

T. A. DODGE.
Hydraulic-Hose.

No. 148,677.

Patented March 17, 1874.

Fig 2.

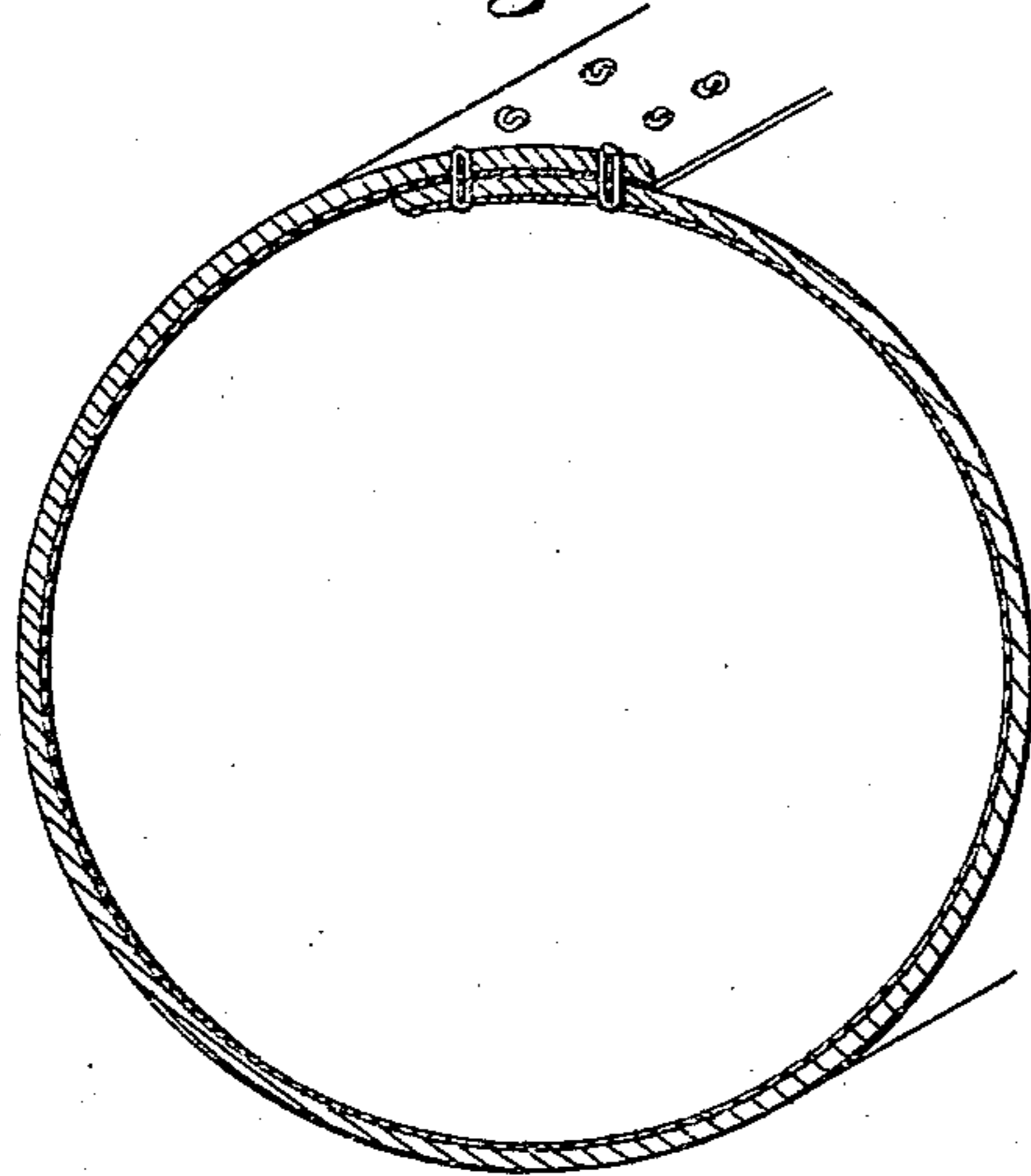
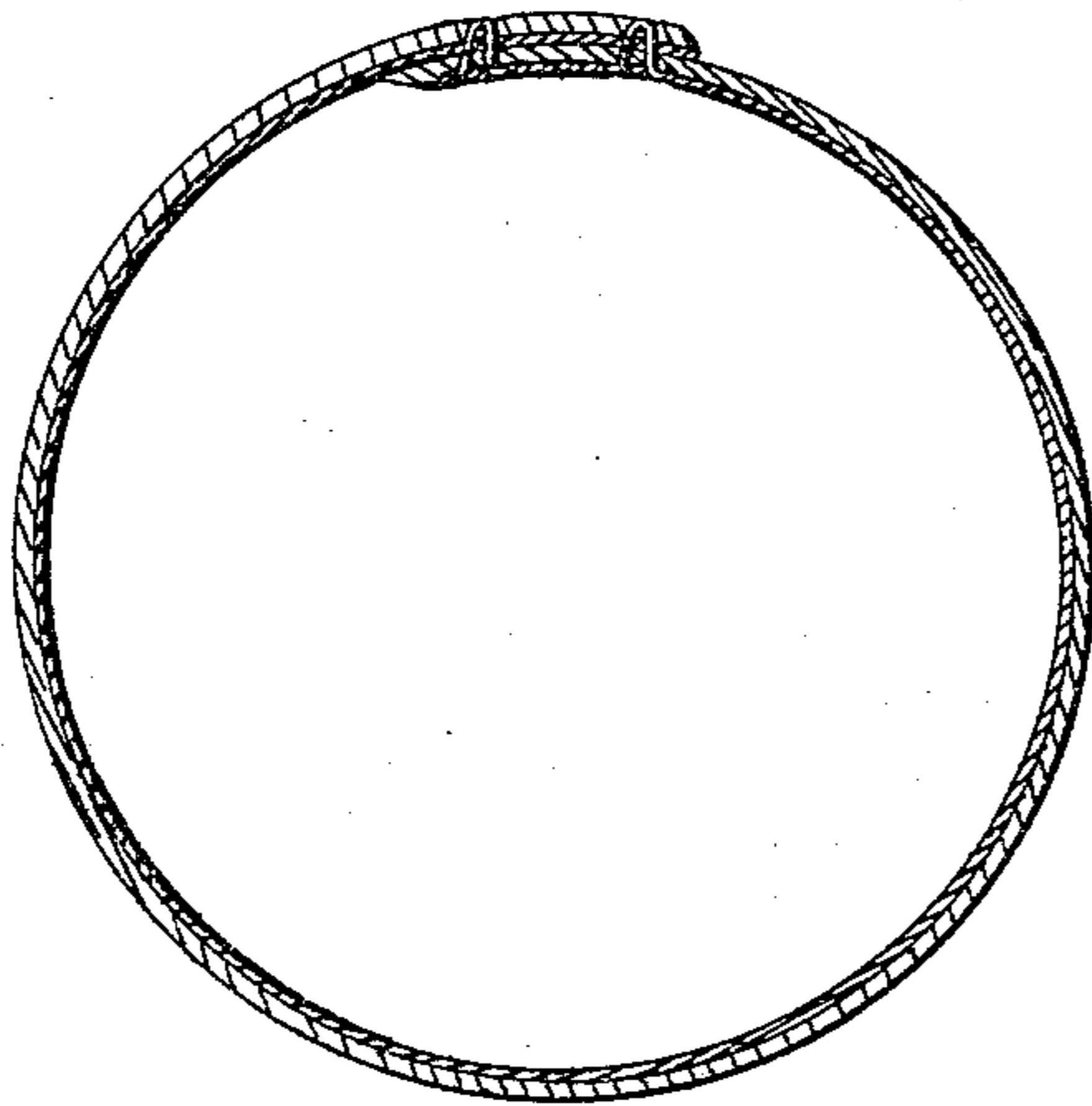


Fig 1.



Witnesses,
Mr. W. Frothingham.
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UNITED STATES PATENT OFFICE.

THEODORE A. DODGE, OF CAMBRIDGE, MASSACHUSETTS.

IMPROVEMENT IN HYDRAULIC HOSE.

Specification forming part of Letters Patent No. 148,677, dated March 17, 1874; application filed February 14, 1874.

To all whom it may concern:

Be it known that I, THEODORE A. DODGE, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Hydraulic Hose; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

My invention relates to an improved construction of that class of hydraulic hose formed of a strip of woven material, imperviously surfaced upon one or both sides, and having its edges united to constitute the tube.

In my invention, I unite the parts by metal fastenings, the points of which are clinched either upon the outer surface or against the inner surface of the tube; and my invention consists, primarily, in a hose so made. For the fastenings, I prefer to use staples driven from the outer side, and having points so made that they will diverge in driving, or will clinch against a metal support, over which the edges are lapped in forming the tube; but other staples or nails may be used, such nails having points that turn over and clinch as they strike the metal support, and a special formation of the support may be used to insure the proper clinching of the nail or staple points. The fastenings may be driven from the inside through the lapped edges, but not to so good effect as when inserted from the outside. I prefer to employ a double row of fastenings, and they may be driven through an outer brace-strip; but, for many purposes, a hose made with a single row of fastenings and without the brace answers well.

The invention consists in a hydraulic hose formed of an impervious-coated strip, having its edges brought together and lapped, and united by one or more rows of metal fastenings driven through the lapping edges and clinched against the surface opposite to that from which they are driven.

The drawing represents sections of pieces of hose, having the parts fastened in accordance with my invention.

The union is shown as effected by staples, in Figure 1, the staples being driven from the outside, and, in Fig. 2, from the inner side.

In Fig. 1, the staples have diverging points, and, in Fig. 2, the staple-points are twisted together. The staples are shown as driven with their heads transversely of the seam; but they may be driven with their heads in line or parallel to the seam.

With the exception of the fastenings, the hose may be otherwise made like either of the constructions shown in United States Letters Patent Nos. 130,303, 133,044, 133,785, 138,845, 138,867, and 143,661, or in any other suitable manner, my invention relating only to the union of the edges by the metal fastenings, as described.

I claim—

Hydraulic hose formed of a strip of imperviously-coated fabric, having its edges united by the metal fastenings, formed and applied, substantially as described.

THEO. A. DODGE.

Witnesses:

FRANCIS GOULD,
M. W. FROTHINGHAM.