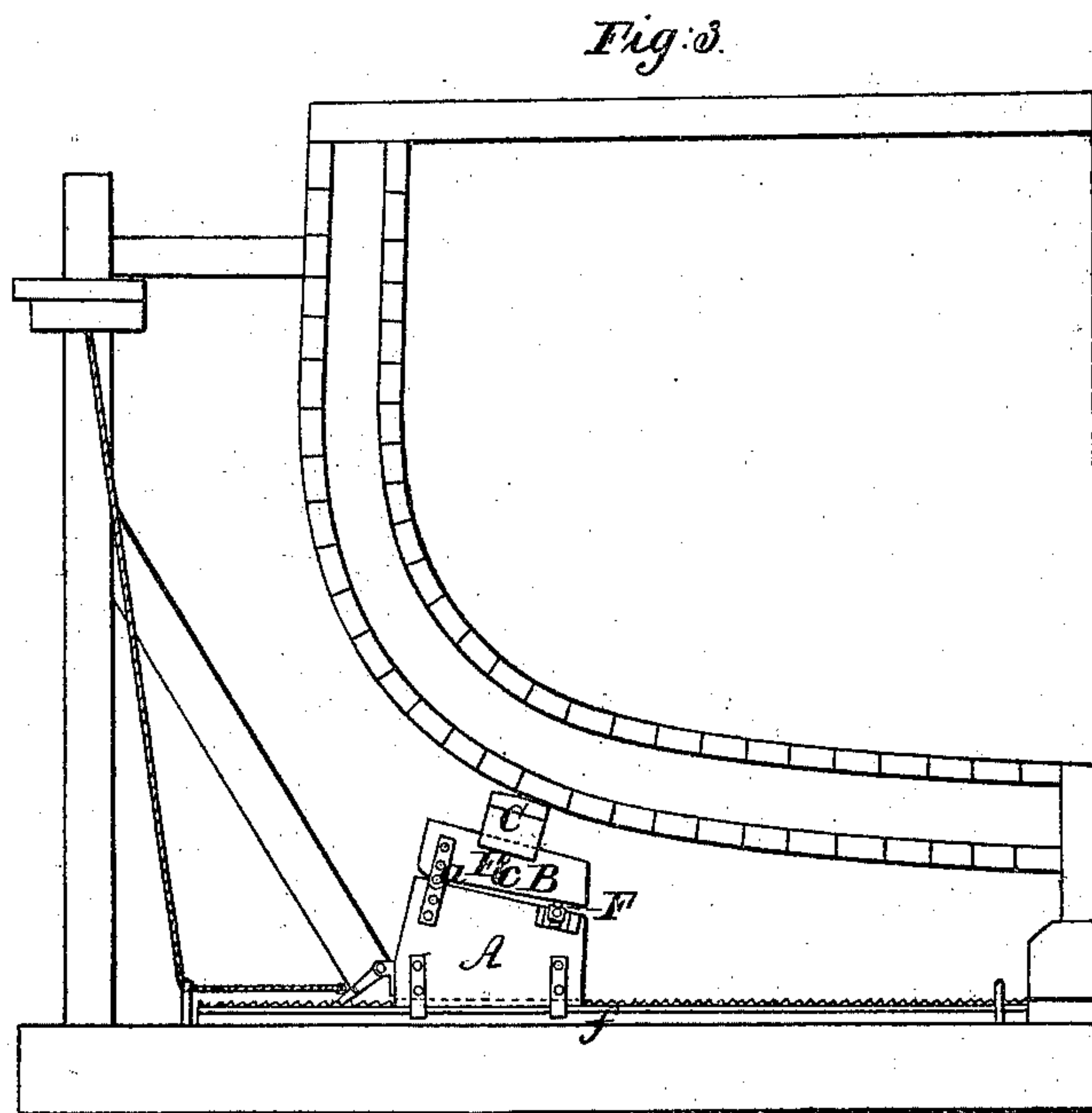
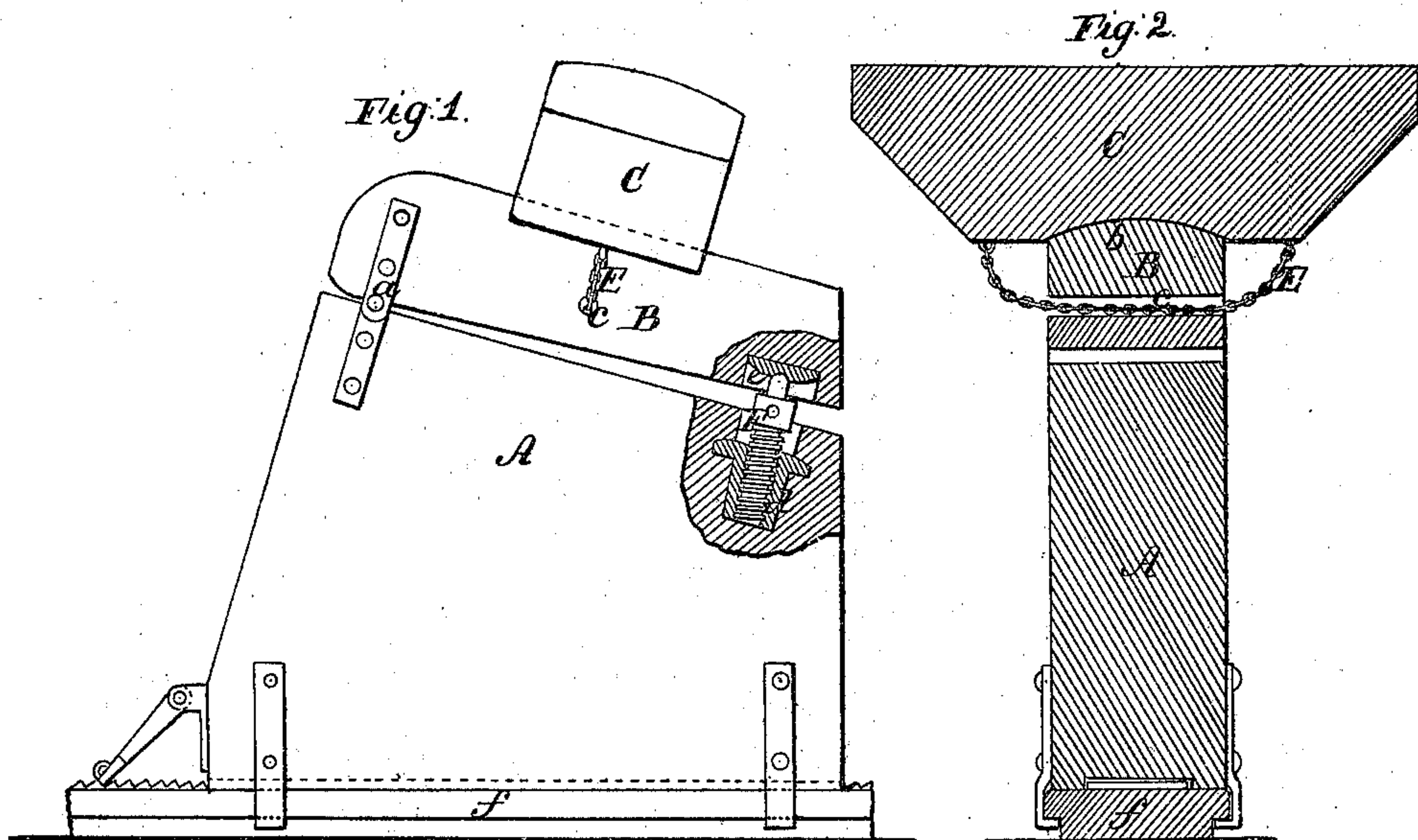


P. Burgess.
Bilge Dock for Docking Ships.
N^o 42,345. Patented Apr. 19, 1864.



Witnesses.
J. W. Coombs
G. A. Reed

Inventor.
Phineas Burgess

UNITED STATES PATENT OFFICE.

PHINEAS BURGESS, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN BILGE-BLOCKS FOR DOCKING SHIPS.

Specification forming part of Letters Patent No. 42,345, dated April 19, 1864.

To all whom it may concern:

Be it known that I, PHINEAS BURGESS, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Bilge-Blocks for Docking Ships and Other Vessels; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an elevation, partly in section, of a bilge-block with my improvement. Fig. 2 is a vertical section at right angles to Fig. 1. Fig. 3 is a half-breadth section of a vessel and of the upper part of a floating dry-dock, illustrating the application of my invention.

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

This invention consists in the addition to a bilge-block of a piece so arranged on the top thereof and transversely thereto that it may adapt itself readily to the longitudinal curvature of the bilge of the vessel, and of such length that it may support two or more of the ribs of an iron vessel and thereby be prevented from indenting the outer skin thereof.

It also consists in combining the hinged or adjustable upper portion of a bilge-block with the base or body of the block by means of a screw, by which it may be adjusted with greater facility than by the wedges commonly employed.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the lower part or base of the block, and B the upper piece, hinged at *a* in the usual manner. C is the transverse top piece of timber fitted to a rounded bearing, *b*, on the top of the piece B, as shown in Fig. 2, so that it can roll thereon to adapt its upper surface to the longitudinal curvature of the bilge of

the vessel. E is a chain which attaches the top piece, C, to the piece B, and prevents it from being floated off. This chain passes through a hole, *c*, bored transversely through the piece B, and is attached at both ends to the top piece, C, and is left a little slack, to permit the self-adjustment of the top piece, C, to the longitudinal curvature of the bilge. The self-adjusting top piece, C, may be of any desirable length, to serve as a bearing for two or more of the ribs of a vessel.

F, Figs. 1 and 3, is the adjusting-screw for adjusting the piece B upon the base A and bringing the top piece, C, to a proper bearing against the bilge of the vessel. These screws are like ordinary jack-screws, having holes in their heads for the insertion of levers by which to turn them. Each one works in a nut, *d*, let into the base A and against a metal bearing, *e*, in the piece B. One or more of such screws may be applied to each block. The said screws are much more convenient than the wedges commonly employed for adjusting the upper part of the block, and, unlike the wedges, they cannot be detached accidentally and lost when the vessel is floated.

The base of the bilge-block is applied on slides *f f* and moved in and out in the usual manner.

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

1. The transverse self-adjusting top piece, C, arranged upon the bilge-block, to operate substantially as and for the purpose herein specified.

2. Combining the adjustable upper portion, B, of a bilge-block with the base A by means of one or more adjusting-screws, F, substantially as and for the purpose herein specified.

PHINEAS BURGESS.

Witnesses:

J. W. COOMBS,
GEO. W. REED.