

J. H. Chamberlain,

Elastic Coupling.

No. 100,976.

Patented Nov. 22, 1870.

FIG. 1.

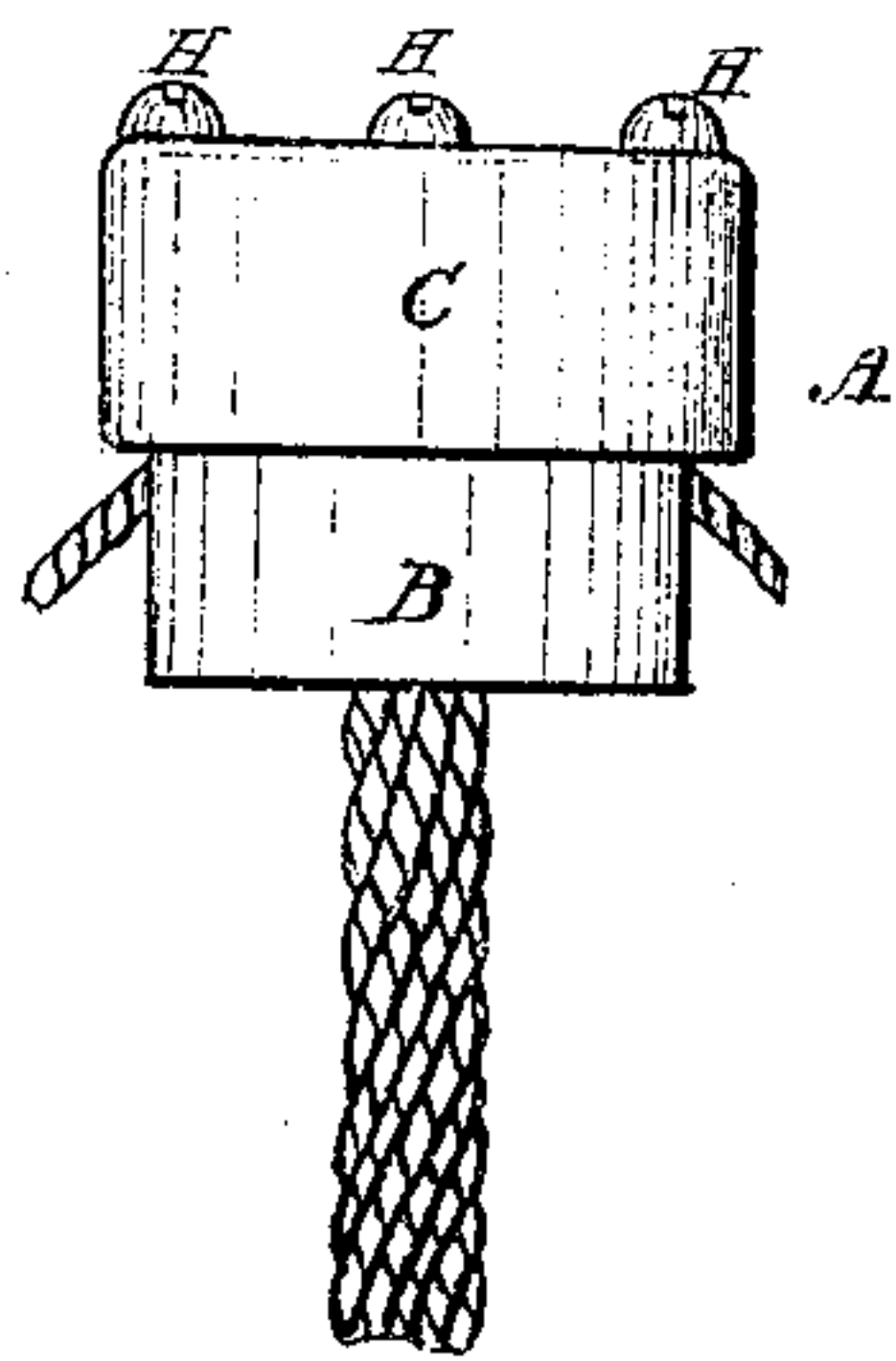


FIG. 4.

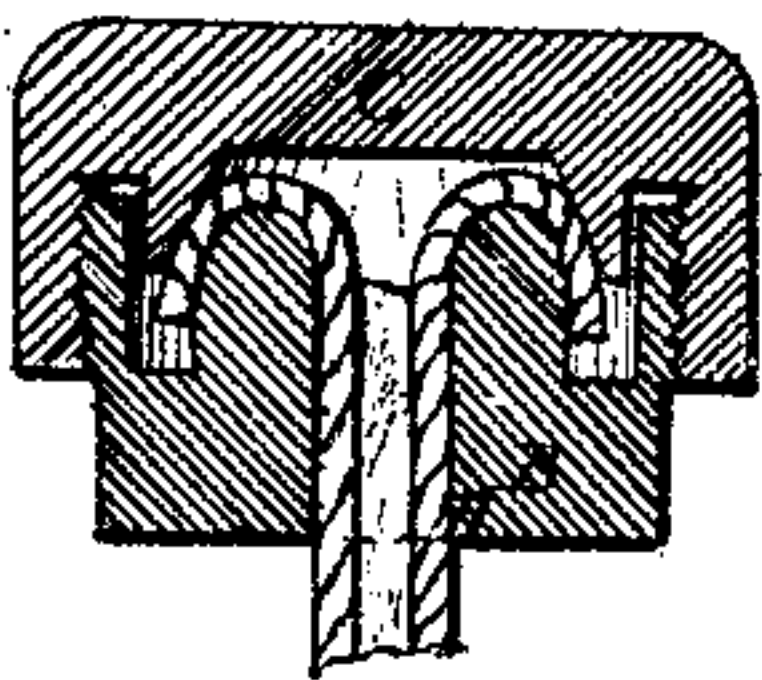


FIG. 2

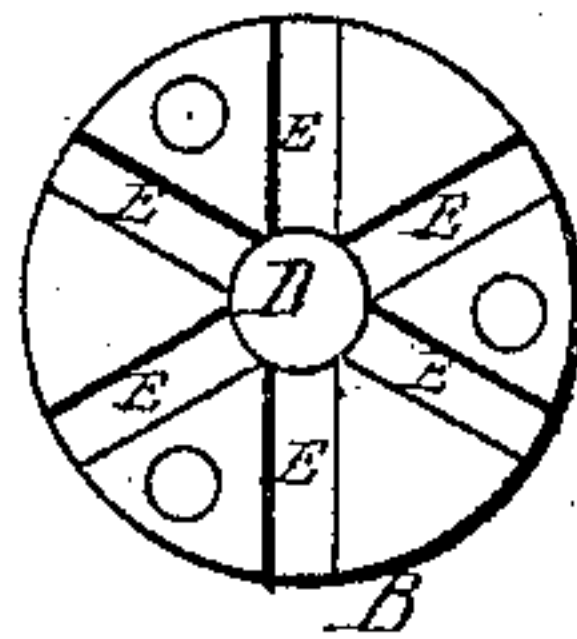
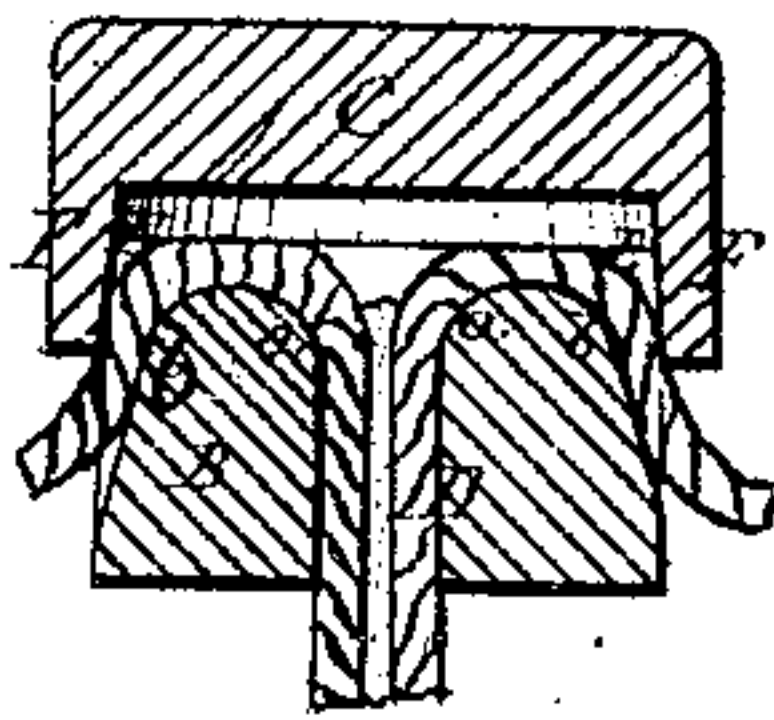


FIG. 3.



WITNESSES.

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DEXTER H. CHAMBERLAIN, OF WEST ROXBURY, MASSACHUSETTS.

Letters Patent No. 100,976, dated March 22, 1870.

IMPROVEMENT IN DEAD-EYES 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, DEXTER H. CHAMBERLAIN, of West Roxbury, in the county of Norfolk and State of Massachusetts, have invented a certain new and useful Improvement in Dead-Eyes; and that the following is a full and exact description of the same, reference being had to the accompanying plate of drawings.

The present invention relates to a "dead-eye," so termed, and it is more especially designed (although it is not intended to limit its use therefor) for the hoisting-apparatus secured to me by Letters Patent issued the 23d day of February, A. D. 1869, to receive and fasten the end of the cable-line, referred to in the schedule annexed to said Letters Patent and forming a part of the same, so that it (the cable) can be properly secured and hung or suspended from any suitable support provided for it.

The object of the invention is to construct the dead-eye in such manner that the cable-line can be firmly secured to and in it without injury.

For this purpose the invention consists—

First, of a dead-eye constructed in parts or sections, the one to receive the cable by forming a hole of sufficient size through it, and the other to fasten the cable into and on the said receiving-part by a clamping action, bind or nip on the cable, either in its whole or in its separate strands, in a plane outside or beyond the entering plane for the cable of the receiving-part, and in a direction across or transverse, or at right angles or thereabouts, to that in which the cable enters the dead-eye.

Second, of a dead-eye constructed as above, and having either one or the other or both of its parts provided with a groove or grooves between the nipping or clamping and the receiving planes of the dead-eye, made either continuous or broken, or to extend for only a part of the distance between the said planes for the purpose of a seat or seats for the cable or its strands, to prevent lateral or side play or movement of the cable in the dead-eye.

In the accompanying plate of drawings my improvement in dead-eyes is illustrated by drawings of a dead-eye, embracing in itself both divisions or parts of the invention, as hereinbefore specified,

Figure 1 being a side view of the dead-eye, showing it as together with a cable line secured in it;

Figure 2, a plan view of the grooved side of the receiving-block to dead-eye;

Figure 3, a central vertical section through the dead-eye, when together and holding a cable;

Figure 4, a sectional view, showing a modification of the invention.

A in the drawings represents my improved dead-eye, made in the present instance in two parts or sections, B and C, the one, B, the receiving-block, and the other,

C, the fastening-block, by the latter of which the cable is secured in and to the receiving-block B, first having been properly disposed and arranged therein, as will be hereinafter described.

D, a hole through the receiving-block B from one side to the other, and E, a series of grooves leading from the said hole D in radial lines to the periphery of the block, where they terminate.

The hole D in the present instance is shown as made in the center of the block B, and its size is to depend upon the size or diameter of cable which the block B is to receive.

The grooves are of a width sufficient to receive the strands of the cable, one to each groove, and in the present instance are cut or formed to extend down the periphery or edge of the block for a portion of its thickness, tapering in depth and terminating at the said periphery, with the corners *a* and *b* to the grooves rounded off.

The fastening-block C is made of a cap shape, with its edge or flange F tapering upon its inner periphery, and sufficient in diameter to fit and tightly wedge itself upon and around the receiving-block, when applied thereto and forced thereon by means of screws H, holes being made through the top of the block C, with holes at corresponding points in the grooved face of the receiving-block to receive and take the said screws.

For securing a dead-eye of the construction above described to a cable or other line, first, put the cable by one end through the center hole D of receiving-block B, then untwist it and dispose it, and arrange its separate strands in the grooves thereof, one to each groove, bending them round the corners *a* and *b*, leaving their ends projecting beyond the periphery of the block.

Now place the fastening-block C over the receiving-block, turning it around until its screw-holes are opposite to the screw-holes of the receiving-block, into which then insert the screws, and, with a proper tool, screw them therein, bringing the said fastening-block firmly down and over the receiving-block, its flange or edge bearing upon the strands in the grooves of the receiving-block, nipping and binding them therein, as is obvious, and thus securing the cable to and within the dead-eye.

From the above description it is plain to be seen that, first, the action of the fastening-cap or part on the cable-strands to hold them to the receiving-block is in a plane outside or beyond, and in a direction across or transverse, or at right angles or thereabouts to the entering plane of the cable into the dead-eye, whereby a most perfect and complete "biting," clamping, and binding of the cable is produced, and the cable end most perfectly fastened and secured, as is ob-

vious without further explanation; and, second, by means of the grooves to the receiving-block, forming a seat for each separate strand of the cable, no lateral play or movement or slip thereof in the dead-eye can occur, thus, in connection with the mode of clamping described, insuring a union and attachment between the cable and dead-eye of the utmost firmness, solidity, and rigidity, as is obvious.

In lieu of screws, screw-bolts and nuts may be employed, or the two parts of the dead-eye may be rivetted together, but it is preferable to use means which are susceptible of being tightened and loosened, and applied and detached at pleasure.

And, furthermore, the receiving and fastening-blocks may be constructed for attachment together by screwing the one upon the other, and, therefore, it is not intended to limit the invention to the use of any particular mode of securing the nipping-cap or fastening-part of the dead-eye to the part thereof, constructed substantially as described, for receiving the cable or other line.

By rounding the corners *a* and *b* to the grooves of the receiving-block sharp corners are avoided, and thus injury prevented to the cable-strands by being bent around them.

The grooves need not be extended down the edge of the receiving-block, but it is preferable so to do, as the cable-strands are thus the more perfectly presented to the fastening-cap or ring, and the hold thereon by the fastener rendered the more secure and firm.

The fastening-part of the dead-eye may be made double, and thus, by using two receiving-blocks, a connection made between the ends of two cable-lines or the two ends of the same cable-lines fastened together.

In lieu of a groove for each strand to the cable, two or more strands may be arranged and disposed in one and the same groove, but it is preferable to provide a separate groove for each strand.

Grooves may be made in the fastening-cap or block

in lieu of the receiving-block, or they may be both formed with grooves for the cable-strands, and the grooves made either continuous or broken between the entering plane of the dead-eye for the cable, and the clamping plane thereof; or the dead-eye may be made with a plane surface for the cable or its strands to rest upon, but it is preferable to use a groove or grooves, as with it or them the cable or its strands are insured and held against any lateral play or movement or slip in the dead-eye.

And, also, the grooves may be constructed to terminate at points intermediate between the receiving-hole of the dead-eye and the periphery or outer edge thereof, with a suitable continuous or disconnected seat or seats at their termination, to enable the strands to the cable at such points to be nipped and bound in the grooves. For an illustration of which modification in the construction of a dead-eye according to this invention see fig. 4 of the drawings.

Having described my invention, I will state my claim as follows:

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

1. A dead-eye constructed in sections or parts, the one for the reception of the cable, and the other for fastening the cable to said receiving-part by a clamping action thereon, in a plane outside or beyond, and in a direction across or transverse to the entering plane and direction of the cable in the dead-eye, substantially as described, for the purpose specified.

2. A dead-eye, provided in combination with the above, with a groove or grooves, either continuous or broken, substantially as and for the purposes described.

The above specification of my improvement in dead-eyes for securing cables or other lines, signed by me this 8th day of November, A. D. 1869.

D. H. CHAMBERLAIN.

Witnesses:

ALBERT W. BROWN,
EDWIN W. BROWN.