

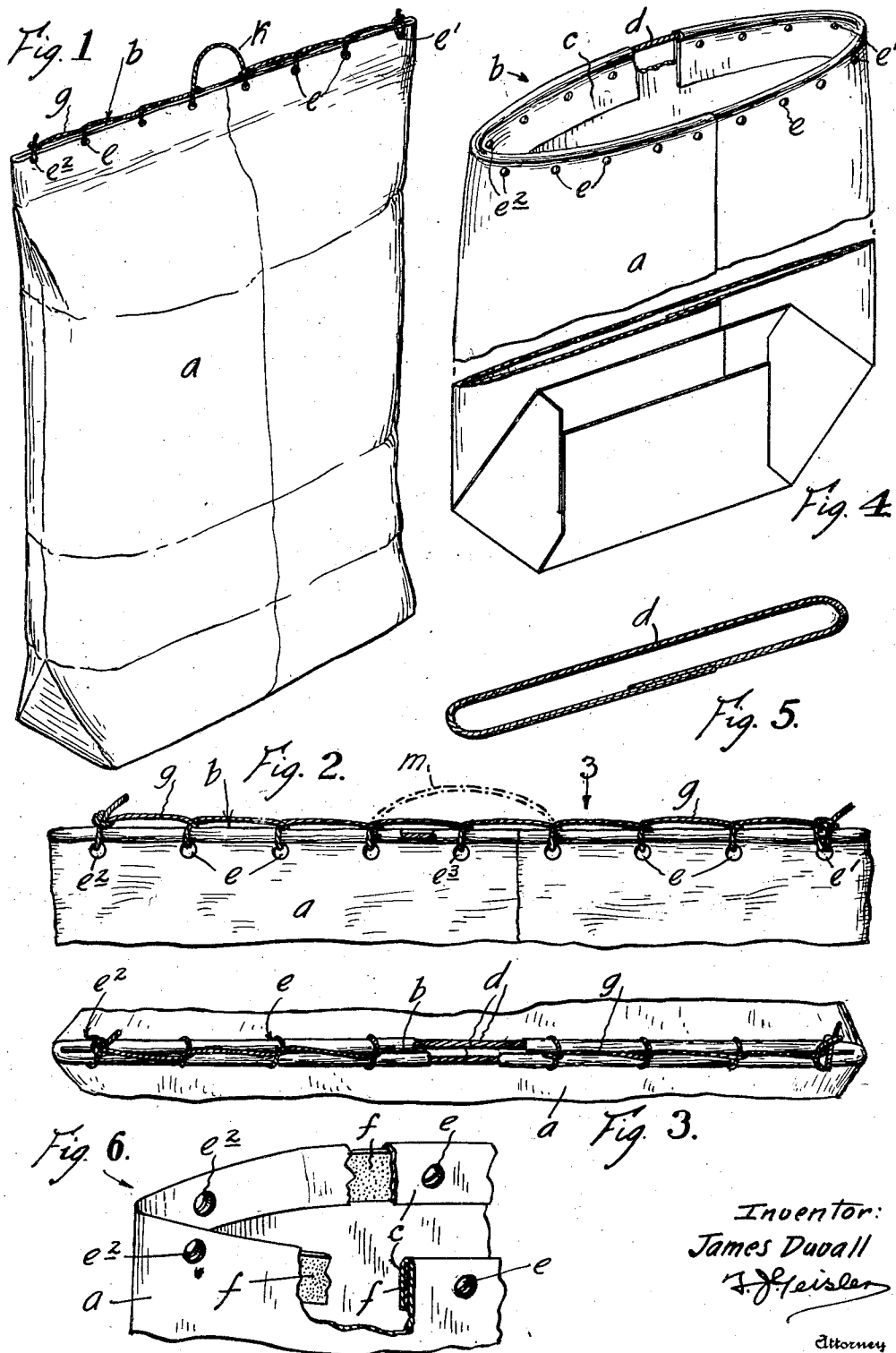
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BAG AND CLOSURE MEANS THEREFOR

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BAG AND CLOSURE MEANS THEREFOR

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My invention relates to the manufacture of larger sized paper bags intended for holding relatively heavy weights.

This bag is to be made of strong paper, and I have found that in order to provide a practical bag of the character mentioned, simple and inexpensive, but strong, closure means specifically a lacing should be provided for the mouth of the bag; and further preferably such lacing should be adapted to be arranged to constitute a handle at the middle of the bag by which it may be carried without tending to tear the walls of the bag at its mouth.

Further, I have found that the closure means provided should be adapted to permit the bag to be used over and over; in other words, the closure means must be adapted to permit the bag to be readily opened without tearing the bag and thus render it worthless for further use.

Therefore the object of my invention is to provide a paper bag which is economical of manufacture and is provided with lacing means for closing the mouth of the bag, the laces arranged to close the mouth of the bag securely, and the mouth of the bag provided with means for preventing the lacing holes tearing out, and the lacing holes being so arranged that the lacing may be arranged to form a carrying handle for the bag.

I attain the objects of my invention in a paper bag provided with a reinforcement at opposite sides of its mouth produced by a fold of substantial width, a reinforcing band being located in said fold and the opposed surfaces of said fold being cemented together with said reinforcing band between them, said reinforcement being adapted to permit the arrangement of the bag flatwise and being provided with a series of alined spaced holes adapted to have a lace threaded therein for closing the bag.

By such means the sides of the mouth of the bag are drawn together flatwise so as to distribute the strain of the weight of the bag and its contents evenly along the entire width of the bag and the middle portion or loop of the lace which forms the handle serves to hold the twine section taut and thereby the

sides of the mouth of the bag closely together.

These and other incidental features of my invention and the details of construction thereof are hereinafter fully described with reference to the accompanying drawing.

In the drawing:

Fig. 1 shows a perspective view of my bag and illustrates the closure means and the handle formed thereby;

Fig. 2 shows an enlarged fragmentary side view of the mouth of the bag illustrating how the lacing for closing the mouth of the bag is arranged, and further illustrating in broken lines how the lacing may be arranged to form its middle part into a handle for carrying the bag;

Fig. 3 shows a view of my bag looking down in the direction of the arrow 3 of Fig. 2; Fig. 4 shows a fragmentary perspective view of my bag before the lace is applied and illustrates one form of reinforcing means for the mouth of the bag;

Fig. 5 shows a perspective view of such reinforcing means removed from the mouth of the bag; and

Fig. 6 shows another form of reinforcing means for the mouth of my bag.

Referring now to the figures: Fig. 1 represents a paper bag *a* made of heavy kraft paper or the like and preferably of the type known as a "diamond bottom" bag, since this type of bag provides a rectangular cross section when opened and thus its capacity is greater, but other types of bags may be used equally well.

The mouth *b* of the bag is reinforced by folding a portion of the material inward as at *c*, Fig. 4 and in arranging a section of cord or twine *d* within the crease so formed, after which the portion *c* is secured to the body of the bag, preferably by adhesive.

In that way the wall section of the bag adjacent its mouth is reinforced and strengthened so that the holes *e* provided in the reinforcement *c* will resist being torn by any undue strain in any direction imposed upon said wall section while lacing the sides thereof together or in carrying the bag.

In Fig. 6 I have shown another method of

reinforcing the mouth of the bag by substituting a section of cardboard *f* or the like for the cord section *d* and securing the same between the portion *c* and the bag body *a* preferably by adhesive.

Evenly spaced holes *e* are punched through the reinforced walls section at the mouth of the bag which holes are so arranged as to register when the bag sides are drawn together flatwise.

The bag sides are drawn together flatwise by a lace *g* tied at *e*2 at one end of the mouth of the bag, and then inserted thru the successive holes *e*, in so doing, overcasting the reinforced edge of the mouth of the bag, and finally securing the free ends of the cord temporarily as at *e*.

It will be evident that the described reinforcement forms semi-rigid wall sections at the mouth of the bag, adapted to provide ample resistance to any undue strains imposed by the lace on the walls of the bag in lacing the bag shut.

If desired to arrange the lace *g* to form a handle as *h* in Fig. 1, I form an enlarged loop of the middle section of the lace as illustrated in Fig. 2 by broken lines *m*, the handle being formed by skipping the middle holes *e*3, and since the mouth of the bag is reinforced and the paper from which it is made is heavy. The wall sections of the bag sides on which the strain of the lace *g* is imposed will not be caused to gap. In other words, the reinforcement prevents the drawing together of the walls of the bag from causing any collapse between the ends of the mouth of the bag. To the contrary, the semi-rigid reinforcement of the wall sections assures that the wall sections at the mouth of the bag will be maintained flat when laced together, even though the lacing be so arranged as to provide a handle section.

By these means my bag is adapted to hold relatively heavy merchandise, without tearing or breaking, since not only is the mouth reinforced about the hole *e* and in the case of Fig. 4, above the holes, where the point of greatest strain will be, but the strains imposed on the wall sections at the mouth of the bag, when closed by lacing, will be so evenly distributed throughout the reinforcement as to prevent the material giving way and being torn between the holes *e*.

Further the closure means I have provided may be conveniently and rapidly applied and the bag may be used over again a relatively great number of times, in fact, until the bag material itself wears out.

I claim:

1. A paper bag provided at the top of two opposite sides with flaps of substantial width turned over to form folds with, and cemented to the sides of the body arranged flatwise, a reinforcing band arranged and cemented in the creases of the folds so produced and

extending completely around the mouth of the bag, the sides of the bag directly under said reinforcing band being provided with a series of registering spaced holes and a cord laced through said holes over said reinforcing band to close the mouth of the bag, and arranged to form a loop constituting a carrying handle.

2. A paper bag provided at the top of two opposite sides with flaps of substantial width turned over to form folds with, and cemented to the sides of the body arranged flatwise, a reinforcing band arranged and cemented in the crease of the folds so produced and extending completely around the mouth of the bag, the ends of said band being brought together under and concealed by one of said flaps, the sides of the bag directly under said reinforcing band being provided with a series of registering spaced holes and a cord laced through said holes over said reinforcing band to close the mouth of the bag, and arranged to form a loop constituting a carrying handle.

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