A. O. Bourn,

Hose Coupling,

No. 80,901. Patented Aug. 11, 1868.

Fig. 1.

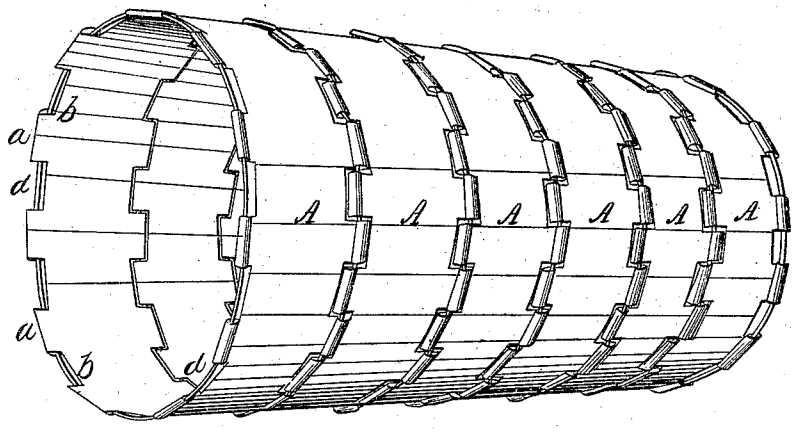
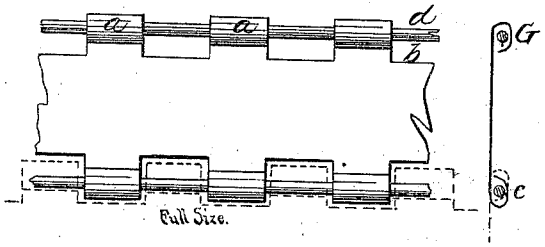


Fig. 2.



Witnesses:
John D. Thurston
James W. Stillman

Inventor:
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United States Patent Office.

AUGUSTUS O. BOURN, OF CRANSTON, RHODE ISLAND.

Letters Patent No. 80,901, *dated August* 11, 1868.

IMPROVEMENT IN ELBOW-SUPPORTS FOR FLEXIBLE HOSE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, AUGUSTUS O. BOURN, of Cranston, in the county of Providence, and State of Rhode Island, have invented a new and useful Improvement in Rings for Suction-Hose; and I do hereby declare that the following specification, taken in connection with the drawings making a part of the same, is a full, clear, and exact description thereof.

Figure 1 is a view in perspective of a number of my improved hose-rings connected together.

Figure 2 exhibits a portion of one of the rings, showing the formation of its edge.

It is necessary that suction-hose for fire-engines and similar machines for pumping water should be provided with some sufficient means for preventing the hose from collapsing when a vacuum is formed within it by the action of the pumps.

It has, heretofore, been customary to make use of metallic rings, one end of which is made flaring or bell-mouthed, and the other edge turned slightly inward, so that the smaller or contracted end of each ring shall enter the enlarged or flaring end of the next adjacent one. It has, heretofore, been the practice to cover a series of these rings, so arranged, with a casing of rubber, leather, or other material, of which the hose-pipe was made, and to rely upon the construction of this casing to keep the rings in place.

The uses to which suction-hose is put frequently requires it to be bent at a sharp curve, as, for example, when connecting the engine with a fire-well. To enable the hose to be moderately flexible is the reason for the employment of rings instead of a continuous metallic tube. Inasmuch, however, as no means are provided for keeping these rings articulated with each other, it often happens that upon bending the hose some of the rings will be thrown out of articulation at the outer edge of the curve formed by bending the hose, and the casing be thereby rendered liable to abrasion by being drawn into the open spaces so occasioned, and becoming caught by the edges of such rings when the hose is straightened.

In the accompanying drawings, A A A are a series of rings, which may be made of copper or other suitable material. The edges of each ring are made with tongues, *a*, and spaces, *b*, arranged alternately the width of the tongues, being a little less than that of the spaces, so as to be entered freely therein. Each of these tongues should be of sufficient length to allow of being bent over so as to form an eye, the cross-section of which will be nearly as shown at *c*, and to allow of the insertion therein of a wire ring, *d*. The several rings are then to be arranged, as shown at fig. 1, the tongues of each entering the spaces in the edge of the next adjacent ring, and are linked together by means of the wire-holding ring *d*. It is quite evident that the ring *d* will prevent the hose-rings A from being disconnected, while the length of the eyes *c* will allow of sufficient movement to give the necessary flexibility to the suction-hose. These rings, so arranged and united, are to be covered with rubber, leather, or other suitable material as heretofore.

What I claim as my invention, and desire to secure by Letters Patent, is—

The improved hose-rings A A, constructed and held in connection, substantially as described for the purposes specified.

AUGUSTUS O. BOURN.

Witnesses:

JOHN D. THURSTON,

JAMES W. STILLMAN.