

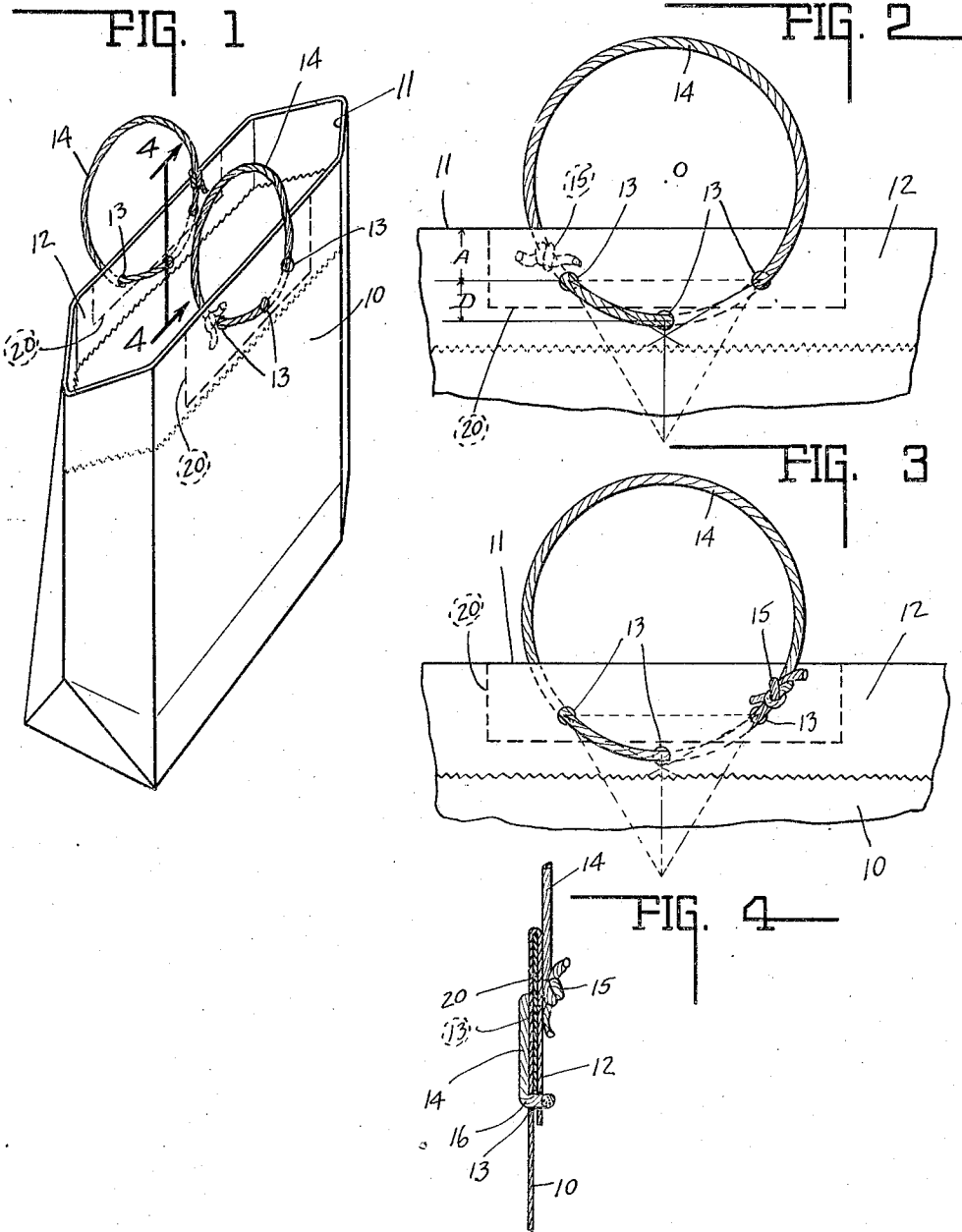
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PAPER SHOPPING BAG

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PAPER SHOPPING BAG

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This invention relates to a paper shopping bag and is an improvement upon the bags illustrated in the following Letters Patent, to wit, Nos. 1,305,199, 1,418,705 and 1,432,150.

5 The chief object of this invention is to reduce the cost of construction of a paper shopping bag of the character before mentioned.

The chief feature of the invention consists in the employment of a paper stock cord and providing not less than three apertures in the mouth of the bag at the doubled or hem portion thereof and in predetermined relation for securing the cord thereto, said cord being united in closed relation.

One feature of the invention consists in arranging the apertures such that a circular or loop formation of the handle is retained and this is accomplished by arranging the spaced apertures so as to coincide with the arc of a circle and preferably one of substantially the same circumference as the looped handle if arranged in circular formation. When only three apertures are provided for each handle each handle may be similarly mounted and when both handles are mounted the knotted portions will be at opposite ends of the handles with the knotted portions preferably included within the mouth of the bag.

Another feature of the invention consists in arranging the several handle supporting apertures such that the intermediate aperture or apertures are positioned an appreciable distance below the chord joining the two end apertures and substantially coincident with or along the bisectors of the base angles of an equilateral triangle including the chord as a base. This arrangement results in predetermined distribution of stress to the bag so that "tearing out" does not occur.

The full nature of the invention will be understood from the accompanying drawings and the following description and claims:

10 In the drawings Fig. 1 is a perspective view of a paper shopping bag provided with the invention. Fig. 2 is an elevational view of the outer side of one side of the bag portion and including the handle. Fig. 3 is a

similar view of the inner side of the same portion. Fig. 4 is a transverse sectional view taken through the center of the before mentioned portion.

In the drawings 10 indicates a bag, 11 the open mouth thereof and the ends of the sides are turned inwardly to form the hem 12 which may or may not be secured to the adjacent side portion.

Each opposite side of the bag is provided with a plurality of apertures and preferably not less than three are provided. Herein three apertures 13 are illustrated and these are arranged in spaced relation relative to each other. Preferably the apertures are continuous through the side- 65 ing and the adjacent hem portion and an included supporting reinforcement 20.

The three or more apertures 13 are positioned so that they lie in the arc of a circle the circumference of which substantially coincides with that of a circular rope handle 14. The handle 14 is a single length of paper rope that has its free ends united while wet forming a knot 15. Preferably 75 the handle is mounted such that the knot lies within the bag and immediately adjacent one of the apertures.

As shown in Fig. 4 the cord portion 16 that passes through the apertures passes through substantially transverse to the plane of the bag. Since the apertures have an arcuate positioning and since such arcuate positioning substantially corresponds to the circular paper rope handle, and since at least three apertures are provided the load is distributed and therefore a paper cord handle may be employed.

The positioning of the apertures may be briefly described as follows:

The outermost openings 13 are in alignment and parallel to the bag mouth. The intermediate opening or openings substantially coincide with the base angle bisectors of an equilateral triangle, the base of which is the chord of the circle joining the outermost openings, the center opening being positioned from the chord at a distance D or slightly less than the distance A that the chord is from the bag mouth.

From Fig. 1 it will be observed that each loop is similarly mounted upon the side of the bag so that the loops are oppositely arranged relative to each other and the knots are positioned at opposite ends of the handles. In this way the load transmitted by the handles to that portion of the bag connecting the same together, and by that is meant the bottom as well, is distributed across the full width of that portion of the bag included between the outermost apertures and extending from one set of apertures to the other and including the bottom portion as well.

The invention claimed is:

1. A paper shopping bag including a reinforced mouth and a substantially independent flexible complete loop forming handle therefor at each side, said loop extending in opposite directions through successive openings, there being at least three openings arranged substantially upon the arc of a circle the chord of which extends between the outer most openings, the bag having at least one loop receiving intermediate opening and positioned upon the opposite side of said chord from the mouth of the bag and an appreciable distance from said chord but not appreciably beyond the bisectors of the base angles of an inverted equilateral triangle, the sides of which are equal to the length of said chord and the base of which is constituted by said chord.

2. A device as defined by claim 1, characterized by the intermediate opening being at a distance from said chord approximately not greater than the distance that the chord is from the mouth of the bag.

In witness whereof, I have hereunto affixed my signature.

WALTER H. DEUBENER.