

J. GREACEN, Jr.

Flexible Play-Pipes for Hose.

No. 145,415.

Patented Dec. 9, 1873.

Fig 1.

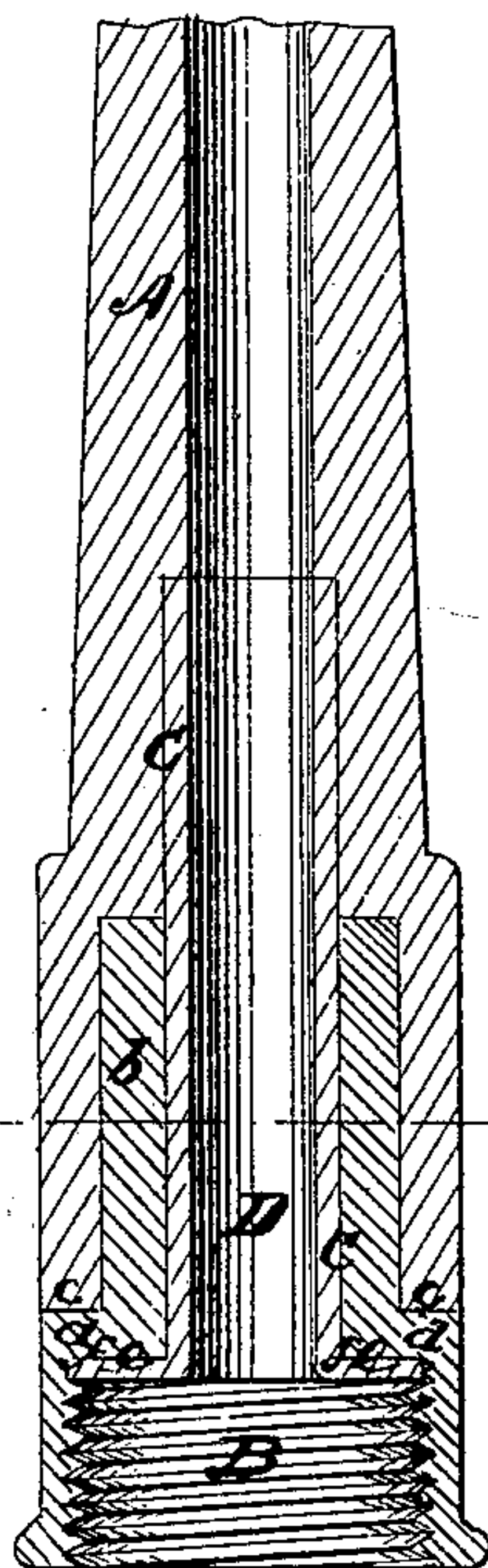
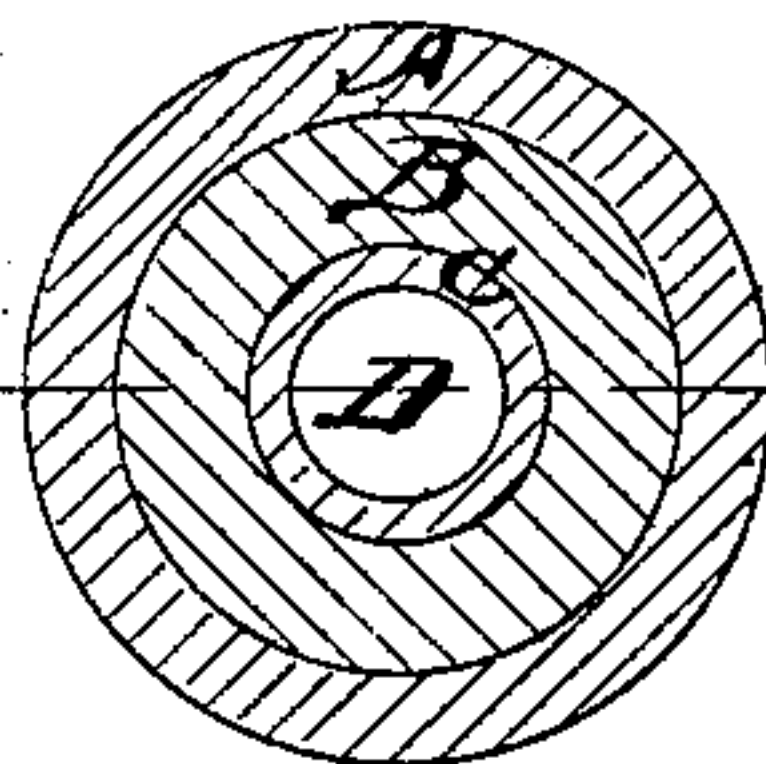


Fig 2.



Witnesses.

H. L. Mullenberg
W. L. Wood

Inventor.

John Greacen Jr.
Per *[Signature]*
Atty

UNITED STATES PATENT OFFICE.

JOHN GREACEN, JR., OF NEW YORK, N. Y.

IMPROVEMENT IN FLEXIBLE PLAY-PIPES FOR HOSE.

Specification forming part of Letters Patent No. **145,415**, dated December 9, 1873; application filed June 20, 1873.

To all whom it may concern:

Be it known that I, JOHN GREACEN, Jr., of the city, county, and State of New York, have invented a new and useful Improvement in Flexible Play-Pipes for Hose; and that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention is in the nature of an improvement in flexible nozzles or play-pipes for hose; and the invention consists in the method hereinafter described of attaching metallic ferrules or couplings to flexible play-pipes. It has been found in practice that when in use the water, entering into the nozzle with much force, would penetrate between the sides of the play-pipe and the coupling, and, the play-pipe being elastic, would expand the pipe so that it would become disconnected from the coupling and be rendered unserviceable. To obviate this difficulty is the chief purpose of this invention.

In the accompanying sheet of drawings, Figure 1 represents a longitudinal section of my invention; and Fig. 2, a cross-section of same, taken in the line *x x*.

Similar letters of reference indicate like parts in the several figures.

A represents a play-pipe made from rubber or other elastic material, to which is affixed a ferrule or coupling, B, in the manner hereinafter described—that is to say, a mandrel of any desired size or shape, corresponding to the bore of the play-pipe, is covered at its larger end with a tube, C, of plastic rubber, which may extend to any convenient distance on said mandrel, the outer or larger end of said tube having formed thereon a flange, *e*. Over the mandrel and rubber is now placed a metallic ferrule or coupling, B, said coupling or its inner part extending to within a short distance of the inner end of the tube C. The coupling

B has formed within it a shoulder, *f*, which abuts against the flange *e* of the tube C. Around the inner or extended part of the coupling B and the tube C and the mandrel is now placed the plastic rubber to form the play-pipe. The play-pipe, coupling, and inner tube being arranged as above described, the play-pipe is vulcanized by any of the well-known methods, when the play-pipe will adhere around the coupling, and the tube C will adhere within the orifice of the extension of the coupling, and the flange *e* of the tube C will adhere to the shoulder *f* of the coupling, and that part of the tube C which projects into the play-pipe beyond the end of the coupling will adhere to the bore D of the play-pipe A, the whole being reunited in a firm and durable manner.

Now, it will be seen that when the hose is screwed into the coupling B, the inner end of the coupling secured to the hose will abut tightly against the flange *e* of the tube C, and the water be forced through the tube C, and thence through the bore D of the play-pipe. Since the coupling on the hose abuts tightly against the flange *e* of the tube C, and the water is forced through said tube beyond the inner end of the coupling B, no opportunity is offered to the water to work its way between the coupling and the play-pipe, and hence all liability of expanding the play-pipe from the coupling by the force of the water is obviated.

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

A flexible play-pipe with a coupling thereto attached by means of an inner tube and flange, substantially in the manner and for the purpose described.

JOHN GREACEN, JR.

Witnesses:

H. L. WATTENBERG,
G. M. PLYMPTON.