

(No Model.)

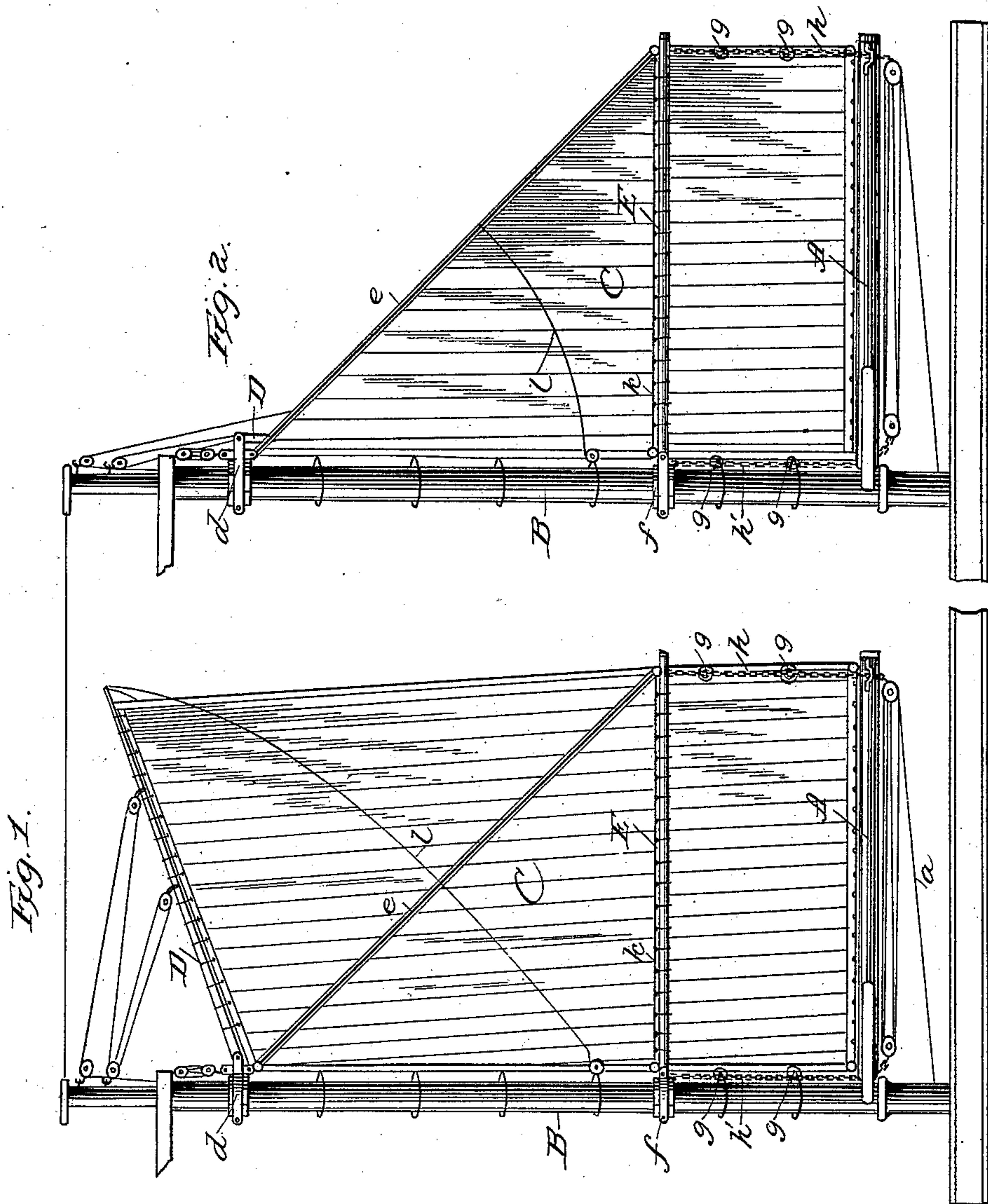
2 Sheets—Sheet 1.

E. POOLE.

REEFING AND FURLING SAILS.

No. 357,094.

Patented Feb. 1, 1887.



Attest:

Walter M. Mason
Chas. S. Sturtevant.

Inventor
Edward Poole
by Eli S. Spear
Atty.

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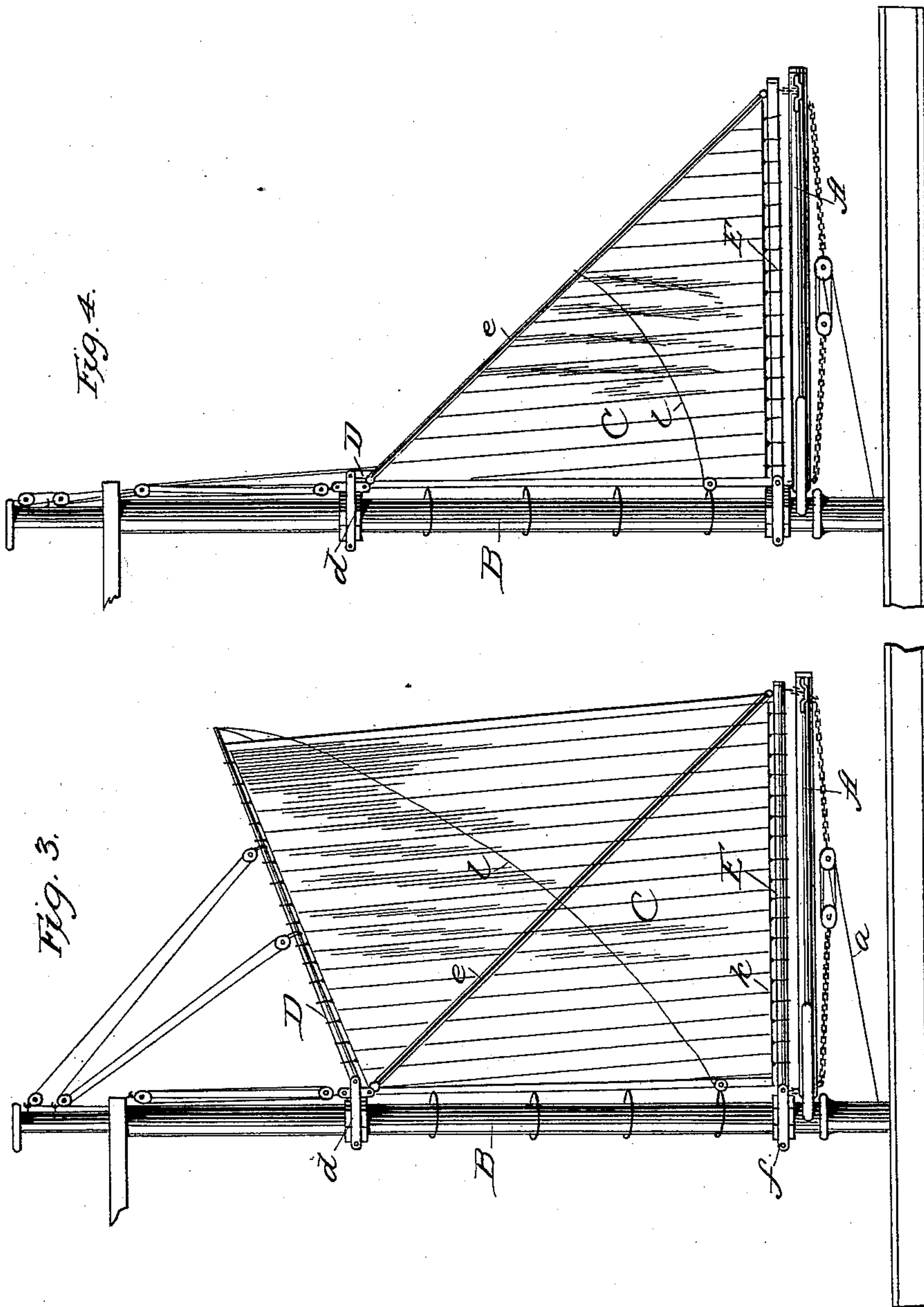
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Walter Macason
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UNITED STATES PATENT OFFICE.

EDWARD POOLE, OF BATH, MAINE.

REEFING AND FURLING SAILS.

SPECIFICATION forming part of Letters Patent No. 357,094, dated February 1, 1887.

Application filed October 8, 1886. Serial No. 215,708. (No model.)

To all whom it may concern:

Be it known that I, EDWARD POOLE, of Bath, in the county of Sagadahoc and State of Maine, have invented a new and useful
5 Improvement in Sails; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to fore and aft sails, and is designed to facilitate reefing. It is an
10 improvement upon the general form of sails heretofore known; and it consists in the hereinafter-specified arrangements and details of construction.

In the accompanying drawings, Figure 1
15 shows the sail fully set in side elevation. Fig. 2 is a similar view of the sail reefed by dropping the gaff. Fig. 3 shows the reef taken in the sail by lowering the reef-boom. Fig. 4 shows in the same way the sail with both
20 reefs taken in.

In the drawings, the boom A is attached to the mast B in the ordinary way, as also is the sail C. The gaff D is hinged to a gaff-ring, *d*, so that it can be dropped to a perpendicular position, as shown in Fig. 2, the ring being supported by the throat-halyards in the same position. A rope, *e*, is also connected to the gaff-ring *d*, and extends across the sail to the outer ring of the boom E, being attached to the sail in that position. The reef-boom E is marled to the sail, and its inner end is connected to the reef-boom ring *f*. The luff-rope of the sail is connected to the rings or hoops on the mast in the ordinary
35 manner, but on the luff and leech ropes of the sails below the reef-boom are thimbles *g*, through which pass chains or ropes *h h'*. The upper ends of these are attached to the reef-boom, and they run down over sheaves in the boom A, where they are connected to tackle, by means of which the reef-boom may be drawn down. Across the sail, from the inner to the outer reef-boom, is attached another rope, *k*, to which the reef-boom is marled.
40 This also serves to strengthen the sail, and aids in reefing when the reef-boom is drawn down. This is drawn down by pulling on the rope *a*. The reef-boom has no reef-points nor reef-earings. It can be formed of wood or any
45 suitable metal, the preferred form being tubing of any desired size.

The chain running through the thimbles causes the sail to fold nicely between the booms when the reef-boom is lowered.

55 The peak is reefed by dropping the gaff D

to the position shown in Fig. 2. It is drawn down to its place and held by the rope or ropes *l* and folds over the rope *e*, and the sail is then in the position shown in Fig. 2. The reef in the lower part of the sail caused by
60 drawing down the reef-boom is shown in Fig. 3, and both reefs together are shown in Fig. 4, by which the sail is reduced to a minimum. Here the rope *e* forms the leech of the sail, and the reef-boom forms the boom. The reef
65 in the peak and also the lower reef can be taken while sailing before the wind without altering the course of the vessel.

I am aware that it is not new to employ a reef-boom attached at a point above the main
70 boom; and I am also aware that it is old to use a cord or rope extending from the gaff-ring diagonally across the sail to the outer end of the main boom; and I do not claim either of these ideas, broadly.

I claim as my invention—

1. In combination, the boom A and sail C, the gaff-ring *d*, the reef-boom E, marled to the sail, and the rope *e*, extending from the outer end of said reef-boom to the gaff-ring, substantially as described.

2. In combination, the boom A, sail C, said sail having a rope, *e*, extending from the gaff-ring to the leech-rope at a point above the boom A, means, substantially as described,
85 for reefing the peak thus formed, a reef-boom, E, extending from the point of connection between the rope *e* and leech-rope across the sail, and means for lowering the reef-boom, substantially as described.

3. In combination with the boom A and the reef-boom E, the ropes or chains *h h'*, running through thimbles *g* on the leech and luff ropes of the sails, with suitable tackle for drawing down the chains, substantially as described.

4. In combination, the boom A, the sail C, the rope *e*, extending across the sail from the gaff-ring *d* to the leech-rope at a point above the boom A, the rope *k*, extending from
100 the outer end of the rope *e* across the sail, and the reef-boom E, marled thereto, substantially as described.

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

EDWD. POOLE.

Witnesses:

J. R. KELLEY,

W. B. MUSSENDEN.