framing to receive the hatch or covering, and a groove or gutter (*e*) is cut into this surface, extending all around, to catch the water as it drips through the joints around the covering; and from the bottom of these gutters, on each side, I make one, two, or more holes (*f*) (into which tubes may be inserted) leading therefrom to the outside of the framing; the outer ends of these apertures

or tubes being provided with valves *h* opening outward to permit the escape of water from the inside, but which will close by the pressure of the water outside and prevent its entrance, so that no portion of the water of a wave, washing over the deck of a vessel, can enter the valves, and all that may leap through the joints will run out the moment the wave shall have passed over. Any kind of valve, which opens by a pressure from within, may be used for this purpose although I prefer the flap valve shutting downward on an inclined seat, as represented in the drawings, and they may be made of metal, or of leather, or other flexible substance loaded on the outside to insure their closing.

To prevent the capillary attraction from conducting the water into the hatchway, I cement or otherwise attach a small strip of India rubber (*g*) to the inner edge of the groove or gutter, and projecting sufficiently above the surface of the rabbet to have the hatch or covering rest on it.

By this arrangement it will become unnecessary to calk or tarpaul the hatches of a vessel, (attended with much trouble and expense) as it will be impossible for moisture to leak through.

What I claim as my invention and desire to secure by Letters Patent is—

The method herein described of preventing the hatchways of vessels from leaking, by making a groove or gutter in the framing on which the hatch or cover rests with apertures or tubes leading therefrom to the outside of the framing, in combination with the valves governing these apertures, and opening outward to permit the escape or discharge of water from the groove or gutter, and prevent water from washing in, as herein described.

RICHARD C. HOLMES.

Witnesses:

C. W. M. KELLER,
S. W. WEBB.