(No Model.)

M. K. & M. H. BORTREE.

LACING STRIP.

No. 603,313. Patented May 3, 1898.

Fig. 1.

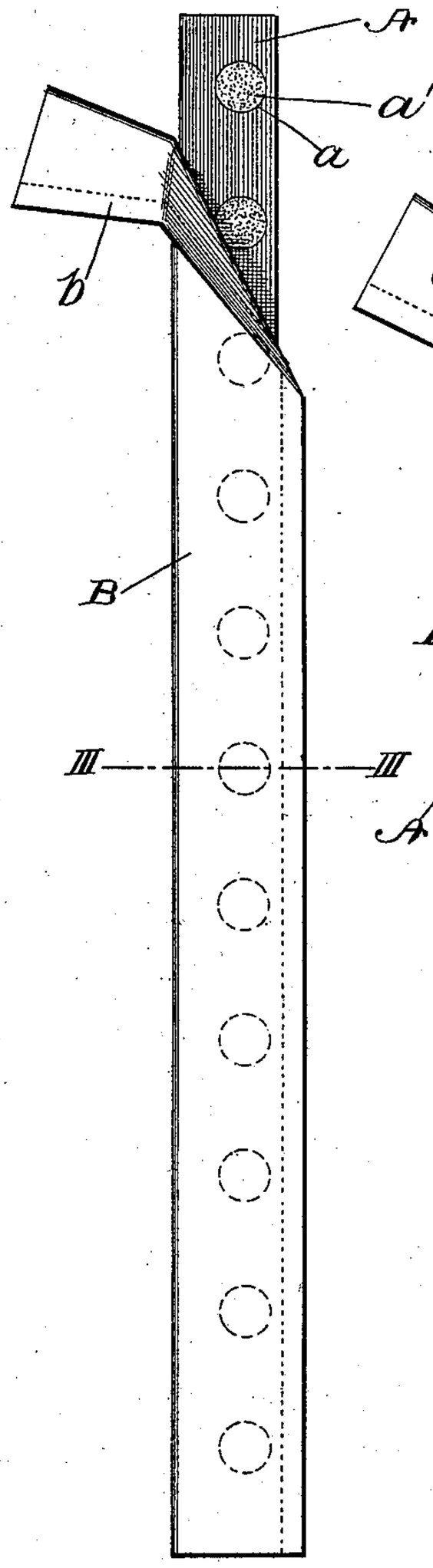

Fig. 2.

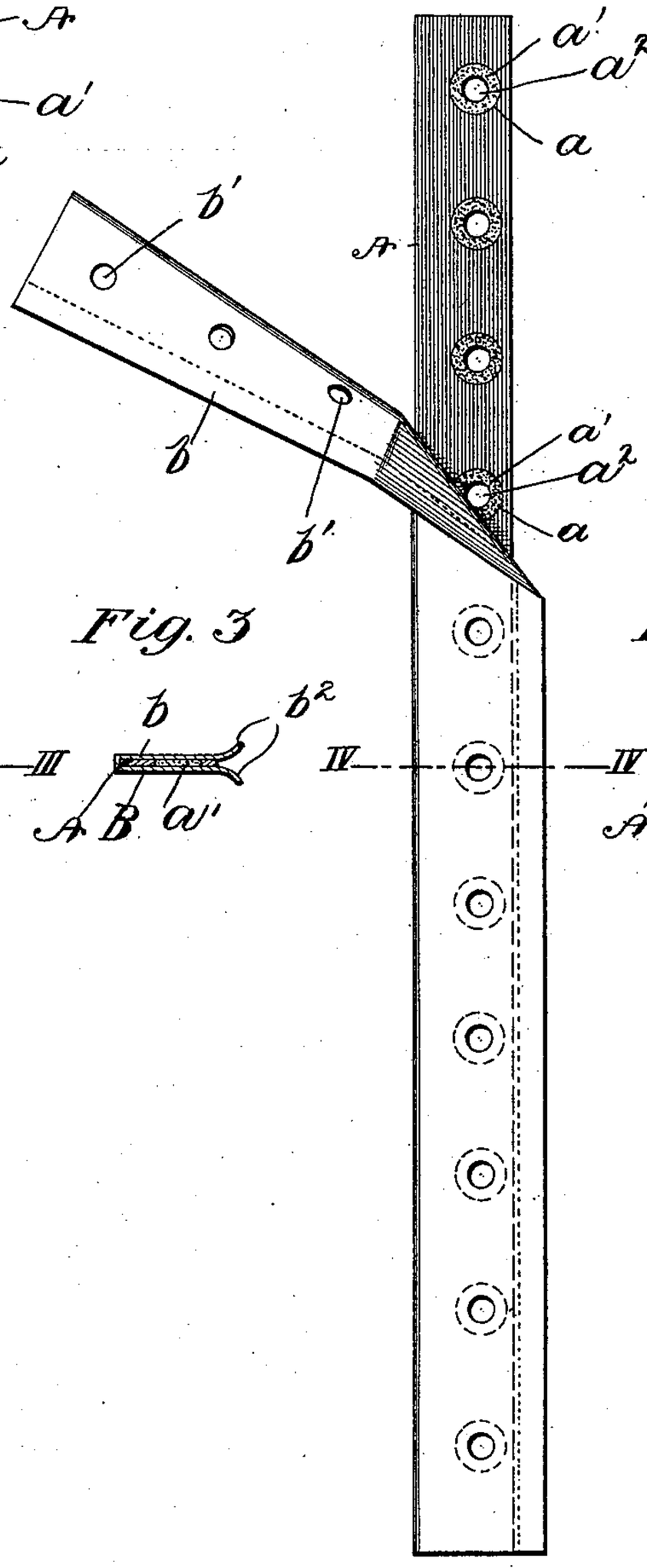

Fig. 3

Fig. 4.

WITNESSES

Edwd. D. Duvall, Jr.
Chas. E. Riordon

INVENTORS

Mary H. Bortree
and Moses K. Bortree
By Julian C. Dowell, Their Attorney

UNITED STATES PATENT OFFICE.

MOSES K. BORTREE AND MARY H. BORTREE, OF GRAND RAPIDS, MICHIGAN, ASSIGNORS, BY MESNE ASSIGNMENTS, TO ENOCH C. BOWLING, OF DETROIT, MICHIGAN.

LACING-STRIP.

SPECIFICATION forming part of Letters Patent No. 603,313, dated May 3, 1898.

Application filed August 9, 1897. Serial No. 647,589. (No model.)

To all whom it may concern:

Be it known that we, MOSES K. BORTREE and MARY H. BORTREE, citizens of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Lacing-Strips; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to lacing-strips for use in connection with wearing-apparel.

The primary object of the invention is to provide an improved lacing-strip for attachment to wearing-apparel that will protect the lacing or cord against undue abrasion or wear in use and which will not present any metallic surfaces to be corroded by exposure to the air.

A further object is to provide a lacing-strip of the character described adapted to be formed of any required length and subsequently cut into short strips or sections of the length desired for the particular use to which it is to be put.

The invention will first be hereinafter more particularly described with reference to the accompanying drawings, which form a part of this specification, and then pointed out in the claims at the end of the description.

In the drawings, Figure 1 represents a plan view of a lacing-strip embodying our invention, a portion of the outer cover or case of the flexible core being turned back to expose a part of said core. Fig. 2 represents a plan view of the lacing-strip, showing the non-metallic fillings for the openings through the flexible core centrally apertured or cut out to provide suitable openings to receive the lacing or cord, a portion of the outer case or cover, also apertured to correspond with the apertures in the core, being turned back to expose a portion of the core. Fig. 3 is a transverse section of the lacing-strip on the line III III of Fig. 1, and Fig. 4 is a transverse section on the line IV IV of Fig. 4.

Similar letters of reference are used to denote corresponding parts in the different views.

A denotes the flexible core or body of the lacing-strip, which may consist of a flat strip of metal or other suitable material of any desired length having a series of openings *a* therethrough which are filled with paper-pulp or other suitable non-corrosive material or substance *a'*, so as to close said openings and give the appearance of a non-perforated core. This core is covered or incased in a cloth or other suitable cover B, extending the length thereof and glued, cemented, or otherwise attached thereto, said cover being provided with an unattached marginal portion *b* for attaching the lacing-strip to the garment or article in connection with which it is to be used.

The strip thus constructed may be manufactured and sold to the trade in any desired lengths suitable to be cut up into shorter lengths or strips, as may be desired, according to the uses to which it is to be put, and the user may easily cut or punch openings through the same at intervals corresponding with the distance between the fillings, the outer cover being cut coincidently with the spaced fillings, so as to provide suitable openings through the complex strip to receive the lacing cord or string; but the lacing-strip is preferably provided in suitable lengths ready for use by cutting out or punching openings a^2 through the central portions of the fillings *a'*, as shown in Fig. 2, and providing the outer case or cover with coincident apertures *b'*, so as to form the finished article, with spaced openings therethrough to receive the lace. Thus constructed the lacing-strip presents no metallic surface to be corroded, and the parts with which the lacing cord or string contacts are of a non-metallic substance, which will not abrade and wear away the string or cord, as is the case when the cord or string is brought into contact with metallic surfaces or sharp angles of an inflexible material. In Fig. 3 the marginal portion or edge of the complex strip is left open, as at b^2, so that the edge of the garment to which it is to be attached may be inserted between the two portions of the case or cover, while in Fig. 4 the marginal portions are secured together and adapted to be inserted between two portions or edges of

the garment. In either case the lacing-strip may be attached to the garment by means of a seam or in any suitable manner.

The complete strip, comprising the non-perforated flexible core and pliable cover having the projecting edge or marginal portion for attachment to the garment, does not present any opening; but preferably openings of smaller dimension than the fillings are cut therein, as shown in Fig. 2, coincident with openings in the cover, said openings extending, preferably, centrally through the several fillings, so that the walls of the fillings may form a guard or non-corrosive contact-surface encircling the smaller openings for the purpose of preventing the lacing-cord from coming in contact with any metal portion of the strip or core and thereby injuring the cord by abrasion or otherwise.

By constructing the strip in the manner described the manufacturer is enabled to produce strips of any desired length, and a dealer supplied with such strips may cut off shorter strips of any required length whenever a customer desires to make a purchase. Supposing the strip shown in Figs. 1 and 3 to be constructed without the openings through the non-metallic fillings, the seller can cut off strips in such lengths as may be required and allow the user to cut or punch the openings therein to receive the lacing-cord, or such openings may be cut by the manufacturer, so as to furnish the strips ready for use, as may be found desirable. This method of construction enables the manufacturer to furnish the strips in long lengths and thereby greatly lessens the cost of manufacture, while the dealer is enabled to furnish strips of the required length to suit the purchaser, and inasmuch as the strip is adapted for use in connection with various articles of wearing-apparel the length purchased may vary with the garment or piece of wearing-apparel to which it is to be applied.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent of the United States, is—

1. A lacing-strip comprising a perforated core having fillings in its perforations, and a covering for said core intimately associated therewith and preventing the dislodgment of the filling material from the perforations in the core.

2. A lacing-strip comprising a perforated metallic core, non-corrosive fillings in the perforations thereof and themselves perforated, and a covering for the core intimately associated therewith so as to prevent dislodgment of the fillings and perforated to correspond with the perforations in the fillings.

3. A lacing-strip comprising a composite core of metal and non-corrosive material, the latter covering metallic edges of the core with which the lacing would contact at various points throughout substantially the length of the strip; together with a textile covering closely applied over the composite core and having a free attaching-flap projecting from one longitudinal edge of the latter; said strip having openings at intervals extending through the textile covering and the non-corrosive material of the core, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

MOSES K. BORTREE.
MARY H. BORTREE.

Witnesses:
GEORGE HOOK,
GEO. W. RIXFORD.