Jan. 12, 1926. 1,569,138

R. E. PIERCE

TIE FOR CLOSING THE MOUTHS OF BAGS

Filed Sept. 22, 1924

FIG. I

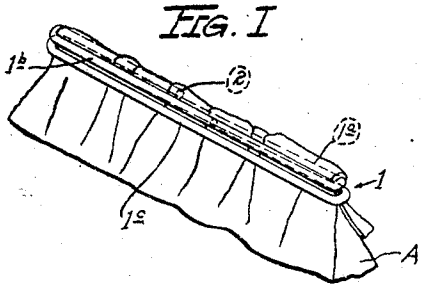


FIG. VI

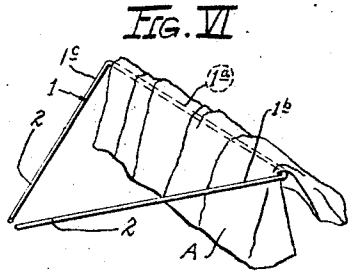


FIG. VII

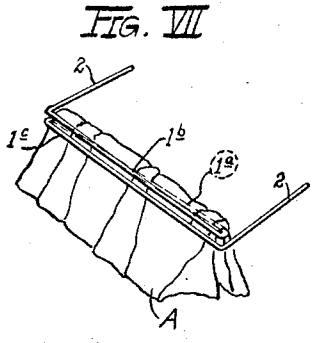


FIG. II

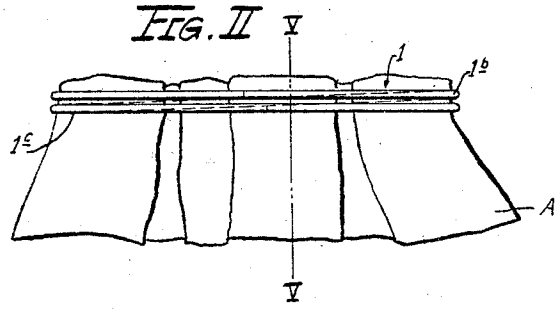


FIG. III

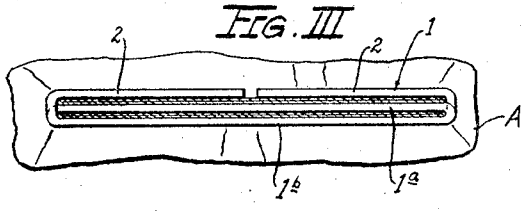


FIG. V

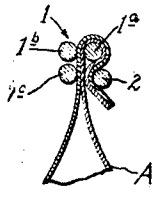
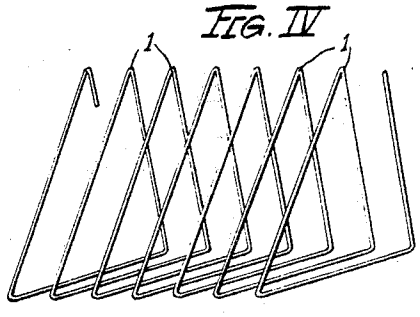


FIG. IV



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UNITED STATES PATENT OFFICE.

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TIE FOR CLOSING THE MOUTHS OF BAGS.

Application filed September 22, 1924. Serial No. 739,053.

To all whom it may concern:

Be it known that I, ROBERT E. PIERCE, a citizen of the United States of America, a resident of the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Ties for Closing the Mouths of Bags, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to ties for and methods of closing the mouths of bags, and has for its object the production of a bag tie by means of which the mouths of fabric or paper bags may be secured in a closed condition to retain the contents of said bags therein.

Prior to this invention various methods have been followed to close the mouths of bags. For instance, in some cases the mouths of the bags were stitched in a closed condition, and in other cases a simple tie in the form of a piece of wire was wrapped around the mouth of the bag to close same. Both of these methods were found to be faulty, for the reason that in the case of the stitched mouth the contents of the bag would escape therefrom by passing between the stitches, and in the case of the wire tie said tie was very easily pulled from the bag, as only friction held it in place thereon.

With the foregoing in mind, I have devised the bag tie disclosed herein, which, briefly stated, comprises a piece of wire which, prior to being arranged on the neck of a bag, is approximately triangular in shape. The bag to be sealed is folded at its mouth and the bag tie is applied, said bag tie being so arranged that it will retain the bag mouth in a folded condition to prevent the escape of the contents of the bag therefrom, and said folded portion of the bag mouth being adapted to cooperate with the bag tie in a manner to grip said bag tie to prevent the accidental removal thereof.

With the foregoing and other objects in view, the invention comprises the novel construction, combination and arrangement of parts hereinafter more specifically described and illustrated in the accompanying drawings, wherein is shown the preferred embodiment of the invention. However, it is to be understood that the invention comprehends changes, variations and modifications which come within the scope of the claims hereunto appended.

Fig. I is a perspective of the mouth portion of a bag having one of my improved bag ties associated therewith.

Fig. II is a side elevation of the mouth portion of a bag sealed by one of my improved bag ties.

Fig. III is a horizontal section through the mouth portion of a bag showing the manner in which my improved tie is applied to said bag.

Fig. IV is a perspective of a string of my improved bag ties, showing said ties as they appear before the individual ties are separated from each other.

Fig. V is a vertical section on line V—V of Fig. II.

Fig. VI is a perspective showing the manner of applying my improved bag tie to a bag.

Fig. VII is a view similar to Fig. VI, but showing the application of the bag tie when it has progressed a step farther than in Fig. VI.

In the drawing, A designates a bag which may be of the type now in general use for merchandising various commodities, such as salt, flour, etc., said bag being made of either fabric or paper. In the drawing, the illustration of the bag is only fragmentary, but it is believed that as these bags are well known this illustration will suffice. The bags mentioned are each provided with an open end, or mouth, through which they may be filled and emptied.

In the drawings, 1 designates my improved bag tie, which is preferably made of wire, though this need not be so, it being apparent that strips of material of various cross-sectional shapes could be used. Each individual bag tie is in the form of an approximate triangle, as shown in Fig. VI, there being a comparatively short leg 1^a and two longer legs designated by the reference characters 1^b and 1^c. The legs 1^b and 1^c are each approximately one-half again as long as the leg 1^a, and it is apparent that the bag tie may be bent so that it takes the form of a member having four legs of approximately

equal lengths, the excessive portions, or extensions 2, of the legs 1^b and 1^c forming the fourth leg of the member.

The method of applying my improved bag tie to a bag is as follows:

After the contents of the bag have been placed therein, the mouth portion of said bag is passed through the triangular shaped bag tie 1, as shown in Fig. VI, and the upper portion of the mouth of said bag is then turned downwardly over the leg 1^a of said bag tie, as shown in the view mentioned. The legs 1^b and 1^c are then bent rearwardly so that they lie one above the other on the front face of the bag mouth (Fig. VII). The extensions 2 of the legs 1^b and 1^c are then bent around the folded mouth of the bag and forwardly against the rearmost face of the bag mouth, in which position the ends of said extensions almost meet, are shown in Fig. III. When the extensions 2 are bent against the rearmost face of the bag mouth as described, they occupy positions partially beneath the leg 1^a of the bag tie (Fig. V). This has the effect of drawing the mouth portion of the bag around and beneath the leg 1^a of the tie and around the forward portions of the extensions 2, whereby said mouth portion is provided with a double curve and said mouth portion is gripped between the leg 1^a and the extensions 2 and between the leg 1^c and the extensions 2.

It will be noted that the bag mouth is turned over the leg 1^a of the bag tie and also that the end portion of the bag mouth is in the form of a double curve and is gripped between the legs of the bag tie. This arrangement results in a very secure sealing of the bag, for it is plain that to draw the bag tie from the bag the material of the bag would have to pass around two rather sharp curves. The leg 1^a of the tie is confined within the turned over portion of the bag mouth, and this will prevent the bag tie from being drawn upwardly from the bag as it might if said tie were merely wrapped around the outside of the bag mouth. This doubling over of the bag mouth also results in a very effective sealing of the bag and prevents the escape of the contents of the bag.

I have found that it is convenient to produce the bag ties in a string, as shown in Fig. IV, said string of ties being fed into the machine which places the bag ties on the bags and the individual bag ties being separated from each other as they are used.

I claim:

1. A bag tie comprising a member adapted to be applied to the mouth of a bag to close said bag, said member having a portion about which the neck portion of the bag is looped and another portion of said member being adapted to be bent to closely embrace the neck portion of said bag.

2. A bag tie comprising a member adapted to be applied to the mouth of a bag to close same, said member being composed of a plurality of portions about one of which the neck portion of the bag is looped and the other portions of said member being adapted to be bent to closely embrace said neck portion of said bag.

3. A bag tie comprising a triangular shaped member adapted to be applied to the mouth of a bag to close same, the neck portion of the bag being looped about one leg of said member and the other legs of said member being bent to closely embrace said neck portion of said bag.

4. A bag tie comprising a member composed of a plurality of legs and adapted to be applied to the mouth of a bag to close same, the neck portion of the bag being looped about one leg of said member and the other legs of said member being bent in a manner to closely embrace the neck portion of the bag and to draw the material of said neck portion beneath the first mentioned leg.

In testimony that I claim the foregoing I hereunto affix my signature.

ROBERT E. PIERCE.