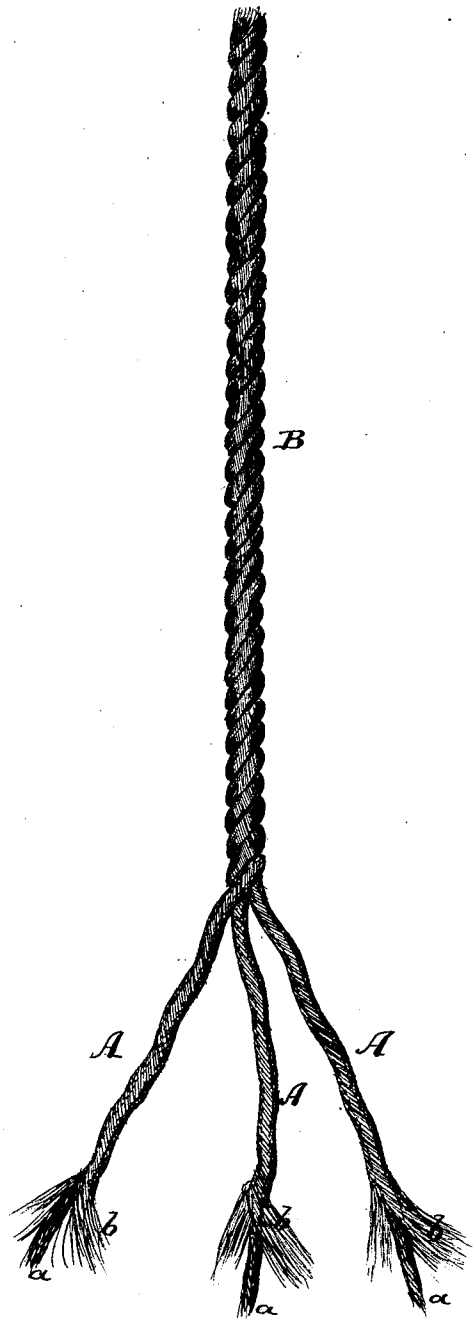
V. P. TRAVERS.
Rope.

No. 206,058. Patented July 16, 1878.



Witnesses
John C. Tunbridge
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Inventor:
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UNITED STATES PATENT OFFICE.

VINCENT P. TRAVERS, OF NEW YORK, N. Y.

IMPROVEMENT IN ROPES.

Specification forming part of Letters Patent No. **206,058**, dated July 16, 1878; application filed April 29, 1878.

To all whom it may concern:

Be it known that I, VINCENT P. TRAVERS, of the city, county, and State of New York, have invented an Improved Rope, of which the following is a specification:

My invention is a rope constructed, as fully described hereinafter, to secure the advantages of a facing or surface of one material without the objections incident to the use of such material exclusively.

The drawing illustrates my improved rope B, in the manufacture of which I combine strands, *a*, of hemp and other strands, *b*, of cotton.

It has been common heretofore to combine cotton and hemp, but, by intermingling the strands, necessitating a subsequent process to bleach the hemp, which process weakens the rope. In other instances silk, worsted, &c., have been wound round cores of hemp; but this adds materially to the bulk of the rope, without any corresponding increase in the strength thereof.

In making my improved rope I twist the strands *b* and *a* together, forming a rope in which each strand runs with the others and adds to the strength; but instead of an indiscriminate mixture of the strands, I take care to so arrange the same that the cotton strands shall be outermost. The large strands A are then combined, forming a rope of any desired thickness.

As the strands *a b* are twisted together the strain comes on each, and each adds to the strength, while the hemp strands will resist the tendency of the cotton to stretch; and the cotton affords a wearing-surface much more durable than the hemp.

The importance of this combination is apparent, from the fact that cotton will stretch six times the extent of hemp, while the latter is only one-half as durable as cotton for a wearing-surface.

I claim—

A rope consisting of combined strands A, in each of which cotton and hemp strands *b a* are uniformly twisted together, with the cotton strands outermost and covering the hemp, all as set forth.

VINCENT PAUL TRAVERS.

Witnesses:
F. V. BRIESEN,
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