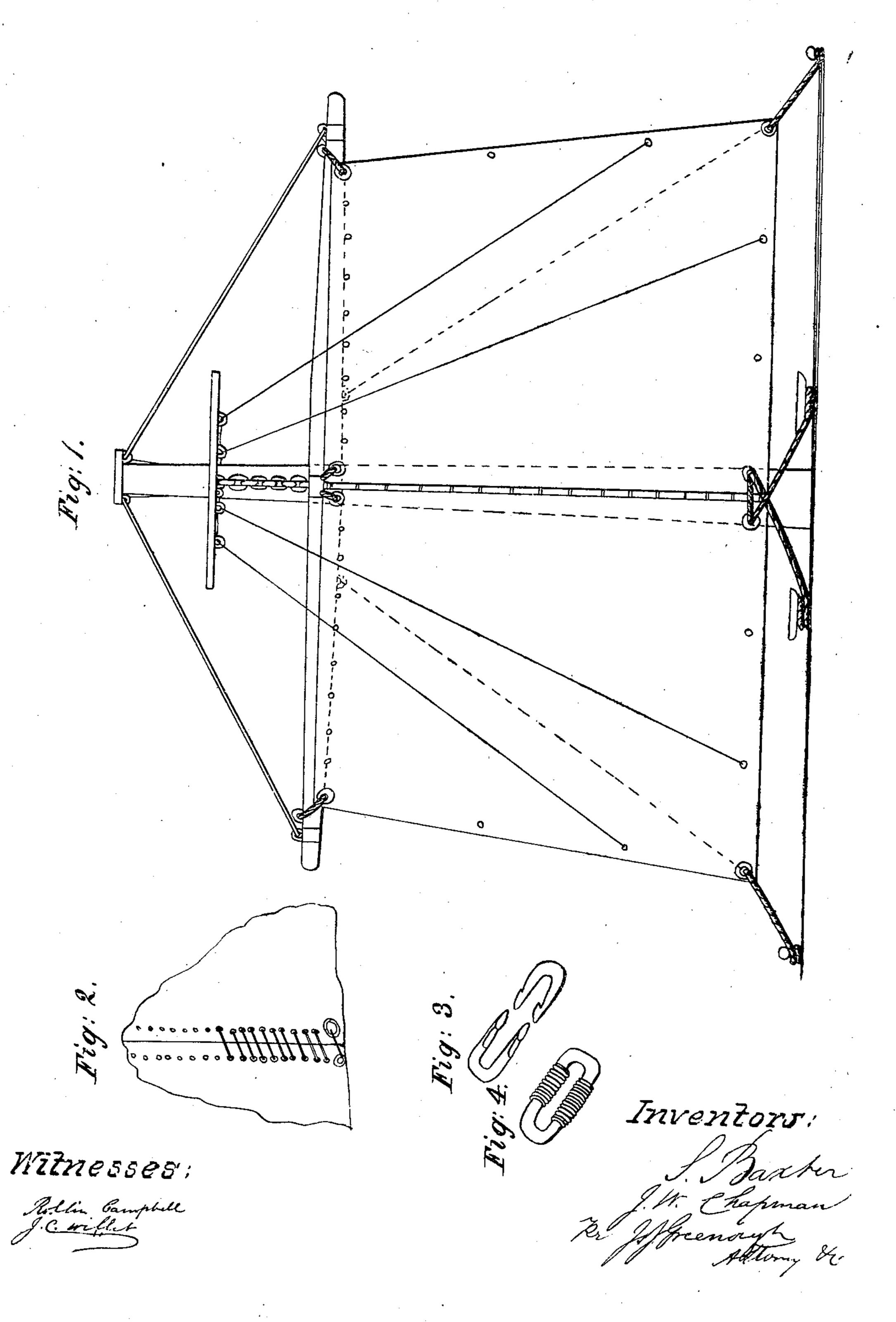
S. W. BAXTER & J. W. CHAPMAN.
COURSE OR LOWER SAIL OF SQUARE RIGGED VESSELS,



## United States Patent Office.

SAMUEL W. BAXTER, OF DENNIS, AND J. WINSLOW CHAPMAN, OF BARNSTABLE, MASSACHUSETTS.

IMPROVEMENT IN THE COURSES OR LOWER SAILS OF SQUARE-RIGGED VESSELS.

Specification forming part of Letters Patent No. 44.065, dated September 6, 1864.

To all whom it may concern:

Be it known that we, SAMUEL W. BAXTER, of Dennis, and J. WINSLOW CHAPMAN, of Barnstable, in the State of Massachusetts, have invented certain new and useful Improvements in the Courses of Ships and Vessels of Similar Rig; and we do hereby describe and ascertain our said improvements as follows, referring to the accompanying drawings, in which—

Figure 1 is a front view of the mainsail; Fig. 2, details of construction for uniting the parts of the sail; Fig. 3, shackle for uniting | the lower inner corners of the half-sail.

Heretofore topsails, and the like, have been divided vertically for the purpose of reefing by rolling them up, or otherwise, which is in'ike our present device, and will not be mistaken therefor by any one versed in rigging vessels, although the feature of division is common to both.

Our invention is for the purpose of facilitating the handling of the larger sails, by which they can be taken in and furled easier than by | any way heretofore devised.

While we retain all the advantages of the

old style of rigging, we add many new ones, such as carrying sail on the lea or weather side alone, so as to aid in steering or paying off, and expeditiously and easily relieving the ship when taken aback in a heavy squall.

The construction is as follows: The courses instead of being made in one piece, as heretofore, are divided from top to bottom, either down the center into two equal parts, or on either side thereof into three (more or less) parts.

The drawings show the sail divided at the center, and to this will the description be confined, the changes for a greater number of divisions being obvious multiplications of the simple device. The sail, made in two parts, is bent on in the usual way, and when in ordinary use, in light weather, the edges of the two halves at the center are united so as to present the appearance and effect of a single sail. This union is somade as to be at once disconnected, on emergency, as follows: We affix along the inner edge of each half-sail a a lines of "fairleaders," of wood or other material, so arranged as that those on one half will come between those on the other, as clearly shown at b in the drawing. Through these we reeve a rope, securely fastened at the two ends, by which means the two halves of the sail are

united. As a further security we add a metal shackle. (See Fig. 4.) This we pass through grummets at the lower inner corners of the halfsails. The two parts of the shackle are then locked together and seized or held by a thumb-screw on each side, so as to firmly unite them and secure the corners of the sail. There are clew-garnets and other gear connected with the inner edges of the half-sail, to aid in handling, furling, &c., when said halves are divided. There are also tacks and sheets at the inner clews, as at the outer. The tacks d are brought into requisition before the halves of the sail are separated, by belaying them to cleats on deck or otherwise. When the parts of the sails are to be separated, after the tacks are secured, the center rope through the fair-leaders before named is let go and drawn out, the seizing cut loose from the shackle or the screws freed, as the case may be, while the shackle is thereby freed from its hold and the parts of the sail are disunited, forming two independent sails, either of which can be reefed or furled at will by the ordinary means.

Besides the mode described of uniting the parts of the sail at the center, others may be adopted that are obvious to the expert, such as a series of loops on one part passing through grummets in the other, and either looped into each other or having a rope passed through them. Many other well-known devices for similar purposes will occur to the practical sailor or rigger, but we have pointed out sufficient to show what is well adapted to the purpose.

Having thus fully described our improvement, what we claim, and desire to secure by. Letters Patent, is—

1. The combination of the tacks and sheets at the division of the sail, formed of two parts, as and for the purposes set forth.

2. Uniting the two halves of a sail by means of fair-leaders with a rope rove therein, or the equivalent thereof, so that the sail can readily be united or disunited, as is required and herein specified.

3. The shackle, Fig. 4, formed of two parts for uniting the lower corners of the divided sail, as set forth.

> SAML. W. BAXTER. J. WINSLOW CHAPMAN.

Witnesses: J. J. GREENOUGH,

EUGENE LAURENCE.