S. W. BAKER.

HYDRAULIC HOSE.

No. 170,803. Patented Dec. 7, 1875.

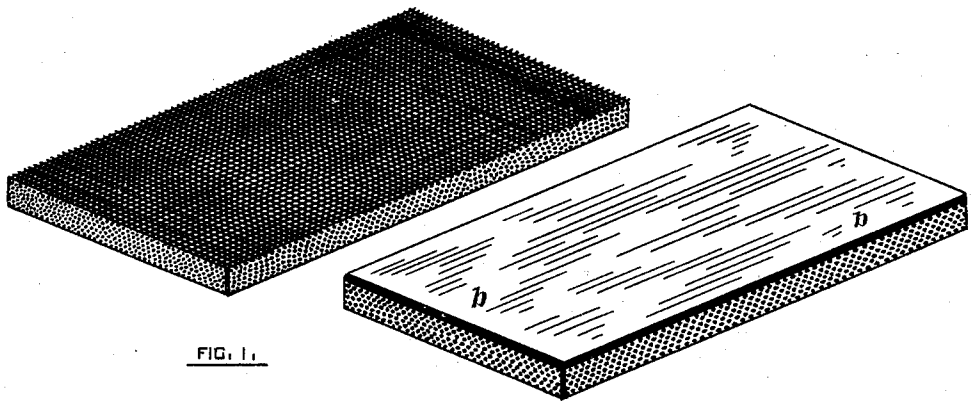

FIG. 1.

FIG. 2.

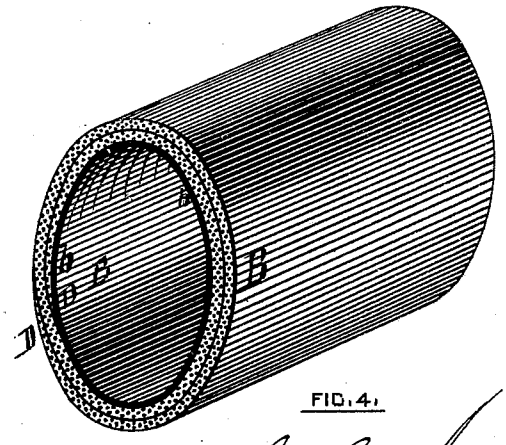

FIG. 4.

WITNESSES.

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IMPROVEMENT IN HYDRAULIC HOSE.

Specification forming part of Letters Patent No. **170,803**, dated December 7, 1875; application filed February 10, 1875.

To all whom it may concern:

Be it known that I, SETH W. BAKER, of the city and county of Providence and State of Rhode Island, have invented certain new and useful Improvements in the Manufacture of Water-Proof Hose, of which the following is a full, clear, and exact description thereof, sufficient to enable those skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in the manufacture of water-proof hose; and it consists in the employment of an elastic cellular fabric, provided with a water-proof lining, and united in a tubular form, all as will be hereinafter more fully described, and pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective view of a piece of the woven cellular fabric. Fig. 2 is a similar view of the same with a water-proof lining applied thereto, and Fig. 3 is a perspective view of a piece of hose made from the said fabric.

Similar letters of reference occurring on the several figures indicate corresponding parts.

In carrying out my invention, the improved woven fabric which I employ as being most desirable for the purpose, is described in the extended Letters Patent granted to John Gujer, May 18, 1858, No. 20,267, in which, by a peculiar arrangement, a number of sets of fine warps and weft-threads are so interwoven as to produce a very thick fabric of fine texture, and a smooth and even surface, said warps and weft-threads being, by the mode of weaving, placed together so closely and compactly in one thickness or web that the fabric thus constituted is extraordinarily strong and firm, while at the same time is more elastic, flexible, and of lighter weight than other fabrics hitherto used for similar purposes.

To this fabric a coating of uncured or vulcanizable india-rubber compound is applied as a lining, as shown at *b*. This lining may either be applied and cured before uniting the fabric in a tubular form, or cured after the edges of the fabric are united in a water-proof seam, as shown in Fig. 3, which latter operation is deemed preferable.

In order to form this seam the edges of the fabric B are trimmed by a suitable cutting-tool to a scarfed or wedge-shaped form, as shown at D D. The fabric is then lapped over, forming a double thickness of the material, and the scarfed edges D D secured to the inner and outer layers by an india-rubber or other suitable cement, thereby uniting the whole in a tubular form of great strength, elasticity, flexibility, combined with a ready adaptation to the purpose intended.

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

In hydraulic hose, the elastic cellular fabric, as described, combined with a water-proof lining, and the seam having scarfed edges D D, having a packing of india-rubber or other suitable cement united in tubular form, as described, as a new article of manufacture.

SETH W. BAKER.

Witnesses:

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