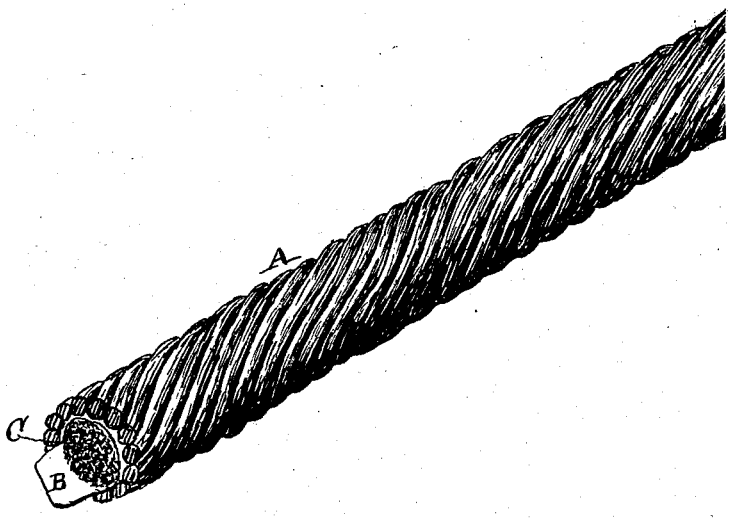
A. D. LEDAY.
Light-Weight Rope.

No. 198,031. Patented Dec. 11, 1877




Witnesses
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# UNITED STATES PATENT OFFICE.

ALFRED D. LEDAY, OF SAN FRANCISCO, CALIFORNIA.

## IMPROVEMENT IN LIGHT-WEIGHT ROPES.

Specification forming part of Letters Patent No. **198,031**, dated December 11, 1877; application filed October 13, 1877.

*To all whom it may concern:*

Be it known that I, ALFRED D. LEDAY, of the city and county of San Francisco and State of California, have invented a Light-Weight Rope; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings.

The object of my invention is to provide a rope which will be large in diameter, and, at the same time, light in weight. It often happens that a rope of large diameter is desired where a much smaller rope would be sufficiently strong; such is the case, for instance, in supporting painters' scaffolds from buildings. A small rope would have sufficient strength to sustain the weight of the scaffold and the weight of the persons who stand upon it, but it is painful and tiresome for the painters to hoist the scaffold with a small rope, where it would be but a simple task if the rope were of twice the diameter.

My improved rope is intended to supply such demands; and it consists of a tubular or hollow rope, filled with cork or other light, flexible filling or stuffing, so as to provide the three necessary qualities—viz., lightness, increased diameter, and the requisite flexibility.

Let A represent the strands of which my rope is composed. These strands I make of smaller diameter than the strands usually employed in making ordinary rope of that size, and they are twisted, platted, or woven so as to form a hollow cylinder or tubular rope.

The inside surface of this hollow cylindrical rope I line with cloth B, and I fill the entire space inclosed by the rope and cloth with granulated cork C, or other light material.

The rope could be constructed without the cloth B, and the cork come in direct contact with the strands of the rope; but when the rope is in use, the strands are liable to be twisted or separated sufficiently to allow the cork to work out between the strands, which the cloth lining will prevent.

Usually I shall fill a cloth tube with the cork cuttings, and draw it inside of the tubular rope.

My invention is particularly valuable for use in supporting stagings and scaffoldings employed by painters, &c., ordinary rope, when of sufficient size, being too great weight to be easily handled, and when sufficiently light is of so small diameter as to cut the hands in raising and lowering the scaffolding; but by my invention I secure at the same time a rope of sufficient diameter, and of so light a weight as to render it peculiarly adapted for the uses above referred to.

My invention is also particularly adapted for the construction of fishing-nets, and for use in their support and connection, its light weight rendering it sufficiently buoyant to float without the attachment of floats, which have to be employed for supporting ropes constructed in the ordinary manner.

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

1. A rope of large diameter and of light weight, constructed of strands A, lining B, and filling C, of granulated cork or other similar material, substantially as herein described.

2. A rope constructed of strands A, so twisted, platted, or woven as to form a cylindrical cavity within the rope, in combination with a filling of cork or other similar material, substantially as and for the purpose set forth.

In witness whereof I have hereunto set my hand and seal.

ALFRED D. LEDAY. [L. S.]

Witnesses:
JNO. L. BOONE,
WILL. L. TAYLOR.