

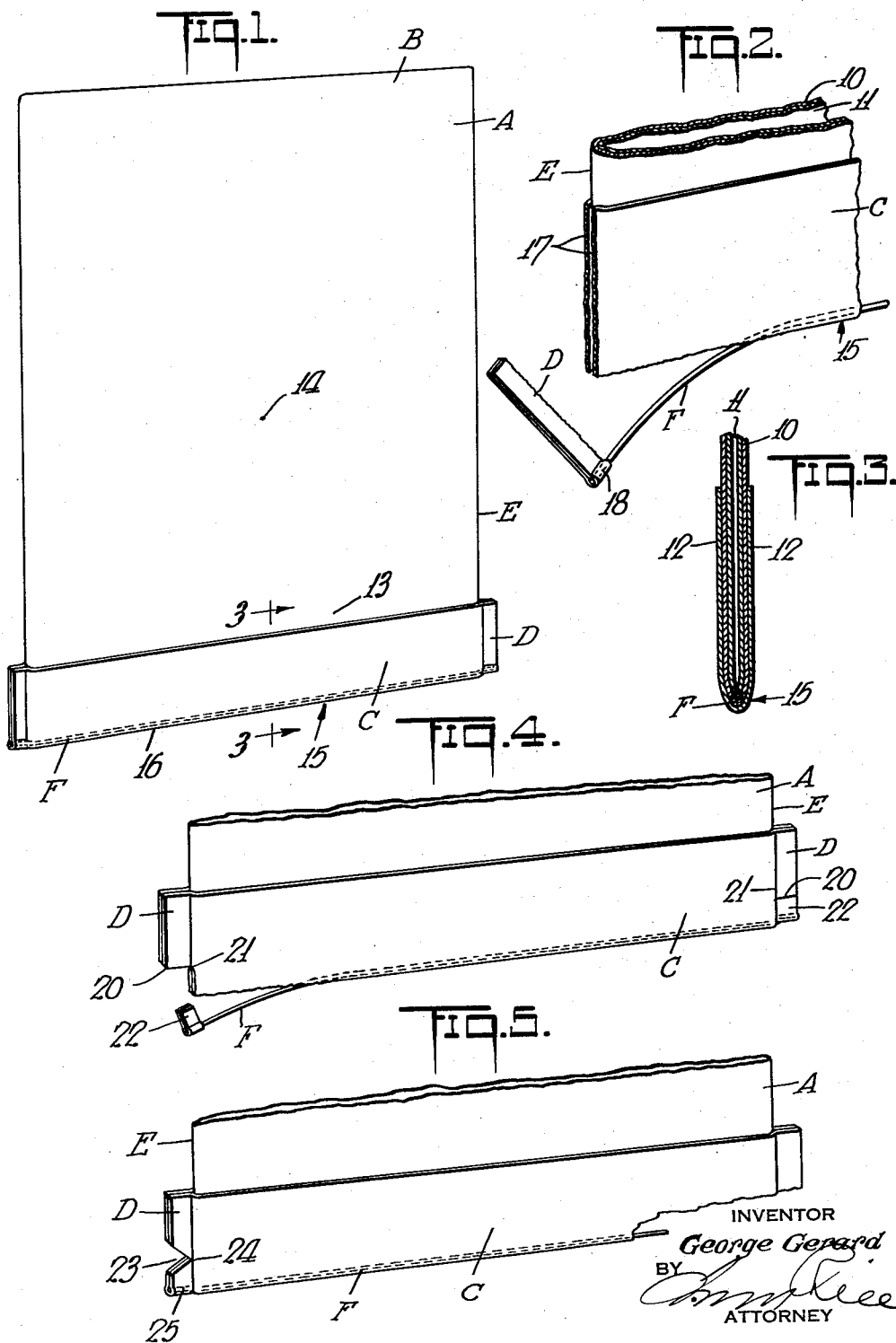
Feb. 2, 1960

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2,923,457

RIP STRING HEAVY DUTY PAPER BAG

Filed Oct. 28, 1954



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RIP STRING HEAVY DUTY PAPER BAG

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Application October 28, 1954, Serial No. 465,359

2 Claims. (Cl. 229—66)

The present invention relates to a rip string heavy duty paper bag.

It is among the objects of the present invention to provide a novel rip string heavy duty paper bag which may be readily manufactured at low cost and assembled readily for filling, and which may be conveniently stacked, shipped, stored and utilized by either wholesale or retail establishments.

Another object is to provide a novel rip string heavy duty paper bag which may be readily employed for packaging materials, and which may be readily manufactured with inner and outer liners, and which may, in spite of its heavy construction, be readily opened by the recipient or seller.

Still further objects and advantages will appear in the more detailed description set forth below, it being understood, however, that this more detailed description is given by way of illustration and explanation only and not by way of limitation, since various changes therein may be made by those skilled in the art without departing from the scope and spirit of the present invention.

In accomplishing the above objects, according to one embodiment of the present invention, it has been found most satisfactory to combine a relatively heavy outer stiff paper sleeve, having an adhesive inside facing, with a relatively soft, corrugated or embossed inside paper sleeve, which sleeves are then joined together at their lower end by the stiff folder paper closure strip provided with a tear string.

It has been found quite important that the tear string abut and be positioned directly below the edges of the inside and outside sleeve, and that it be so formed or positioned at the side edges of the double sleeve that the bottom of the bag may be readily ripped or torn by means of the tear string during opening.

The opposite end of the bag is normally left open in manufacture so that it may be utilized as a filling opening to receive the materials to be placed in the bag.

Desirably, the rip string is so associated with the folder and closure strip that a nick or notch in the bottom of the bag will enable ready access to the rip string and enable opening of the bag bottom.

Normally, the bag after application of the closure strip and the rip string is sealed at its open end, and the opposite end is then filled or loaded and then permanently stapled or taped so that both ends become closed.

Then the bottom of the bag, which is provided with the rip string, becomes the end which is open when the material within the bag is to be removed.

These double sleeve bags may be made in large scale production, and assembled and sealed by automatic machinery with the sleeve being assembled in one operation and the closure strips and tear strings being assembled in another operation, and being fed transversely to the bag to close the ends thereof.

With the foregoing and other objects in view the invention consists of the novel construction, combination

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and arrangement of parts as hereinafter more specifically described, and illustrated in the accompanying drawings, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which fall within the scope of the claims hereunto appended.

In the drawings wherein like reference characters denote corresponding parts throughout the several views:

Fig. 1 is a side elevational view showing a completed bag closure with an open end according to the present invention.

Fig. 2 is an enlarged lower perspective end view showing the manner of attachment of and rip removal of the tear string.

Fig. 3 is a transverse vertical sectional view on the line 3—3 of Fig. 1, upon an enlarged scale as compared to Fig. 1.

Fig. 4 shows an alternative rip string attachment with a notched side flange on the closure strip of the bag.

Fig. 5 is a fragmentary side perspective view of another alternative showing a triangular notch to serve to enable ready access to the rip cord.

Referring to Fig. 1 there is shown a double sleeve A having an open end B with the folded closure strip C, having the ends D sealed beyond the side edges E of the bag. In the bottom of the sealing strip C is the rip cord F.

The bag A itself is assembled of an outer sheet 10, of relatively stiff heavy paper, and an inner sheet 11 of a corrugated soft thin paper sheet.

The folded closure strip F is of intermediate thickness between that of the sheets 10 and 11, and it has the side portions 12 which are sealed throughout their length and height to the lower portions 13 of the side walls 14 of the outer cylinder 10, with an open space at 15 in which is positioned the rip cord F.

The cord abuts the lower edges of the inner and outer sleeves 10 and 11 forming the bag A, and it also fills the space 15 at the lower edge 16 of the folded closure strip C.

The side extensions D are sealed together throughout their length and beyond the side edges of the bag E, and they thus will have an area of weakness along the side edge E of the bag A so that even without scoring or weakening they will rip downward as indicated at 17 away from the side edges 17 of the folded strip C.

The detached edge portion D when ripped away along the torn edges 17 will keep its engagement at 18 to the end of the rip cord F as shown in Fig. 2. This double edge D will then serve as a handle to enable the rip cord to be ripped out of the bottom 16 of the folded strip C, completely opening the lower end of the bag, as shown in Figs. 1, 2 and 3.

In operation the two cylinders 10 and 11 may be formed of flat sheets and assembled together, then turned after slitting so that there will be an overlap of the edges both interiorally and exteriorally of the bag.

Then the rip cord and the folded strip C are assembled together with the rip cord F being adhesively connected to the bottom of the folded strip C and without extending beyond the edges of the folded strip C.

These folded strips C with the rip cords F may be fed in from the side after the double sleeves A have been cut to length. The assembly is finally formed of the folded strip C with each sleeve A.

After the bag has been sealed and the open end B has been permanently closed, by pulling off the handle member D along the rip edges 17 a firm hold on the rip cord F may be had and the bottom of the bag opened.

In the alternative embodiment of Fig. 4 the bag A and the folded strip C may be of the same construction ex-

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cept that the side edges D have been nicked or notched at 20. This notch 20 extends to the side edge E of the bag A as indicated at the point 21.

The removal of the rip cord F then is accomplished by pulling out the tab 22 which acts as a finger grip portion and enables convenient access to and ripping out of the cord F. In this manner the opened end of the bag retains the major portion of the double strips D for reenforcement purposes while the rip cord is carried by the lower tab 22 forming part of the double strip D.

In the embodiment of Fig. 5 the bag A has substantially the same lower folded closure strip C but the notch 20 has now been replaced by the triangular opening or recess 23 which also extends to the side edge E of the bag A at 24. This will form the tab 25 which acts as a grip to start the tearing and enable access to the rip cord F.

It is thus apparent that the applicant has provided a simple method of making a rip string heavy duty bag in which the rip string and bag are substantially assembled in one single manufacturing operation, and in which the bags are readily opened after manufacture and filling without any great difficulty.

While there has herein been illustrated and described the preferred embodiment of the invention, it is to be understood that applicant does not limit himself to the precise construction herein disclosed, and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having now particularly described and ascertained the nature of the invention, and in what manner the same is to be performed, what is claimed is:

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1. A bag construction comprising a double flattened tubular member and a stiff U-shaped strip folded over and enclosing one end of said flattened member and extending at its ends beyond the sides of the end of said double tubular member to form end tabs having weakened portions and a tear string in the bottom of said U-shaped strip abutted by the end of said tubular member, said U-shaped strip being flattened and adhesively connected together at said end tabs and said tear string terminating in and held by said end tabs, whereby when an end tab is detached along its weakened portion the end of the tear string carried thereby remains attached thereto.

2. The construction of claim 1, said end tabs having indentations therein to facilitate the tearing away of said end tabs from said U-shaped strip.

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