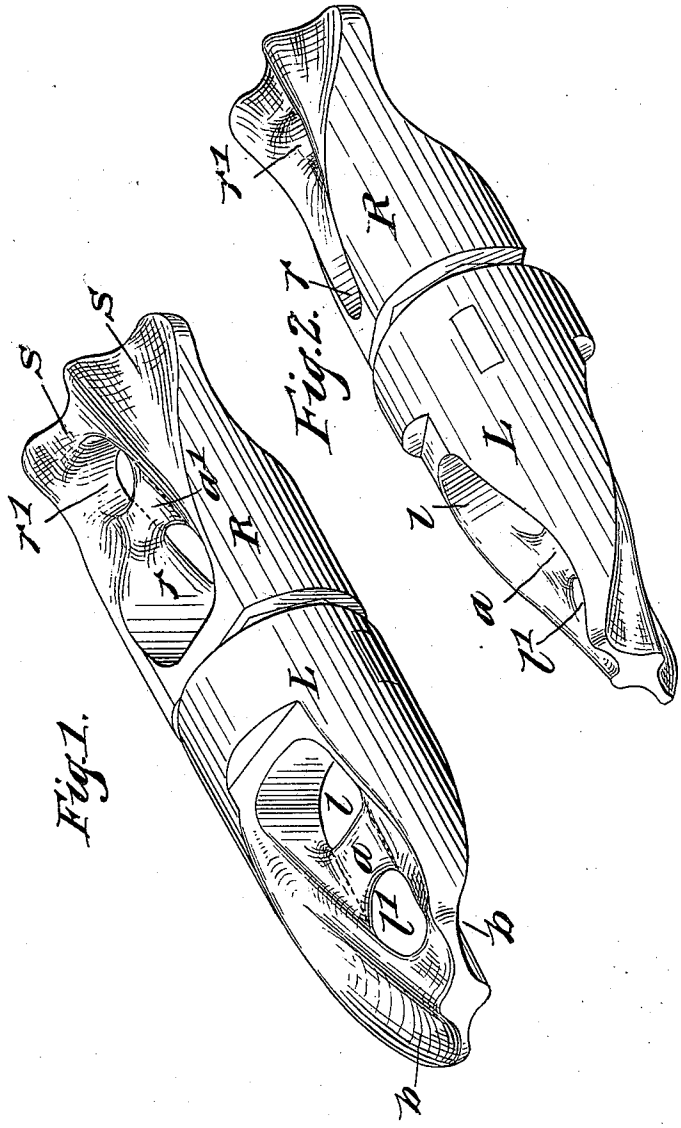
(No Model.) 2 Sheets—Sheet 1.

B. KIRSCH.

ROPE COUPLING.

No. 544,731. Patented Aug. 20, 1895.



Witnesses.
B. S. Obert
Henry Orth

Inventor
Bernhard Kirsch
by Henry Orth
Atty

(No Model.)

2 Sheets—Sheet 2.

B. KIRSCH.

ROPE COUPLING.

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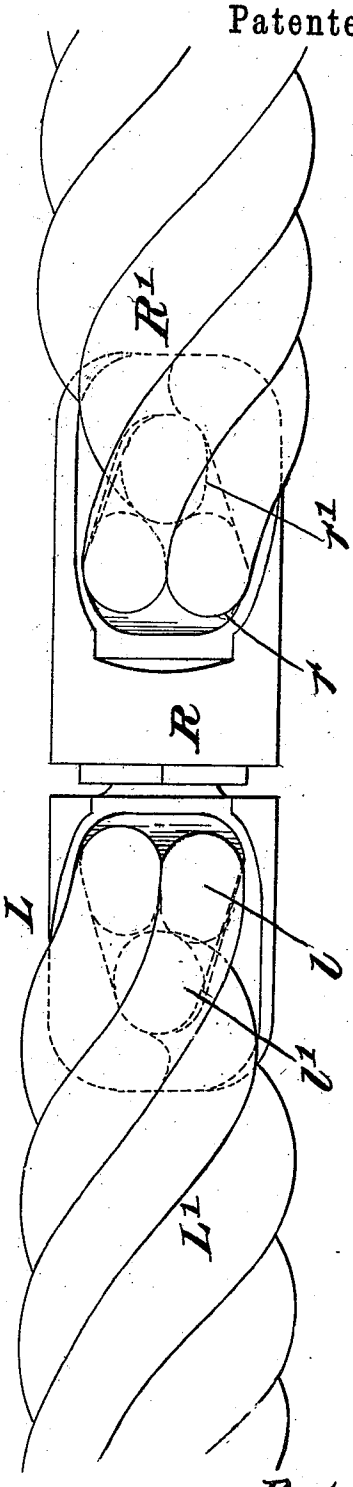

Fig. 3.

Witnesses.
B. S. Ober.
Henry Orth & Co.

Inventor.
Bernhard Kirsch.
By Henry Orth & Co.

UNITED STATES PATENT OFFICE.

BERNHARD KIRSCH, OF VIENNA, AUSTRIA-HUNGARY.

ROPE-COUPLING.

SPECIFICATION forming part of Letters Patent No. 544,731, dated August 20, 1895.

Application filed November 26, 1894. Serial No. 529,958. (No model.) Patented in France April 24, 1894, No. 238,028; in Belgium April 24, 1894, No. 109,644; in Austria May 3, 1894, No. 44/1,335; in Hungary May 3, 1894, No. 347, and in Italy June 30, 1894, XXVIII, 36,228, LXXI, 96.

To all whom it may concern:

Be it known that I, BERNHARD KIRSCH, a subject of the Emperor of Austria-Hungary, residing at Vienna, in the Province of Lower Austria, in the Empire of Austria-Hungary, have invented certain new and useful Improvements in Rope-Couplings, (for which I have obtained patents in Austria, No. 44/1,335, dated May 3, 1894; in Hungary, No. 347, dated May 3, 1894; in France, No. 238,028, dated April 24, 1894; in Belgium, No. 109,644, dated April 24, 1894, and in Italy, Vol. XXVIII, No. 36,228, and Vol. LXXI, No. 96, dated June 30, 1894;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention has relation to rope-couplings; and it has for its object certain improvements whereby the coupling of two rope ends is materially facilitated, and whereby a more efficient and durable connection is provided, as will now be fully described, reference being had to the accompanying drawings, in which—

Figures 1 and 2 show the coupling by perspective views in different positions; and Fig. 3 is a plan view of the coupling, showing the rope ends connected therewith.

As usual, the coupling is constructed of two parts L and R, which, in the case under consideration, are of a general cylindrical form, and are so connected together that one of the sections is capable of turning on or in the other section, each of said sections being provided with two passages $l\ l'$ and $r\ r'$, respectively. The passages l and l' in section L merge at each end into two grooves $b\ b$, the passages $r\ r'$ of section R merging into like grooves $s\ s$, the four grooves in each section having a spiral trend or twist corresponding with, or approximately corresponding with, the twist of the rope, so that the coupling-sections practically form a core about which the rope or rope-strands are twisted. The ends R′ L′ of the rope are secured to their respective coupling-sections R and L by first unraveling said ends, then passing the strand or strands through the holes of the coupling-sections in such manner that the several strands will lie in a groove or grooves $b\ b$ or $s\ s$, the direction or trend of which corresponds with that of the strand or strands in the twisted rope, after which the strands are untwisted, doubled upon themselves, and spliced to the body of the rope in a well-known manner. The coupling-sections R and L are then turned in opposite directions, whereby the spliced ends of the rope are twisted together and the strands will lie in the spiral grooves b and s, respectively, of the coupling-sections. The result of this construction is that the strain upon the spliced ends of the rope is more uniformly distributed over the rope and strands than would be the case otherwise, while after the rope has been spliced and is twisted by revolving one of the couplings relatively to the other, the rope, or the strands thereof lying in the grooves, will fit the latter snugly, hence will not materially increase the diameter of the coupling-sections beyond the bight or bights of the rope or its strands. Furthermore, when a rope becomes slack, such slack is more readily taken up by a twist of the rope without subjecting the strands thereof to a detrimental strain, the twisting of the rope being effected, as above stated, by revolving the coupling-sections in opposite directions.

Although I have described the coupling-sections as provided with two transverse passages each, it will readily be understood that they may be provided with a single passage or with a greater number than two.

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

1. A rope coupling provided with one or

more passages for the rope or its strands and with grooves having a spiral trend or direction merging into said passage or passages, for the purpose set forth.

2. A rope coupling comprising two sections adapted to revolve on or within each other, each of said sections provided with one or more passages and with a plurality of spirally formed grooves merging into said passages, for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

BERNHARD KIRSCH.

Witnesses:
HARRY BELMONT,
JOSEF ZEHETNER.