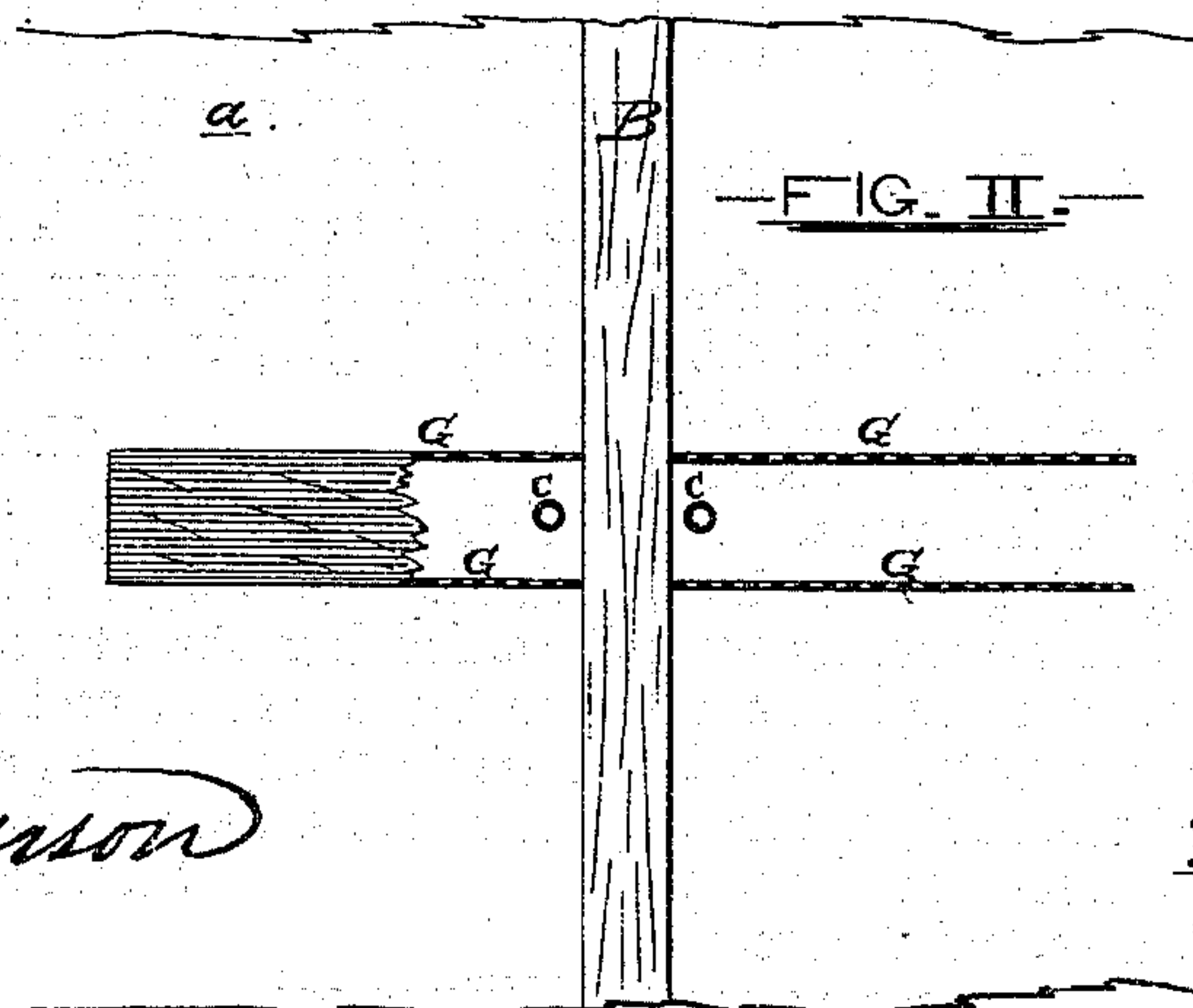
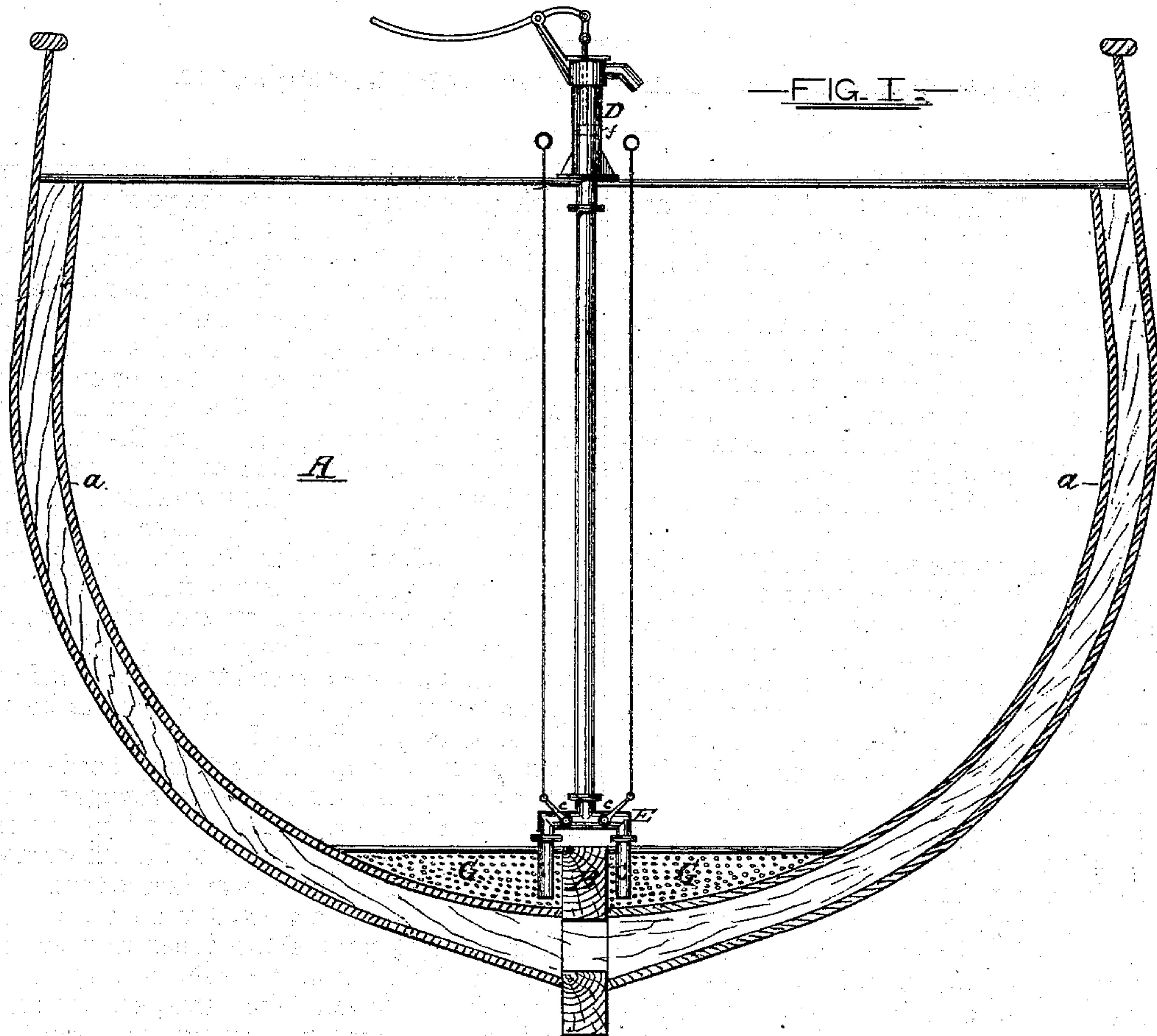


S. F. PAULLIN.

Ships' Pumps for Liquid Freight.

No. 127,364.

Patented May 28, 1872.



WITNESSES:-

Wm. E. Anderson

C. C. Nelson

INVENTOR:-

Stephen F. Paullin

by Geo. H. Howard, his atty

UNITED STATES PATENT OFFICE.

STEPHEN F. PAULLIN, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN SHIPS' PUMPS FOR LIQUID FREIGHT.

Specification forming part of Letters Patent No. 127,364, dated May 28, 1872.

To all whom it may concern:

I, STEPHEN F. PAULLIN, of the city and county of Baltimore and State of Maryland, have invented certain Improvements in Pumps, to enable them to be used aboard vessels for the purpose of pumping from the holds thereof the leakage of molasses or sirups from hogsheads, of which the following is a specification; and I do hereby declare that the same is 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 consists in a double suction-pipe, or two suction-pipes, with the attachments thereto, applied to any ordinary pump in such a manner that the pipe or pipes shall terminate near the inner skin of the hull and extend across or straddle the center keelson thereof; and, further, in screens or guards, formed of wire or perforated plates, which shall fit within and against said skin and keelson of the vessel to a short distance perpendicularly, and inclose in a narrow space the said suction-pipes of the pump fore and aft of the same.

In the further description of my invention which follows due reference must be had to the accompanying drawing, in which—

Figure 1 represents a transverse section of a vessel to which my invention is applied. Fig. 2 exhibits a part plan, showing a section of the suction-pipes as inclosed by the guards or screens.

Similar letters of reference indicate similar parts of the invention.

A is the hull of the vessel, of which *a* is the inner skin. B is the center keelson of the hull. C C are the suction-pipes of the pump, in this instance shown as straddling the center keelson; and *c c* represent cocks in the same.

The advantage in having a pipe on either side of the center keelson will be readily understood. With such a provision the leakage on either side of the keelson may be pumped out without any shifting of the suction parts of the pump, which would be necessary were a single pipe only used; and, also, the necessity which would exist, were the single pipe used and immovable, of boring the center keelson, is averted. I, however, reserve the right to use a single pipe for this purpose, if preferred.

D is the pump-barrel. E is the chamber connecting the suction parts of the pump with the pump-barrel. The piston of the pump is represented by *f*. The valves of the pump may be of any suitable construction, and either placed within or around the suction-pipes, or as a part of the pump-piston. G G are the guards or screens, fitted to the inner skin or ceiling of the hull and joining to the center keelson. They are arranged, as shown, so that the suction-pipe upon each side of the keelson is placed between them. These guards or screens may be made of any suitable material, or in any manner which will accomplish the end desired, which is to keep the pump free of chips or any other extraneous substance. By the agency of the cocks or valves *c c* the supply to the pump through the screens upon either side of the center keelson, or all together, can be obtained, as may be desired.

The continued straining of hogsheads containing molasses during long voyages occasions much leakage and loss; and heretofore no mechanical effort, as far as I am informed, has been made to save the molasses thus leaking out. With this view, I propose to calk and pitch that part of the inner skin or ceiling of the hull which the leakage may cover. In merchantable value the damage to molasses regained by the means hereinbefore described would be trifling; and in view of the heavy losses heretofore incurred by shippers and importers by the leakage referred to, the importance of an invention directed toward its recovery is apparent. This result is, I believe, achieved in my invention by means at once cheap, simple, and effective.

Claim.

I claim as my invention—

A pump having the branch suction-pipes C C straddling the center keelson of a vessel, with the cocks *c c* and guards G G, when arranged substantially as and for the purpose hereinbefore described.

STEPHEN F. PAULLIN.

Witnesses:

GEO. H. HOWARD,
THOS. M. NORRIS.