March 21, 1939. W. A. PLUMMER, JR 2,150,985

BAG

Filed June 14, 1937

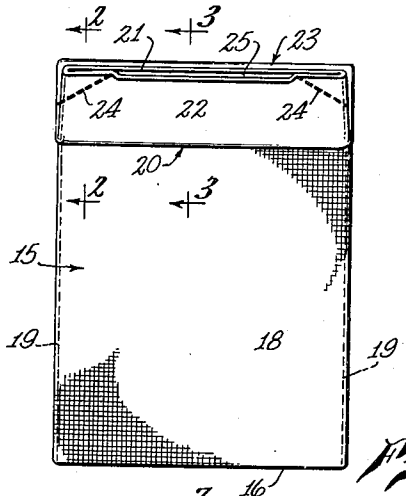


Fig. 1.

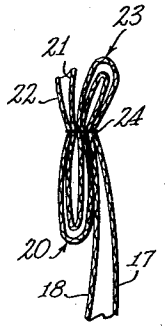


Fig. 2.

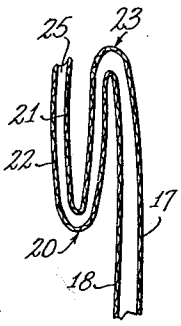


Fig. 3.

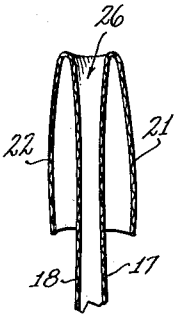


Fig. 4.

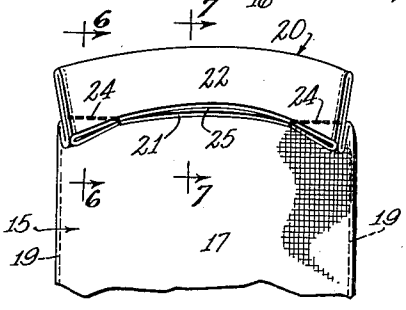


Fig. 5.

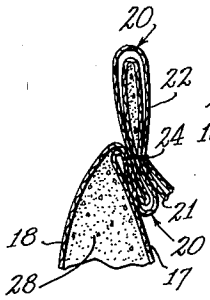


Fig. 6.

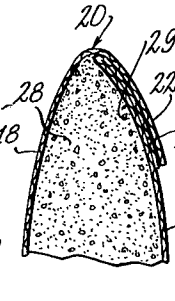


Fig. 7.

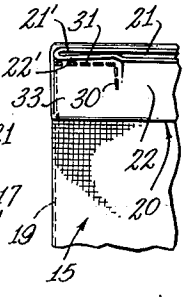


Fig. 8.

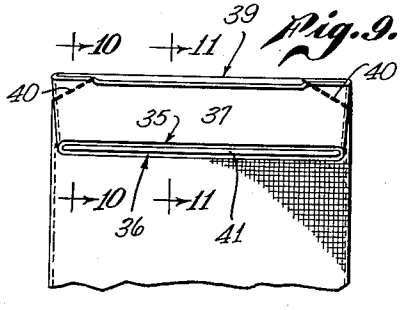


Fig. 9.

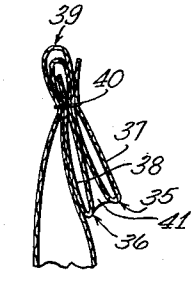


Fig. 10.

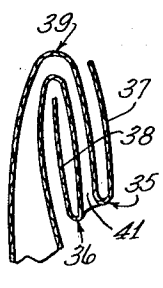


Fig. 11.

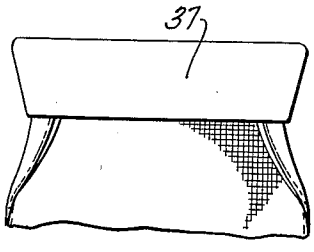


Fig. 12.

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BAG

Walter A. Plummer, Jr., Los Angeles, Calif.

Application June 14, 1937, Serial No. 148,076

2 Claims. (Cl. 150—3)

This invention generally relates to bags and more particularly to bags which are designed to be closed and retain their contents without additional closure means, such, for example, as the sewing of the ordinary bag to effect a closure.

It is a primary object of this invention to provide an improved bag which is so constructed that it will retain its contents, such as grain, sand, cement or other granular materials, without the aid of additional closure means other than the bag itself.

It is a further object of this invention to provide an improved bag of the type indicated which may be readily filled and readily emptied and which may be easily closed and easily opened.

Finally it is an object to provide a bag of the type disclosed which may be easily and cheaply manufactured from one piece of cloth.

These and other objects will be apparent from the drawing and following descriptions. Referring to the drawing, which is for illustrative purposes only,

Fig. 1 is a rear elevation of a bag showing the preferred form of the invention.

Fig. 2 is a section on line 2—2 of Fig. 1 showing the manner in which the bag is stitched.

Fig. 3 is a section on line 3—3 of Fig. 1.

Fig. 4 is a section taken in the same plane as Fig. 3, but showing the bag turned open for the filling operation.

Fig. 5 is a fragmentary front elevation of the bag of Fig. 1, but showing the bag as it appears when filled and closed.

Fig. 6 is a section on line 6—6 of Fig. 5.

Fig. 7 is a section on line 7—7 of Fig. 5.

Fig. 8 is a fragmentary rear elevation of another form of bag construction.

Fig. 9 is a fragmentary rear elevation of still another form of bag construction.

Fig. 10 is a section on line 10—10 of Fig. 9.

Fig. 11 is a section on line 11—11 of Fig. 9.

Fig. 12 is a fragmentary front elevation of the bag shown in Fig. 9 as the bag appears when filled and closed.

Referring to the drawing, reference numeral 15 indicates a piece of cloth which has been folded at 16 to form the front and back 17 and 18 respectively of a bag. These are secured together at their side edges by the stitching 19 in the ordinary manner. This operation of forming the bag is usually accomplished by folding the piece of cloth, sewing the side edges, and turning the bag inside out, thus producing a bag which has its side edges stitched and turned in, and having an open top.

It has been stated as a primary object of this invention to provide a bag which will retain sand, grain, or other granular material within the bag without the aid of additional closure means other than the bag itself. The preferable means of bag construction for accomplishing this is shown in Figures 1 to 7 inclusive. In this form of the invention the open top of the bag is folded upon itself, producing the double fold generally indicated by reference numeral 20, thereby forming the flaps 21 and 22. The bag is then folded back upon itself again in the opposite direction by a reverse fold, generally indicated by reference numeral 23. This brings the bag material in the position it is shown in in Figures 1, 2 and 3. The bag is then sewed inwardly from its side edges entirely through all of the folded material by the stitching 24 which is shown angularly disposed with relation to the top and side edges of the bag. When the bag is in the position shown in Fig. 1 the stitching forms a triangle at each upper corner of the bag. Although stitching 24 thus extends inwardly from the side edges of the bag and diagonally thereto, it is not essential to this invention that the stitching be exactly disposed as shown.

This construction closes the top of the bag from each side of the bag a distance inwardly from each side edge and leaves a portion in the middle of the bag which has an unrestricted but tortuous opening 25. To fill the bag the fold 23 in the center of the bag is straightened out or pulled out until that portion of the bag between fold 23 and fold 20 and the flaps 21 and 22 are directly above the main portion of the bag. The flap 22 is then folded back upon itself, thus temporarily reversing the fold 20 insofar as it applies to flap 22, and causing the bag to assume the shape at its center as it is shown in Fig. 7. This provides an ample filling opening, or neck, 26 in the bag.

When the bag is filled the flap 22 is then folded back to its original position with respect to flap 21 and thus effectively closes the bag. When the bag is filled it appears as shown in Figures 5, 6 and 7.

The front portion of the bag takes the shape shown in Fig. 5, the bag being pinched in at each side by the stitching 24. The stitching 24 serves to prevent the bag from coming open and tends to hold the flaps 21 and 22 in place. In this connection the farther in from the sides the bag is stitched, the less material is required for the flaps 21 and 22. In the event the bag is placed on its side, or is inverted, the contents of the bag,

shown as granular goods at 28 in Fig. 7, presses against the front of the bag in the region 29 and thus forces the flap 21 securely against flap 22 and effectively prevents escape of the contents 28. To empty the bag, it is returned to the filling position shown in Fig. 4.

In Fig. 8 is shown another form of bag which is stitched at one side edge (not shown) as at 24 in Fig. 1. This bag is folded in identically the same manner as the bag of Fig. 1. On the other side edge the bag is stitched at 30 and 31, the stitching 30 passing entirely through the bag, similar to the stitching 24 as shown in Figures 1 and 2. The stitching 31, on the other hand, only passes through and secures together the edges 21' and 22' of the flaps 21 and 22.

The last mentioned bag will hold a larger amount of material than the bag shown in Fig. 1, inasmuch as the contents of the bag will fill the space in the folds between the stitching 30 and the side edge of the bag, generally indicated by reference numeral 33. This bag, since it is folded in the same manner as the bag shown in the first seven figures is filled and emptied in the same manner as that bag.

In Figures 9, 10, 11 and 12 another form of the invention is shown in which the top of the bag is first folded inside out, producing the folds 35 and 36 and the flaps 37 and 38. The bag is then folded back upon itself by the reverse double fold 39, bringing the bag into the position shown in Figures 9, 10 and 11. When the bag is in this position it is stitched at 40 in the same manner as the bag in Fig. 1 is stitched at 24. The various folded portions of the bag are thus secured together as shown in Fig. 10. The stitching, extending inwardly from the side edges only a limited distance, leaves a central opening 41.

In order to fill this bag the fold 39 is straightened out at the center of the bag and the bag then assumes the same shape at its center as the bag shown in Fig. 4, thus providing an ample filling opening in the region 41 of Fig. 11.

After the bag is filled, either flap 37 or 38 may be pulled over the other flap and the bag is then in the position shown in Fig. 12. A central section through the closed bag is the same as the section shown in Fig. 7. This construction provides an effective closure of the bag as described in connection with the bag shown in the first seven figures.

I claim as my invention:

1. As an article of manufacture, a rectangular shaped open top bag having its top portion folded over to lie adjacent the front of the bag thereby forming flap portions, said flap portions and said portion of the bag lying between the folded portions and the farthest extension of the open end of said flaps being folded upon the back of the bag producing a reverse fold with respect to said first fold, said bag being secured by stitching extending a limited distance inwardly from one side edge and passing through the folded portions of the bag and the main portion of the bag, said bag also being secured by stitching extending through the folded portions of the bag and the main portion of the bag at a point inwardly spaced from the opposite side edge of the bag, said bag having stitching securing the edges of the flap portions from the side edge of the bag to the point of said last mentioned stitching.

2. As an article of manufacture a bag comprising a body portion having an open end, said bag adjacent the open end thereof being folded outwardly and downwardly along a line extending transversely of the bag to form a downwardly extending flap portion, the outer free end of the flap portion being folded upwardly upon itself, and securing means extending inwardly from the opposite side edges of the bag body and disposed between the first and second fold lines and extending entirely through the superposed layers of said flap portion and the sub-adjacent portion of the bag body, an intermediate portion of the flap being left free of attachment to the bag body whereby to provide a filling and discharge opening for the bag.

WALTER A. PLUMMER, JR.