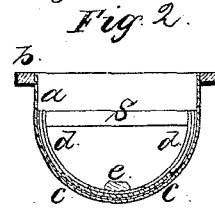
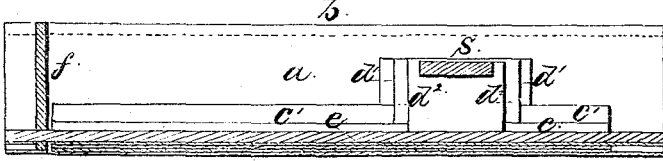


*P. S. Tyler.*  
*Ship Building.*

*N<sup>o</sup> 83,804. Fig. 1. Patented Nov. 3, 1868.*



*Fig. 3.*



*Fig. 4.*



*Witnesses:*  
*J. Adams*  
*W. S. G. Wilde*

*Inventor:*  
*P. Shelton Tyler*

# United States Patent Office.

P. SHELTON TYLER, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 83,804, dated November 3, 1868.

## IMPROVEMENT IN PAPER BOATS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, P. SHELTON TYLER, of Boston, in the county of Suffolk, and State of Massachusetts, have invented certain new and useful Improvements in Paper Boats, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a longitudinal vertical section of a portion of a paper boat.

Figure 2 is a transverse vertical section of the same.

Figure 3 is a plan view, and

Figure 4 is a side elevation, of a boat on a reduced scale.

The object of my invention is to provide a means for strengthening a paper boat in the parts most subjected to wear and strain, without adding proportionally to its weight; and the invention consists in attaching to the bottom and sides of such portions of the boat, a series of longitudinal strips or pieces of paper, or thin wood, or prepared cloth, of gradually-decreasing width or length, and laid one over the other. It also consists in the application of a similar series of strips or pieces, placed transversely across the bottom and sides of the inner surface of the boat, for the purpose of additionally strengthening the same under and at the rower's seat.

The great object in the construction of paper boats is to dispense with as much material as possible, consistently with the strength required for holding the parts together and in shape, the thickness of the hull, in a boat of thirty feet in length, being not over five thirty-seconds of an inch.

Great care is also required in stepping into the boat, it being necessary that the foot should be placed almost directly in the centre of the width of the boat, to prevent it from upsetting, and this portion of the boat,

together with that occupied by the rower's seat, is subjected to considerable wear and strain.

Referring to the drawings, *a* represents the hull of a paper boat, which may be of any required length.

Figs. 1 and 3 represent a section of the boat, at the portion to be occupied by the rower, and where the greatest strength is required.

*c c* represent a series of strips or sheets of paper, or thin wood, or cloth, properly prepared, and attached to the bottom and sides of the boat, in layers of gradually-diminishing widths, as shown in fig. 3, *c*<sup>1</sup> being the lower, *c*<sup>2</sup> a second layer, and *c*<sup>3</sup> the upper layer.

*d*<sup>1</sup> *d*<sup>2</sup> represent layers of paper or thin wood, arranged transversely to those marked *c*<sup>1</sup>, *c*<sup>2</sup>, &c., and serve as braces to the boat, to strengthen the portion supporting the seat, or the portions designated *d*<sup>1</sup> *d*<sup>2</sup> may form a part of those marked *c*<sup>1</sup>, *c*<sup>2</sup>, &c., the same being cut so as to extend upwards at right angles to *c*<sup>1</sup>, *c*<sup>2</sup>, &c.

*e* represents the keelson, which is to be made of as little material as possible, consistent with strength, and is made wider at the part where the greatest strength is required, as shown in fig. 3.

The transverse strips or braces are also designed to be placed under the bulk-heads of the boat, or at any other place exposed to wear and strain.

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

1. The combination, with a paper boat, of the sheets or strips *c*<sup>1</sup>, *c*<sup>2</sup>, &c., as and for the purpose specified.

2. In combination with the strips *c*<sup>1</sup>, *c*<sup>2</sup>, &c., the pieces *d*<sup>1</sup> *d*<sup>2</sup>, as and for the purpose set forth.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

Witnesses:

J. H. ADAMS,  
M. S. G. WILDE.

P. SHELTON TYLER.