

UNITED STATES PATENT OFFICE.

BARTHOLOMEW McGRATH, OF GLOUCESTER, MASSACHUSETTS.

IMPROVED BOOM-CONNECTION FOR MASTS.

Specification forming part of Letters Patent No. 55,515, dated June 12, 1866.

To all whom it may concern:

Be it known that I, BARTHOLOMEW McGRATH, of Gloucester, in the county of Essex and State of Massachusetts, have made a new and useful invention having reference to the application of a boom to a mast; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view, and Fig. 2 a side elevation, of a mast and its boom as provided with my invention, it being intended to obviate the disadvantages incident to the common mode of applying a boom to a mast—one which, in case the connection-pin or swivel becomes broken while a vessel is at sea, often puts the vessel in jeopardy and is difficult of repair.

In carrying out my invention I support the boom by means of a semicircular or curved rail or rod and a roller or wheel and two arms applied to such rod and to the boom, such curved rail being held to the mast by screws and nuts and two clamps, arranged as represented in the drawings.

In such drawings, A is the mast, and B the boom. C is the curved metallic rail or rod, which has male screws *a a* cut on it at or near its two ends. This rail goes through two metallic arms, D D, which are fastened to opposite sides of the boom, and project beyond its heel or that end of it which is next to the mast. Each arm has a hole made through it for reception of the curved rail or rod, and made of a diameter to allow a grooved roller or wheel, E, arranged between such arms, and

with its axis vertical, or thereabout, to bear against the rail. The grooved roller should be properly supported, so as to be capable of freely revolving when the boom is swung either to windward or leeward.

Two metallic clasps, F F, formed as shown in the drawings, embrace the mast on its opposite sides and receive the curved rod, which goes through their projecting ears and is screwed to the clasps by four nuts, *b b c c*, screwed upon the screws *a a*, and arranged with respect to the clasps in manner as represented. These screws and nuts also answer to clamp the clasps to the mast as well as to enable them to support the curved rail or rod in its proper position relatively to the mast.

The arms prevent the boom from being drawn away from the mast. The roller or wheel enables the boom at its heel to move around the mast with great ease, and always to point to the axis of the mast in whatever position it may take.

I claim—

1. The mast and boom-connection as composed of the clasps F F, the curved rod C, its screws and nuts, and the arms D D, arranged substantially as specified.

2. The combination of the wheel E with the clasps F F, the curved rod C, its screws and nuts, and the arms D D, the whole being arranged as explained.

BARTHM. McGRATH.

Witnesses:

R. H. EDDY,
F. P. HALE, Jr.