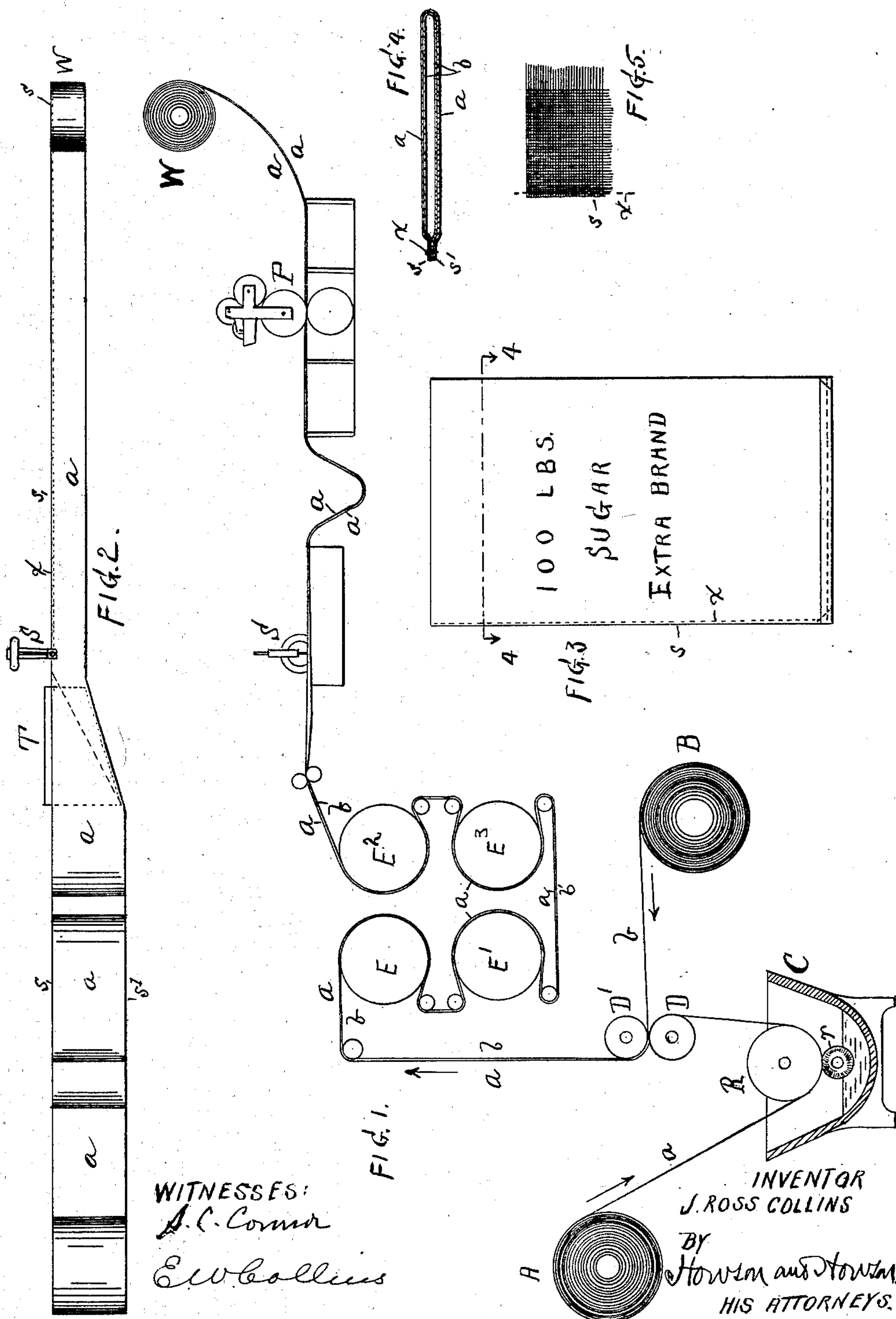


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J. R. COLLINS.  
MANUFACTURE OF BAGS.  
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NO MODEL.



WITNESSES:  
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# UNITED STATES PATENT OFFICE.

JAMES ROSS COLLINS, OF LARCHMONT, NEW YORK.

## MANUFACTURE OF BAGS.

SPECIFICATION forming part of Letters Patent No. 749,425, dated January 12, 1904.

Application filed January 17, 1903. Serial No. 139,415. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES ROSS COLLINS, a citizen of the United States of America, and a resident of Larchmont, in the county of Westchester, in the State of New York, have invented Improvements in the Manufacture of Bags, of which the following is a specification.

This invention relates to bags for packing sugar, coffee, and like articles of commerce; and the object of the invention is to produce cheaply and expeditiously an improved bag of two fibers—a relatively fine fabric, often closely-woven cotton, whose function is to hold the contents in and to keep them clean and dry, and a coarse outer fabric of burlap or the like for strengthening purposes.

Burlap for bags is usually woven of a width corresponding to the height of the bags to be made, and the web is cut off into pieces equal to a little more than double the width of the bag to be made. These raw cut edges are turned back on themselves to form hems, and stitches run along the sides through these four thicknesses of fabric to form the sides of the bag. The bottom is then either turned up and formed in similar manner or simply stitched across through two thicknesses without turning up. When a two-fabric bag is wanted, the burlap and cotton used are commonly made separately into bags and are inserted one into the other or are made up together with the cotton inside and stitched along the same seam as the burlap by the same stitching. In the first-mentioned two-fabric bag the loose bag within the burlap bag must always be dragged up and held even with the burlap when it is to be filled. With the second style this difficulty is only half done away with, as one side of the bag is loose and bothersome. In both styles there is no way of making sure that the operator will make both bags of precisely the same capacity and cause the strain to be taken by the burlap, as it should, for there is a great tendency in forming the turned-in edges to contract one bag more than the other. My invention is designed to overcome all these objections.

In the accompanying drawings, Figure 1 is a schematic side view of my method of making a two-fabric tube to be cut up into bags. Fig.

2 is a schematic plan view corresponding with Fig. 1. Fig. 3 is a view of a completed bag. Fig. 4 is a sectional view on line 4 4, Fig. 3, but drawn to a larger scale. Fig. 5 is a view of a part of the sewed selvage edge of a bag.

A is a roll of burlap web with selvage edges.

B is a roll of cotton webbing, and C is a tank of suitable adhesive paste, with a roll R for the fabric and a rotary pasting-roller *r*.

D D' are pressure or mangle rolls, and E E' E<sup>2</sup> E<sup>3</sup> are hollow drying-rolls heated by hot air or steam.

S is a sewing-machine.

T is a turning plate or folder for doubling the fabric on itself longitudinally along a central line, and P is a suitable printing means.

W is a drum on which the finished two-fabric tube may be wound up.

In operation a web of burlap *a* from the roll A is led under the roll R and has adhesive paste deposited on its lower surface by rotary roller *r*. The cotton web *b* from the roll B and the pasted burlap are led to the pressure-rolls D D', by which the two webs are pressed together and caused to adhere to each other, sufficient paste having been applied for that purpose. From the pressure-rolls the pasted double fabric is led over a number of drying-drums, as E E', &c., to a turning-plate T, which causes the fabric to be doubled upon itself or folded on a longitudinal central line, with selvage *s* laid against selvages *s'*. Then the sewing-machine S stitches a line of stitches *x* through the fabric adjacent to the superposed selvages, as indicated in Figs. 4 and 5. If a bag is to be, say, two feet long, the tube will be sliced up into lengths just enough longer to permit the bottom to be turned up and sewed. This may be done immediately as it comes from the machine S, or the uncut tube may be wound up into a roll, as at W, or it may first be printed, as at P, and then either cut off or rolled up.

While I prefer to employ both the cotton and burlap webbing with selvages, it will suffice to have only the burlap with selvages, in which case the selvages on the burlap answer for both fabrics.

By making the bag with selvage edges at one side instead of the bottom I am enabled to



to place the stitches  $\gamma$  close to the edge of the bag, and so avoid turning back any fabric for a hem along either edge, and I thus save considerable material on every bag manufactured.

5 Furthermore, the fabrics are superposed and secured together under no stretching tension, so that when secured together they are unstretched. By securing the two different fabrics together before making them up into a  
10 bag I insure that both inner and outer bags shall be of the same size, and thereby serve to strengthen each other and leave no places where the strain will come unequally, and by longitudinally folding the fabric, as shown,  
15 all stitching is done from the outside, and the completed bag comes from the machine with the burlap side out, making it unnecessary to turn it.

The principal advantages of this invention  
20 are, first, cheaper goods can be used, because the strain is equally distributed over the two fabrics; second, both bags can be made at one operation and without the necessity of turning inside out; third, the cotton bag does not have  
25 to be placed afterwards inside the burlap bag; fourth, the cotton bag is also in the same position as the burlap bag, as the two are one, and in filling them, for instance, with sugar from a tube the workman does not have to  
30 reach down and find the cotton bag before he can proceed to fill either the cotton or the burlap.

I am aware that bags have been made of a paper interior pasted to the burlap outer bag;  
35 but this has proven of little use, as the paper tears upon the stretching of the burlap and the bag produced is stiff and unpliable. My improved bag, however, has none of these disadvantages, being formed of two textile fabrics.

40 I claim as my invention—

1. A tube for the manufacture of bags, composed of two unstretched materials pasted together, each of said materials consisting solely of textile fabric, the united fabrics being fold-  
45 ed longitudinally with their outer edges meeting at one side and secured together there by stitching, substantially as described.

2. A tube for the manufacture of two-fabric bags, each of said fabrics consisting solely of a web of burlap and a web of cotton, both un- 50 stretched and pasted together, the united fabrics being folded longitudinally with their outer edges meeting at one side and secured together there by stitching, substantially as described.

3. A bag made of two unstretched materials, pasted together, each of said materials consisting solely of a textile fabric, the united fabrics being folded over each other along one side of the bag with the edges of both fabrics along 60 the other side of the bag united together by stitching and a closure to one end of the tube, substantially as described.

4. A bag made of two unstretched materials, pasted together, each of said materials consisting solely of a textile fabric, the united fabrics being folded over each other along one side with the selvages united by stitching at the other side of the bag and a closure to one end of the tube, substantially as described. 70

5. A bag made of an outer web solely of burlap and an inner web solely of cotton, both unstretched and pasted together, the united fabrics being folded over along one side of the bag with the edges of both fabrics stitched to- 75 gether along the other side of the bag and a closure to one end of the tube, substantially as described.

6. A bag made of an outer web solely of burlap and an inner web solely of cotton, both un- 80 stretched and pasted together, the united fabrics being folded over along one side of the bag with the selvages along the other side of the bag united together there by stitching and a closure to one end of the tube, substantially 85 as described.

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

JAMES ROSS COLLINS.

Witnesses:

M. McCLEAN,  
WILLIAM E. STONE.