

J.R. Rich. Hatch.

Nº 88,330.

Patented Mar. 30, 1869.

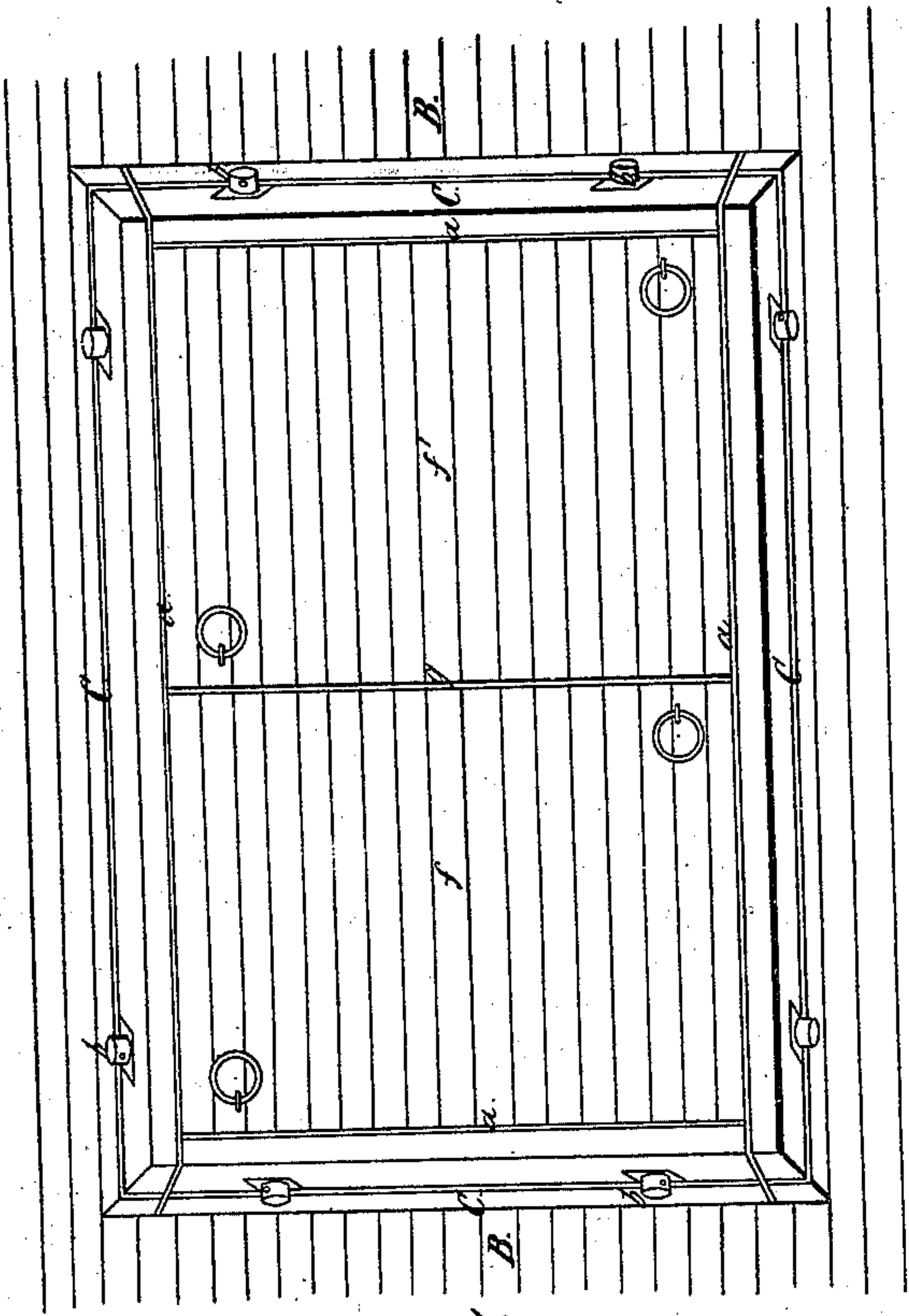


Fig. 1. B.

Fig. 3.

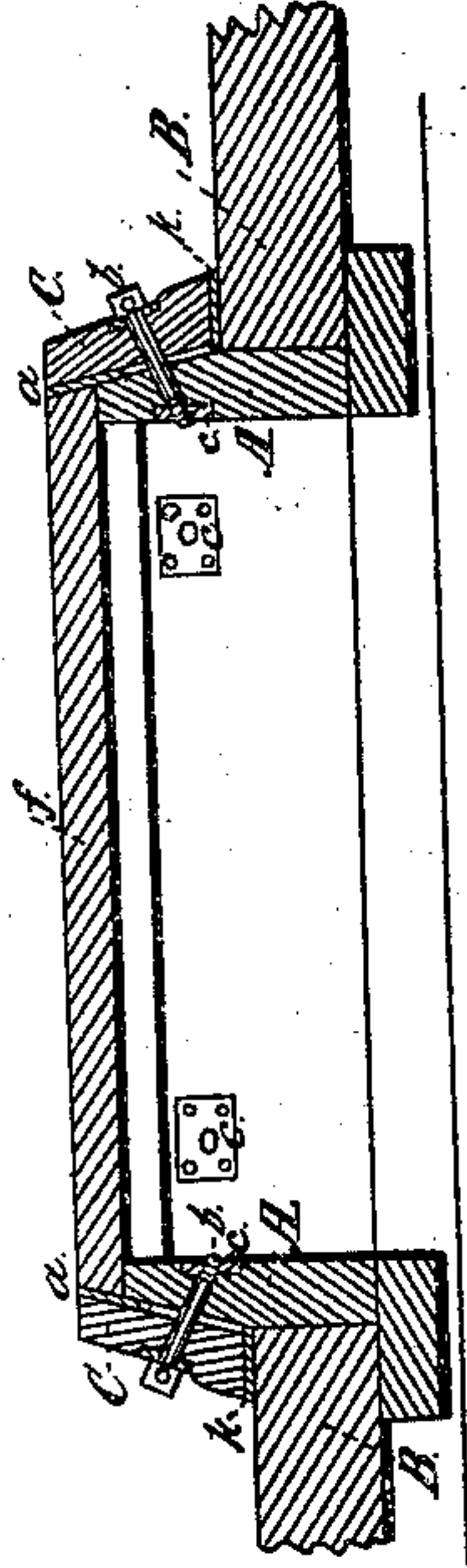


Fig. 2.

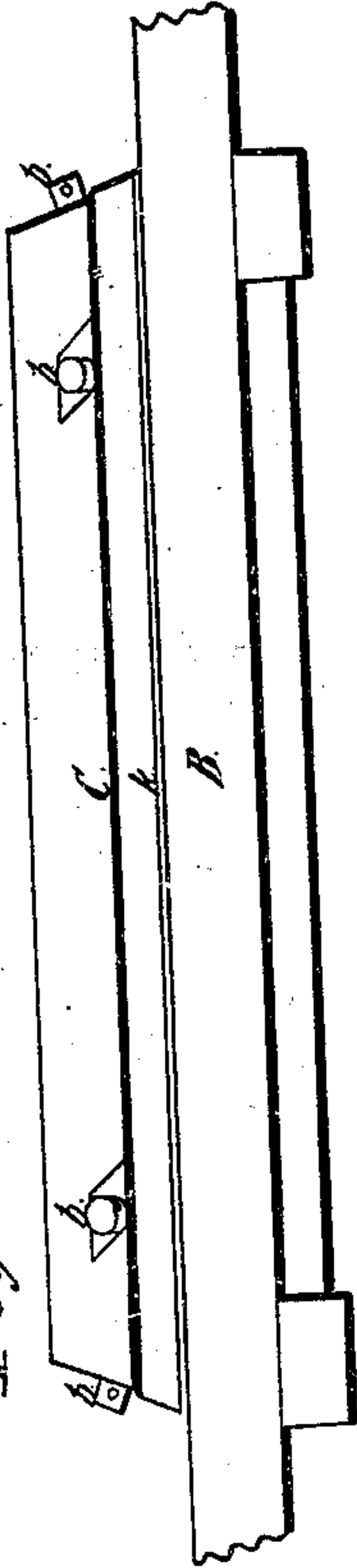
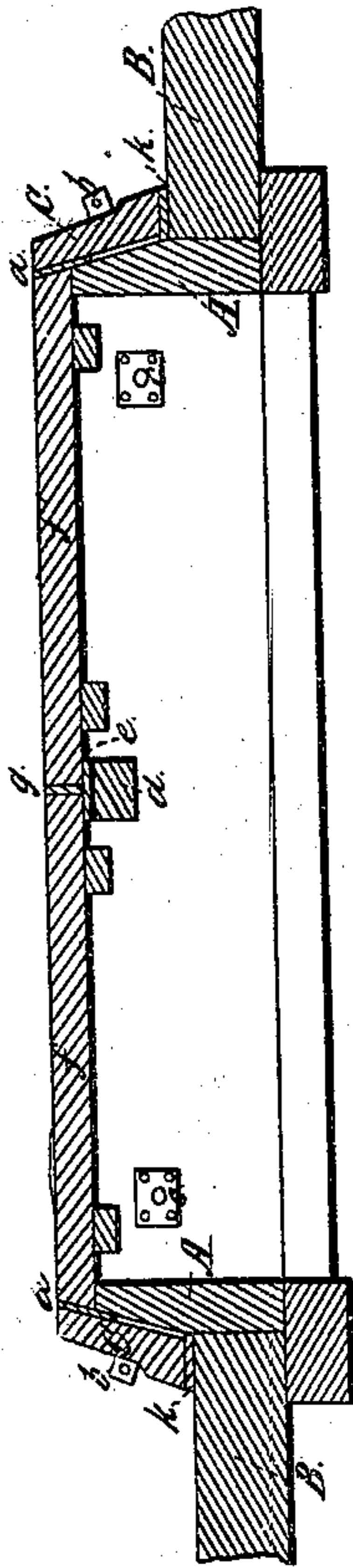


Fig. 4.



Witnesses.
S. N. Piper
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JOHN R. RICH, OF TREMONT, MAINE, ASSIGNOR TO W. J. STOCK-BRIDGE, OF GLOUCESTER, MASSACHUSETTS.

Letters Patent No. 88,330, dated March 30, 1869.

IMPROVEMENT IN SECURING SHIPS' HATCHES.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come:

Be it known that I, JOHN R. RICH, of Tremont, of the county of Hancock, and State of Maine, have made a new and useful invention, having reference to the Hatches of Navigable Vessels; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view,

Figure 2, a side elevation,

Figure 3, a transverse section, and

Figure 4, a longitudinal section of a hatchway as provided with my invention, the purpose of which is to render the hatch water-tight, without the necessity of calking it in the usual manner.

In the drawings—

A denotes the hatchway-frame, elevated above a deck, B, in the ordinary way.

To each of the ends, as well as to each of the sides of such frame, I apply a bar, C, having its inner surface lined with a strip, *a*, of vulcanized India rubber, such bar being held to the hatchway-frame by two or any other proper number of clamp-screws, *b b*, going through the bar, and being screwed into metallic plates *c c*, fixed on the hatchway-frame.

On the top surface of the cross-bar *d* of the hatchway, I affix a strip, *e*, of India rubber, to extend from end to end of it; and, when two hatches, *f f'*, are used, I affix, to the inner edge of one of them, a strip, *g*, of India rubber, the whole being as represented in the drawings.

Each of the bars C, with its lining of vulcanized India rubber, extends above the hatchway-frame, so as to be

flush with the top surface of the hatch or hatches; and when the latter is or are in place, and when the bars are forced up to the edges of such hatch or hatches, not only will water-tight joints be formed around the hatches, but between the bars and the hatchway-frame.

The lower edge, or bottom of each bar C is also covered with a layer of India rubber, as shown at *k*.

The clamp-screws are run obliquely through the bars and the hatchway-frame, in manner as represented, in order that, while being screwed up, they will also force the bars downward, as well as toward the said frame.

In this way, a tight joint, between such bar C and the deck, will be attained.

The hatches will also be crowded together, so as to make a tight joint between their next adjacent edges.

I claim the combination and arrangement of the clamp-bars C, and their clamp-screws, and elastic water-proof strips, or linings, with the hatchway-frame, and so as to operate with the hatches thereof, as specified.

I also claim the application of the elastic strips, or linings to the lower and inner surfaces of the bars C, and arranging the clamp-screws in the oblique manner, with reference to the bars and hatchway-frame, as described.

I also claim the combination of either or both of the elastic water-proof strips, or linings *e g* with the two hatches and the bars C, and their water-proof elastic linings and clamp-screws, applied to the hatchway-frame, as and to operate as explained.

JOHN R. RICH.

Witnesses:

R. H. EDDY,

F. P. HALE, Jr.