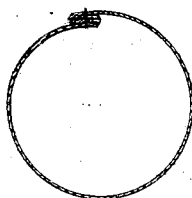
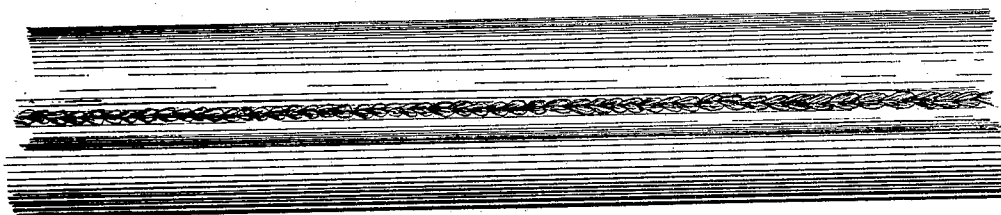


A. S. LIBBY.

Improvement in Hose.

No. 130,303.

Patented Aug. 6, 1872.



Witnesses.
S. B. Tiddert.
L. H. Latimer.

Inventor.
A. S. Libby,
by his Attys.
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UNITED STATES PATENT OFFICE.

ASA S. LIBBY, OF LAWRENCE, MASSACHUSETTS.

IMPROVEMENT IN HOSE.

Specification forming part of Letters Patent No. **130,303**, dated August 6, 1872.

To all whom it may concern:

Be it known that I, ASA S. LIBBY, of Lawrence, in the county of Middlesex and State of Massachusetts, have invented an Improved Hydraulic Hose; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

In the manufacture of seamed woven hose to be used for hydraulic hose it is customary to make a simple lap-joint for the union of the opposite edges of the tube-forming strip, and notwithstanding any tightness in the stitches or any smearing of the inner surface of the material with water-proof composition there is more or less leakage through the joint, especially when the hose is under very severe pressure. To obviate this defect I make at each edge a fold, and lock or hook together the two folds, and through the four thicknesses, which, with the two folds or bends, thus make the joint, I pass the line or lines of stitches to permanently join the parts together. A fold may be made at only one edge, or the two plain edges may be lapped and a strip inserted between them, or the folds may be made and lapped, but not interlocked, or the plain edges may be lapped and covered by a brace. In either case the tube is stiffened at the joint and made impermeable at the joint by the additional thickness or thicknesses and by decreasing its flexibility.

My invention consists in hydraulic hose, as a new article of manufacture, made of a woven strip having its opposite edges bent or folded and preferably locked together, (or the joint

re-enforced by an auxiliary strip,) one or more rows of stitches passing through the four thicknesses at the joint.

The drawing represents a piece of the improved hose, and in the drawing it will be seen that each edge is bent or folded, one edge over toward or upon the outer surface of the strip, and the other toward the inner surface of the strip, the two being clasped together and then united by the stitches, as described.

In forming the tube I prefer to use, to a greater or less extent, the invention shown in Letters Patent No. 74,289, granted to Lyman R. Blake, wherein there is employed in connection with a stitch-forming mechanism and a suitable arm, around which the strip is drawn, a guide-sleeve that receives the strip in its flat form, conducting it to and around the arm, so that it is fed to the stitch-forming mechanism in a tubular form, the stitches uniting the edges to complete the tube.

In such machine a guide was used that simply lapped the edges; but, in making the hose shown in the drawing, the guide mechanism is so made and arranged as to form the bend or fold at each edge and bring said folds into clasped position for the action of the stitch-forming mechanism; but this mechanism forms no part of the present invention.

I claim—

Hydraulic hose made of a woven strip having its opposite edges protected and united substantially as described.

A. S. LIBBY.

Witnesses:

FRANCIS GOULD,
S. B. KIDDER.