

(No Model.)

J. W. HILL.
BAG.

No. 513,323.

Patented Jan. 23, 1894.

Fig 1.

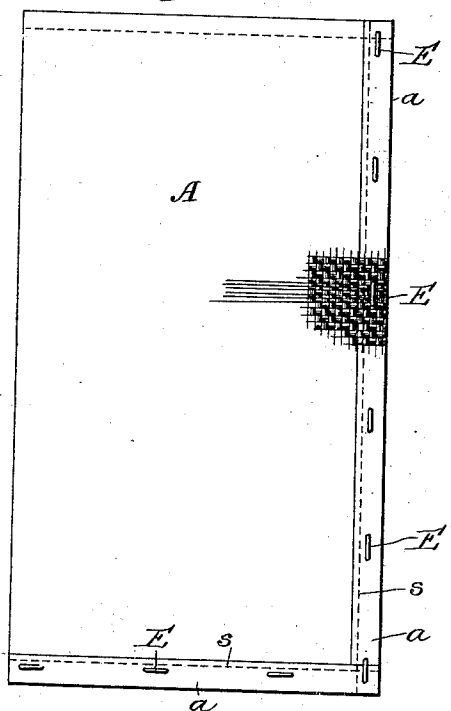


Fig 2.

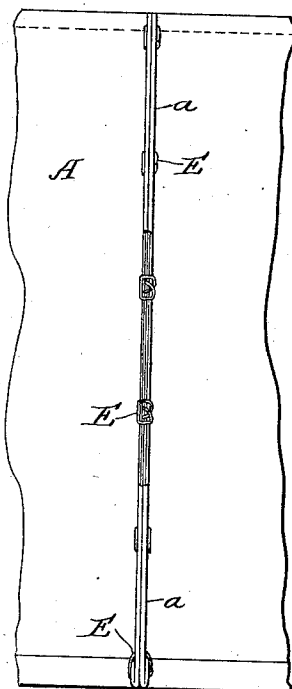


Fig 3.

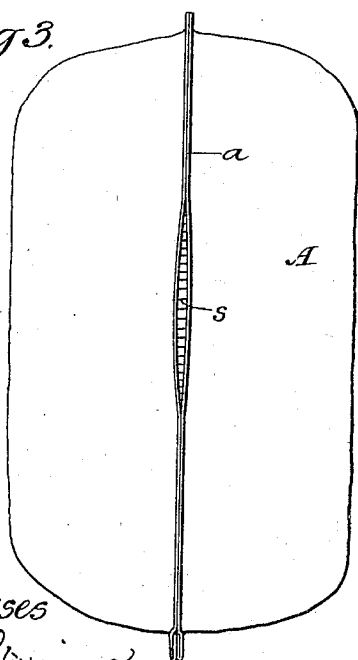
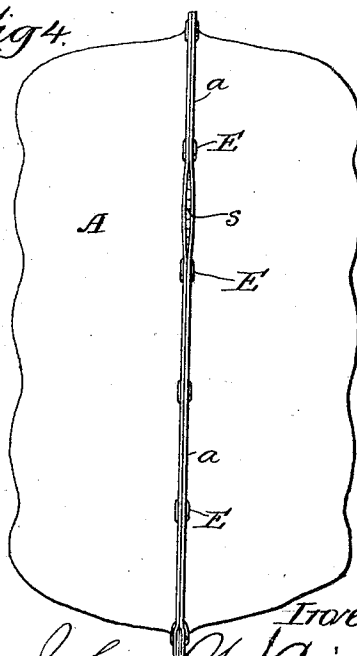


Fig 4.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN W. HILL, OF CHICAGO, ILLINOIS.

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SPECIFICATION forming part of Letters Patent No. 513,323, dated January 23, 1894.

Application filed January 13, 1893. Serial No. 458,303. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. HILL, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Bags, of which the following is a specification.

Referring to the accompanying drawings, wherein like reference-letters indicate like parts,—Figure 1. is a view of my improved bag, inside out, showing a side view of the seam; Fig. 2. a view of a portion of the same, showing the seam edgewise; Fig. 3. a view illustrating the effect of the bursting pressure of the contents of a bag having the old-fashioned seam; Fig. 4. a similar view, illustrating the effect of my reinforcing staples or rivets in preventing the stretching of the stitches shown in Fig. 3.

My invention is designed for stout bags of burlap or canvas to be used in lieu of casks and barrels in transporting grain, flour, and other dry substances usually shipped in packages of several hundred pounds' weight. As heretofore made, such bags have had their seams formed by lapping the edges of the fabric together and stitching them to each other by a line of stitching sewed through the lap, and then turning the bag outside in, to bring the lapped edges within the bag. One of the principal objections to such bag has been that the outward pressure of its contents, when filled and piled one upon another, draws the edges of the bag apart as shown in Fig. 3., exposing the stitching threads along the seam, and straining and stretching them beyond their tensile strength, so that they are liable to give way and open the seam.

The principle of my invention consists in providing the seam, at short intervals, with a fastening stronger than the stitching, to resist the bursting strain and relieve the stitching therefrom, using the stitching merely to hold the seam tightly closed between said fastenings.

In carrying my invention into practice, I take the bag-fabric A., lap its edges together as shown at *a. a.* and stitch them firmly together by a line or lines of stitching S., running longitudinally of the seam as hereto-

fore, using, preferably, two lines of stitching longitudinally of the seam and parallel to each other.

As the additional fastening, to resist the bursting strains and relieve the stitching therefrom, I employ any suitable strong cheap fastening, preferably metal staples or rivets E., driven through the lapped edges and firmly secured thereto, so as to be incapable of pulling out under any strain to which the bag is liable, and arranged at such intervals along the seam or seams as to meet and resist the whole or the greater part of the bursting strains, thereby relieving the stitching from that duty and preventing it from becoming stretched and exposed or ruptured.

The bag is made inside out, as usual, and, when finished, is turned so as to bring the lapped edges, with their stitching and staples or rivets, inside, thereby entirely concealing and protecting the staples or rivets.

With burlap or canvas bags, capable of carrying from two hundred to three hundred pounds of grain, flour, sugar, &c., it will be practically sufficient for all purposes to arrange the staples or rivets at intervals of from one to two inches apart along the seam; but these intervals may be made greater or less if preferred, provided they be close enough to take up the greater part of the bursting strains, leaving the stitches to merely close the seam. The action of the staples thus used is to grasp the ends of a number of the warp or woof threads extending around the bag, when the setting of the staple securely ties such ends together. This is equivalent to tying a cord tightly around a bag, which is known as cording. The advantages of thus cording bags are well known, chief among which is the additional strength given the bag against bursting strain.

Stapling a bag is equal in the advantages secured to cording the bag with a cord whose strength is equal to the combined strength of all the cords or threads grasped by the staple.

Having thus described my invention, what I claim as new is—

1. A bag of burlap, canvas, or similar coarse strong fabric, having the seam formed by stitching the meeting edges of the fabric to-

gether, and strengthened against bursting pressure by independent fastenings arranged at intervals along the seam, and adapted to have the meeting edges with the stitching and
5 the additional fastenings come on the inside of the bag and be concealed and protected thereby when in use; substantially as described.

2. A bag composed of cloth or similar material, having the seam formed by uniting

together the meeting edges of the fabric; in combination with a series of metallic staples, arranged along the seam in such manner as to independently strengthen and secure the same against bursting strain; substantially as and for the purposes set forth.

JOHN W. HILL.

In presence of—

E. A. SHERBURNE,
STERLING L. BAILEY.