Nov. 29, 1938. A. POTDEVIN ET AL 2,138,119

BAG

Filed Sept. 29, 1934

Fig. 1

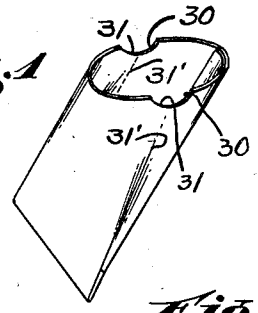


Fig. 2

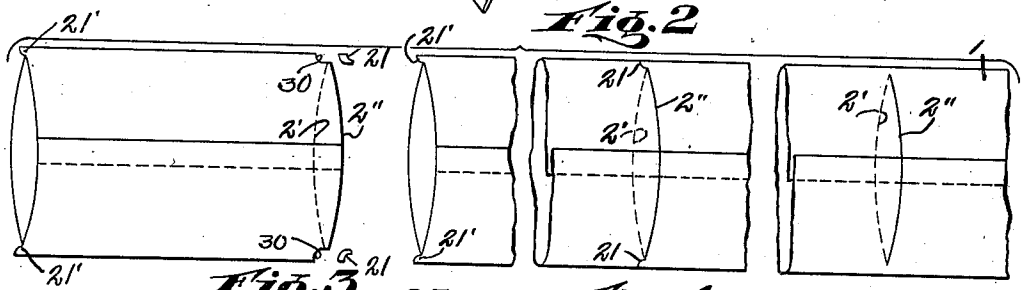


Fig. 3

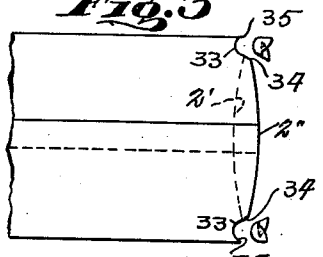


Fig. 4

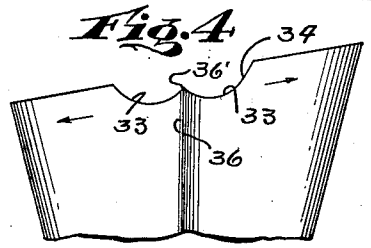


Fig. 5

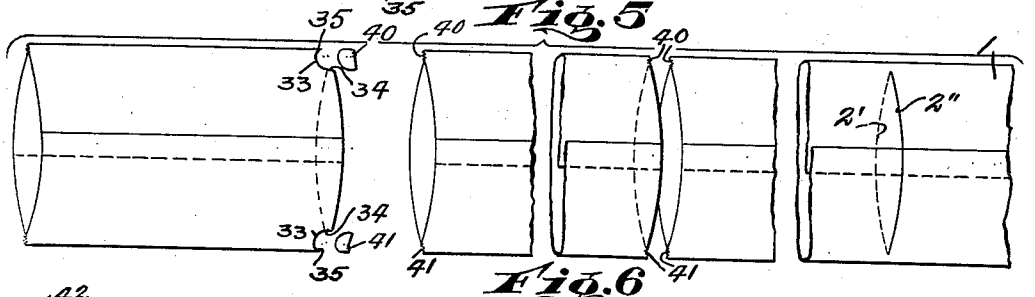
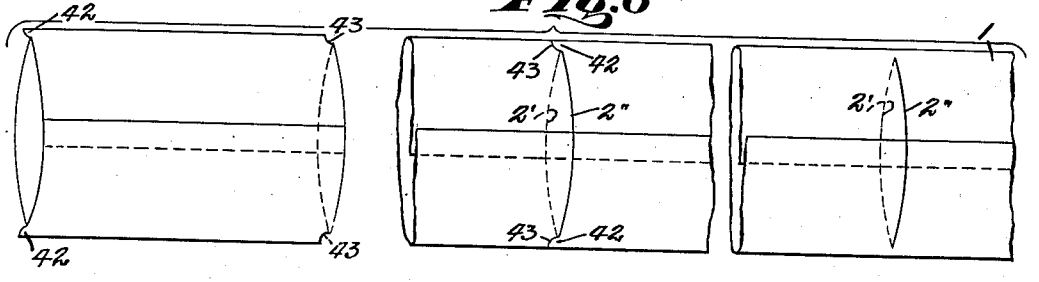


Fig. 6



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BAG

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Original application September 29, 1934, Serial No. 746,082. Divided and this application September 11, 1936, Serial No. 100,275

3 Claims. (Cl. 229—53)

This invention relates to bags and particularly to bags of cellulose acetate, cellulose hydrate, glassine and the like.

The present application is a division of our copending application Serial No. 746,082, filed September 29, 1934, the present case being directed specifically to bags as distinguished from the method of and apparatus for making the same.

In the drawing:

Fig. 1 shows the embodiment of our invention;

Fig. 2 is a view showing the bag of Fig. 1 in its various steps or stages of manufacture;

Figs. 3, 4 and 5 are views illustrating another embodiment of our invention; and

Fig. 6 shows still another embodiment of our invention.

Throughout the various embodiments of our invention to be hereinafter described the top end of the bag is trimmed. This procedure is of advantage with particular reference to bags of cellulose acetate, cellulose hydrate, glassine, etc, these materials being brittle which causes them to crack and tear readily. By trimming the open or top end of the bag, should the material have been cracked at the corner or corners when the tubed material is divided into bag lengths, this cracked portion will be removed by the trimming operation.

With reference to the embodiment of our invention illustrated in Figs. 1 and 2, in the process of making the bag one wall of the tubed material from which the bags are fabricated and which has been designated 1 is cut transversely as shown at 2' by the mechanism of our copending application above referred to, from a point adjacent one edge of the tube to a point adjacent the opposite edge. The other wall is also cut in a similar fashion as shown at 2'' from a point adjacent one edge of the tubed material to a point adjacent the opposite edge.

The severing operation is completed, for example, by cutters such as shown in our copending application above referred to, these cutters cutting through the tube at the corners as shown at 21 in Fig. 2.

The bag length as will be seen from Fig. 2 will have a projecting tab 21' at each corner of the leading end of the bag length, this end being later bottomed in finishing the bag, while the trailing end of the bag length will have a complementary cut-out. This cut-out we will designate 21 and in the finishing operation the bag length is trimmed at the corners of the trailing end, as shown at 30, by any suitable mechanism. The mechanism of our copending application above referred to may be employed for this purpose if desired.

In trimming the corners of the trailing end of the bag lengths the trimming operation may be such that when the end of the tube is opened up as illustrated in Fig. 1, the bottom 31 of each cut-out is practically straight, that is, it is substantially at right angles to the edges 31' of the bag length.

In this embodiment of our invention, therefore, we have provided a bag, the open or top end of which is notched at the edges, this notching operation removing the material which may have cracked during the severing of the bag material into bag lengths, and the notches being so shaped that the bottoms thereof are substantially at right angles to the edges of the bag when the end of the bag is opened out, thereby avoiding starting a tear in the open end of the bag.

In the embodiment of our invention as illustrated in Figs. 3, 4 and 5, the bag material in tubular form is cut transversely the same as above explained and as indicated at 2' and 2''. Instead of completing the severing operation by a cut at the corners, as explained in connection with Figs. 1 and 2, the severing operation in this embodiment of our invention has been completed by exerting longitudinal tension on the partially severed bag material to rupture the material as shown at 40 and 41, although the severing operation may be completed as described in connection with the first embodiment of our invention. The bag lengths at the top or trailing end thereof are cut out at the corners as shown at 34, the bottom 33 of each of these cut-outs, with the material lying flat as illustrated in Figs. 3 and 5, being below the outer edge 35 of each cut-out.

When the material is opened up as illustrated in Fig. 4 the bottom of each cut-out is in the form of an inverted V which we have designated 36, and if tension is placed on the bag length or completed bag in the direction of the arrows on Fig. 4, tending to tear the tube at the corners, the tension is transferred from the edges of the end of the tube to below the apex 36' of the inverted V's 36, practically necessitating bursting of the material below the apex of each V before a tear can start.

In the embodiment of our invention as illustrated in Fig. 6, the tubed material is partially severed transversely as shown at 2' and 2'' and the severing operation completed much the same as in the embodiment of our invention illustrated in Fig. 2, that is to say, the severing operation is completed with a cutter which severs the tubing

at the ends of the transverse cuts 2' and 2'' to provide the trailing end of the bag length with cut-outs 43, the leading end of each bag length, which is to constitute the bottom of the bag, being provided with complementary flaps or tabs. The left hand end of Fig. 6 shows a bag length before bottoming and it will be seen that the trailing end of this bag length, that is to say, the end which is to constitute the open end of the bag is provided with cut-outs 43 while the leading or bottom end of the same is provided with the complementary tabs 42.

What we claim is:—

1. As an article of manufacture, a tubular bag length, the top end of which is provided with registering concave cut-backs in both walls at opposite corners, so that when the bag length is opened moving one wall of the bag length away from the other the tension thereby imposed on the bag length is along a line which lies below the edge of the end of the bag length at the corners of the bag length thereby to resist tearing of the bag length at the corners.

2. As an article of manufacture, a bag length, the top end of which is provided with concave cut-backs at opposite corners so shaped that when the said end of the bag length is opened the bottom of each of said cut-backs will be substantially at right angles to the edges of the bag length.

3. As an article of manufacture, a bag length, the top end of which is provided with concave cut-backs at opposite corners so shaped that when the bag length is opened the bottom of each of these cut-backs forms an inverted V.

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