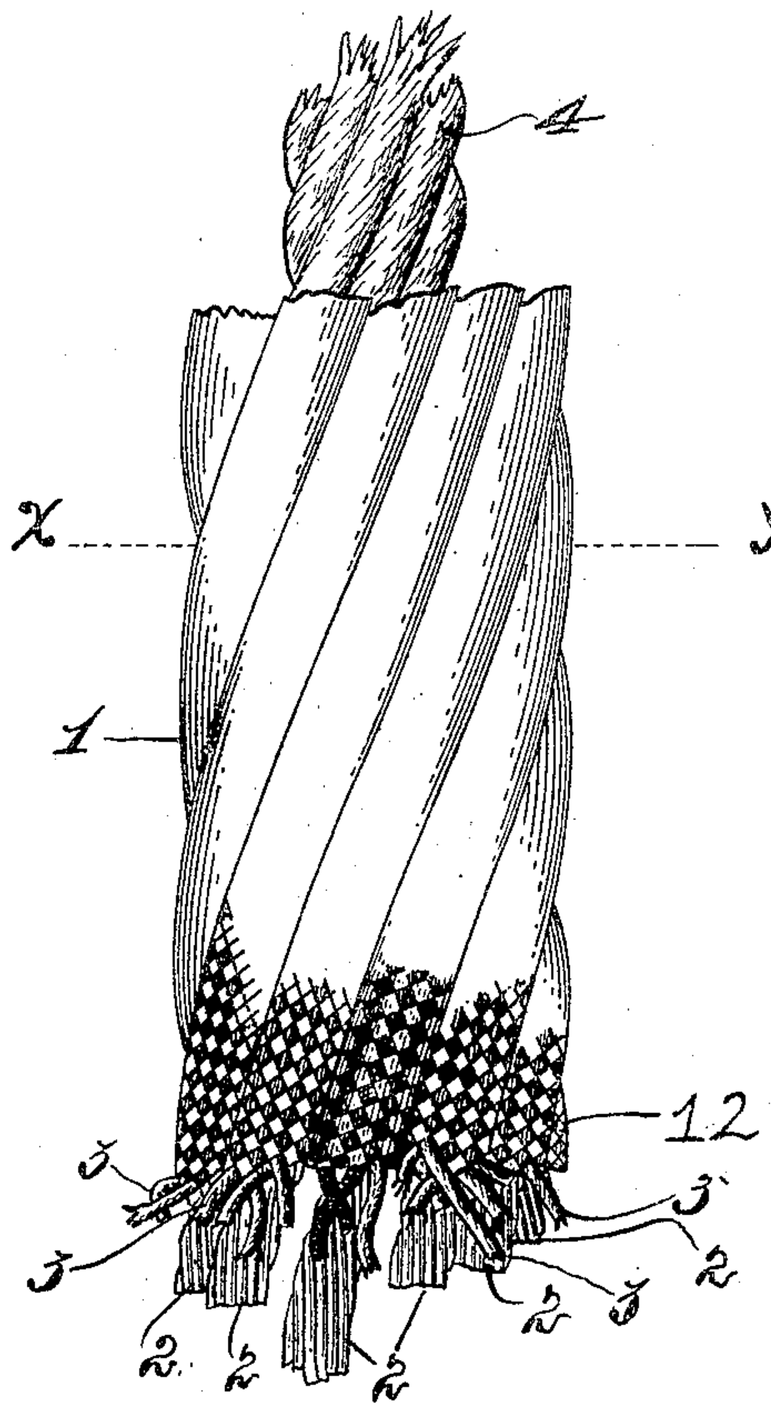
T. GORE.

FIBER CLAD WIRE ROPE.

APPLICATION FILED JUNE 24, 1908.

922,418. Patented May 18, 1909.

Fig. 1.



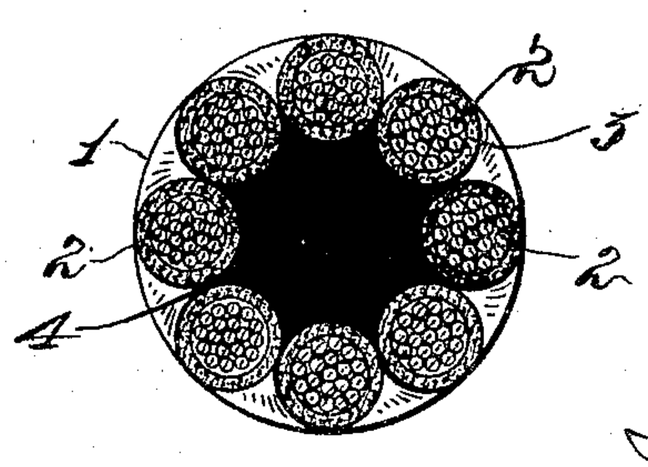


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Fig. 2.

UNITED STATES PATENT OFFICE.

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FIBER-CLAD WIRE ROPE.

No. 922,418. Specification of Letters Patent. Patented May 18, 1909.

Application filed June 24, 1908. Serial No. 440,090.

To all whom it may concern:

Be it known that I, THOMAS GORE, a citizen of the United States, residing at Brooklyn, New York, have invented certain new and useful Improvements in Fiber-Clad Wire Ropes, of which the following is a clear, full, and exact description.

My invention relates to fibrous and other similarly covered wire ropes, and my object is to provide an improved rope of this character.

The advantages of a fiber-clad wire rope have long been realized, especially for ropes used in marine purposes or for power transmission subject to weather exposure. The durability of any wire rope is greatly increased by covering the same with some sort of fibrous material and soaking this fiber covering with tar or lubricant which gradually wears into a hard-rubber-like surface absolutely impervious to water and moisture, and also possessing a high coefficient of friction for transmission purposes. Though various methods of covering wire ropes have been heretofore employed, I believe I am the first to braid a covering of fibrous material around each of the individual strands which make up the rope. Such a braided covering possesses many advantages over other forms, in that it will not strip off or unravel such as a served covering if cut at any portion along its length, and a braided covering also presents a net-work of minute interstices to receive and hold the tarred filling more completely. If the fibrous material were braided about the rope as a whole, it would have a tendency to slide or shift along the inclosed rope, but by braiding and covering around such separately twisted strand, this objectionable feature is avoided.

Although I have shown and described particularly a covering made of fibrous material, it may sometimes be desirable to use some other resilient material, such as leather or the like, for this purpose, as one of the objects of providing a covering for the wire rope is to present a cushioning surface for the outside of the same. It is clear that leather or some such similar material might well answer this purpose, although by experience I have found out that fibrous covering of cord possesses more advantages.

My invention will be defined in the claims.

The drawings show a preferred embodiment of my invention in which—

Figure 1 is a longitudinal view of a section of my rope having the outside portion cut away to show the inner core; and Fig. 2 is a section along X—Y Fig. 1.

The rope as a whole is represented by numeral 1. I have shown it provided with an inner interior core, 4 of fibrous material, such as a hempen rope. Such hempen cores are usually provided for wire ropes for the reason that they largely increase the elasticity of the same. Although I have shown such a hempen core, I do not wish my invention to be confined to a rope having such a core, as it is obvious that it may be omitted when an unyielding wire rope rather than a somewhat elastic wire rope is desired. Around the central core 4 is laid or twisted the main strands 2 composing the rope. Each strand is composed of a number of smaller individual wires 3 made or tightly twisted together, and around each of said strands 2 is braided a covering of cord 12, or other fibrous material. It will thus be seen that a portion of the braided surface of these strands will be exposed and present a wearing surface for the whole rope, while the interior portions of said braided covering will frictionally engage each other and thereby prevent any shifting of the same. It is understood, also, that in practical use this braided covering is thoroughly soaked in tar or other lubricant, to fill the interstices thereof and make the same impervious to moisture for protecting the inclosed wire rope.

What I claim is:

1. A wire rope composed of a series of strands twisted or laid tightly together to increase the tensile strength of said rope, each strand being composed of a number of individual wires twisted tightly together, each of said strands being covered with fibrous material braided around the same.

2. A wire rope composed of a core of fibrous material, a series of strands twisted or laid tightly around said core to increase the tensile strength of said rope, each strand being composed of a number of individual wires twisted tightly together in a direction opposite to the lay of said strands, each of said strands being covered with fibrous material

having a tarred filling and braided around the same.

3. A wire rope composed of a core of fibrous material, a series of strands twisted or laid tightly around said core to increase the tensile strength of said rope, each strand being composed of a number of individual wires twisted tightly together in a direction opposite to the lay of said strands, each of said strands having a fibrous covering composed of tarred cords tightly braided about the same.

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