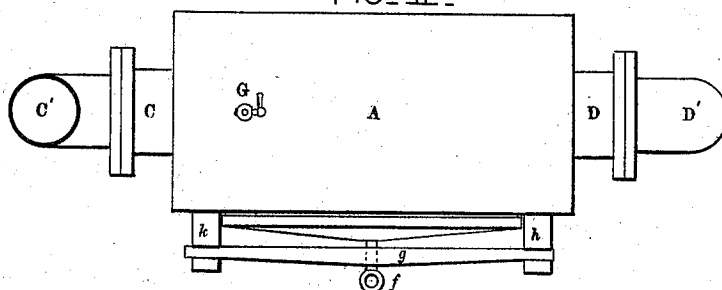


S. J. CHAPMAN.
Strainers for Ships' Bilge-Pumps.

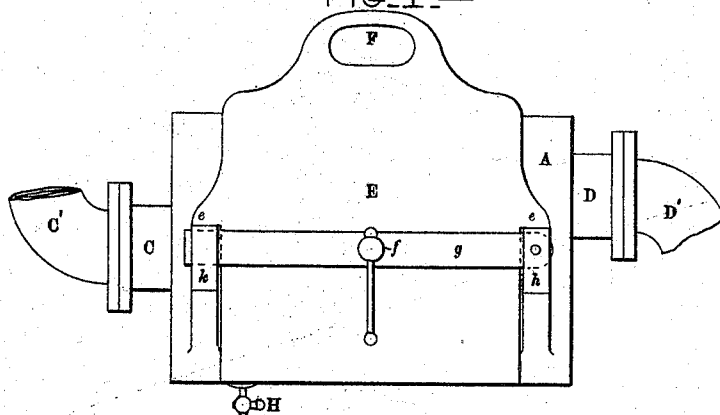
No. 142,438.

Patented September 2, 1873.

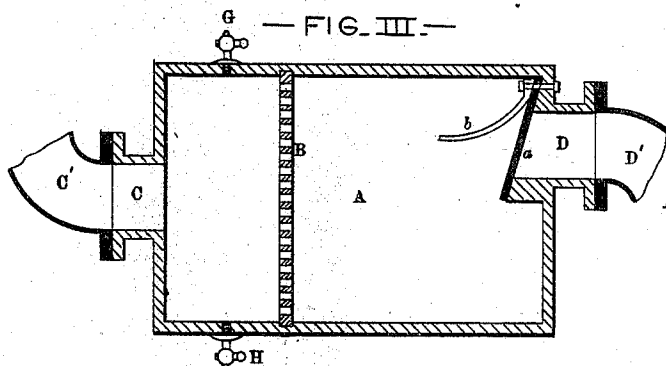
— FIG. II. —



— FIG. I. —



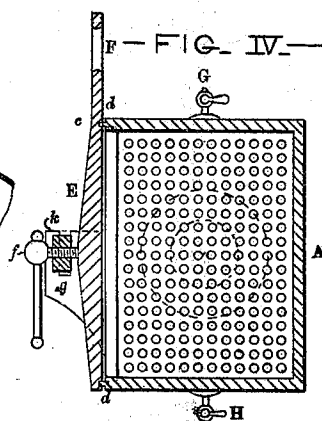
— FIG. III. —



— WITNESSES —

R. H. Whitney
H. S. Abbott

— FIG. IV. —



— INVENTOR —

Samuel J. Chapman,
by G. H. W. Howard,
Atty.

UNITED STATES PATENT OFFICE.

SAMUEL J. CHAPMAN, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN STRAINERS FOR SHIPS' BILGE-PUMPS.

Specification forming part of Letters Patent No. **142,438**, dated September 2, 1873; application filed August 8, 1873.

To all whom it may concern:

Be it known that I, SAMUEL J. CHAPMAN, of the city of Baltimore and State of Maryland, have invented certain Improvements in Strainers for Ships' Bilge-Pumps, of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention relates to a strainer to be applied to the suction-pipe of a bilge-pump; and has for its object the collection of the shavings, cotton-waste, and other rubbish found in the bilge of a vessel, in order that such matter may be the more readily removed therefrom.

In the description of my invention which follows, due reference must be had to the accompanying drawing, in which Figure 1 is a front elevation of my invention. Fig. 2 is a plan, and Figs. 3 and 4 are, respectively, longitudinal and transverse sections, of the same.

Similar letters of reference indicate similar parts of the invention in all the views.

A is the strainer-box, and B the strainer-plate, confined within grooves in the walls of the box. C and D are nozzles, to which the two parts C' and D' of the suction-pipe are secured. The pipe C' extends from the strainer-box to the bilge-pump, while that D leads to the bilge of the vessel. The inner end of the nozzle D is provided with the gum valve *a* and guard *b*. E is a door situated upon the side of strainer-box, and has a recess, *c*, extending around it near the edge, into which recess a projection, *d*, upon the face of the said box is inserted to form a water-tight joint. The door E has a handle, F, formed upon the upper edge thereof, by means of which the door may be removed when the strainer-box is to be cleaned. The door is provided with brackets *e*, which serve as guides to the placing of the door. The

door is held to its position by means of the bar *g* and screw *f*. The bar *g* is inserted at one end within a lug, *h*, and in a slot at the other end in a corresponding lug, K. The rubbish from the bilge is carried, with the bilge-water, through the pipe D', into the strainer-box A. It is here intercepted by the strainer-plate B and falls to the bottom of the box, whence it can be easily removed, the door being opened. G and H are cocks for the purpose of admitting air to destroy the vacuum in the box, and also to allow any water remaining therein to pass off before the door is opened. At such times the column of water in the pipe D' is held in place, as the valve *a* closes as soon as air is admitted to the box. The pump is, therefore, the more readily charged upon the closing of the box, as a vacuum has only to be formed within the strainer-box and pipe C'.

A strainer of the description herein described admits of its ready cleaning while the pump is in operation; and its merits must be apparent to those conversant with the difficulties experienced by engineers in the cleaning of strainers of the ordinary kind.

Having described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

The strainer-box A, having the adjustable door E and fastenings, and provided with induction and eduction bilge-ports, separated by a strainer-plate, B, the induction-port being supplied with the valve *a* and guard *b*, substantially as and for the purposes specified.

In testimony whereof I have hereto subscribed my name this 28th day of July, in the year of our Lord 1873.

SAMUEL J. CHAPMAN.

Witnesses:

THOS. MURDOCH,
WM. T. HOWARD.