

(No Model.)

E. DETRICK.
SEAM FOR GRAIN BAGS.

No. 274,736.

Patented Mar. 27, 1883.

Fig. 1.

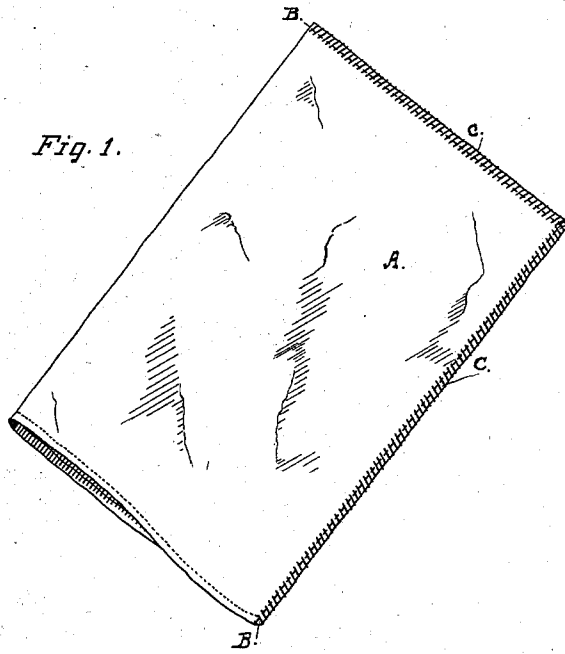


Fig. 2.

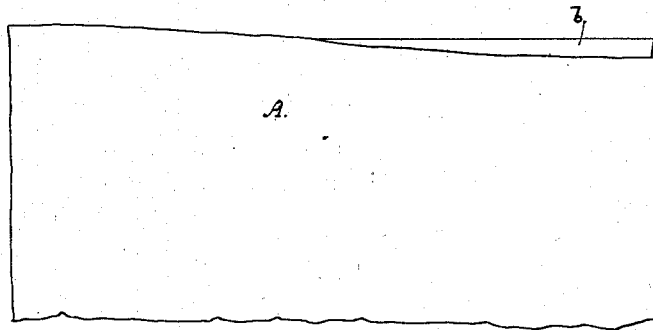


Fig. 3.

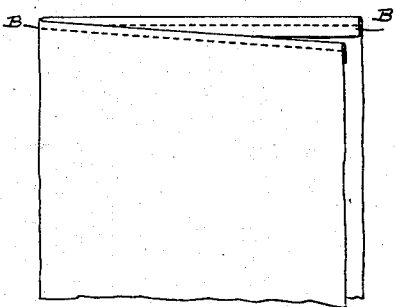
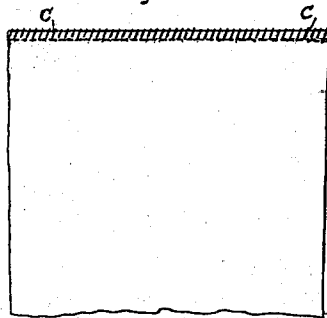


Fig. 4.



Witnesses:

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Inventor:

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By his Atty., *Edmund Nelson*

UNITED STATES PATENT OFFICE.

EDINGTON DETRICK, OF SAN FRANCISCO, CALIFORNIA.

SEAM FOR GRAIN-BAGS.

SPECIFICATION forming part of Letters Patent No. 274,736, dated March 27, 1883.

Application filed June 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDINGTON DETRICK, of the city and county of San Francisco, in the State of California, have made and invented a certain new and useful Improvement in the Manufacture of Bags for Shipping and Transporting Grain, Cereals, and other Dry Merchandise; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings.

My invention relates to an improved seam for producing such articles as bags and sacks in which grain, cereals, and many substances of merchandise are packed for shipment.

The object of my invention is to produce a line or seam of stitching that when applied to join the edges of material together in the process of forming a bag or sack will hold without tearing out or ripping and pulling apart or stretching the substance of the material at the seam. It is especially adapted for joining the edges of light-covered material—as jute, burlaps, and other coarse woven goods from which grain-bags are manufactured—and is designed to prevent the forming of holes and openings, which in the ordinary methods of uniting the edges of such goods are frequently produced by the strain and pressure brought upon the seam by the contents with which the bags are filled.

The following description fully explains the nature of my said invention and the manner in which I proceed to practice, apply, and use it, reference being made to the accompanying drawings, in which—

Figure 1 is a view of a grain or other shipping bag constructed according to my invention. Figs. 2 and 3 show the method of preparing the edges to be united, and Fig. 4 shows an edge or seam closed by the two series of stitches.

A piece of goods, A, is cut to the length required to make a bag. When doubled upon itself one side or end, *a*, is left open to form the mouth, and the remaining edges, *a' a'*, are laid together and united to complete the bag. In the ordinary manner of closing these seams the material is first doubled or turned in so as to throw the edges of the goods into the inside of the bag, and the doubled thicknesses then produced are united by lines of stitching

through the several thicknesses. Such a seam, however, does not prevent the threads of the goods drawing away from the stitches as soon as the sides of the bag are distended by the contents; and when so filled the weft-threads of the stuff are, in the course of frequent handling, drawn down upon the warp-threads at and along the line of stitches in consequence of the pulling strain brought upon the material composing the sides of the bag. This action is especially so at and along the bottom seam of the bag, and the result is to tear the substance of the bag or form openings, through which the grain or other contents soon work out.

My improvements over this method of forming seams consist, first, in turning or doubling the edge of the goods upon itself, as shown by Fig. 2 of the drawings, then finally joining or securing the turned-down portion *b* to the principal portion A of the material by a line or lines of stitching, B, and then uniting the double thicknesses of one edge to the adjacent edge of the material when the two are laid together by a line of stitching, C. In this manner two thicknesses of material are joined together, so that the turned-in portion cannot by any means be overdrawn or the edges of the goods pulled out, and the two portions, then lapped together, give a strong stay-edge for the final line of stitching by which the seam is closed. When these two edges are joined together the seam will have the appearance seen in Fig. 4. In that construction the edges of the bag are joined together by an overhand-seam, as in the method practiced by me in manufactured bags of the common kind, and the stay-seam B is run at such distance from the edge of the machine that the stitch of the closing-seam C may take over it. This method, while not essential to the effective application of my invention, has the result of producing a strong unyielding seam, as the stay-seam will bind the threads of the seam together at the point where the stitches C pass through. I do not confine myself, however, to locking these two lines of stitching together, as I also employ them, as shown in Fig. 4, where the stay-stitching B is carried below the line of the stitches C. In this manner I produce a close, firm seam, peculiarly adapted for the manufacture of grain and bags

of like character, and of use to great advantage in uniting two portions of fabrics that are required to withstand severe or extraordinary tension or strain across the line of seam.

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

1. The herein-described method of uniting together by sewing two pieces or lengths of fabric, which consists, first, in turning down or doubling upon itself a portion of the material along the edge of each length of fabric, then joining the doubled or turned-down portion to the principal part or body by a line of stitching, and then afterward laying the two doubled edges together and uniting them by a line of stitches piercing the two thicknesses of goods along either edge and holding thereby, substantially as described.

2. As a new article of manufacture, a grain 20 or other bag or sack of fabric in which the edges are closed to form the article by a seam produced by turning in or doubling the edges of the fabric upon itself, then running a line of stitching at a distance from the edge of the 25 fold through both thicknesses and along the line of seam, and then closing the seam by a line of stitching carried over the edge and through the fabric from one side to the other, substantially as described.

Witness my hand and seal.

EDINGTON DETRICK. [L. S.]

Witnesses:

WM. S. CAMPBELL,
EDWARD E. OSBORN.