S. W. BAKER.

Water-Proof Hose.

No. 166,580. Patented Aug. 10, 1875.

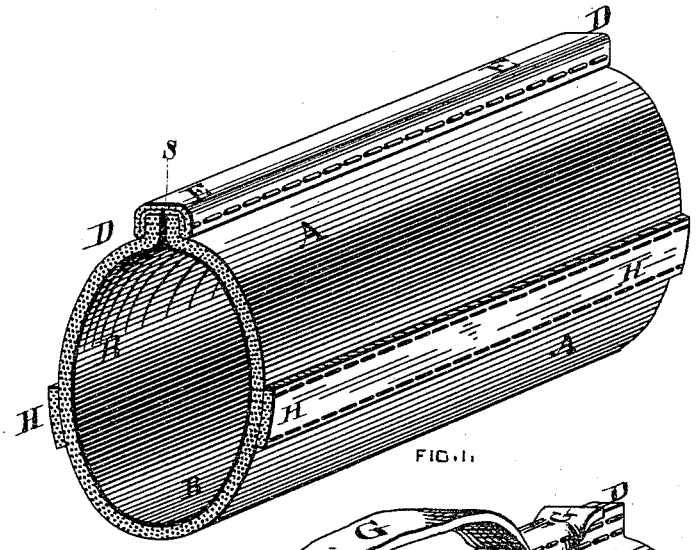

FIG. 1.

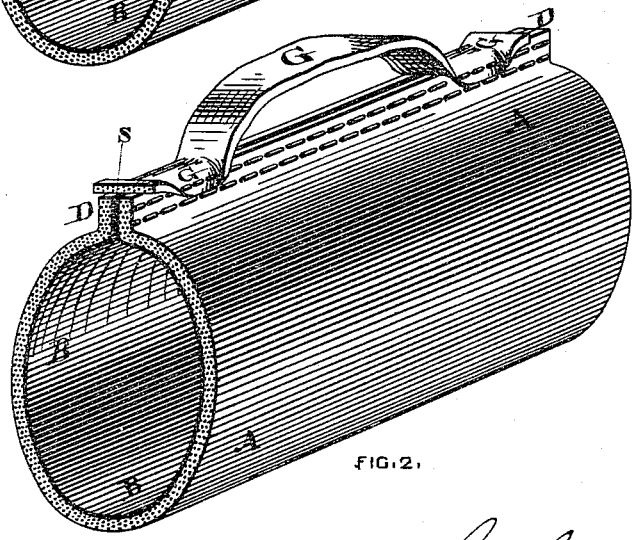

FIG. 2.

WITNESSES.

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SETH W. BAKER, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN WATER-PROOF HOSE.

Specification forming part of Letters Patent No. **166,580**, dated August 10, 1875; application filed March 24, 1875.

CASE 2.

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 a new and useful Improvement in Water-Proof Hose, of which the following is a specification, referring to the accompanying drawings, making part of the same.

My invention relates to hose made of textile fabrics coated with water-proof material for a lining; and consists in combining the improved woven fabric described in the Letters Patent No. 20,267, dated May 18, 1858, granted to John Gujer, with an india-rubber lining and a packed seam or joint, as a new article of manufacture. My invention further consists in combining an outside covering or shield of woven material applied to the seam, constructed by placing the two edges of the said hose fabric together, face to face, and stitching or otherwise securing the same through and through the two thicknesses of material; also, in the combination of loops or handles of thick webbing or woven material applied to the seam, constructed as described, for convenience in lifting and handling the hose; also, in the employment of external ribs extending longitudinally of the hose, to give additional strength and support to the same.

In Figure 1 and Fig. 2 of the said drawing is shown in perspective the several features of improvement before enumerated, each being marked by the same letter in both figures.

A A is the woven fabric of the hose, and B is the water-proof lining of india-rubber, which is applied, in the form of the unvulcanized compound, to one side of the woven fabric. The two edges of the fabric thus prepared are united together at D in a water-proof seam or joint by stitching or riveting the two edges through and through with a thickness of vulcanizable india-rubber, S, inserted between the rubber-covered surfaces of the fabric, as shown in Fig. 2, or with a covering of a woven fabric, E, over the selvage edges *e e*, as shown in Fig. 1.

The said covering E gives a finish to the seam or joint, but is not absolutely essential to its strength or utility, the packing S, in conjunction with the lining of the same material, by the operation of vulcanizing which is performed afterward, serving both to complete the lining and perfect the seam in the requisite manner without the aid of such covering.

The webbing G, which is attached to the seam or joint, is of the same fabric as the hose, but woven narrower, and is stitched or otherwise secured by its selvage edges to the longitudinal ridge produced by the seam or joint of the fabric in the hose, and thus provides a ready and better means for handling the hose than any heretofore provided. These webbing handles may extend throughout the length of the hose at stated distances apart, as may be found most convenient.

By the combination of the two unvulcanized india-rubber surfaces of the fabric with an interposed unvulcanized or vulcanized india-rubber packing a new and better means of uniting the interior water-proof surface in a water-tight joint is produced. Besides this, the sides and sectional length of the hose is strengthened very much by the construction of this seam.

The hose may be also very much strengthened and supported by longitudinal ribs or stays H, consisting of the narrow webbing above mentioned, which are stitched or cemented to the outside of the hose, as shown in Fig. 1, two or three being employed, or one only, as the case may require, and these are generally secured to the hose fabric A before the water-proof compound is applied to the other side, and in service afford, besides their sustaining strength, to protect the hose from both wear and injury.

The hose made of the thick woven fabric mentioned in the manner described has the advantage of being lighter, of sustaining a greater hydraulic strain, and being more serviceable and cheaper than the best textile hose heretofore in use.

Having described my invention, I claim—

1. The hydraulic hose, consisting of the thick woven fabric and water-proof lining, united

into tubular form by the seam D, having the packing and covering, substantially as shown and described.

2. In hydraulic hose, the combination, with a seam or joint constructed as described, of an outside covering or shield, applied to the same substantially as and for the purpose specified.

3. The combination of the webbing or handle G with the ridged part of the hose, substantially as shown and described.

4. The combination of the external ribs H with the body of the hose, substantially in the manner and for the purpose specified.

5. The herein-described hydraulic hose, consisting of the thick woven fabric, the waterproof lining, the seam D having the packing and covering, and the external ribs H, the several parts being constructed, combined, and arranged substantially as and for the purpose described.

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Witnesses:
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