J. L. DICKENSON.

Reefing Fore-and-Aft Sails.

No. 211,712. Patented Jan. 28, 1879.

Fig: 1.

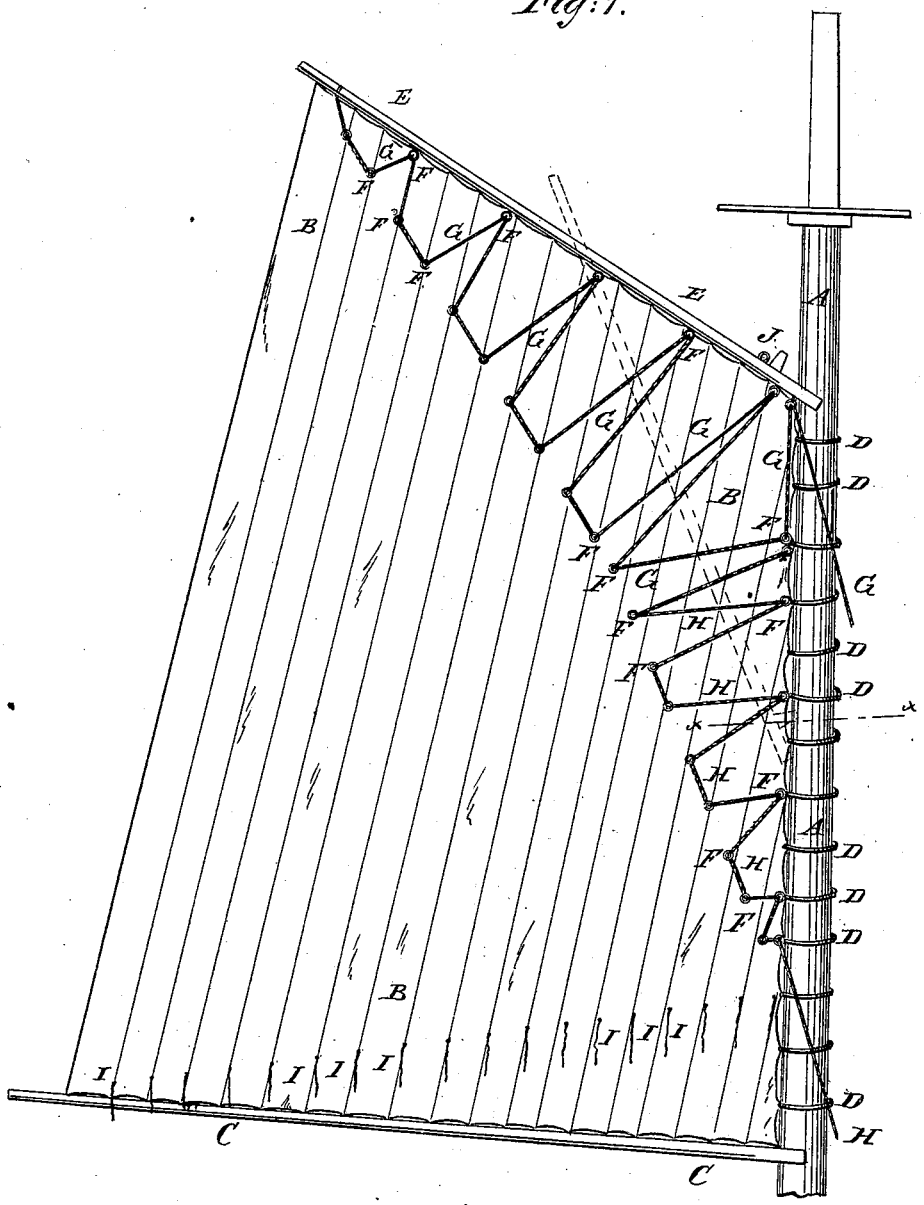
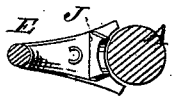


Fig: 2.



WITNESSES:

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JOSEPH L. DICKENSON, OF HEMPSTEAD, NEW YORK.

IMPROVEMENT IN REEFING FORE-AND-AFT SAILS.

Specification forming part of Letters Patent No. **211,712**, dated January 28, 1879; application filed December 23, 1878.

To all whom it may concern:

Be it known that I, JOSEPH L. DICKENSON, of Hempstead, in the county of Queens and State of New York, have invented a new and useful Improvement in Reefing Fore-and-Aft Sails, of which the following is a specification:

Figure 1 is a side view of a fore-and-aft sail to which my improvement has been applied. Fig. 2 is a detail section of the same, taken through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish fore-and-aft sails which shall be so constructed as to save labor and time in reefing, which may be reefed in such a way as to bring the sail into proper shape for a storm-sail, confining the gaff and giving it all the advantages of a try-sail, which shall be a great advantage in jibbing or when rolling heavy in a calm, as the gaff is secure, and at the same time shall be easier on the sail.

The invention consists in the combination of the reef-brails with the sail, the gaff, and the mast-hoops, for reefing the upper inner corner of the said sail; and in the block-jaw attached to the upper side of the inner end of the gaff, to rest against the mast and keep the said inner end of the gaff in place when the said gaff is lowered in reefing, as hereinafter fully described.

A is the mast. B is the sail, the lower edge of which is attached to the boom C in the usual way. The mast of the sail B is attached to the mast-hoops D, and its upper edge is attached to the gaff E. To the opposite sides of the sail B, from its outer top corner to its inner edge, near its lower inner corner, is attached a row of bull's-eyes, F, through the upper part of which and through bull's-eyes F, attached to the gaff E, is passed a reef-brail, G, the free end of which is passed through a bull's-eye, F, attached to a hoop, D, through a bull's-eye, F, attached to the inner end of the gaff E, and is secured by a racking when confining a reef. Through the bull's-eyes F of the lower part of the diagonal row, and through bull's-eyes F, attached to the hoops D, is passed a reef-brail, H, the free end of which is secured by a racking when confining a reef.

With this construction, by slackening the throat-halyards and drawing upon the peak-halyards, the gaff E will be brought into the position indicated in dotted lines in Fig. 1, bringing its outer end nearly into line with the top of the mast A and the outer end of the boom C, so that the said gaff will be held firmly. At the same time the reef-brails G H are drawn upon, reefing the upper inner corner of the sail B against the gaff E and the mast A.

The reef-points I are arranged in an inclined line above the lower inner corner of the sail B, so that when the upper and lower reefs are both taken the sail will be brought into the shape of a mutton-leg sail.

To the upper side of the gaff E, near its jaws, is attached a block-jaw, J, to rest against the mast A and keep the lower end of the gaff E in place when the said gaff is lowered. Reef-brails G H are attached to both sides of the sail B, so as to closely confine the reef.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of the reef-brails G H with the sail B, the gaff E, and the mast-hoops D, for reefing the upper inner corner of the said sail B, substantially as herein shown and described.

2. The block-jaw J, attached to the upper side of the inner end of the gaff E, to rest against the mast A and keep the said inner end of the gaff E in place when the said gaff is lowered in reefing, substantially as herein shown and described.

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Witnesses:

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