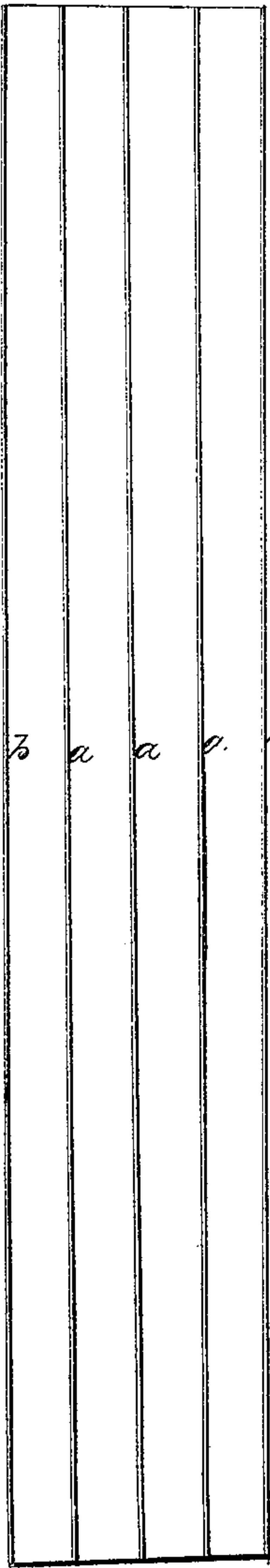


*J. Maull,  
Sails & Rigging.*

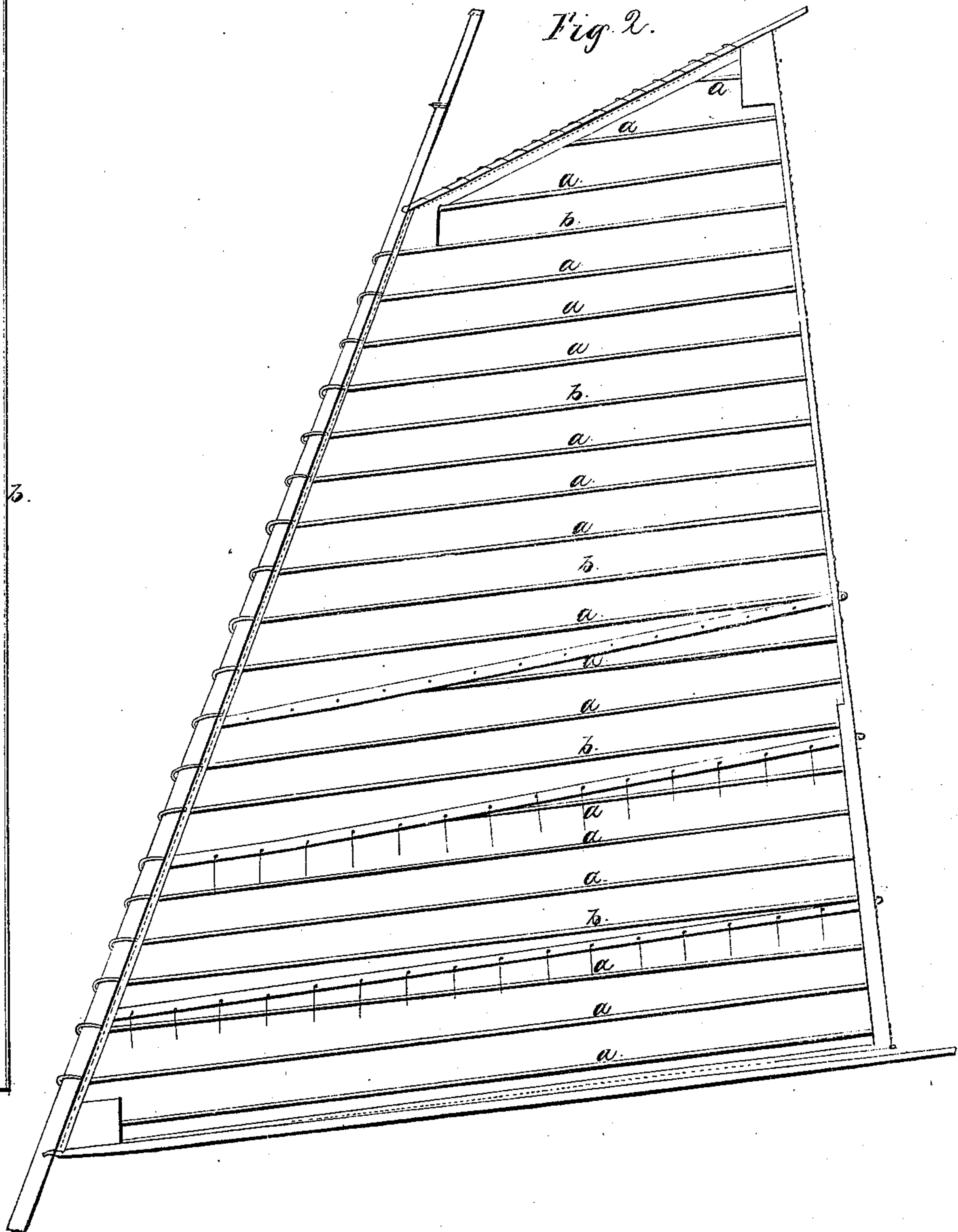
*N<sup>o</sup>. 5744.*

*Patented Aug. 29, 1848.*

*Fig. 1.*



*Fig. 2.*



# UNITED STATES PATENT OFFICE.

JAMES MAULL, OF PHILADELPHIA, PENNSYLVANIA.

## MANUFACTURE OF CANVAS FOR SAILS.

Specification of Letters Patent No. 5,744, dated August 29, 1848.

*To all whom it may concern:*

Be it known that I, JAMES MAULL, of the city and county of Philadelphia, in the State of Pennsylvania, have invented a new and Improved Mode of Manufacturing Canvas for the Sails of Ships, &c., which I call the "Improved Seamed Canvas for Sails," and in order to enable others skilled in the art to make and use my invention I do hereby declare that the following is a full and exact description of the mode of manufacturing the same, reference being had to the accompanying drawings of said canvas.

In the manufacturing of my improved seam canvas I use the ordinary warp and filling used in the manufacturing of canvas generally excepting that I introduce extra threads in the warp which makes my canvas better suited for the making of horizontal sails, and at the same time strengthens the durability of the cloth for sails made in the ordinary way.

My invention or improvement consists principally in weaving a band or seam at certain required distances in canvas of any required width; which band or seam is wove an extra thickness to that of the body of the said canvas as is represented in the drawings appended, in which—

Figure 1, represents a piece of canvas, the red lines *a, a, a*, showing the wove seams; *b, b*, the selvage. Fig. 2 represents a mainsail, on which the letters *a* on the red lines, represents the wove seams and the letters *b* on the black lines, represents the severed seams.

The utility of my improvement in the manufacture of seam canvas for sails, consists: 1st. In avoiding, in a great measure, the necessity of sewing or biting seams in the making of sails, thereby causing a par-

tial saving in canvas, and also in the labor of making sails, and saving of time. 2d. Sails made from my seam canvas can be made in nearly one half the time generally occupied in making sails in the ordinary way, and at much less expense. 3d. The seams in my canvas being wove into the cloth, there is no danger to be apprehended from friction upon the seams, or, of their ripping, said seams acting as so many bands also prevents the sails from bellying. 4th. These seams partaking the thickness of an ordinary sewed sail, and presenting an even surface upon the canvas, and at the same time retaining all the strength of a sewed seam, thereby resisting the pressure of the wind, enables a vessel to lay much nigher to the wind. And in such craft as yachts, pilot-boats, cutters, and other fast sailing vessels it would add materially to their sailing qualities. 5th. Sails made from my improved seam canvas will not require middle seaming, thereby avoiding that extra trouble and expense. 6th. Sails made from my improved seam canvas being of less bulk, can be reefed and furled with less difficulty than those made in the ordinary way.

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

The right to manufacture seam canvas for sails of ships, &c., by introducing extra threads in the warp and also in weaving a band or seam at certain required distances in canvas of any required width, for the purpose of saving the sewing of seams in the making of sails for vessels, &c., as above set forth and described.

JAS. MAULL. [L. s.]

Witnesses:

ISAAC PRINCE, Jr.,  
JOHN HANCOCK.