J. M. SULLIVAN.

CONTINUOUS BAG.

APPLICATION FILED MAY 10, 1915.

1,279,171. Patented Sept. 17, 1918.

Fig. 1.

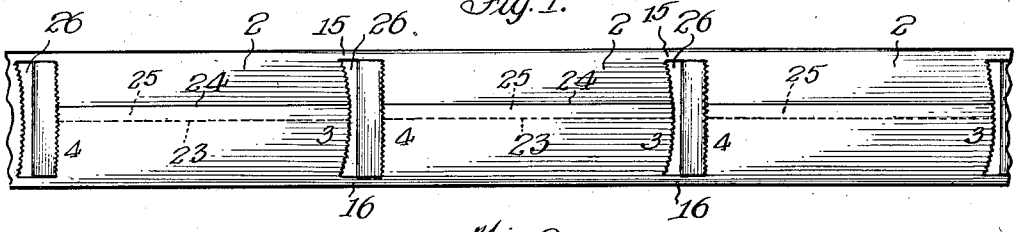


Fig. 2.

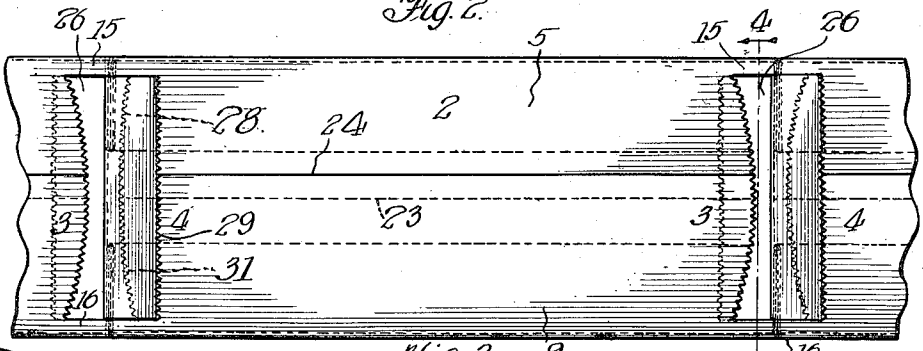


Fig. 3.

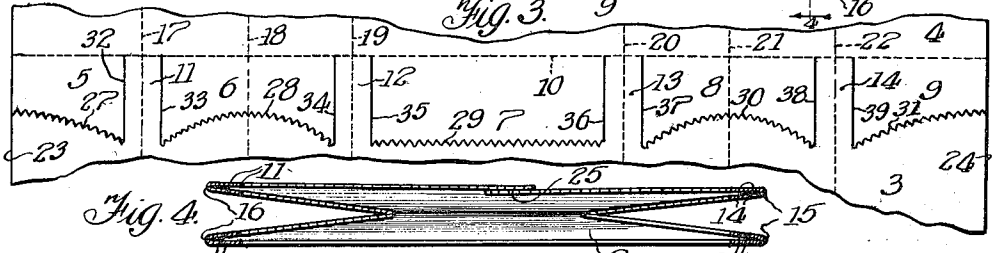


Fig. 4.

Fig. 5.

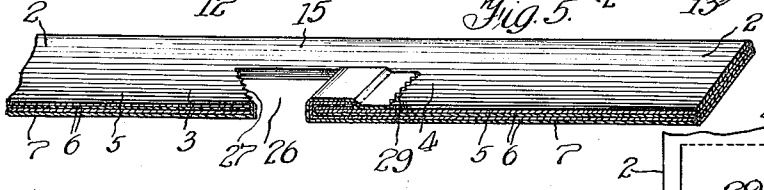


Fig. 6.

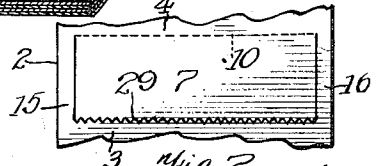


Fig. 7.

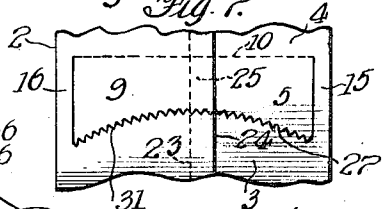
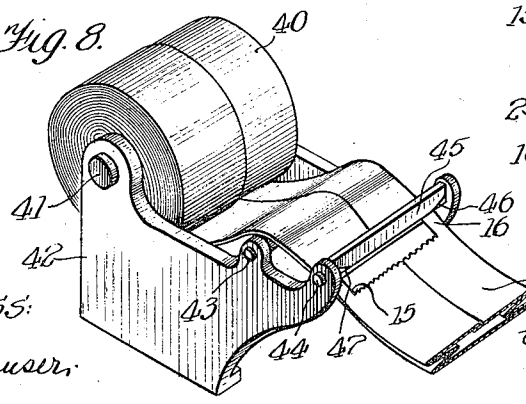


Fig. 8.



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UNITED STATES PATENT OFFICE.

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CONTINUOUS BAG.

1,279,171. Specification of Letters Patent. Patented Sept. 17, 1918.

Application filed May 10, 1915. Serial No. 26,939.

To all whom it may concern:

Be it known that I, JAMES M. SULLIVAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Continuous Bags, of which the following is a specification.

My invention relates to paper bags and has particular reference to a convenient, compact and economical handling and storage of same. The general object of the invention is to make it possible to commercially and practically provide paper bags in the form of rolls, from which bags may be stripped or cut in the same manner as sheets of paper are stripped from rolls of paper.

With this object in view the invention consists in the novel construction of bags in the form of strips, their combination, arrangement, and mounting, all as hereinafter described in detail, illustrated in the accompanying drawing and incorporated in the appended claims.

In the drawing—

Figure 1 is a plan elevation of a series of bags torn away from a continuous strip of bags.

Fig. 2 is a similar enlarged view of one of the bags with broken away portions of bags adjoining both ends.

Fig. 3 is a section of a blank from which the bags are formed showing the adjoining top and bottom portions of adjoining ends of bags.

Fig. 4 is an enlarged section taken on line 4—4 of Fig. 2, the bag being slightly expanded instead of flat.

Fig. 5 is a perspective view representing in section and broken away a portion of adjoining bag-ends at one edge of a pair of bags showing the arrangement of the layers of paper folding upon each other.

Fig. 6 is a broken away portion of adjoining ends of bags, representing one side of the bags before the cut out portion is folded to close the bottom of one bag and make an opening at the top in the adjoining bag.

Fig. 7 shows the reverse side of Fig. 6.

Fig. 8 is a perspective view of a roll of bags mounted together with a holder provided with a cutting knife for severing the bags from each other.

In the several views 2 represents the body of an ordinary paper bag exclusive of its ends involved in this invention, the top end being designated as 3, and the bottom as 4, the same numerals 3 and 4 representing in Fig. 3 the portions of the ordinary bag body which immediately adjoin the ends of the bag in which the present improvements in the continuous bag construction take place.

Fig. 3 shows five cut out sections 5, 6, 7, 8 and 9 which when folded upward and pasted onto the part 4 and to each other as in Fig. 5, form the closer laps for the bottom of the bag. These sections 5 to 9 are separated by strips 11, 12, 13 and 14 which connect the ordinary bag-body parts 3 and 4 in the forms of finished bag strips 15 and 16 after the Fig. 3 blank has been folded on the vertical dotted lines 17, 18, 19, 20, 21, and 22. To produce the ordinary paper bag the end of the ordinary paper bag blank that is to the right of the line 22 is, looking at Fig. 3, folded forward on the line 22 to lie over the line 21. These two layers are then folded back on the line 21, and the resultant three layers are folded forward on the line 20. Starting the folding at the left hand end of Fig. 3, the part to the line 17 is folded forward on the line 17, the resultant two thicknesses are folded backward on the line 18, and the resultant three thicknesses are folded forward on the line 19 causing the ends—23 and 24—of the blank to meet and overlap in the pasted "seam"—25—of the bag. The parts 11, 12, 13 and 14, each of which is folded longitudinally upon itself as indicated by the dotted lines in Fig. 3, have their layers pasted together where they meet. As shown in Figs. 6 and 7 the partly cut out part 7 is at one side of the bag, the parts 5 and 9 at the opposite side with the upon themselves folded parts 6 and 8 in between. The layers of cut out portions thus arranged are pasted together and the entire body of layers as they appear in either Fig. 6 or Fig. 7 is then folded upward on the dotted line 10 against the body portion 4 to which said body of layers is pasted, leaving an opening 26 between the adjacent ends of the bags. The lower lines of severance are zig-zag, serrated, or toothed and are labeled 27 to 31 while the parallel and straight lines are numbered 32 to 39.

In Fig. 8 is shown a string or strip of bags in the form of a roll 40 mounted on a spool

41 journaled in a stand 42 carrying guide rollers 43 and 44 and a blade 45 having beveled knife-edge portions 46 and 47 under which the connective parts 15 and 16 are brought and severed by pulling upward on the projected bag 2. The particular details of the mounting frame and certain conveniences for separating each individual bag from the roll will form the subject matter of a separate application and form no part of the present invention.

These rolls of bags may be mounted in stands or cabinets containing rolls of plain paper, or separate cabinets for assorted sizes of paper bags may be provided. In either the annoyances and inconveniences of loose and bulky stacks of individual bags are avoided, and the handling and supplying of bags made just as convenient as the handling of plain wrapping paper in the form of rolls. Several thousand bags in this form may be mounted in a comparatively small cabinet or skeleton stand. In the manufacture of paper bags rolls time and money is saved by eliminating the individual handling and substituting a single strip of indefinite length.

I claim as my invention—

1. A plain strip of paper folded having incisions within the margin of the folded strip and the incised portions folded and pasted to form a chain of bags.

2. A strip or chain of bags formed out of a strip or length of paper having a series of incisions within the margin of the folded strip, the incised portions being folded to form end-closers for the individual bags, the margins at said incisions forming connective strips for adjoining bags.

3. A plurality of bags formed out of a strip of paper having cut portions all of which are utilized and form closers for the ends of the individual bags and connective ligaments for the adjoining tops and bottoms of the individual bags of a chain of bags, said ligaments being uncut margins of said strip.

4. A chain of bags formed out of a strip of paper having side portions folded onto the intermediate portion to form the bodies of the bags and having partly cut out parts which are folded to form bottom closing laps sealed onto the bodies of the bags leaving connective strips at the edges of the bags which join their ends.

5. A chain of connected bags formed by cutting, folding and pasting parts of a strip of paper, all of the width of said strip being utilized to form bottom closing overlaps and marginal end connecting strips between the individual bags.

6. A chain of bags formed out of a strip of paper with continuous parallel edges, portions adjacent to said edges being folded toward each other upon the intermediate portion and joined to form the body of each bag, and incised portions between the ends of the individual bags which form bottom closing laps for the individual bags and connective strips for adjacent bags, respectively.

In testimony whereof I have hereunto subscribed my name.

JAMES M. SULLIVAN.