April 14, 1953 R. E. BERGLUND 2,634,901

CEMENT SACK OR THE LIKE

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Fig. 1.

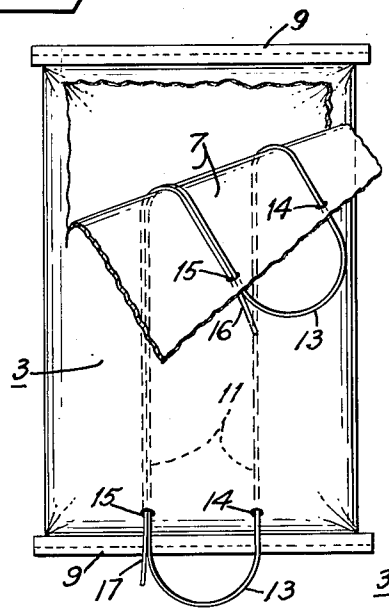


Fig. 2.

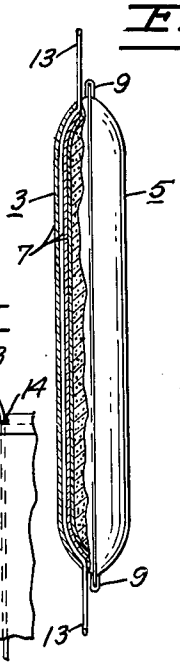


Fig. 5.

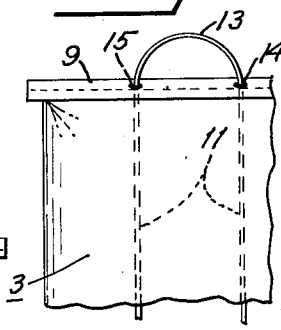


Fig. 4.

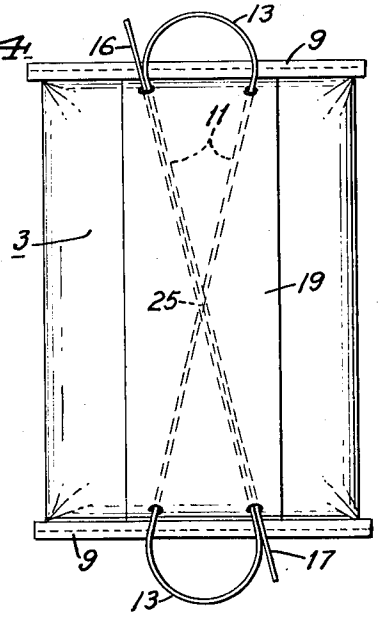
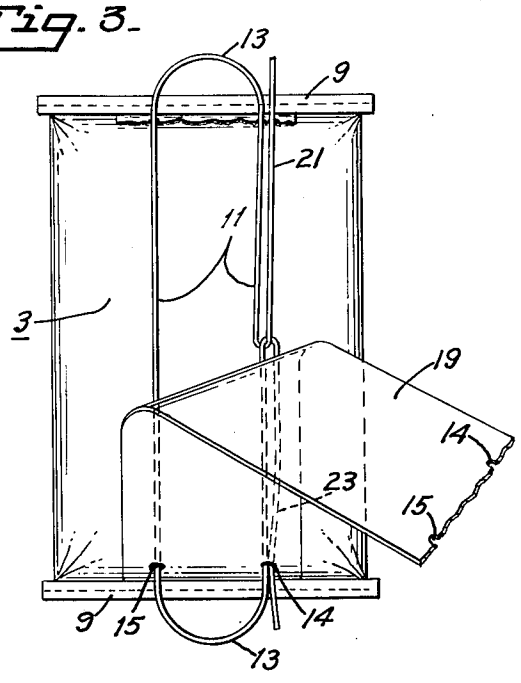


Fig. 3.



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CEMENT SACK OR THE LIKE

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5 Claims. (Cl. 229—53)

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My invention relates to sacks and more particularly sacks of the type utilized in packing cement, sand and the like for the market, and means for facilitating the carrying of such sacks when filled.

Cement, sand or the like is packed for the market in sacks. Such sacks have previously been fabricated from cloth though at the present time the practice has become more and more prevalent to pack such material in sacks formed from paper.

Such paper sacks include opposing side walls and to impart strength thereto, the walls are formed of a plurality of layers of paper and are stitched together along their adjacent ends after first applying a heavy reinforcing strip of paper over the adjacent edges of the side walls.

Regardless of the type of sack utilized, it has been extremely inconvenient to carry such sacks filled with material such as cement or sand, in that when filled, the sacks offer no opportunity to obtain a secure grip or hold thereon.

Among the objects of my invention are:

(1) To provide a novel and improved sack for cement, sand or the like;

(2) To provide a novel and improved sack for cement, sand or the like, which includes means for facilitating the carrying of the same when filled with such material;

(3) To provide a novel and improved sack for cement, sand or the like, which provides facilities for securing a good grip or hold thereon when filled;

(4) To provide a novel and improved carrying means for a sack of cement, sand or the like;

(5) To provide a novel and improved carrying means for a sack of cement, sand or the like, which carrying means is intimately associated with the sack's construction.

Additional objects of my invention will be brought out in the following description of several embodiments of the same taken in conjunction with the accompanying drawings wherein—

Figure 1 is a side view illustrating a sack of the paper type incorporating one form of my invention, the sack being partly mutilated to bring out details of construction;

Figure 2 is an edge view of the sack of Figure 1, partly in section;

Figure 3 is a side view of a sack partly mutilated, illustrating a second embodiment of my invention;

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Figure 4 is a side view of a sack of the paper type depicting another form of my invention; and

Figure 5 is a fragmentary view of a sack similar to that of Figure 1 and depicting still another form which my invention may take.

While the fundamental aspects of my invention are applicable to sacks formed of cloth, the present invention has been developed primarily for that type of sack formed of multi-layer walls of paper and with this in mind I have illustrated my invention in the drawings as being applied to this type of sack.

For the details of my invention, reference will accordingly be made to the accompanying drawings wherein such sack is shown as comprising a pair of opposing side walls 3 and 5, each formed of a plurality of layers 7 of paper, the adjacent edges of such walls being stitched together after applying thereto a reinforcing strip 9 of heavy material such as paper or the like.

In all the embodiments of my invention illustrated in the drawings, I provide a loop 11 of flexible material such as cord or the like, said loop being of a length preferably though not necessarily greater than the length of a side wall, and is intimately associated with the sack by affixing an intermediate portion of the loop to one of the side walls of the sack which is designated the weight-carrying wall, leaving the end portions 13 of the loop exposed to function as handles. When such loops are of greater length than the length of the side wall to which it is attached, such end portions of the loop will extend beyond the ends of the side wall.

Thus the sacks when filled, may each be conveniently lifted and carried on its associated loop, the weight of the filled sack under these conditions, being distributed along the contacting intermediate portion of the loop.

In the embodiment of my invention as illustrated in Figures 1 and 2, the loop is formed by providing a pair of spaced perforations 14 and 15 in the outer layer of a side wall, close to each end thereof, and threading the cord through these perforations so that the intermediate portion of the loop will lie between such outer layer and the adjacent layer, leaving the end portions exposed to function as hand grips or handles. The ends 16 and 17 of the cord from which this loop is

formed run alongside each other to constitute one side of the loop and preferably emerge through corresponding perforations at opposite ends of the side wall.

With a loop thus installed between layers of a side wall in a sack of this type, a very important advantage is to be realized, for in lifting the sack as indicated, by means of the loop, the tendency of the various layers of the weight-carrying wall is to tightly engage one another and will thus cause the same to grip that portion of the loop lying between the layers and permit the loop to sustain a heavy load without slipping or pulling out.

In the embodiment of Figure 3, the outer layer which affixes the loop to the sack takes the form of a strip 19 of material which may be heavy paper, running lengthwise of the weight-carrying wall and stitched into the end seams. This strip is provided with a pair of space perforations corresponding to those of Figure 1 and for the same purpose. The form of the loop differs slightly from that of Figure 1 by hooking each end 21 and 23 of the loop-forming cord over each other and causing each to emerge from the same perforation through which it last entered.

This type of loop construction by reason of the interlinking of the ends of the loop cord, will add to the effectiveness of the loop in resisting slippage under load conditions and obviously could be utilized in lieu of the type of loop employed in the embodiment of Figure 1.

The strip 19 instead of being sewed into the seams as indicated, might well take the form of a strip of adhesive-coated paper or the like which could be adhesively secured to the sack to hold the loop in place. In this case, no perforations are necessary, though they could be provided if desired.

In the embodiment of Figure 4, the outer layer which holds the loop to the sack constitutes a strip of material like in connection with the embodiment of Figure 3, but the loop is along the lines of that of Figure 1, differing therefrom, in that the sides of the loop cross each other at a common midpoint 25.

In that embodiment of my invention which is illustrated in Figure 5, perforations corresponding to those of preceding embodiments, are provided in the reinforcing strip covering the adjacent edges of the side walls of the sack, and the loop is formed in position prior to the stitching of the reinforcing strip and the adjacent edges of the side walls together. During this stitching operation, therefore, the cord from which the loop is formed, will also be stitched to the reinforcing strip and the side walls at the points where such cord passes through the perforations in the reinforcing strip. Such stitching, accordingly, will add to the pulling-out resistance offered by the gripping action of the layers between which the loop passes, as previously indicated.

The loops in each of the embodiments described above, are preferably formed and positioned during the fabrication of the sack and when the space between layers of the weight-supporting side wall is still accessible for the threading of the cord through the perforations. However, it is conceivable that the loop could be formed after completion of the sack though the operation would be somewhat more difficult in achieving.

The inclusion of a loop in any of the various ways indicated may be accomplished readily and economically, and will provide one with a means for obtaining a firm hold or grip on a heavy sack of cement or sand which he desires to carry.

While I have disclosed a few ways in which the invention may be carried into practice, it will be apparent that the same is subject to further alteration or modification without departing from the underlying principles of the invention. For example, in lieu of the various ways indicated of forming the loop, the free ends of the cord might be tied to maintain the loop intact during use. Accordingly, while I have disclosed the many embodiments in considerable detail. I do not desire to be limited in my protection to such details, except as may be necessitated by the appended claims.

I claim:

1. A sack for cement or the like having oppositely disposed side walls, a loop of flexible material such as cord, said loop being of a length greater than the length of a side wall, and means affixing the intermediate portion of said loop to a side wall only of said sack and leaving the end portions of said loop exposed and extending beyond the ends of said side wall, said means including stitching along the ends of said sack and across the material of said loop.

2. A sack for cement or the like having a weight-carrying side wall including a plurality of layers of material, and a loop of flexible material disposed with its intermediate portion between two of such layers and its end portions exposed externally of said sack adjacent the ends of said weight-carrying side wall to provide handles, whereby in the lifting of a loaded sack by said handles, the weight of the contents thereof will cause said layers to bind said intermediate portion of said loop.

3. A sack for cement or the like having a weight-carrying side wall including a plurality of layers of material, and a loop of flexible material disposed with its intermediate portion between two of such layers and its end portions exposed externally of said sack adjacent to and extending beyond the ends of said weight-carrying side wall to provide handles, whereby in the lifting of a loaded sack by said handles, the weight of the contents thereof will cause said layers to bind said intermediate portion of said loop.

4. A sack for cement or the like having a weight-carrying side wall including a plurality of layers of material, and a loop of cord disposed with its intermediate portion between two of such layers and its end portions exposed externally of said sack adjacent the ends of said weight-carrying side wall to provide handles, whereby in the lifting of a loaded sack by said handles, the weight of the contents thereof will cause said layers to bind said intermediate portion of said loop.

5. A sack for cement or the like having a weight-carrying side wall including a plurality of layers of material, the outer of said layers having openings therein adjacent the ends of said weight-carrying side wall, and a loop of flexible material disposed with its intermediate portion between two of such layers and its end portions protruding through said openings and lying exposed externally of said sack to provide handles, whereby in the lifting of a loaded sack by said handles, the weight of the contents thereof will cause said layers to bind said intermediate portion of said loop.

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