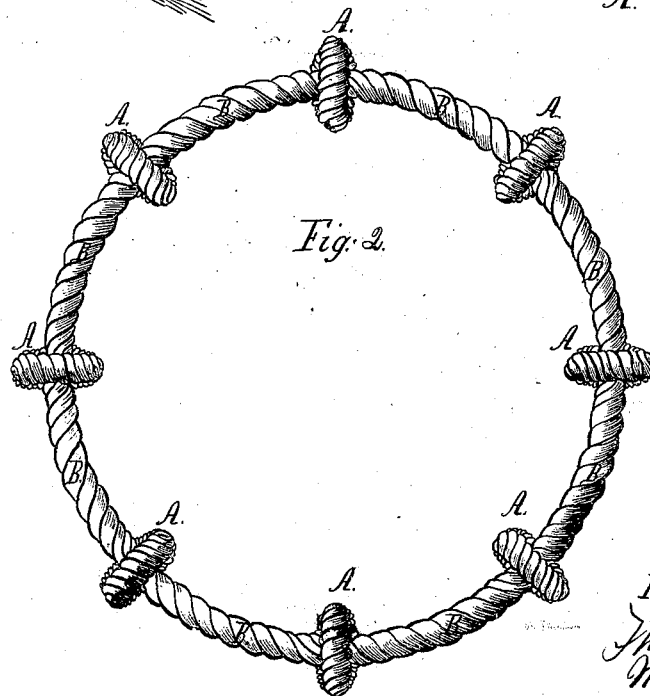
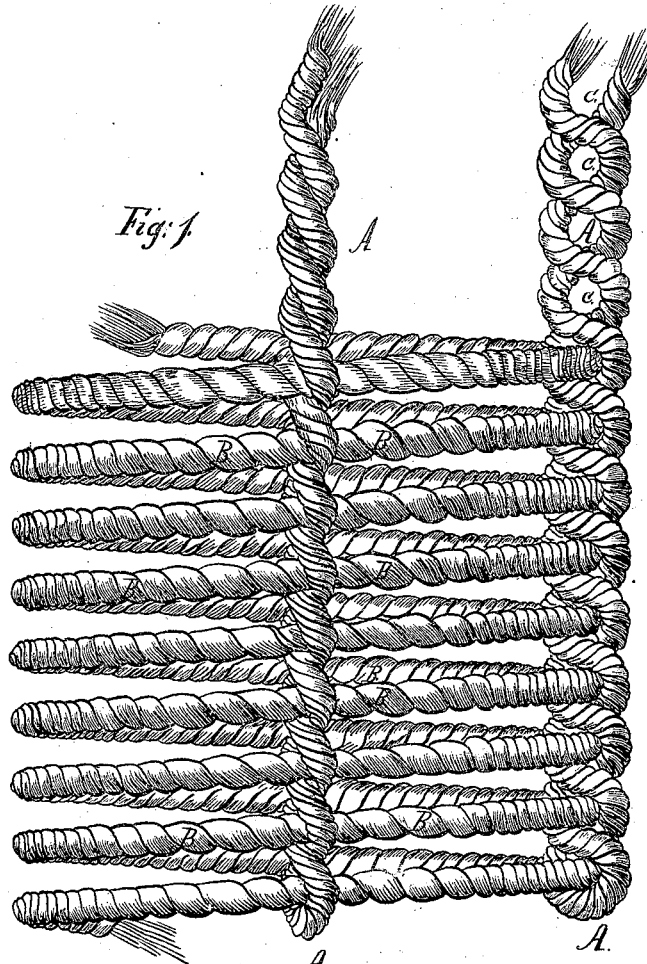


McAuley & Cheney. Woven Fabric.

N^o 53,161.

Patented March 13, 1866.



Witnesses:

Amos Smith
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H. A. Hinds

Inventors:

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UNITED STATES PATENT OFFICE.

THOMAS MCAULEY, OF SAN FRANCISCO, AND M. L. CHENEY, OF ILLINOIS.
TOWN, CALIFORNIA.

IMPROVEMENT IN COVERING FOR HOSE.

Specification forming part of Letters Patent No. 53,161, dated March 13, 1866.

To all whom it may concern:

Be it known that we, THOMAS MCAULEY, of San Francisco, and MERICK L. CHENEY, of Illinois, both of the State of California, have invented a new and useful Covering for Hydraulic Hose used for Hydraulic Mining, &c.; and we do hereby declare that the following specification, with the accompanying drawings, is sufficient to enable any person skilled in the art or science to which it most nearly appertains, to make and use the same without further invention or experiment.

To enable others skilled in the art to make and use our hose-covering, we will proceed to describe its construction and the manner of using the same, referring to the drawings, in which the same letters indicate like parts in each of the figures.

Figure 1 represents a plan. Fig. 2 is a top view.

The nature of our invention relates to the employment or use of ropes, cords, or strands, made of hemp or other material, for covering hydraulic hose; and it consists in winding cordage or rope, which constitutes the woof of the covering, spirally around a form of a desired size. Other strands of rope or cordage are placed at right angles with the spiral strands, and are arranged in pairs, and are made to cross each other with a half-twist between each spiral of the woof.

In the drawings, A A A A, &c., are the warps of the hose-covering, consisting of six, eight, or more strands, arranged in pairs, so that one will be upon the outside, and one upon the inside, of the spiral woof, crossing each other, as well as the woof, at every point of intersection, with a half-twist, so as firmly to embrace each other.

The spiral rope or cord B may be a single strand, or otherwise delivered from a spool between the warps A A every time they are crossed or twisted to retain it (the woof B) and hold it in place or proper position.

C C C show the form of the space in the twisted warp from which the woof has been removed.

The form of the cylinder used in making this covering should be a little smaller than the size of the hose which it is intended to

cover, and when constructing or weaving the covering the cylinder should be placed vertically, so that as fast as the covering is woven it slips off below. The arrangement of the rope is such that when complete, if the warp be removed without destroying the woof, it would be a simple spiral column of rope passing around the body of the hose; or, if the woof were removed the warp would be a number of ropes placed lengthwise of the hose in pairs.

Some of the advantages to be derived from the use of our hose-covering may be enumerated as follows, to wit: Owing to the peculiar manner of its construction, by which the ropes are twisted together and firmly held in place at each point of intersection, it is utterly impossible for the hose to get out of order or burst, even with the most careless handling or rough usage, such as being caved on and sluiced, &c. Neither is there any chance for gravel to get between the rope-hose and the inside or duck-hose, as is frequently the case with the ordinary rope-hose when caved or sluiced under the falling bank. A single thickness of cotton-duck hose inside of our rope hose is sufficient to stand a pressure of three hundred (300) feet fall perpendicularly, and can be made to stand a much greater pressure, if required. Good 000000 canvas is quite heavy enough for the purpose. Old canvas or hose that is worthless from age to use in the ordinary way will be quite serviceable for two or three years longer if covered with our rope-hose covering.

Our hose-covering is made a little smaller in diameter than the cotton hose, so as to take all of the strain and wear from off the cotton hose. There is no chance for the water to collect between the inner and outside hose. There is no danger from collapsing or bursting, as is the case with even the best canvas hose, when more than one thickness of canvas is used.

Our covering will last from four to six years, except such parts as are subject to constant attrition, as when near the pipe, where it crosses the rest or guide block. It can be drawn over the ordinary canvas hose, either new or old, with as much ease as one canvas

hose can be drawn over another, as is done in making the ordinary two and three ply canvas hose.

We believe that we have described the construction of and manner of using our hose-covering for hydraulic mining, &c., so as to enable others skilled in the art to make and use it.

We will now state what we desire to secure by Letters Patent, to wit:

Forming a hose-covering by winding rope or cord spirally around a cylinder or former, and having for its support warps or strands

of rope or cords passing around each spiral strand by means of a half-twist, substantially as and for the purpose herein specified and set forth.

In testimony whereof we have hereunto set our hands and affixed our seals this 7th day of April, A. D. 1865.

THOMAS MCAULEY. [L. S.]
M. L. CHENEY. [L. S.]

Witnesses:

C. W. M. SMITH,
W. B. EWER,
L. B. ARNOLD.