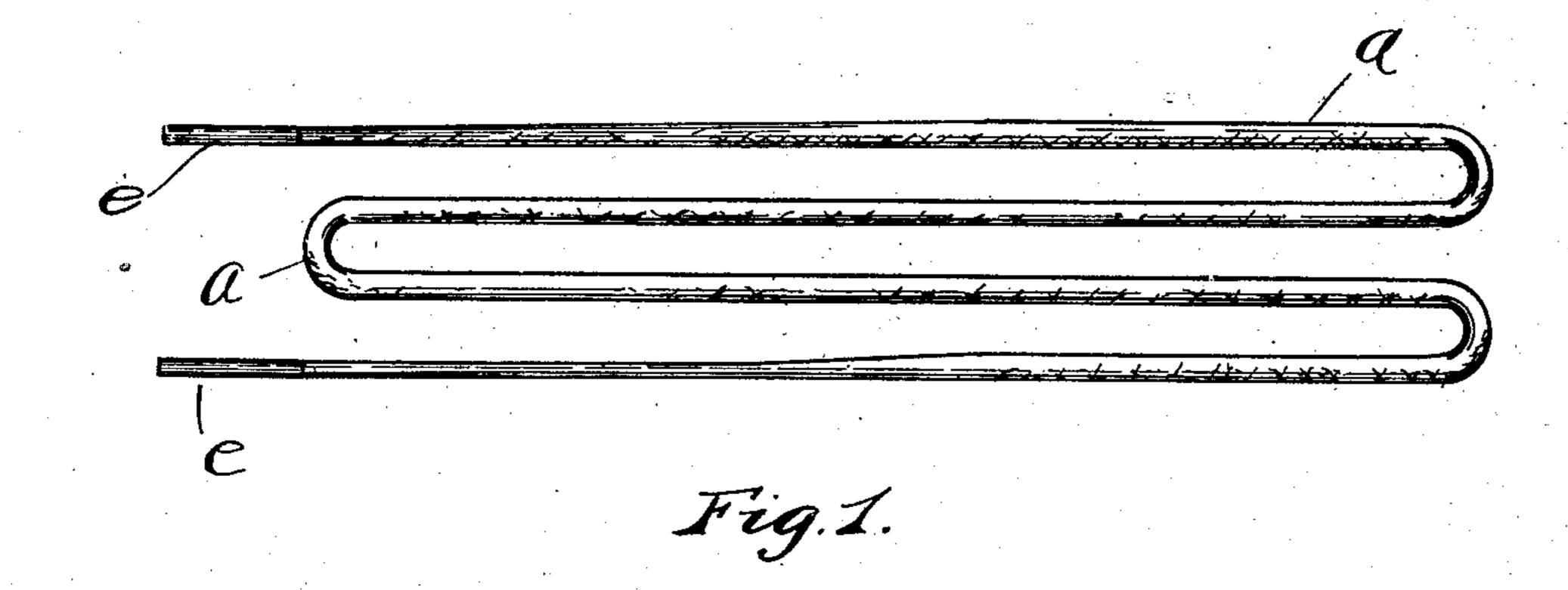
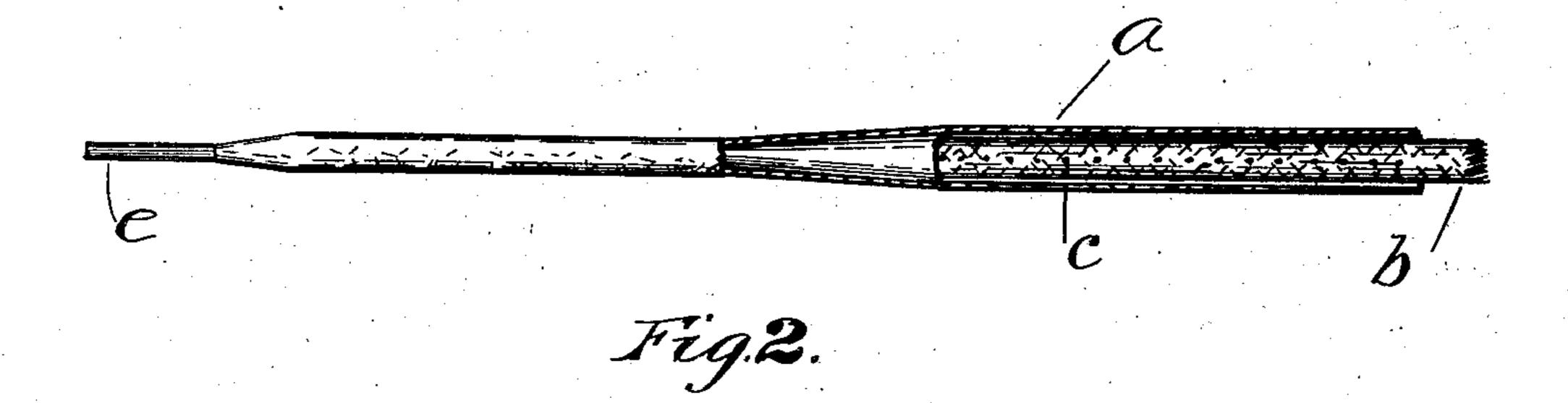
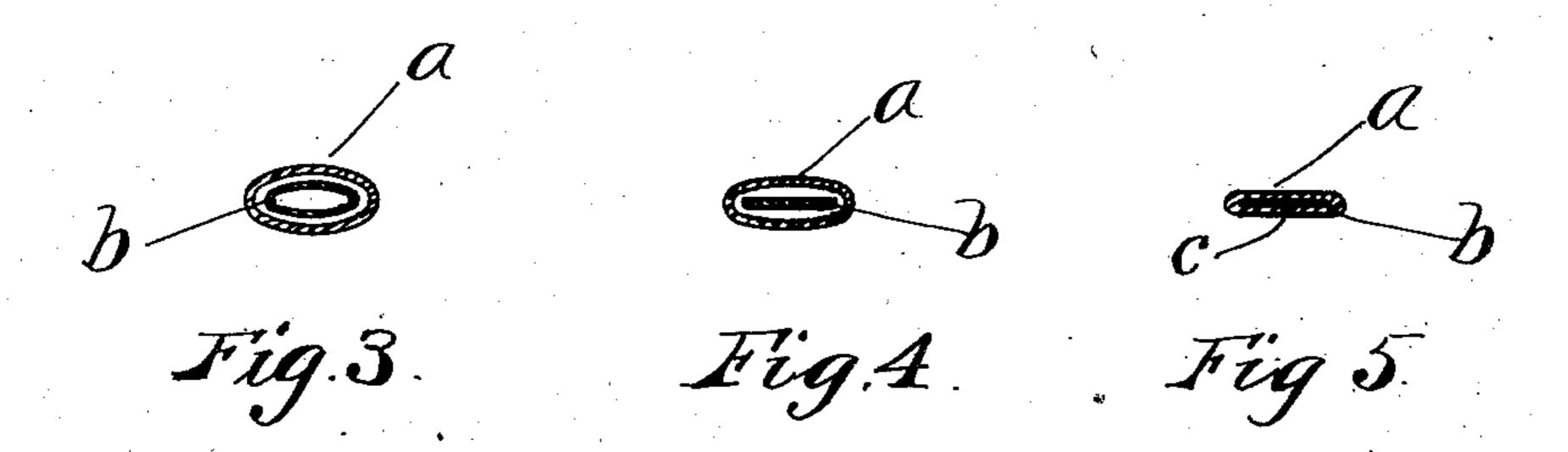
## E. C. CHAPMAN. LACING.

APPLICATION FILED FEB. 27, 1903.

NO MODEL.







Witnesses

E. D. Ogden

Edward C. Chapman.

Howard Garles. Citterney

## United States Patent Office.

EDWARD C. CHAPMAN, OF PROVIDENCE, RHODE ISLAND.

## LACING.

SPECIFICATION forming part of Letters Patent No. 742,164, dated October 27, 1903.

Application filed February 27, 1903. Serial No. 145,374. (No model.)

To all whom it may concern:

Be it known that I, EDWARD C. CHAPMAN, a resident of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Lacings; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to lacings, and has for its object the production of a lacing for use in shoes, corsets, or similar articles that is reinforced for a portion of its length, leaving the ends where the strain is not required of a single thickness, which facilitates the tying of the strings into a knot. It is fully described in this specification and illustrated in

20 the accompanying drawings.

Figure 1 represents an edge view of a lacing of my construction, illustrating the reinforcing of that portion which receives the most wear and strain. Fig. 2 is a plan view, partly in section, of a portion of a lacing, showing the reinforcing-piece fastened to the inside of the tubular lacing. Fig. 3 is an end view of the outer tubular lacing inclosing an inner tubular reinforcing-piece. Fig. 4 is an end view of the outer tubular lacing inclosing an inner flat-tape reinforcing-piece. Fig. 5 is an end view illustrating the lacing as it appears when stitched together.

With reference to the drawings, a is the outer sheath or main portion of the lacing, which is preferably woven in a tubular form.

b is a reinforcing-tape, which may be woven in a tubular form, as illustrated in Fig. 3, or made in the form of a tape, as illustrated in Fig. 4. This reinforcing-tape b may be drawn into the tubular outer sheath by suitable means, or said outer sheath may be woven over said reinforcing-tape. When the tape is in position within the sheath, it may be se
45 cured in any convenient way, either by sewing it to the outer sheath throughout its length or stitching it at its ends to hold it in posi-

tion.

In constructing my lacing I preferably braid the outer sheath a into a tubular form 50 in the usual way and of the desired length and then draw the tape b, which is considerably shorter than said outer sheath, into this tube by any convenient means, such as a thread or a wire needle. By this double struc- 55 ture the lacing is reinforced or strengthened where it needs it the most, which is the part that receives all of the strain and wear, both ends of the lacing having only the thickness of the outer sheath. The reinforcing-piece 60 being made of flat material may be readily secured in place in any suitable way, either by cementing or stitching c its entire length or any part thereof or simply securing it at each end. When made in this form it lies 65 flat (see Fig. 5) and close to the object in which it is laced, which is particularly desirable, especially when used in shoes. By stitching or securing the two parts together throughout its length they are bound closely 70 together, making them practically one stout piece capable of withstanding great strain and long wear. By leaving the ends of the lacing single they are relieved of the surplus stock, which makes them thin, soft, and flexi-75 ble and very easy to be tied in a small neat knot. This also gives the lacing a more shapely appearance, as it tapers from the filled portion down to the tips e e on the ends.

The advantages of my invention are at 80 once apparent, and it will be particularly observed that the same is strong and durable and at the same time presents a neat appearance.

Having thus described my invention, what 85 I claim as new, and desire to secure by Letters Patent, is—

1. As an article of manufacture, a lacing comprising an outer sheath or casing, and an inner reinforcing-tape located therein, said re- 90 inforcing-tape being shorter than said sheath or casing, whereby the ends of the latter are rendered flexible, and means for holding said tape against movement within said sheath or casing, as set forth.

2. As an article of manufacture, a lacing

comprising an outer tubular sheath or casing, and an inner reinforcing-tape also of tubular form, said reinforcing-tape being shorter than said sheath or casing whereby the ends of the latter are rendered flexible, and means for holding said tape against movement within said sheath or casing, as set forth.

In testimony whereof I have hereunto set my hand this 25th day of February, A. D. 1903.

EDWARD C. CHAPMAN.

In presence of—GEO. D. LANSING,
HOWARD E. BARLOW.