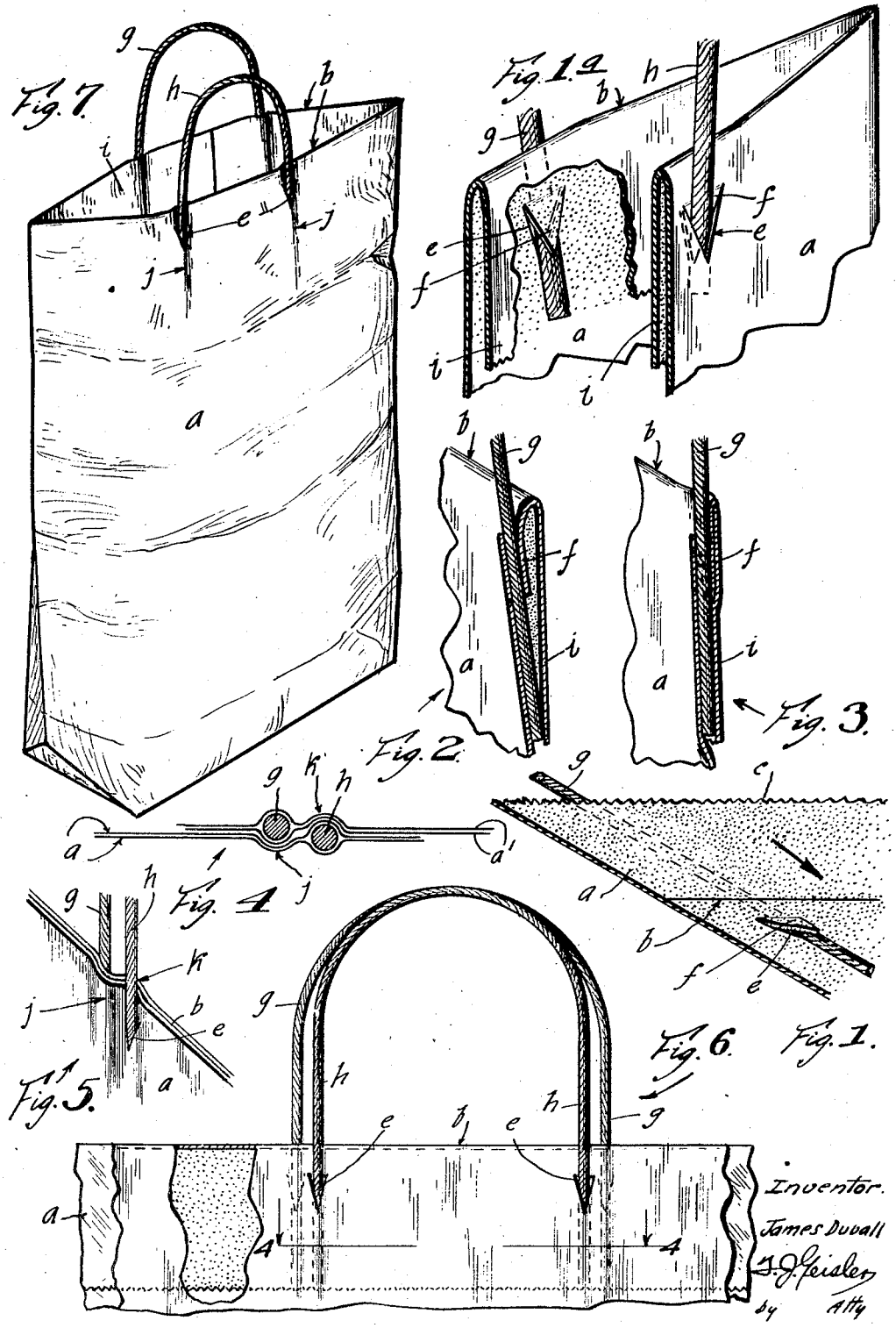
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SHOPPING BAG

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SHOPPING BAG.

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My invention relates to so-called shopping bags made of heavy, or kraft, paper and provided with handles. These bags are frequently furnished gratis by the retail dealer to his customer for carrying the goods purchased. The bags are made of various sizes, some quite large and these frequently carry quite a heavy load. It is therefore essential that the ends of the handles be securely fastened to the sides of the bag; at the same time the cost of making the bag must be kept as low as possible. Since some of these bags are used for carrying about quite heavy loads, the ends of the handles, as formerly attached, frequently gave way, that is to say, they tore out of the side of the bag.

My invention has for its purpose to provide a method of manufacture which shall solve the problem so presented, and by which a strong but inexpensive bag will be produced.

I attain my object by the method of construction consisting in creasing the stock of the bag transversely on one side adjacent to, and parallel with, its open end, for forming a fold of substantial width adjacent the mouth end of the bag, simultaneously making V-shaped slits in the sides of the bag and inserting the ends of the handles through such slits; then applying the cement, or glue, over the inner faces of said fold; the slits in the opposite walls of the bag being so arranged as to locate the ends of the handles of the opposite sides of the bag closely together; and finally arranging the sides of the bag fold and applying pressure thereto, thereby to cause the webs of the folded end of the bag to encircle substantially the opposite sides of the handle ends, and for a considerable length of the latter; thereby cementing a relatively large surface of the web to the handle ends, and correspondingly increasing the hold of the webs of the fold on the handle-ends.

With the handles of the bag secured in place, as above mentioned, I have demonstrated that the bag itself will tear to pieces before the ends of the handles can be torn loose from its sides.

An incidental, further object of my invention is to facilitate the manufacture of these bags. Since holes have to be made in the sides of the bag through which to insert the ends of the handles and glue is applied to the opposite faces of the fold formed at the mouth of the bag, as above mentioned, there is danger of getting the glue through the holes and thus on the outer face of the sides of the bag; and, in consequence, when the bags are then stacked, in that condition, they will tend to stick together, are difficult to separate, and frequently are torn or mutilated in their separation.

In order to prevent such result, I form V-shaped slits in the sides of the bag through which to insert the ends of the handle, and in so doing cut out V-shaped tongues, which, after the handle-ends have been inserted, overlie the same on that face of the stock to which the glue is applied, whereby said tongues function as bridges over the handle ends and said holes, and tend to prevent the glue from getting on the exterior of the side faces of the bag.

The details of my method, and of the bag so produced, are hereinafter more fully described with reference to the accompanying drawings in which:

Fig. 1 shows a fragment of the mouth-end of a blank from which my improved handled-shopping-bag is to be made, the blank being shown as transversely creased preparatory to forming the folds at the mouth-end of the bag; the blank being simultaneously punched with V-shaped slits one of which is shown, a handle end is inserted through such slit, and glue has been applied to the surfaces which are to be cemented together in forming the fold; the arrow indicating the direction in which the glue is applied in practice, so as to be applied over the tongue covering the slit and in that way avoiding getting glue on the outer faces of the bag.

Fig. 1ª shows a fragmentary section of the mouth of the bag, the handles being inserted, and the web forming the fold having been inturned on the crease, but the fold has not yet been completed by pressing the webs of the fold together.

Fig. 2 is a fragmentary perspective section through the fold formed at the mouth end of the bag, looking at an outer side of the bag along the line of the handle end; the webs of the fold not yet having been pressed together.

Fig. 3 is a similar section, as Fig. 2, showing the webs of the fold pressed together, so

as to cause each of the webs of the fold to encircle approximately half of the handle-ends.

Fig. 4 is a diagrammatic section assumed to be taken on the line 4—4 of Fig. 6 illustrating the effect produced by pressing the webs of the fold against each other and about the handle-ends in completing the fold.

Fig. 5 shows a fragmentary perspective view of the mouth of the bag, the walls of which are assumed to be pressed together as in the act of forming the webs of the fold around the handle-ends as mentioned, and as illustrated by the preceding figures of my drawings.

Fig. 6 is a fragmentary side elevation of the mouth end of my bag showing the handle secured in place by the method described; and

Fig. 7 is a perspective elevation of my bag as appearing when completed.

The web *a* is provided with a transverse crease *b* parallel with the mouth edge *c* of the web; and the web is punched with V-shaped slits *e*, to produce V-shaped tongues *f* extending inward from the crease *b*, thus in the direction indicated by the arrow shown in Fig. 1. Four V-shaped slits are punched through the web, these slits being arranged so that when the fold to be formed on the crease *b* is completed, the slits will be located approximately as shown in Fig. 6. For example, the slits of each side of the bag are spaced apart, but the slits of one side are placed closer together than those of the opposite side of the bag, thereby to locate the adjacent handle-ends closely together.

The ends of the handles *g*, *h* are then inserted in the slits *e* in the manner illustrated in Fig. 1.

Glue is then applied to the surfaces of the web to be cemented together in forming the fold—the glue being applied in the direction indicated by the arrow in Fig. 1, thus over the tongues *f* which serve as bridges over the cords or handle-ends *g* and *h* and avoid getting the glue on the outside of the bag, which would cause the bags to stick together when they are piled, and result in tearing the bags when they are then separated from each other.

The bag is then formed, and then the fold *i* is formed on the interior of the mouth of the bag on the crease *b* as illustrated in Fig. 1a. Next the bag is arranged flatwise, and subjected to pressure. The handle-ends will now be arranged as illustrated by Fig. 6; the handle-ends secured to one side of the bag, being located close to the handle-ends secured to the opposite side of the bag. This arrangement is diagrammatically illustrated by Fig. 4, of which the lines *a*, *a*, represent the webs of the fold on one side of the bag, the lines *a'*, *a'* represent the webs of the fold of the other side of the bag.

Due to the thickness of the cord or other material from which handles are made, the handle *g* will produce a depression in the web *a*, *a* as at *j*, and the handle *h* will produce a similar effect as at *k* in the web *a'*, *a'*.

These effects may be produced by applying yielding material to both sides of the bag, and then applying pressure through such yielding material thereby causing each of the webs *a*, *a* and *a'*, *a'* to encircle substantially half of the cord handles. And since the fold *i* is of substantial width, the webs *a*, *a* and *a'*, *a'*, through the agency of the glue by which the webs of the fold are cemented together, will secure a firm hold upon a substantial length of the handle-ends.

The bags when finished with the handles inserted as described may then be stacked one on the other so as to give the glue time to set; and the top, or mouth-end of the bag will then appear as illustrated by Figs. 5, 6 and 7 of my drawings.

The holes *e*, *e* for the handle ends *g*, *h* must be located a substantial distance below the crease *b*, so as to leave ample stock or material at the top of the bag—double thickness due to the fold—to prevent the ends of the handles tearing through the top of the sides of the bag under a heavy strain imposed by the weight of the material carried in the bag.

Experience has demonstrated that unless the latter construction is followed, the bag frequently will fail if filled to capacity. The reason of such failure is due to the pull exerted by the handle—when carrying a full bag—across the tops and inward of the bag sides; for such pull would cause the handle ends to have a tearing effect on the top of the side-walls of the bag; but with these side-walls reenforced by a fold as made by applicant, the strain on the tops of the side-walls is successfully resisted.

I claim:

1. A handle bag, including a bag structure having its upper edge formed in a fold, the outer margin of the fold being formed with handle receiving openings in the shape of V-shaped slits, and loop handles having their terminals inserted through the openings outwardly of the tongues formed by said V-shaped slits, the relatively inner surfaces of the bag fold and of said tongues being designed to receive an adhesive to secure said surfaces and thereby the handle terminals, the tongues preventing said adhesive from flowing through said openings and reaching the outer surfaces of the bag.

2. A handle bag including a bag structure having its upper edge inturned to provide a fold, the outer portion of the fold below the line of fold being formed with handle receiving openings by slitting the material on intersecting lines to leave the material between the slits integral with the bag, loop handles having their ends inserted through

said openings outwardly of the material within the outline of the slits, the said material within the outline of the slits preventing the adhesive applied to the inner surface of the bag fold from reaching the outer surface of the bag.

3. A handle bag, comprising a body having its upper edge formed with an inturned fold, the body wall adjacent the fold having tongues cut therein to provide handle-receiving openings, and loop handles having their terminals inserted through the said openings and cemented between the body wall and said fold, the said tongues constituting bridges preventing the cement from flowing through said openings to the outer surfaces of the bag body.

4. A handle bag comprising a bag body having its upper margin formed in a fold, the body wall adjacent said fold being slitted to provide handle receiving openings, the openings in one side of the body wall being laterally offset from the openings on the opposite side, two loop handles, each having its terminal ends inserted through the said openings and cemented between the body wall and said fold, the sections of said body wall and said fold overlying the handle terminals being each drawn about the diametric half sides of said handle terminals, whereby greater areas of said terminals are cemented between said body wall and the fold, and the said handle terminals are adapted to nest side by side when the bag is folded flat.

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