Nov. 4, 1952 J. KATZ ET AL 2,616,469

BIAS BAG AND BIAS BAGGING

Filed Nov. 30, 1945 2 SHEETS—SHEET 1

FIG. 1.

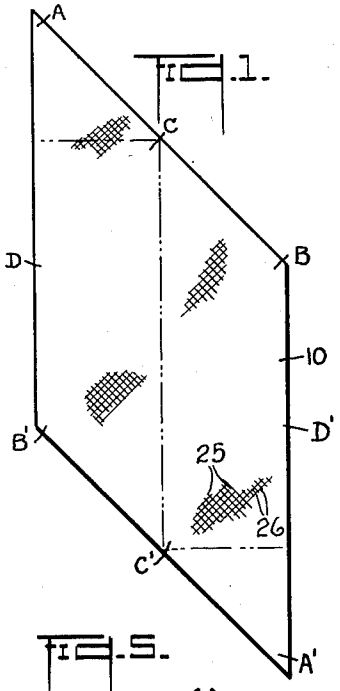


FIG. 2.

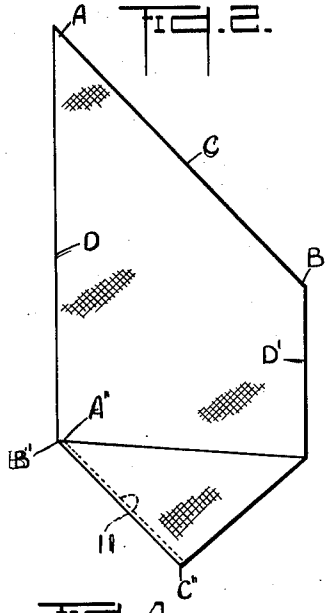


FIG. 3.

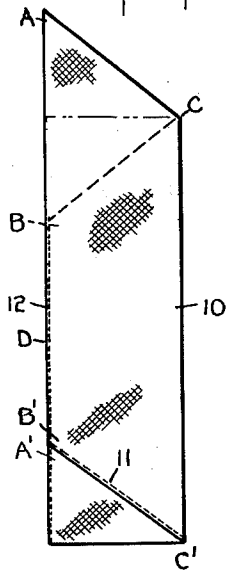


FIG. 5.

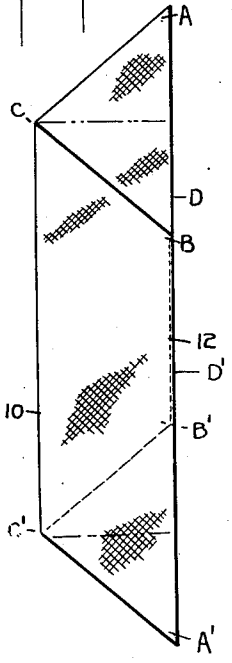


FIG. 4.

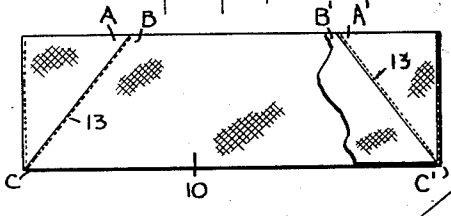


FIG. 8.

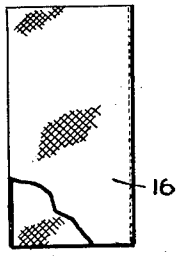


FIG. 6.

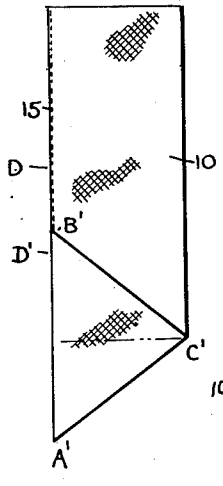
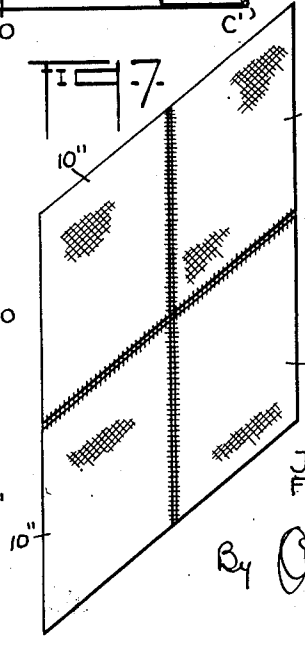


FIG. 7.



Julius KATZ
FRANK P. MAJOROS
INVENTORS
By
Their ATTY.

Nov. 4, 1952 J. KATZ ET AL 2,616,469

BIAS BAG AND BIAS BAGGING

Filed Nov. 30, 1945 2 SHEETS—SHEET 2

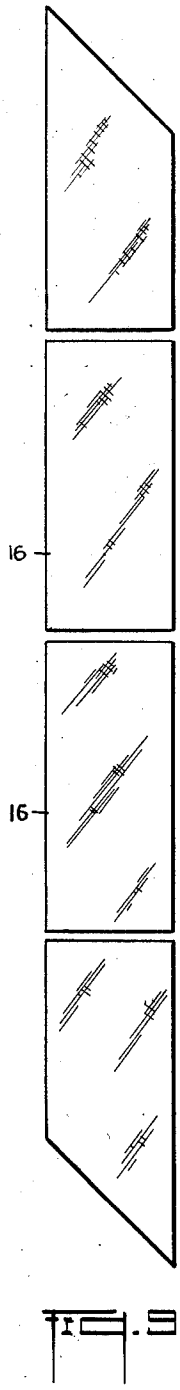


FIG. 9.

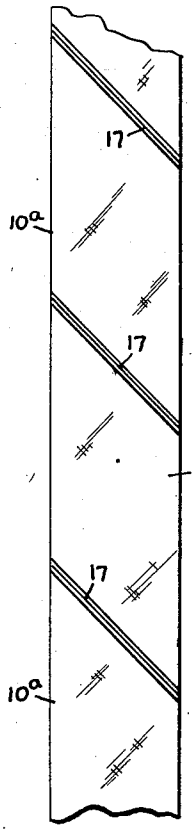


FIG. 10.

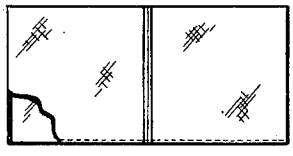


FIG. 15.

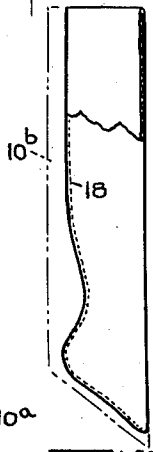


FIG. 18.

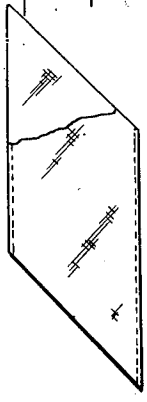


FIG. 17.

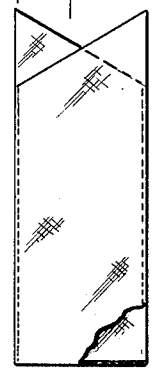


FIG. 11.

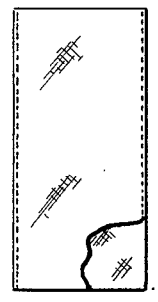


FIG. 13.

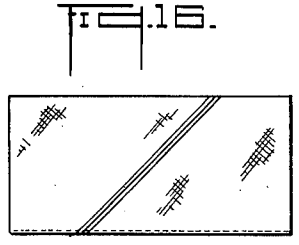


FIG. 16.

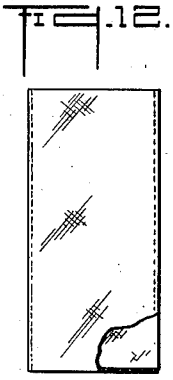


FIG. 12.

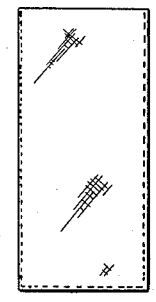


FIG. 14.

JULIUS KATZ
FRANK P. MAJOROS
INVENTORS

By

Their ATT'Y.

Patented Nov. 4, 1952

2,616,469

UNITED STATES PATENT OFFICE

2,616,469

BIAS BAG AND BIAS BAGGING

Julius Katz, Bronx, and Frank P. Majoros, Brooklyn, N. Y., assignors to Superba Manufacturing Co., Inc., New York, N. Y., a corporation of New York

Application November 30, 1945, Serial No. 631,918

2 Claims. (Cl. 150—1)

1

Our invention relates to improvements in bags and with particular reference to cloth bags produced from bias material and to the method of producing such bags.

The present application is a continuation in part of our application Serial No. 573,364 filed January 18, 1945 and now Patent No. 2,445,883 issued July 27, 1948.

Ordinarily cloth bags have the threads of the material running parallel to the sides and ends of the containers and in so constructing the latter only a very small proportion of the tensile strength of the material is utilized. It has been found that by using the material particularly on the bias in the construction of bags, both the warp and weft threads of the materials take up and divide the strains ordinarily placed upon either one or the other of the threads.

With the foregoing in mind it is the purpose of the present invention to provide an efficient means of producing a bag from bias material, which will be a stronger and a better container than any now being manufactured, and which with only slight changes in the pattern is readily adaptable to any size and shape of contents to be enclosed.

We accomplish the object of this invention by means of the several steps used in the construction of a bias bag and to the special elements of the latter as described in the specification, set forth in the claims and illustratively exemplified in the accompanying drawings, in which

Figure 1 is an elevational view of a blank or pattern of material cut on the bias;

Figure 2 is a view showing an intermediate step in producing the bag of Fig. 3 from the blank of Figure 1.

Figure 3 is an elevational view of a bias bag which has been made up from the blank of Figure 1, the bag being open at one end;

Figure 4 is an elevational view of a bias bag made from the blank of Figure 1 showing the arrangement whereby one side is open;

Figure 5 is an elevational view of a bias tubing cut on the bias and folded along a vertical line and open at opposite ends;

Figure 6 is an elevational view of a bias tubing cut on the bias modified to the extent that one end is cut straight;

Figure 7 is an elevational view of a strip of bias material which is made up of several bias blanks

2

cut on the bias, each thereof being seamed to an adjacent blank;

Figure 8 is an elevational view of a bias bag cut on the bias having straight end portions;

Figure 9 is an elevational view of the strip of bias material showing the manner of marking the pattern in bias position on the material and which is then cut up into several portions, the mid portions thereof being used to form the bag of Figure 8 or the bias points may be removed from the end portions to make a bag blank similar to the mid portions;

Figure 10 is an elevational view of a plurality of the blanks similar to the one shown in Figure 1, placed end to end and seamed together to form bias bagging material;

Figure 11 is an elevational view of a bag, which is formed of a diamond shaped bias cut length of material, folded transversely and seamed longitudinally along opposite side edges;

Figure 12 is an elevational view of the bag shown in Figure 11, with the triangular tips or tail portions removed;

Figure 13 is an elevational view of the bag shown in Figure 11, the tail sections being removed and both ends being open with the side edges seamed longitudinally to form an open tubing which may be sealed as desired;

Figure 14 is an elevational view of the bag of Figure 13 with the addition of a seam along one end.

Figure 15 is an elevational view of a bag of bias cut material in which the opposite ends of a mid portion blank of the material of Figure 9 are seamed together and the two layers are seamed together along one side edge;

Figure 16 is an elevational view of a bag made of the blank of Figure 1, having the tail ends brought together and seamed and being seamed along one side edge;

Figure 17 is an elevational view of a bagging made by superposing two blanks of Figure 1 upon each other and seaming their superposed longitudinal side edges;

Figure 18 is an elevational view of an irregular shaped bag formed of bias cut material folded upon itself and provided with a seaming line of the outline of a stocking or similar article.

Referring to the drawings and particularly Figure 1, 10 denotes a blank or pattern in the shape of a rhomboid having the weft threads of the ma-

terial running at an angle to the parallel side edges D, D' of the rhomboid and the warp threads of the material running parallel to the angularly disposed opposite ends of the rhomboid. In Figure 1 the warp or longitudinal threads are designated by the numeral 25, and the weft or transverse threads by the numeral 26. The opposite vertices of the acute angles of the rhomboidally shaped blank 10 are designated A and A' respectively and the vertices of the obtuse angles are designated respectively B and B'. The mid portion of the side A, B is designated C and the mid portion of the side A', B' is designated C'. The sides A, B' and B, A' of the blank are designated respectively D and D'.

To form the bag of Figure 3 from the blank of Figure 1, the point A' is brought to point B' and the juxtaposed sides A', C' and C', B' are seamed together by a row of stitching 11, or by any other suitable means, as shown in Figure 2. Thereafter the material is folded longitudinally along a line between C and C' to aline side D' with side D and a row of stitching 12 is run along the juxtaposed sides D' D to the bottom of the bag. The bag is then turned inside out to form the finished product shown in Figure 3. These operations will produce a bag from pre-cut bias material having a straight bottom or closed end. After the contents are placed in the bag, the point A is brought over to meet B and line of stitching is run along the edge —B, C— and another line of stitching is provided along the folded edge —A, B.

Figure 4 is a bag constructed by closing both ends of blank 10 by stitching 13 after assembling the bag by folding the blank 10 longitudinally along the line C—C' and folding over the end portions.

Figure 5 is a tubing made from blank 10 and obtained by folding the blank longitudinally to bring sides D and D' together for a closure and by leaving both ends open the contents may protrude from opposite ends while the mid portion is securely encased. Point A may be folded over along C and seamed thereafter along CB and AB, and similarly by folding point A' along C', closures may be made along A'C' and A'B'.

The bag of Figure 6 is constructed by bringing the sides D and D' together, running a row of stitching 15 along the edges and removing the triangular end AB. The patterns may be cut as shown in Figure 9, whereby there will be a triangular portion at only one end of the blank or no triangular ends at all. The mid blanks 16 of such an arrangement may be folded longitudinally and the ends and sides seamed together to form a rectangular container, as illustrated in Figure 8.

The structure of Figure 7 consists of a plurality of blanks 10'' arranged laterally and seamed or otherwise attached together to form a large pattern for large bags.

Figure 10 illustrates a plurality of blanks 10^a seamed together end to end, as at 17, to form a tubular container of any length by folding the strip longitudinally thereof and stitching or seaming the juxtaposed side edges together: a single blank 10 may be folded longitudinally upon itself to make a similar bag.

Figs. 11 to 17 are modifications of Figures 1 to 10.

Fig. 11 is a elevational view of a bag which is formed by folding a parallelogram shaped blank of bias material upon itself and seaming it vertically along its parallel side edges.

Fig. 12 is an elevational view of a blank of bias material similar to Fig. 11, with the angular ends or tips removed, and thereafter processed in a manner similarly described for Fig. 11.

Fig. 13 is an elevational view of a tube of bias material using superposed blanks, similar in shape to the blanks shown in Fig. 9 and having their adjacent longitudinal side edges seamed to form an open tubing.

Fig. 14 is an elevational view of the tubing of Fig. 13, seamed at one end to form a bias bag.

Fig. 15 is an elevational view of a blank of bias material without angular ends similar to the mid section blanks of Fig. 9 and which is folded upon itself and seamed along the meeting adjacent edges to close them and form a bag.

Fig. 16 is an elevational view of a bag made from the bias material blank of Fig. 1, having the angular ends brought together in adjacent diagonal position and seamed, and thereafter seaming one of the opposite open sides along its adjacent meeting edges to close it and form a bag.

Fig. 17 is an elevational view of a bagging made by superposing two blanks of Fig. 1 upon each other and seaming their meeting longitudinal side edges together.

With reference to Figure 18, the bias cut blank 10^b is folded longitudinally upon itself and either the line of stitching 18 following the irregular line is applied before the cutting operation is performed or after, as desired. In the present instance we have shown the stitching 18 and cut line of the blank 10^b as being the profile of the back of a stocking or similar article.

In our Patent No. 2,445,883, the bias section or bag blank is described as being folded upon itself longitudinally, and seamed longitudinally. It is now further enlarged upon as exemplified in Figures 1 to 9 and 11 to 16. The seaming may be of any type, adhesion, heat sealing, electronic seaming or welding, sewing of any type, such as merrow, overedge or zigzag seaming.

It is to be understood that changes and improvements may be made in the procedure herein described and illustrated, the modifications are interchangeable, and it is to be understood that such changes may be made without departing from the scope and spirit of the appended claims in order to accomplish the desired result.

Having described our invention and the manner in which the same is constructed what we claim and desire to cover by Letters Patent is:

1. The method of manufacturing a bias bag, comprising the steps of cutting unbiased material diagonally to obtain a blank of cut bias material with parallel sides and angular ends, folding one angular end upon itself and stitching it to form an angular pocket, subsequently folding the bias blank along a vertical line to bring the parallel sides of the bias blank in adjacent position to each other and to cause the angular shaped pocket to become substantially straight, and stitching the aforesaid adjacent sides together to form a longitudinal closure.

2. A bias bag comprising a parallelogram of pre-cut bias material having parallel longitudinal sides and angular ends, with the longitudinal sides folded to bring the sides together along one side and seamed, one of the angular ends being folded upon itself and seamed to the adjacent edges of the folded sides.

JULIUS KATZ.
FRANK P. MAJOROS.

(References on following page)

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
187,008	Halsted	Feb. 6, 1877
260,820	Arkell	July 11, 1882
308,672	Howe	Dec. 2, 1884
408,858	Seymour	Aug. 13, 1889
897,778	Post	Sept. 1, 1908
1,253,269	Moeller	Jan. 15, 1918
1,267,193	Dunae	May 21, 1918
1,486,776	McKnight	Mar. 11, 1924
2,110,303	Marshall	Mar. 8, 1938
2,260,816	Albin	Oct. 28, 1941
2,437,184	Brady et al.	Mar. 2, 1948
2,437,185	Brady et al.	Mar. 2, 1948
2,445,883	Katz et al.	July 27, 1948
2,468,493	Greenwald	Apr. 26, 1949

FOREIGN PATENTS

Number	Country	Date
800,301	France	Apr. 27, 1936