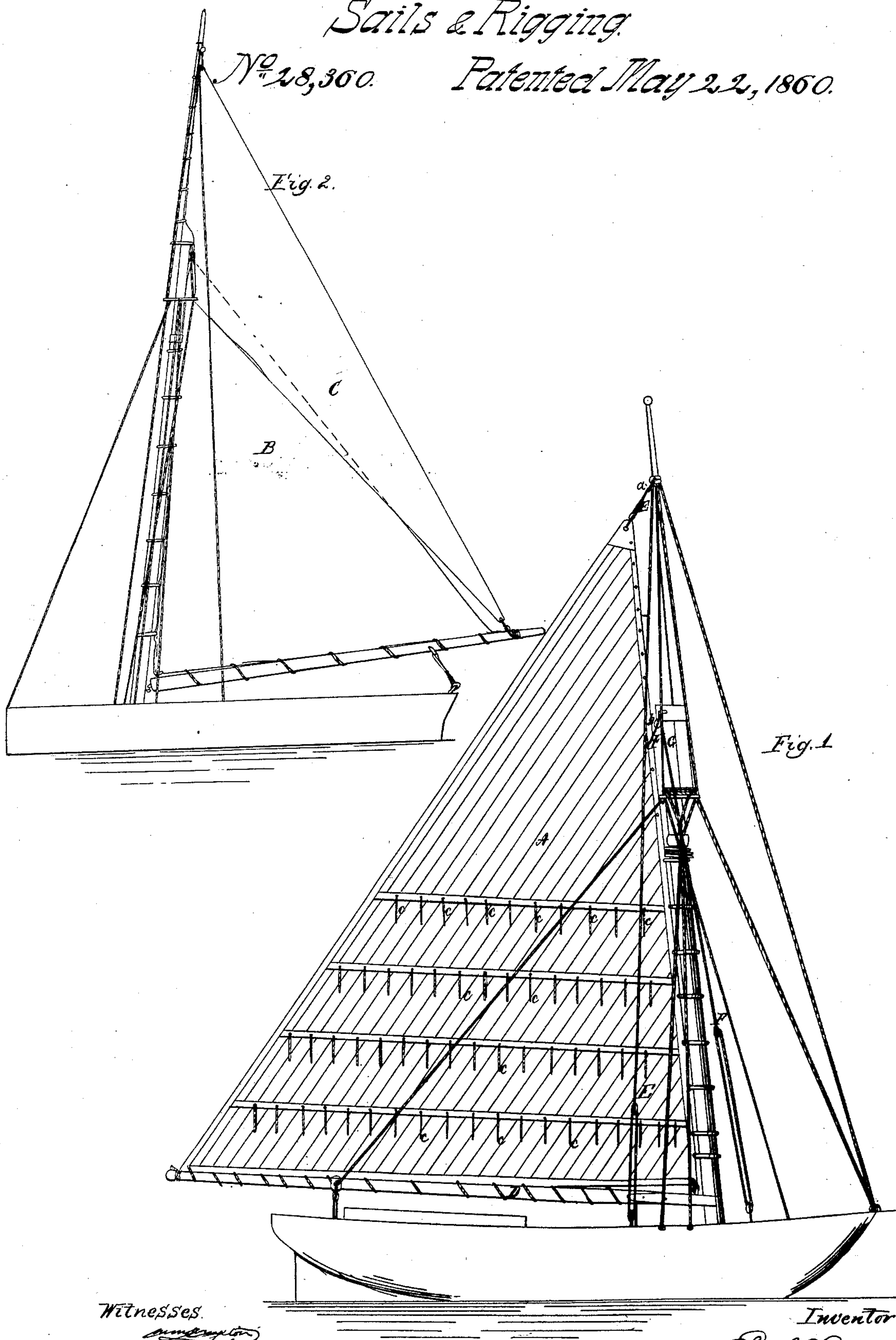


G. W. Gerau.
Sails & Rigging.

Nº 28,300. Patented May 22, 1860.



Witnesses.

Wm. Hughes

Inventor

G. W. Gerau

UNITED STATES PATENT OFFICE.

GEORGE W. GERAU, OF BROOKLYN, NEW YORK.

MAINSAIL OF FORE-AND-AFT VESSELS.

Specification of Letters Patent No. 28,360, dated May 22, 1860.

To all whom it may concern:

Be it known that I, GEORGE W. GERAU, of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in the Fore-and-Aft Rig of Vessels; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1, is a side view of a sloop's main sail, illustrating my improvement. Fig. 2, a side view of a sloop's mainsail, illustrating for the sake of comparison the improvement for which I obtained Letters Patent of the United States No. 15420.

The object of my invention is to simplify and lighten the fore and aft rig still further than is done by my above-mentioned patented improvement, and at the same time to obviate the necessity of furling aloft.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A, Fig. 1, is my improved mainsail of similar triangular form to that which would be produced by the union of the mainsail B, and topsail C, (Fig. 2) which form the subject of my above mentioned Letters Patent, and having for a vessel of any given class the same area as the aggregate of those two sails, or of the mainsail and topsail ordinarily employed. The lower edge of this mainsail A, is attached to the boom D. The upper end or peak, when the whole sail is spread to serve the purpose of the ordinary mainsail and topsail, reaches some distance above the head of the lower mast, and is attached to a halyard E, which runs in a block or blocks, *a*, secured to the top mast, and the edge next the mast is at the same time attached some distance below the peak to a halyard F, which runs in a block or blocks

b, attached to the head G, of the lower mast; and the sail may be reduced while thus attached, by lowering it by both halyards, and reefing it to the boom by reef points *c, c*; but when a reduction equal to or greater than that effected by taking in the topsail which forms part of the subject matter of my before-mentioned Letters Patent, is required, the sail is lowered to bring its peak to or below the mast head G, and the mast head halyard F, is then connected with the peak and the top mast halyard E, disconnected, after which the sail is reefed to the boom, the reduction, whatever its amount, being thus effected without furling to the top mast or any furling aloft. Hoops enough are provided on the lower mast to attach to the said mast as much of the sail, as is at any time below the mast head, and the sail is furnished with a sufficient number of rows of reef points, to provide for any degree of reduction of the sail that may be desirable.

In this improvement, a great saving of weight is effected, over what is effected, by my former patented invention, by dispensing with the brailing lines and running gear of the topsail, which also makes a considerable saving in the expense of its application, and as no furling aloft is required, it enables the sail to be more easily managed.

I do not claim in itself a triangular sail, nor do I claim in itself furnishing a sail with two halyards, but

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

The combination with the lower mast and top mast of the sail A, and halyards E, F, as and for the purpose herein shown and described.

GEORGE W. GERAU.

Witnesses:

C. M. HUGHES,
M. M. LIVINGSTON.