

E. P. FREDERICK.
CABLE STRAND.

No. 586,706.

Patented July 20, 1897.

Fig. I.

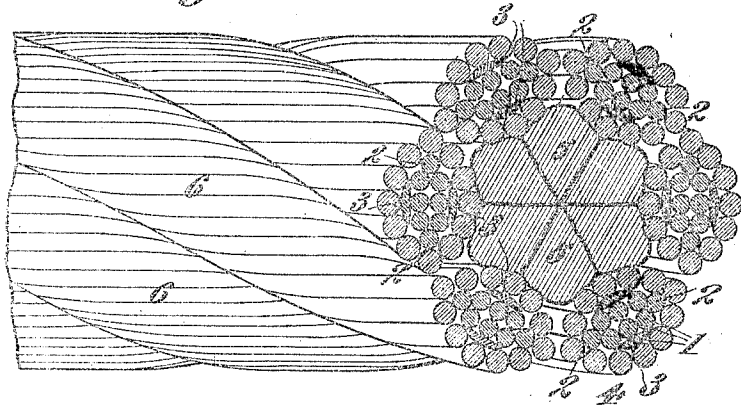


Fig. II.

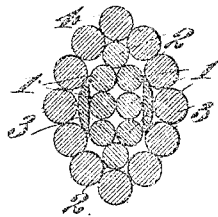
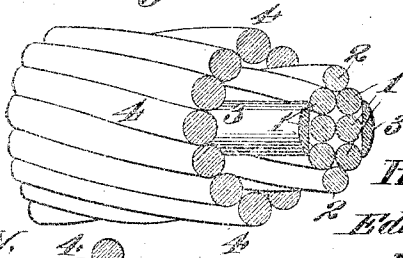
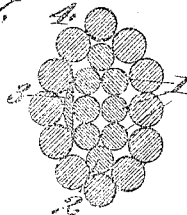


Fig. III.



Attest:
W. Knight
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Fig. IV.



Inventor:

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By Thayer, Bro

attys

UNITED STATES PATENT OFFICE.

EDWARD P. FREDERICK, OF ST. LOUIS, MISSOURI.

CABLE-STRAND.

SPECIFICATION forming part of Letters Patent No. 586,706, dated July 20, 1897.

Application filed January 9, 1897. Serial No. 618,577. (No model.)

To all whom it may concern:

Be it known that I, EDWARD P. FREDERICK, a citizen of the United States, and a resident of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Cable-Strands, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to an improved construction of strand for wire ropes or cables.

My invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a detail perspective view of a wire rope or cable made of my improved strands. Fig. II is a transverse section of one of the strands. Fig. III is a detail perspective view of one of the strands. Fig. IV is a transverse section of one of the strands, showing a modification.

The core of my improved strand is composed in part of a number of wires 1, bunched together so that where they are cut in cross-section they appear to lie side by side in double column with single wires 2 at the ends. These wires 1 and 2 are twisted together, and they form a solid core of twisted wires that is oval in transverse section. When the strand is in use, an equal strain will be brought to bear upon the different wires of the core, and not an unequal strain, as is the case where a number of wires are coiled about a central untwisted wire, as is quite common in rope-making.

At each side of the core of wires there is placed a thin ribbon 3, preferably of metal, the inner face of which is preferably flat and the outer surface slightly rounded, as shown clearly in Fig. III. The width of each of these ribbons is preferably about equal to the width of the stack of wires 1. The ribbons form part of the core, and about the core thus formed the outer or covering wires 4 are laid up and twisted to complete the strand. A

number of strands thus formed may be twisted about a hemp core 5 to form the cable or rope 6, as shown in Fig. I.

The ribbons 3 build out the sides of the core, thereby making a more perfect oval body for the covering-wires to be wound upon. They also permit of the covering-wires being laid at the same degree of twist as the core-wires without the former lying in the spaces between the latter. The ribbons also add strength to the strand without materially increasing its size, and they also prevent the tendency of the cores to "dish" or become convex on the outer sides when wound upon the core 5, as has been found to be the case in the absence of the ribbons.

My invention may, in a measure, be carried out by placing a ribbon on one side only of the core-wires, as shown in Fig. IV. This ribbon would be placed on what would be the outer side of the strand when wound upon the core 5 and it will serve to keep the core of the strand from dishing, as explained.

I claim as my invention—

1. In a cable-strand, a core composed of a number of wires and a ribbon placed at one side of said wires and lying parallel with the axis of the strand, in combination with covering-wires laid up around the core, substantially as set forth.

2. In a cable-strand, a core composed of a number of wires and ribbons placed at the sides of said wires and lying parallel with the axis of the strand, in combination with covering-wires laid up around the core, substantially as set forth.

3. In a cable-strand, a core composed of a number of twisted wires arranged in oval form and ribbons placed at the sides of said wires and having flat inner and rounded outer surfaces, in combination with covering-wires laid up around the core, substantially as set forth.

EDWARD P. FREDERICK.

In presence of—

E. S. KNIGHT,
N. FINLEY.