

(Model.)

2 Sheets—Sheet 1.

A. NETZNER.
SUSPENDER STRAP.

No. 255,654.

Patented Mar. 28, 1882.

Fig. 1.

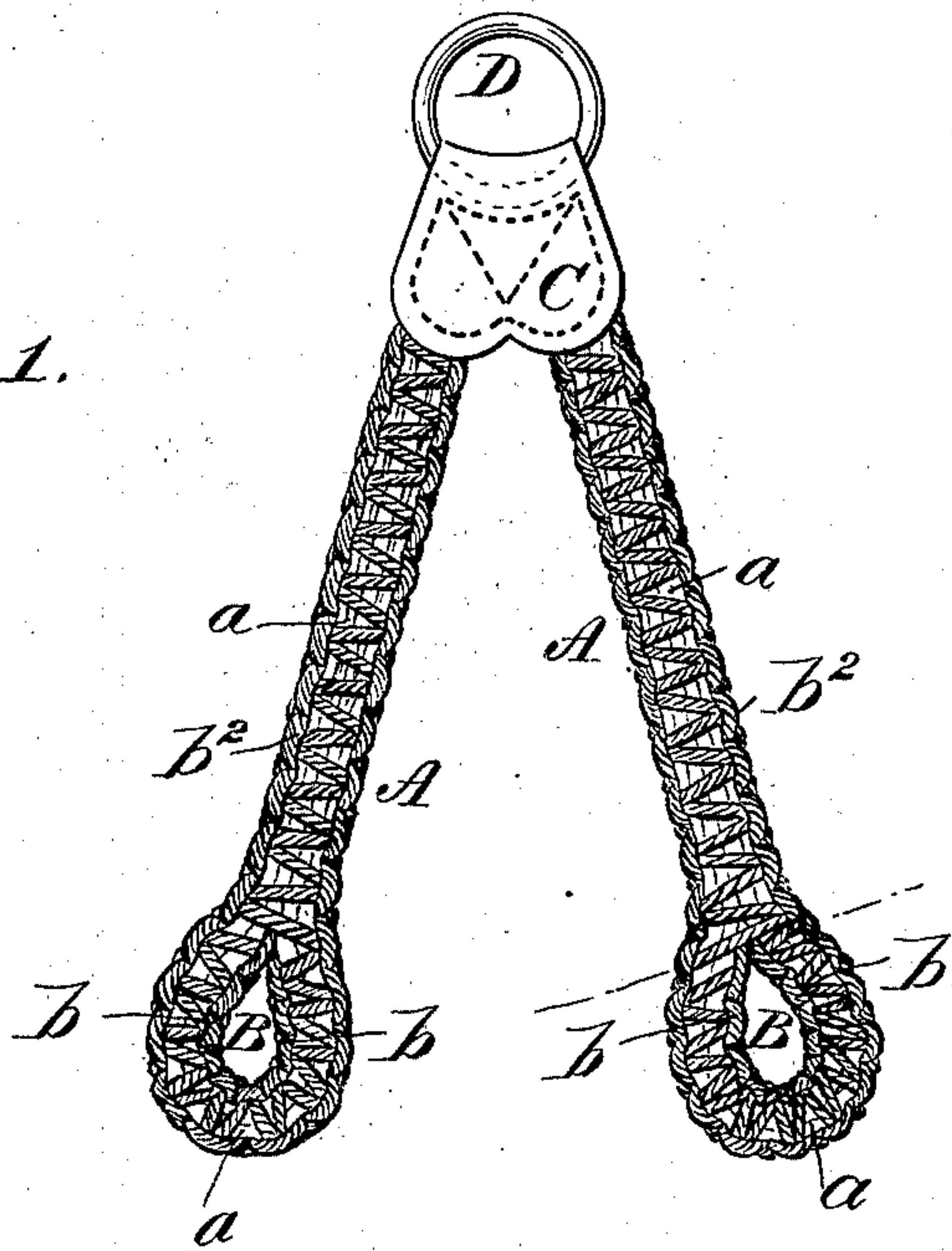


Fig. 2.

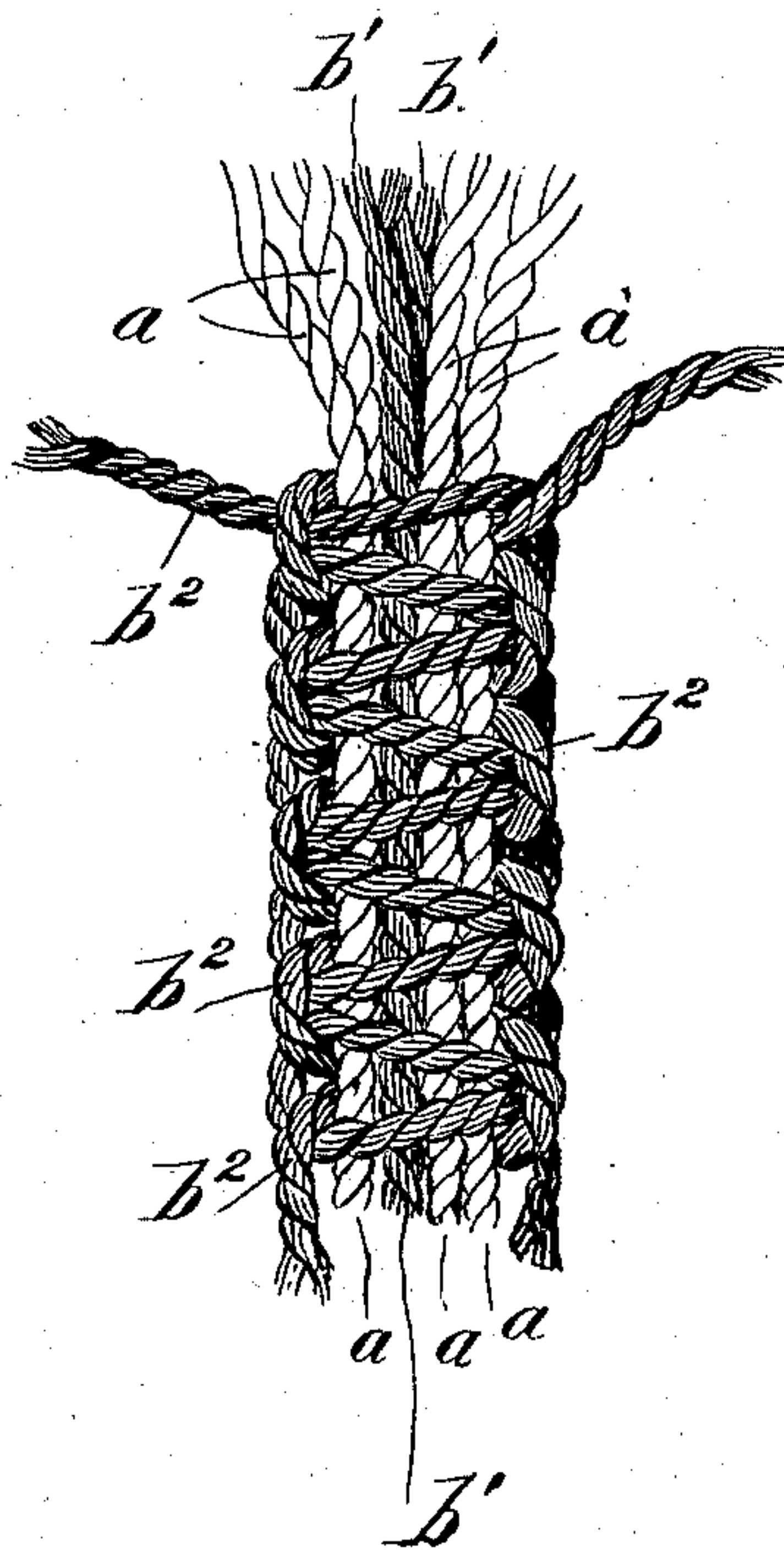
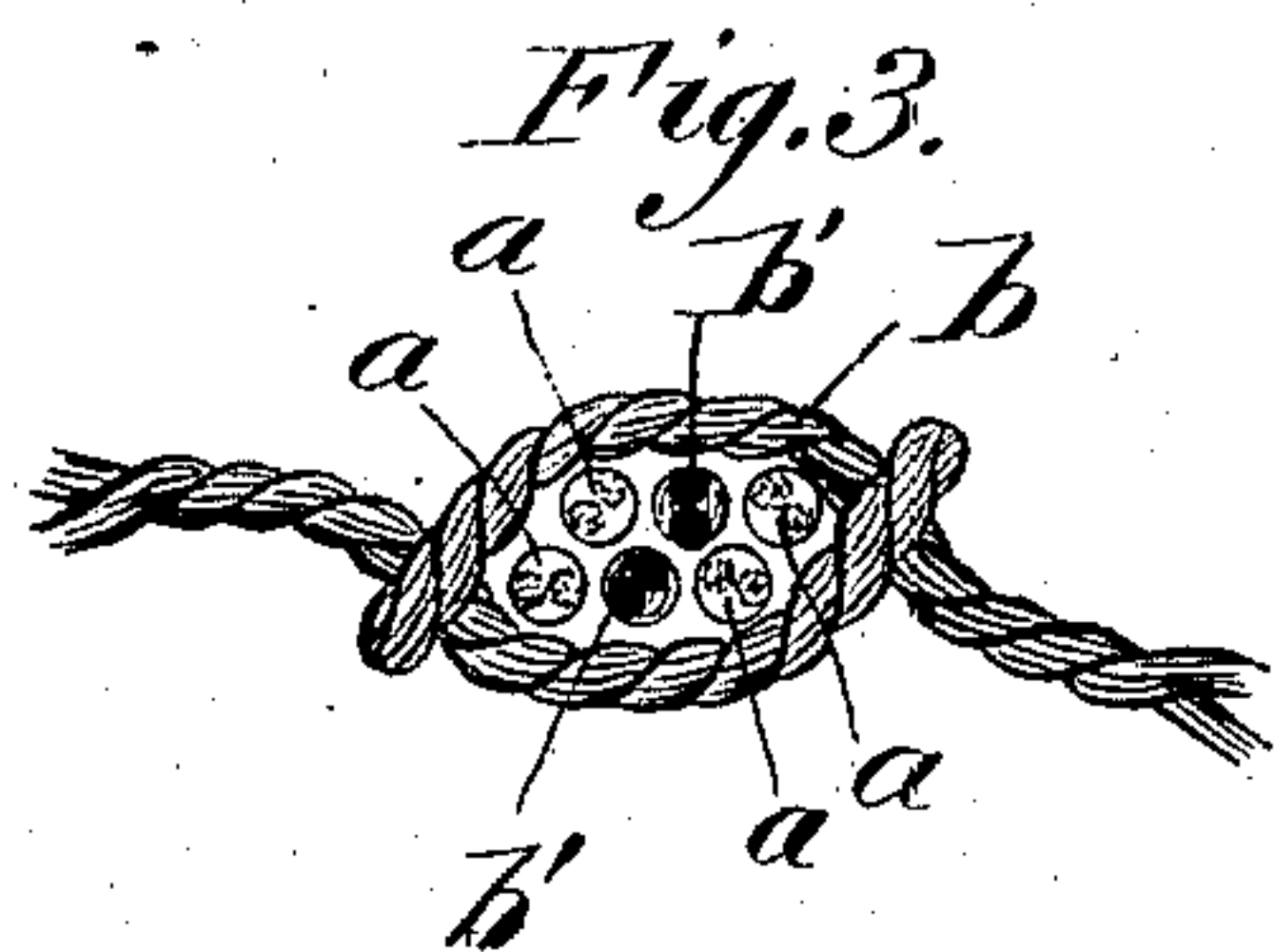


Fig. 3.



WITNESSES:

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ATTORNEYS.

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Fig. 4.

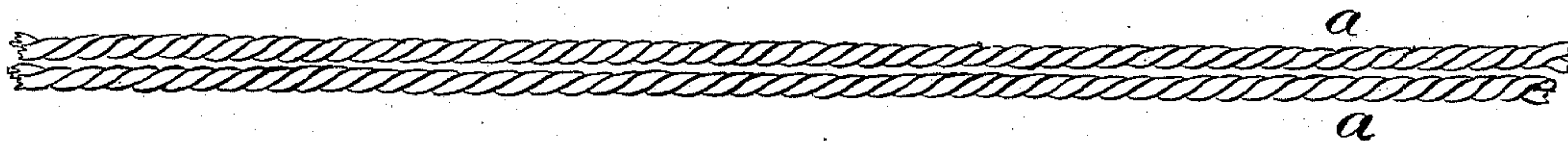


Fig. 5.

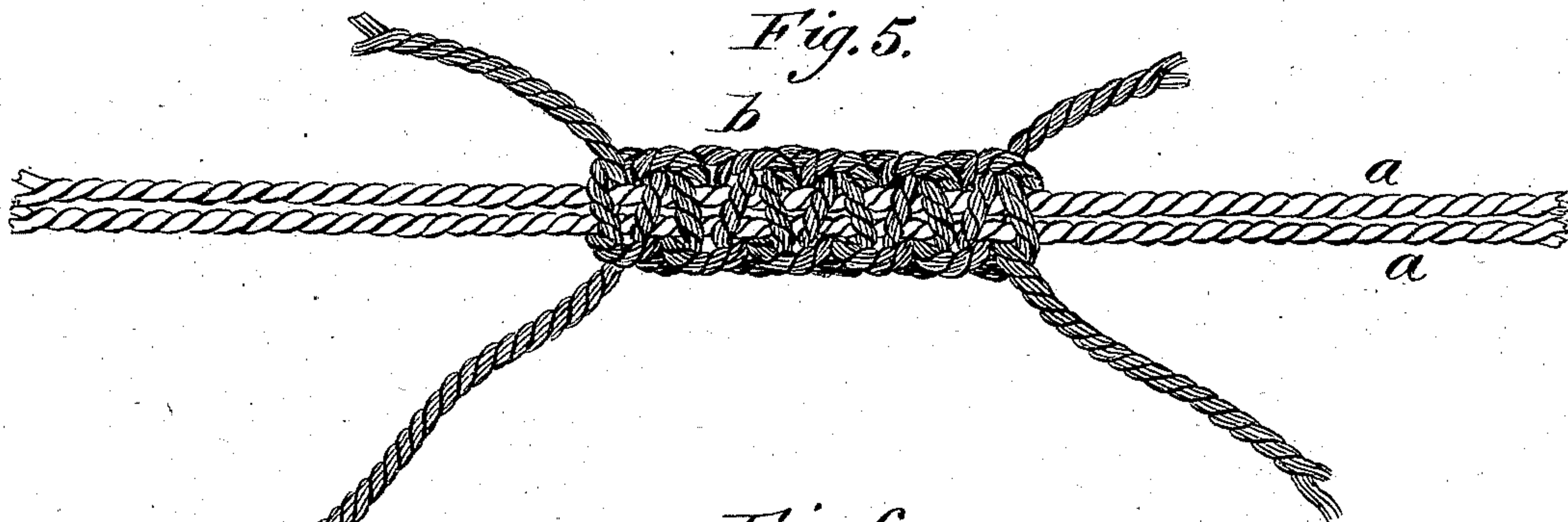
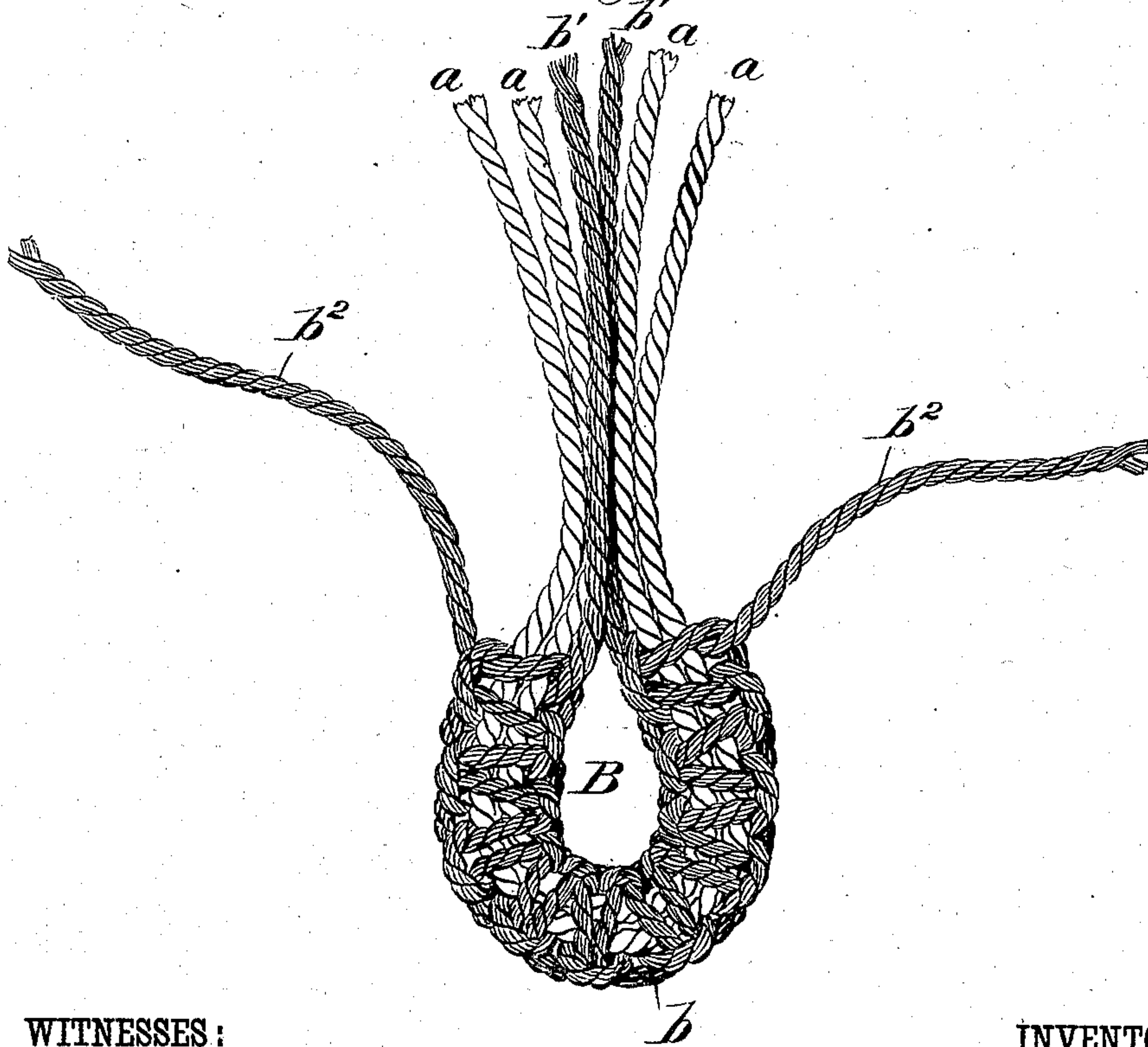


Fig. 6.



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UNITED STATES PATENT OFFICE.

AUGUSTA NETZNER, OF NEW YORK, N. Y.

SUSPENDER-STRAP.

SPECIFICATION forming part of Letters Patent No. 255,654, dated March 28, 1882.

Application filed January 19, 1882. (Model.)

To all whom it may concern:

Be it known that I, AUGUSTA NETZNER, of the city, county, and State of New York, have invented a new Improvement in Suspender-Straps, of which the following is a full, clear, and exact description.

The invention consists of an improvement in the art of making a suspender-strap, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a longitudinal or front view of my improved suspender-strap. Fig. 2 is a detail longitudinal view of a part of the same. Fig. 3 is a cross-sectional view of the same. Fig. 4 is a longitudinal elevation of the first two cords. Fig. 5 shows the manner of forming the bottom loop part. Fig. 6 shows the manner of completing the strap after the ends of the loop part have been united.

The suspender-straps A, provided at the lower ends with button-hole loops B, are attached at their upper ends by a leather or other band, C, holding a ring, D, in the usual manner. The straps A are made of knotted cords in the following manner: Two or more strands, *a a*, of cord are placed parallel with each other to form a core, and at their middle are surrounded by two other cords, *b b*, which are knotted together every time they have been passed around the strands *a*, whereby that portion of the strap forming the loop B is formed. Then the ends of the knotted or loop part of the strands *a*, which is the middle part of the strands *a*, are brought together, and the end parts of the strands *a* are placed parallel with each other and with the inner end parts, *b'*, of the outer surrounding strands, *b*. The strap will thus be formed of six strands, if two strands, *a a*, have been used originally—that is, the two strands *a a* will be doubled, forming four strands, and with the two strands formed by the inner end parts, *b'*, of the cords *b* there will be six strands in the body of the strap A, but only two in the thinner part forming the loop B, which must be more pliable than the other part of the strap. After the strands have been folded the outer end parts, *b² b²*, of the cords *b b* are wound or passed around the six strands directly above the united ends of the middle

loop forming part of the strands *a*, which have already been wound by the cords *b*. Every time the cords *b* or their end parts, *b²*, have been passed around the six united cords or strands these outer or surrounding cords are knotted, and in this way the strap is formed from the eye or loop B to the top or upper end of the strap. Then two such straps are united and attached to a ring, D, in the manner shown, or in any other suitable manner.

The cords can all be of the same color or of different colors, as may be desired, and any desired number of strands or cords may be used. The thickness of the cords may also be varied, and the cords may be knotted in various different ways. The strap is not formed by weaving or braiding the cords, but by passing outer cords around inner cords, which form a core, and these outer or surrounding cords are knotted every time they have been passed around the inner strands.

A suspender-strap made of knotted cords in the manner described can be made very ornamental, and will be very durable.

The cords can be knotted in any suitable manner. In the case shown one cord *b* is passed under the strands to form a loop on one side of the strap. Then the other cord is passed over the strap and through this loop, and the end of the first cord *b* is passed from below through the loop formed by the second cord *b*, and then the cords are drawn tight, and so on.

I am aware that a suspender-end has been made of a flat cord or braid doubled to form a button-hole and having its free ends braided together, the braid being retained in position by a supplemental cord; but

What I claim as new and of my invention is—

The described improvement in the art of making a suspender-strap, which consists in first forming its loop of two core-cords, then surrounding these at the middle by two wrapped cords knotted at each wrap, then doubling both the wrapped and knotted cords, and finally forming the body of six core-strands, surrounded by two of the wrap-strands knotted at each wrap, as shown and described.

AUGUSTA NETZNER.

Witnesses:

O. F. GUNZ,
C. SEDGWICK.