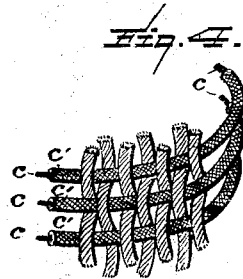
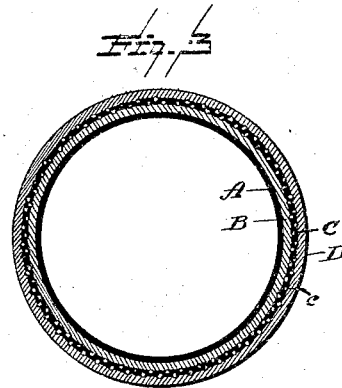
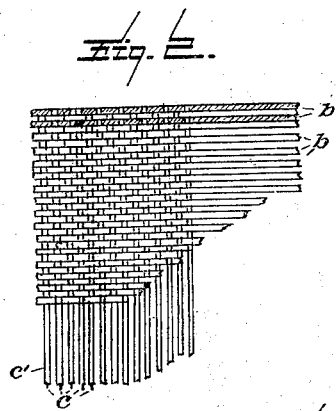
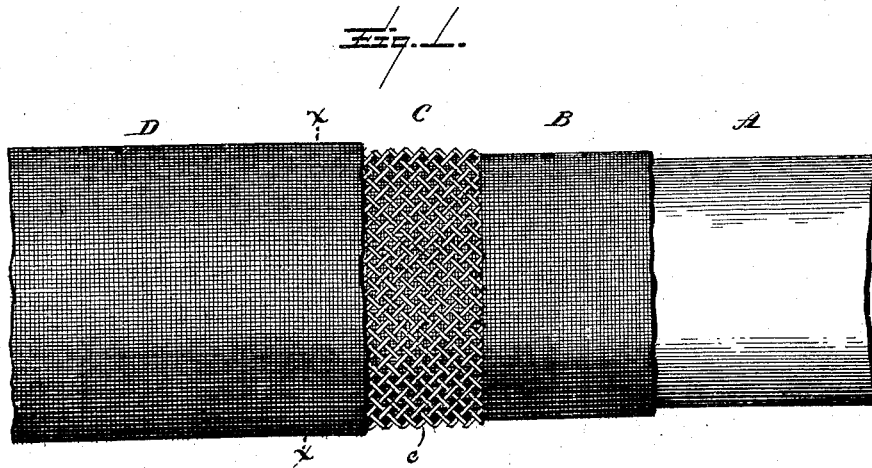


(No Model.)

E. A. TAFT.
HOSE.

No. 417,796.

Patented Dec. 24, 1889.



Witnesses:

L. C. Hills.
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UNITED STATES PATENT OFFICE.

EDWARD A. TAFT, OF EVANSTON, ILLINOIS.

HOSE.

SPECIFICATION forming part of Letters Patent No. 417,796, dated December 24, 1889.

Application filed November 22, 1888. Serial No. 291,552. (No model.)

To all whom it may concern:

Be it known that I, EDWARD A. TAFT, a citizen of the United States, residing at Evanston, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Hose, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to hose, and more particularly to that class of heavy hose known as "jacketed" and "double jacketed," and employed by fire-departments and other uses wherein a heavily-constructed or strong hose is required, and through which water is forced under high pressure.

The novelty resides in the peculiarities of construction and the novel combinations, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the appended claim.

Referring to the drawings, Figure 1 represents a double-jacketed hose provided with a woven covered wire re-enforcing-jacket constructed in accordance with my invention, the successive layers or jackets composing the hose being removed, so as to expose the next adjacent layer. Fig. 2 is a plan of a small section illustrating the wire and cotton interwoven and forming a composite jacket. Fig. 3 is a transverse section of a double-jacketed hose provided with an intermediate re-enforcing jacket, the section being taken on the line *x x* of Fig. 1; and Fig. 4 is an enlarged view showing the interwoven strands of covered wire and cotton.

Like letters of reference indicate like parts in all the figures of the drawings.

A represents the interior rubber lining of a hose of the class described, and B the adjacent jacket formed of woven cotton, the latter being re-enforced by the wire re-enforcing jacket C, over which is superimposed the exterior jacket of woven cotton D. The strands of wire *c*, forming the jacket C, are covered with any suitable material or substance *c'*, which is impervious and will protect the wire strands from moisture that may soak through the exterior jacket D. The mesh of the wire jacket is sufficiently large to per-

mit of an easy manipulation of the completed hose.

In Fig. 1 I have shown the wire jacket as independent of the cotton jackets, and in Fig. 2 I have illustrated the strands of wire and cotton interwoven, forming a composite jacket of great strength and durability. In the latter instance *c c'* represent the covered wire strands, and *b* the cotton strands, the two being interwoven in any ordinary manner. This latter form is best adapted for the "single-jacket" hose; but it is apparent that either of the jackets in a double-jacketed hose may be constructed as just described, though it is preferable that the interior or that jacket next to the rubber lining be thus constructed, as the re-enforcing jacket is better preserved.

I am aware that contiguous rubber and wire jackets have been used, the whole being heated until the rubber is melted into the meshes of the wire web; but my wire-netting differs essentially from this construction, in that it is made of wire previously water-proofed, and known ordinarily in the arts as "insulated wire."

The particular kind of covered wire which I employ and claim is that in which a water-proof fibrous coating is wound around the wire, thus securing water-proofing without the disadvantage of the adhesion to the wire of a rubber coat. The difficulty which has always been found with the latter is its tendency to hold the wire so that in bending it breaks away from itself at various points, thus breaking or cutting the coating, exposing the wire to moisture.

I am aware that it has been proposed to form hose consisting of an inner rubber cylinder and a layer or layers of cloth, the latter formed with longitudinal overlapping edges and wound with cord or wire, and the whole coated with vulcanized rubber, and do not seek to cover such construction. I deem it important that the strands of the wire and fabric jackets B and C be interwoven and covered, as shown, thus protecting the wire strands from moisture that might soak through the exterior jacket, and the large meshed interwoven wire, forming a superior jacket, allows of ready manipulation of the

completed hose to a much more satisfactory extent than a spiral-wound wire would do.

Having described my invention, what I claim is—

- 5 As an improved article of manufacture, the herein-described hose, consisting of the rubber lining, a superposed jacket of woven fabric, a composite jacket composed of fabric interwoven strands and coated wire strands

covering the fabric jacket, and a canvas ro cover, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD A. TAFT.

Witnesses:

H. H. C. MILLER,
N. C. MILLER.