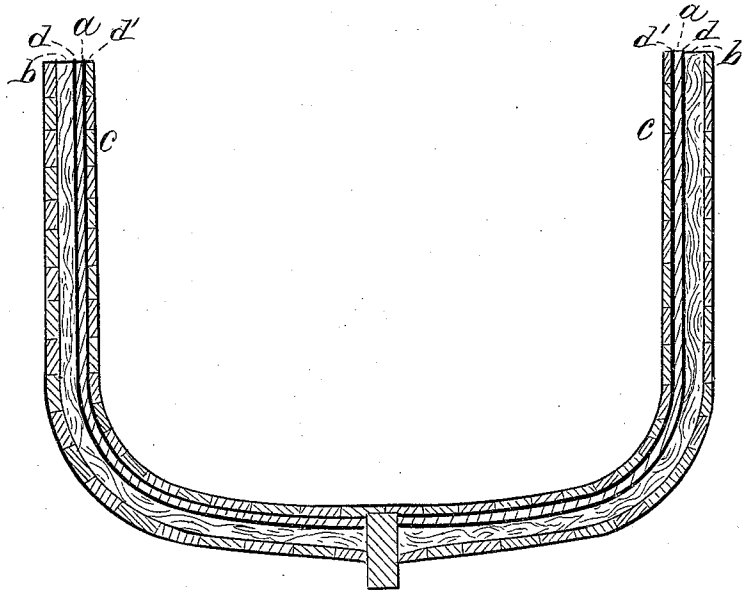
V. P. Corbett,

Ship Building.

No. 12,359. Patented. Feb. 6. 1855.



UNITED STATES PATENT OFFICE.

V. P. CORBETT, OF CORBETTSVILLE, NEW YORK.

CONSTRUCTING SHIPS AND OTHER VESSELS.

Specification of Letters Patent No. 12,359, dated February 6, 1855.

To all whom it may concern:

Be it known that I, V. P. CORBETT, of Corbettsville, in the county of Broome and State of New York, have invented a new and useful Improvement in the Construction of Ships and other Navigable Vessels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, which forms part of this specification, and which represents a transverse section of the hull of a ship constructed according to my improvement.

My improvement consists in giving a soft and largely elastic bearing, bed or back to the inside planking (*c*) forming the floor and interior sides or covering of the hull or hold of a vessel, without detracting of necessity from that rigidity or stiffness which the outside framework or timbers (*b*) of the ship ordinarily possess, by interposing between the said inside planking (*c*) and ribs or outside framework (*b*) a sheet or sheets of india-rubber, or other elastic waterproof material formed in part of india-rubber and which may be made of an india-rubber body (*a*) faced on either side with canvas layers or prepared cloth (*d d'*), the whole being of sufficient thickness and so arranged as to invest such intermediate lining with the character of a soft and elastic pad-covering to the interior surfaces of the outer framework (*b*) and upon which pad covering the inside planking (*c*) rests or takes its bearing.

By way of exemplification, this improvement may be carried out as follows. An outer layer of canvas (*d*) may be nailed or otherwise secured to the frame timbers (*b*) on their inside so as to form an inner covering thereto, then a sheet or sheets of india-rubber (*a*) secured on the inside of the outer canvas (*d*), next a second or inner layer or covering of canvas (*d'*) on the inside of the india-rubber, and finally the inside planking (*c*) of the ship secured on the top or over the inner canvas. The canvas, or other equivalent layers, will serve as a protection to the india-rubber from injury by salt water or by any destructive substance which might form part of the cargo; but, if these layers be dispensed with, then the india-rubber pad covering (*a*) may be secured direct to the frame timbers (*b*), on their inside, and the inside planking (*c*) secured on and over the inside surface of the india-rubber. In ordinary vessels, this elastic pad or back covering to the inside planking (*c*) may be of varying (according to the size of the vessel) and only moderate or say plank thickness sufficient to prevent its bursting and restricting it to yield only in case of an ordinary collision producing a break through the outside timbers, but in ships of war it may be of much greater thickness to prevent it being ruptured or penetrated by shot,—though if penetrated, the perforation, owing to the elastic quality of the pad, would close up, thereby obviating to a certain extent the necessity of shot plugs. Now, by this specified arrangement of the elastic pad covering or bearing for the inside planking, it is obvious that,—the pad being of waterproof material—not only is the interior planking (*c*) protected from springing a leak by the straining of the ship and the cargo in contact with the inside planking kept dry, but that in throwing in the cargo, and in case of the cargo shifting, the interior planking (*c*) will be much less liable, in springing, to "set," get split, chipped or injured, and the inside planking thereby kept in its proper condition to act as a stiffening brace to the outer framework (*b*) on the interior, and that feature, which is so desirable, of a smooth or level interior planked surface to the hull or hold of the vessel, better preserved, by reason of the soft and bracing elastic quality of the pad (*a*) covering the backs of the inside planks and acting as a soft or pliable foundation between the inside planking and more solid outer framework which latter will by this means be protected to a large extent against those injurious shocks to it that arise from throwing in heavy cargo, et cetera, while, on the other hand, any outside shock or collision, on the planks or sheathing covering the frame timbers (*b*) on their outside, will be less liable to disturb or start the inside planking (*c*), without any alteration, of necessity, in the build of the frame as regards its rigid character, et cetera. This india-rubber pad lining (*a*), while it thus so much more effectually protects the inner planking and more solid or stiffer outside framework of the ship than does any soft intermediate sheathing such as thin layers of tarred brown paper or other like layers of soft material that have before been used in the construction of plank built vessels by alternate layers of planks and sheathing, which presents a different character of device to

the introduction of a stout, soft, elastic pad intercepting the inner planking from the more solid or stiffer built outside framework of the ship as here described, it—the elastic pad lining (*a*),—by its specified arrangement, will, in case of a severe collision producing rupture of it, more readily close up and admit of the injury being repaired, by reason of the manner in which the lining is braced to the outer framework by the inner planking over its entire surface thereby confining the elastic lining all round the ruptured part and allowing of the free use of the pumps in case of need without drawing the lining out of its place from its union to the hull, and, in case of a less severe collision not involving rupture of the lining but simply swelling it inward, an inner plank or two springing from their place will not be split or fractured so that they may readily be replaced; and in these respects, in addition to the elastic bed given to the inside bracing planking, flooring or ceiling, this arrangement of the india rubber pad lining, or employment of what may be called a planked elastic pad inside lining or casing to the vessel, differs materially from the employment, in the interior of a vessel, of a loose india-rubber lining of bag form or arrangement covered with roping or net work as has before been used.

What I claim as new and useful herein, and desire to secure by Letters Patent, is

The arrangement herein shown and described of the india-rubber or elastic and waterproof pad covering or lining on the back of the inside lining and bracing planking and between the said inside planking and the stiffer and more solid outer timbers or framework of the hull of the vessel, the same serving to form a stout, elastic, cushion or pad bearing for the inside planks to rest upon in their union to the outer framework of the ship, and constituting a planked elastic pad inside casing to the vessel for operation in the manner, for the better accomplishment of the several purposes of protection, freedom from injury and facility of repair, essentially as specified.

In testimony whereof, I have hereunto subscribed my name.

V. P. CORBETT.

Witnesses:
JNO. W. COOMBS,
JOS. GEO. MASON.