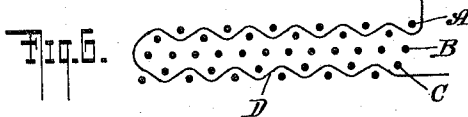
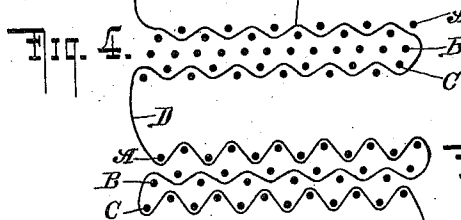
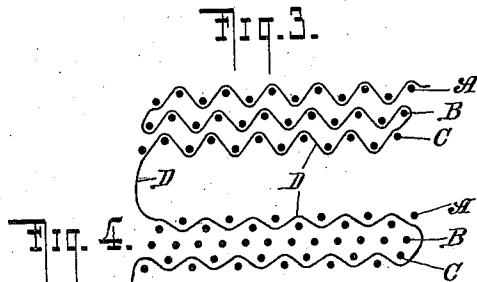
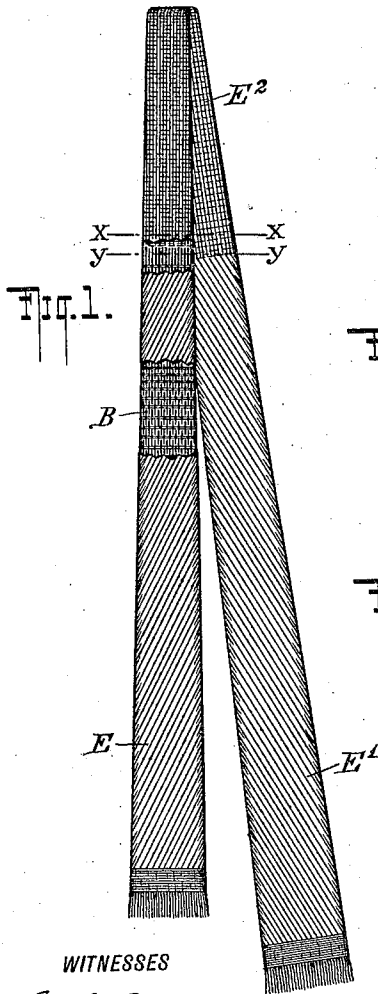
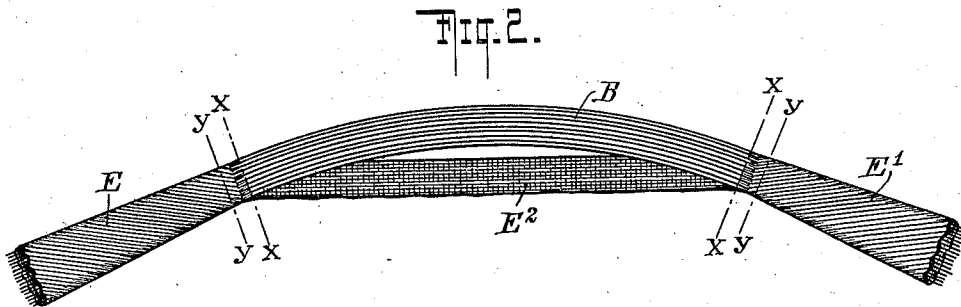


E. CARDOT.
TUBULAR FABRIC.
APPLICATION FILED FEB. 24, 1911.

1,062,143.

Patented May 20, 1913.



WITNESSES

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UNITED STATES PATENT OFFICE.

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TUBULAR FABRIC.

1,062,143.

Specification of Letters Patent.

Patented May 20, 1913.

Application filed February 24, 1911. Serial No. 610,655.

To all whom it may concern:

Be it known that I, EVAN CARDOT, a citizen of the United States, and a resident of Pottsville, county of Schuylkill, and State of Pennsylvania, have invented certain new and useful Improvements in Tubular Fabrics, of which the following is a specification.

My invention relates to tubular fabrics and particularly to tubular neckties, and has for its object to produce a tubular fabric, such as a necktie, having a lining interwoven with the body of the fabric in the particular manner set forth in the appended claims.

A typical example of my invention is shown in the accompanying drawings, in which—

Figure 1 represents the finished necktie, with parts broken away; Fig. 2 is a longitudinal section of the necktie immediately before completion, and Figs. 3 to 6 are diagrammatic cross sections illustrating one particular manner of weaving this necktie.

In the manufacture of my improved necktie I employ three sets of warps, A, B, C, which for the sake of convenience shall be referred to as the upper, middle and lower set respectively. These are interwoven with a continuous weft thread D by means of any suitable loom adapted to the production of woven fabrics, and I have deemed it unnecessary to illustrate any particular mechanism for this purpose, as anyone skilled in the art will know what kind of loom to select or construct.

The weft D is interwoven with the three sets of warps A, B, C only at the ends E, E', while at the central portion E² the weft is interwoven only with the upper warps A and with the lower warps C, the middle warps B being lifted during the weaving of this central portion, so that they will form a separate layer outside the body of the fabric, as shown in Fig. 2. This separate layer is removed by cutting the warps B at *x, x*, after the weaving of the necktie has been completed, and owing to the elasticity of the threads the cut ends of the warps B will then be retracted within the tubular body of the necktie, for example to the points *y, y*. The ends of the warps

B, and in fact the entire middle layer or lining formed by the warps B and the weft portions interwoven therewith, will be invisible in the finished necktie, being concealed by the tubular body of the fabric which body is formed by the warps of A, C and the weft portions interwoven therewith.

The interweaving of the weft D with the warps A, B, C at the end portions E, E' of the necktie may be carried out in many different ways, but in any event I prefer that the upper and lower layers should be woven more closely than the middle layer, or in other words, that there are more picks to the inch in the upper and lower layers than in the middle layer. In the particular example illustrated by Figs. 3 to 6, there are twice as many picks to the inch in the upper and lower layers as in the middle layer. Fig. 3 illustrates the first stage, in which the weft D is interwoven first with upper warps A, then with the middle warps B and then with the lower warps C. Then, after the weft has been beaten up by the lay or other part of the loom, the weaving proceeds to the second stage (Fig. 4) in which the weft is interwoven only with the upper warps A and the lower warps C, in the succession shown. Then in the third stage (Fig. 5) the weft D is again interwoven with all three sets of warp threads, and in the fourth stage (Fig. 6) the weft is interwoven only with the upper warps A and with the lower warps C. The first stage (Fig. 3) is substantially similar to the third (Fig. 5), except that the shed has been changed or reversed in the middle set B of the warps. The second stage (Fig. 4) is substantially the same as the fourth (Fig. 6). The weave would then repeat, the fifth stage being identical with the first, and so on. I have described and shown this particular weave on account of its simplicity, but I desire it to be understood that various other weaves may be employed, and that other modifications may be made without departing from the nature of my invention, as set forth in the appended claims.

My invention is applicable not only to neckties, but to belts, straps, or other articles. The warps forming the lining may be of material different from that of the

other warps, but such inner lining may be used for the purpose of giving strength or of giving body, or for both purposes jointly.

I claim as my invention:

5 1. As an article of manufacture a tubular body and linings located within said body only at the ends thereof, so as to leave the central portion unlined, the warps of the body and of the linings being interwoven
10 with the same weft, but more loosely in the linings than in the body.

2. As an article of manufacture a tubular body and linings located within said body only at the ends thereof, so as to leave the
15 central portion unlined, the warps of the body and of the linings being interwoven with the same weft.

3. As a new article of manufacture a tubular body and a lining within said body,
20 said body and lining having a weft common to the warps of both but interwoven with

the warps of the lining proportionately less frequently than with the warps of the body, whereby the lining may be bent crosswise more readily than the tubular body. 25

4. As an article of manufacture a tubular body and linings located within said body only at the ends thereof, so as to leave the central portion unlined, the warps of the body and of the linings being interwoven
30 with the same weft, but more loosely in the linings than in the body, and those ends of the warps of the linings which are adjacent to the unlined central portion of the body, being concealed within the tubular body. 35

In testimony whereof, I have hereunto set my hand in the presence of two subscribing witnesses.

EVAN CARDOT.

Witnesses:

FRANK LITTLE,
J. M. HARRIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."