

W.C. Ireland.

Elastic Coupling.

No. 100,487.

Patented Aug. 16, 1870.

Fig. 1.

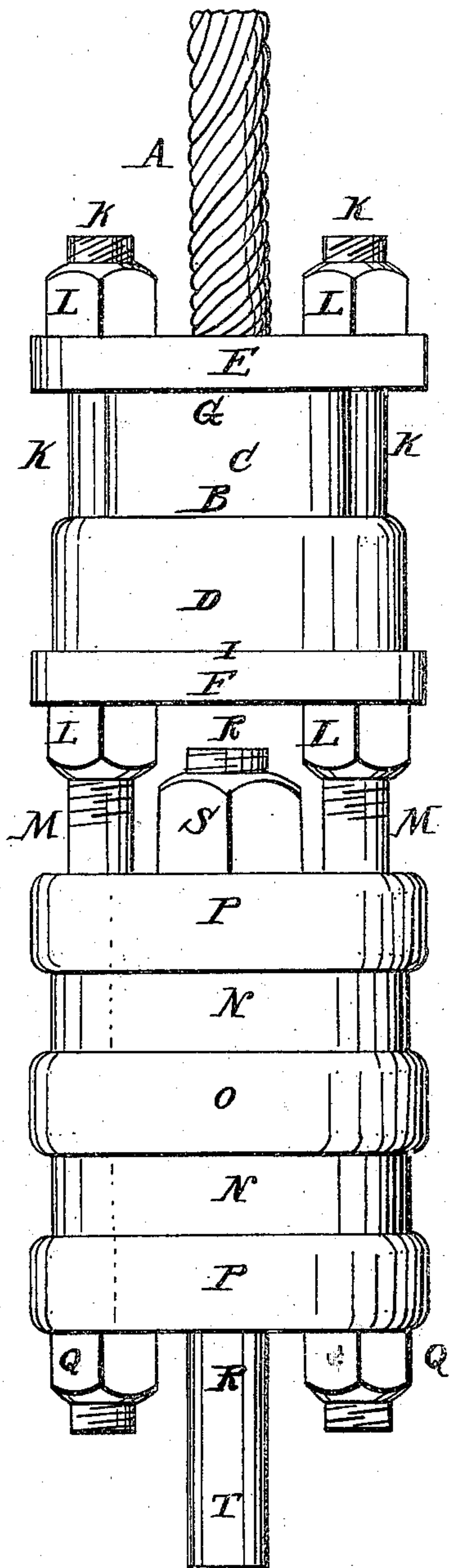
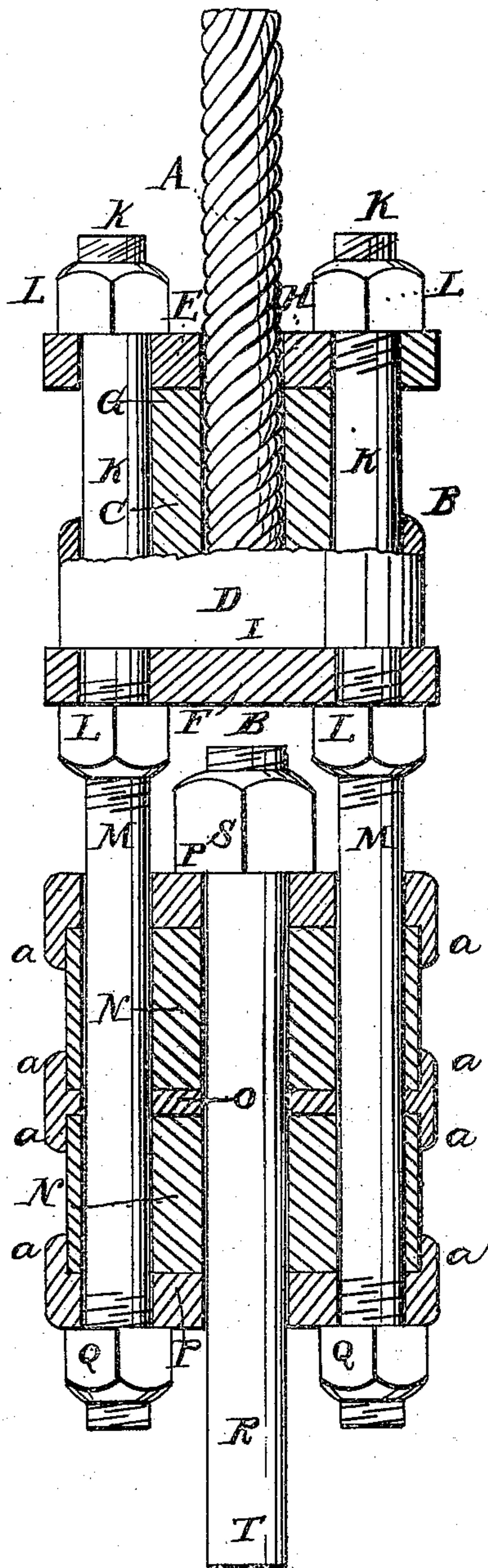


Fig. 2.



Witnesses:

John C. Magall
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Inventor

W. C. Ireland per
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United States Patent Office.

WILLIAM CARLTON IRELAND, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 106,487, dated August 16, 1870.

IMPROVEMENT IN COUPLING FOR WIRE RIGGING.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents shall come:

Be it known that I, WILLIAM CARLTON IRELAND, of Boston, in the county of Suffolk and State of Massachusetts, have invented a certain new and useful improved Elastic Connection or Coupling for Standing Rigging to Ships, &c., and that the following is a full and exact description of the same, reference being had to the accompanying drawing.

The object of this invention is to connect the bowsprit, futtocks, and mast-shrouds or stays, or, in a word, the standing rigging of ships, more especially to the ship's sides, in such manner that, while permanently fastened, the shrouds or ropes can yield or give to heavy strains or tensions on them, preventing breaking.

For this purpose the invention consists of a coupling between a "dead-eye," in which one end of the rope or shroud is secured, and the ship's side, which coupling is an extension of the dead-eye, and, in its length, is so constructed between the dead-eye and the eye, loop, or bolt, by which it is hung or fastened to the ship's side, as to yield or give in such direction to heavy strains or tensions on the shrouds or ropes.

In the accompanying drawing my improved elastic connection or coupling for standing rigging of ships, &c., is illustrated,

Figure 1 being a side view of the same, and
Figure 2 central longitudinal section.

A in the drawing represents one end of a rope or shroud, and

B, a dead-eye, in and to which the rope end A is secured.

This dead-eye B I prefer to have constructed according to an invention described in schedule annexed to Letters Patent No. 100,976, dated March 22, 1870, and issued to Dexter H. Chamberlain, that is, in two parts, C and D, the one C a receiving-part, and the other D a fastening part, with a hole through the center of the receiving part and the fastening part arranged to hold the cable in a line outside of said center hole, binding the same on the receiving-block in a direction transverse to the receiving plane.

E and F, cross-bars, the one placed across the end G of receiving-part C of dead-eye, the cable passing through a hole, H, in its center, and the other placed across the end I of fastening part D, with the two joined together or connected by and through two bolt-rods, K K, on which are screw-nuts, L L, by the proper turning of which the cross-bars E and F are forced toward each other or allowed to separate, as the case may be, in the one instance binding the two parts of the dead-eye firmly together, and in the other allowing them to separate or be opened.

M M, extension of the bolts K K from the cross-bar F.

N, a series of India-rubber or other elastic cushions, cylindrical in shape, and, in the present instance two in number.

The rubber cushions N are placed over the exten-

sion M of bolt-rods K, with a plate, O, placed between the two, separating them, and with a plate, P, against each end of the whole series, through all of which plates the said bolt extensions M pass.

Q, nuts on the extreme ends of the bolts K, holding the said series of cushions and plates on the bolts.

The separating and end plates each are provided with a flange or lip, a, extending around the periphery of the rubber cushions, to the more perfectly confine them at their edges, (see fig 2, more particularly.)

R, a rod, passing through center of the series of rubber cushions and plates, above described, from end to end, with a nut, S, on its end, between the inner end of said series and the inner cross-bar F of the dead-eye.

By the outer end T of the rod R, the coupling above described is to be secured to the ship's side, and, for this purpose, as is obvious, it may be constructed as an eye or a screw-bolt, or in many other forms.

With a shroud fastened in the dead-eye B, the end T of rod R secured to the ship's side as the shroud strains, the rubber cushions on the dead-eye extension-rods K are compressed, when the strain, becoming released more or less, or ceasing, the cushions immediately react, and so on; the connection or coupling described yielding and giving to strains on the shroud, and thereby preventing their breaking or the giving away of the attachment to the ship's side.

By constructing the rubber cushions or yielding portions of the coupling in sections, separated by a plate, O, as described, a more perfect action is secured, and the bulging of the rubber by compression greatly reduced from what would occur with rubber cushions made in one entire piece or length, and a consequent better confinement of the rubber to its work, and an increased durability thereof secured.

In conclusion, it may be well to here observe that the coupling, substantially constructed and combined as herein described, may be used for other purposes than the standing rigging of ships, and, therefore, it is not intended by me to limit myself to any one or more purposes of its application.

Having thus described my invention,

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

The rods K K, connecting together the plates E and F of the dead-eye, when combined and arranged with the plates P, and rubber N, sliding upon the extensions M M of the bolts K K, and operating in relation to the cable A, and rod R, substantially in the manner and for the purpose described.

The above specification of my invention signed by me this 16th day of May, A. D. 1870.

WM. CARLTON IRELAND.

Witnesses:

ALBERT W. BROWN,
EDWIN W. BROWN.