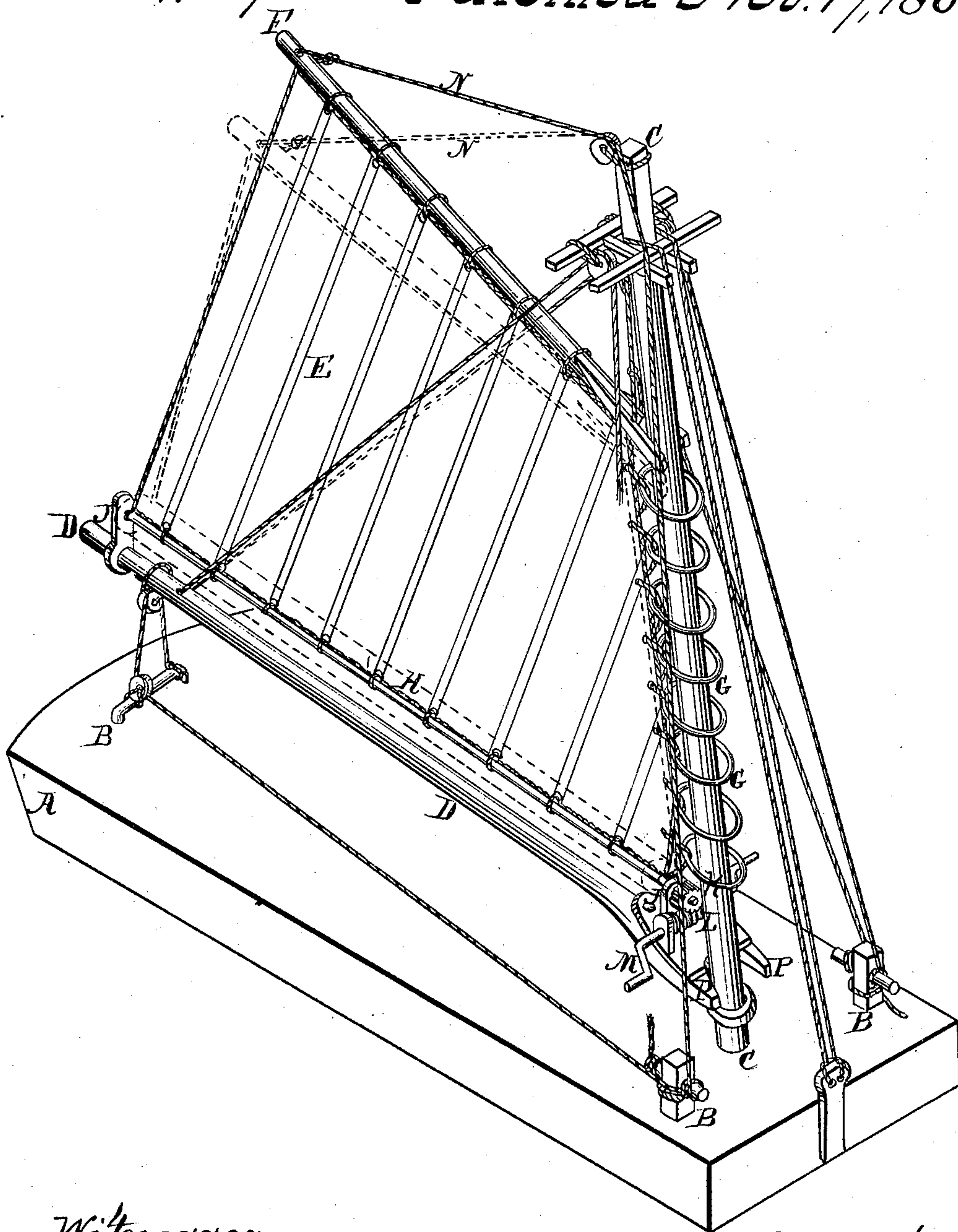


W.C. Rogers.
Sails & Rigging.
N^o 84,137. Patented Nov. 17, 1868.



Witnesses.
E. D. Mayhew
Godfrey Mathys

Inventor.
William C. Rogers
Per J. F. Reigart
Atty



WILLIAM C. ROGERS, OF NEWARK, NEW JERSEY.

Letters Patent No. 84,137, dated November 17, 1868.

IMPROVEMENT IN REEFING FORE-AND-AFT SAILS.

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, WILLIAM C. ROGERS, of Newark, Essex county, State of New Jersey, have invented a new Mode of Reefing Fore-and-Aft Sails of Vessels; and I do hereby declare the following to be an exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, the red lines exhibiting the mode of rolling the sail.

The nature of my invention consists in the attachment of an iron roller to the lower part of the fore-and-aft sail, and operating on top of the boom by means of an endless screw, crank, and pinion, to reef the sail without moving the boom.

A represents the boat or vessel.

B B, the timber-heads, to which the ropes or halyards are secured.

C, the mast.

D, the boom.

E, the sail.

F, the gaff, at the top of the sail.

G G, the mast-hoops, that are attached to the sail E, and work loosely on the mast C.

The roller H is made of iron, and is attached to the boom D, and operates at each end in uprights, J, of the boom.

The sail is also attached to the roller H, and is rolled upon it by means of the pinion K, at one end of the

roller, that is operated by an endless screw, L, and crank, M, so as to reef and shorten the sail.

When I slacken the peak-and-throat halyard N, I commence working the crank M, and roll the sail upon the roller H. The sail then descends any distance required, to shorten it, or to reef or furl it entirely. This enables me to reef the sail without disturbing or moving the boom D in any position, which is an important advantage, saving time and labor, and all the trouble heretofore caused by the use of ropes and tackle to reef the fore-and-aft sail.

The devices K, L, and M, are attached to the upper side of the jaws P of the boom D, and are easily and quickly operated.

I do not claim a roller, as such has been used on a square sail; but

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

The combination and arrangement of the pinion K, endless screw L, and crank M, attached to the upper side of the jaws P, and operating the roller at its inner end, as herein described, and for the purposes set forth.

WM. C. ROGERS.

Witnesses:

J. FRANKLIN REIGART,
EDM. F. BROWN.