Dec. 30, 1958 L. B. HORGER 2,866,489

BAG WITH TIE CORD

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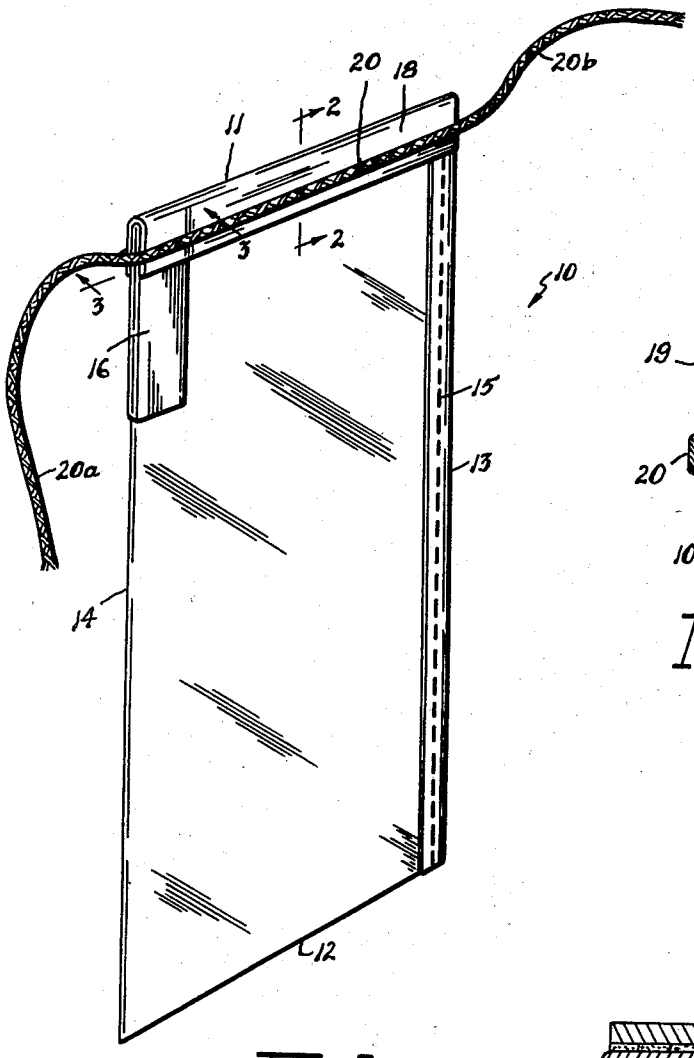


FIG. 1.

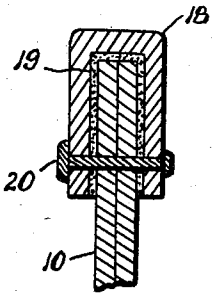
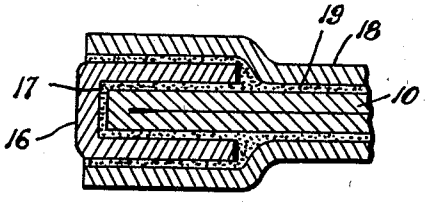


FIG. 2.

FIG. 3.



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BAG WITH TIE CORD

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1 Claim. (Cl. 150—1)

The instant invention relates to dessicant bags that are made from non-woven cloth and has as its object the overcoming of objectional features in the use and support of these bags, namely:

(1) To provide a self-support portion of the bag that will better withstand the abuse to which it is subjected.

(2) To provide a less expensive self contained bag support.

(3) To provide a better seal for said bag; thereby better meeting the Armed Forces specifications.

(4) To provide additional features of improvements that will become apparent as the instant invention is further disclosed.

This invention relates mainly to bags made of non-woven cotton cloth. However, since this invention could be used on woven cloth and other materials and is not strictly restricted to bags, I do not wish to be limited by the disclosure of "non-woven cotton cloth for bags." The disclosure of such is for the sake of clarity and brevity.

Dessicants are used for absorbing moisture to prevent rust and the like. Especially are they used in the transporting of machinery by and for the Armed Forces. A very rigid requirement of the Armed Forces is that said bag does not sift its contents. To date this has been very difficult to control. However, the instant invention corrects this sifting by providing a sealed support.

Furthermore, these bags are suspended in the container housing the machinery and are subject to tremendous shock and turbulence. In the past the supports have been weakened by the method used in making the bag and in the design of the support. This I have overcome by my improvements shown in the accompanying drawing wherein like characters of reference are used to designate like parts, and wherein:

Figure 1 is a perspective view of the improved bag embodying the invention;

Figure 2 is a sectional detail on an enlarged scale, taken substantially in the plane of the line 2—2 in Figure 1; and

Figure 3 is a sectional detail on an enlarged scale, taken substantially in the plane of the line 3—3 in Figure 1.

Referring now to the accompanying drawing in detail, the improved bag in accordance with the invention is designated by the reference numeral **10** and is generally rectangular in shape, having top and bottom ends **11**, **12** and side edges **13**, **14** at right angles to the ends, as will be clearly apparent.

The side edge **13** of the bag has a seam **15** extending therealong, while a reinforcing side cap **16** is attached to the side edge **14** by suitable adhesive **17**. A reinforcing top cap **18** is similarly attached by adhesive as indicated at **19** to and over the top end **11** of the bag.

One end portion of the top cap **18** overlaps the side cap **16** and a tie cord **20** is sewed to the top cap so as to extend across the entire top, including the side cap, and project beyond the ends of the top cap as indicated at **20***a* and **20***b*.

The adhesive **17**, **19** gives a substantial increase in tear resistance to the bag and not only acts as a tear-resistant agent, but as a seal to radically reduce the sifting of the contents of the bag.

With this arrangement of sealing and supporting, I can reduce the cost of manufacturing these bags by being able to run the tie-cords continuously, and sewing said tie-cords directly to the folded edge.

The conventional mode of fabricating these bags requires that the cord be cut independently for each bag before it runs through the machine. My invention overcomes this objectional feature. Furthermore, this conventional mode requires that the bag be stitched and many of these stitches cut the outer edge, thus weakening the bag. With my increased tear-resistance this difficulty is overcome. Still further, in dealing with this non-woven cotton cloth, the machine needles make openings that allow sifting, and tension applied to the bag will increase said opening, thus allowing more sifting. By my special use of adhesive this objection is corrected.

The tie cord **20** may be formed integrally with and as an extension of the thread with which the bag is sewn, rather than as a separate item.

Another important feature of the instant invention is the fact that strength is added by reinforcing the needle holes, since the absence of such reinforcement allows said needle holes to form a hinge which breaks rather easily by allowing undue swinging action of the bag.

Over and above the advantages pointed out, the instant invention offers greater protection to the valuable cargo with which it is shipped. Dessicants are abrasive and sifting of the contents will cause deleterious action to the cargo.

While in the foregoing there has been described and shown the preferred embodiment of the invention, various modifications may become apparent to those skilled in the art to which the invention relates. Accordingly, it is not desired to limit the invention to this disclosure, and various modifications may be resorted to, such as may lie within the spirit and scope of the appended claim.

I claim:

A bag of generally rectangular shape having ends and side edges at right angles to the ends, one of said edges having a seam extending therealong, a reinforcing side cap adhesively attached to the edge of the bag that is opposite to the bag seam, a reinforcing top cap adhesively attached to and over one end of the bag, and a tie cord sewed to the top cap and extending across the entire top including the side cap and beyond the ends of the top cap.

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