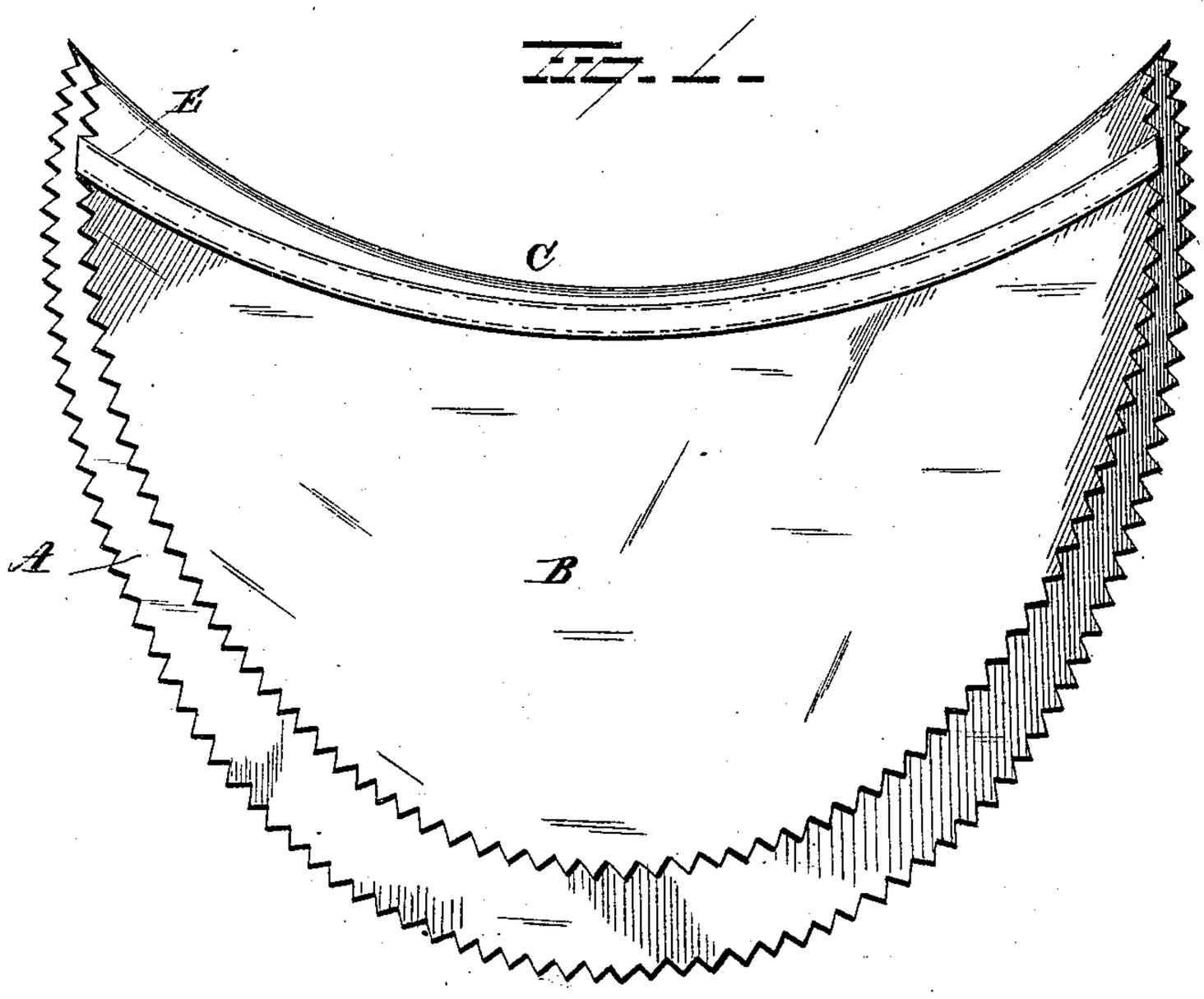
(No Model.) 2 Sheets—Sheet 1.

I. B. KLEINERT.

DRESS SHIELD.

No. 287,298. Patented Oct. 23, 1883.



WITNESSES

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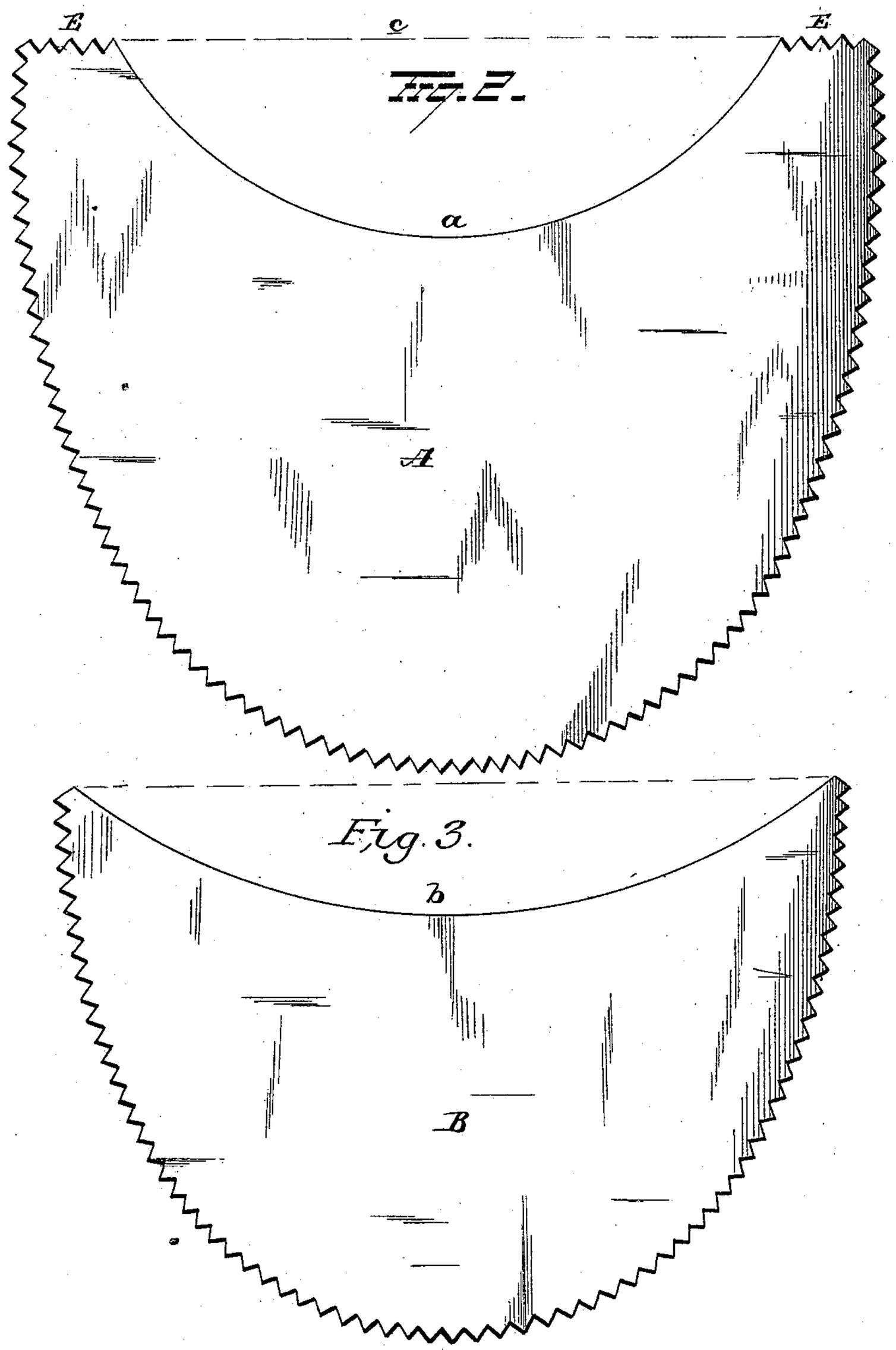

Fig. 2.

Fig. 3.

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UNITED STATES PATENT OFFICE.

ISAAC B. KLEINERT, OF NEW YORK, N. Y.

DRESS-SHIELD.

SPECIFICATION forming part of Letters Patent No. 287,298, dated October 23, 1883.

Application filed June 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, ISAAC B. KLEINERT, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Dress-Shields; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in in the art to which appertains to make and use the same.

My invention relates to an improvement in dress-shields.

Heretofore dress-shields have been made of two flaps of india-rubber-coated fabric cut in crescent form, their curved or inner edges being united by a seam. Such construction of shields have proved defective, owing to the liability of the seam to become weakened and allow the perspiration to escape through it and soil the garment. Again, dress-shields have been made of a single piece of fabric. One form of the latter type has been made of fabric coated on one side with india-rubber. A piece of such fabric is stretched over a form for imparting the desired crescent shape to the curved portion of the shield, and afterward the rubber is vulcanized by the application of heat. Dress-shields constructed in the manner last described are defective and objectionable for the following reasons: When the proper form or shape is imparted to the shield by stretching, the stitches or threads of the fabric must necessarily be forced out of their original shape or relative arrangement; or, in other words, it being necessary to stretch the fabric both transversely and longitudinally, in order to have it assume the proper curvature, the threads or stitches must be opened at the very point where closeness of texture is to be desired. Not only is the fabric itself rendered less serviceable and durable by the operation of stretching, but the coating of india-rubber is also rendered thin and less effective at the point where it should be of the greatest service. Again, the completed article made in a single piece by stretching is further objectionable, owing to the fact that it is not capable of retaining the form imparted to it by stretching. The tendency of the threads or stitches of the curved and stretched portion of the shield is, when removed from its fastenings in the former, to resume their original position, and after a time the curved portion will assume nearly a straight edge, and thereby render the article uncomfortable to the wearer.

The object of my invention is to provide a dress-shield of such construction as to obviate the defects and objectionable features existing in the two types of this class of articles. My improved dress-shield combines the good qualities of both the seamed and seamless types of shields, and obviates the defects of both. It is constructed in such a manner that the upper curved edge is rendered seamless of close texture, the threads or stitches of the fabric retained unstretched and in their original relative position, so as to obviate the tendency of distorting the shape of the article or of opening the meshes or interstices of the fabric, or of impairing the efficiency of the water-proof coating, and is re-enforced at the proper places to not only protect and preserve the seam intact, but to insure and retain the form of the article.

My invention consists in a dress-shield composed of two flaps having their seaming-edges united at one side of the curved upper edge of the shield, substantially as set forth.

My invention further consists in a dress-shield composed of two flaps having their seaming-edges cut upon curves of the same circumferential but of different cord measurement, the outer flap, the curve of which has the shorter cord, being provided with extensions.

In the accompanying drawings, Figure 1 is a rear view, in perspective, of a dress-shield embodying my invention. Fig. 2 is a detached plan view of the outer flap of the shield, and Fig. 3 is a similar view of the inner flap thereof.

In the fabrication of my improved shields water-repellent material of any suitable character may be employed. I know, however, of nothing superior to a body formed by uniting two sections of light knitted fabric by a film of india-rubber or equivalent material. This article is very light, it possesses the water-repellent qualities demanded, it is very soft and pliable, and, moreover, it will not soil the garment of the wearer.

The shield is composed of an outer flap, A, and an inner flap, B. The seaming-edges of these flaps are cut on curves having the same

circumferential but different cord measurement. In other words, the lines *a* and *b*, respectively representing the seaming curves of the outer and inner flaps, are of exactly the same length, while of the lines *c* and *d*, representing the cords of the said curves, the line *c* is the shorter. The union of the seaming-edges, curved in the manner described, operates to fold the upper portion of the flap A upon itself and form the upper edge, C, of the shield. The folding of the upper portion of the outer flap will also operate to bring the line on which the seaming-edges are joined on the inside of the shield, as shown in the drawings. In this position the seam cannot in any way chafe the wearer of the shield or cause any feeling of discomfort whatever. In this position, also, the seam is protected from the strain and moisture to which it would be exposed if it were coincident with the edge C of the shield. This latter is an important feature of my improvement, for the seam, being more susceptible to injury than any other part of the shield, should receive all the protection possible.

It will be noticed that in the finished shield shown in Fig. 1 of the drawings the distance between the edge C thereof and the seam increases as the latter approaches the corners of the shield. This result is obtained by providing the outer flap, A, with extensions E, which increase the material available when the flap folds upon itself to form the upper edge of the shield. The object in providing for increasing the distance between the seam and the edge of the shield at the corners thereof is to insure additional protection for it, as they suffer more from exposure than any other part of the shield.

I do not limit myself to any particular mode of seaming or uniting the edges of the flaps, but hold myself at liberty to employ any method which I find available and adapted to the purpose. The seaming-edges may be simply united by single or double rows of stitching by cement, or by the exposure and union of the film of rubber interposed between the sections of fabric forming the flaps. I prefer, however, to lap the edges and unite them by a double row of stitching, which also attaches to the shield a section of tape, E, the same being arranged to cover the lapping edges of the two flaps. Aside from its function of strengthening, protecting, and concealing the seam, the tape prevents the shield from stretching, and thus preserves its shape, for while the fabric of which it is made is very soft and pliable it is only very slightly elastic, and will not resume its normal shape after being stretched.

It is to be observed that the upper portion of the outer flap folds upon itself solely on account of the peculiar mode of curving the seaming-edges of the two flaps, and that the shield is shaped entirely without the aid of a former or of a partial vulcanization of the rubber embodied in it. A shield deriving its shape solely from the character of its construction, the desired shape being in fact an inherent quality, must of necessity be superior to one requiring artificial shaping manipulation, for the artificial shaping is not only difficult and expensive to impart, but also easily disturbed, on account of the constant tendency of the shield to resume its natural shape. Again, in manufacturing shields which require artificial shaping it is necessary to employ a quality of fabric sufficiently heavy to receive and retain such shaping, whereas shields in which the desired shape is an inherent quality may be made of the very lightest grades of water-repellent fabric.

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

1. A dress-shield composed of two flaps having their seaming-edges united at one side of the curved upper edge of the shield, substantially as set forth.

2. A dress-shield composed of two flaps having their edges united by a tape or re-enforced seam located at one side of the curved upper edge of the shield, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ISAAC B. KLEINERT.

Witnesses:
GEORGE F. DOWNING,
S. G. NOTTINGHAM.