Jan. 16, 1968 H. S. NEMROD ET AL 3,363,293

BAG TIE

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Fig. 1.

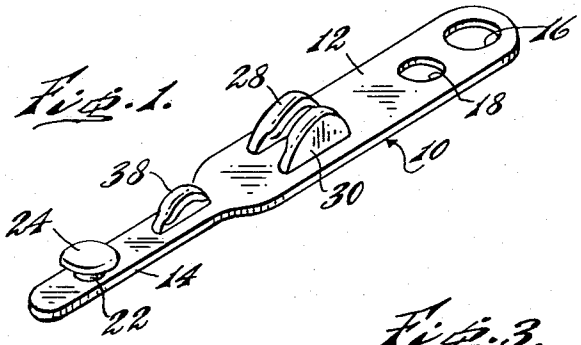

Fig. 3.

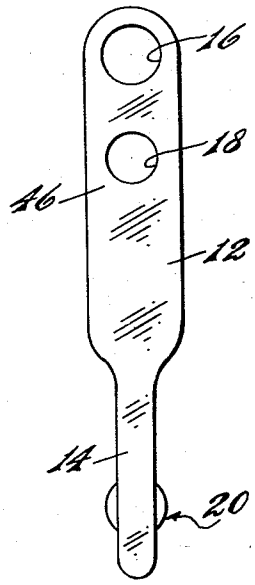

Fig. 2.

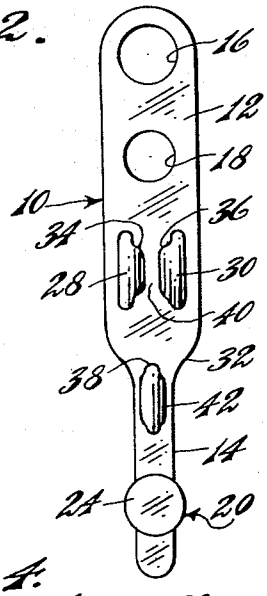

Fig. 4.

Fig. 7.

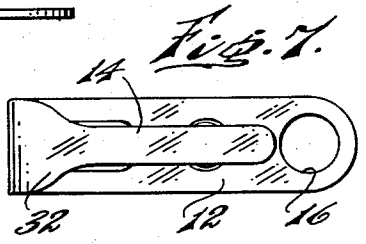

Fig. 5.

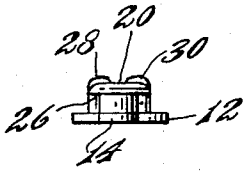

Fig. 6.

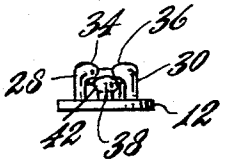

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Fig. 8.

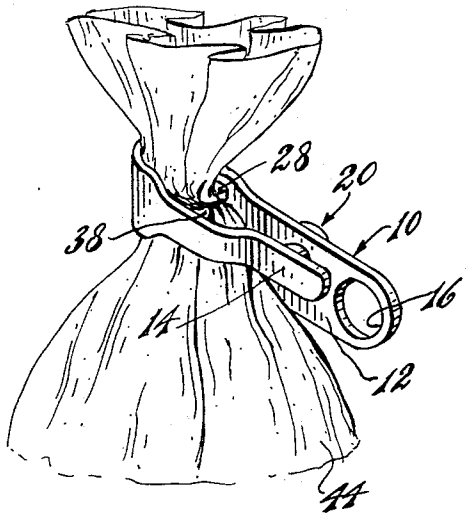


Fig. 10.

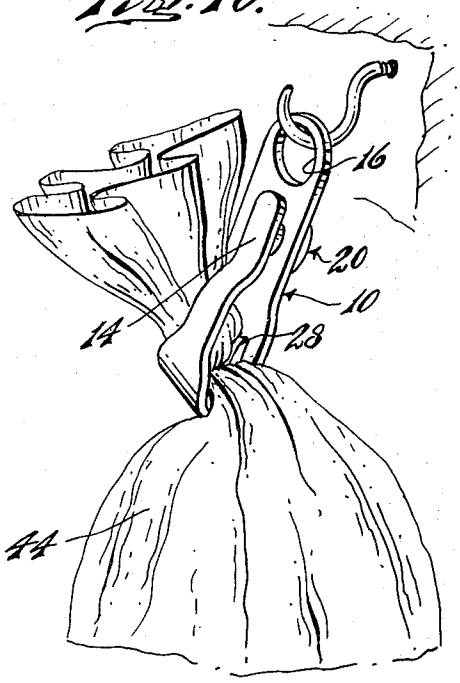
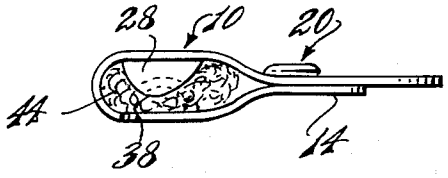


Fig. 9.



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3,363,293

BAG TIE

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1 Claim. (Cl. 24—30.5)

ABSTRACT OF THE DISCLOSURE

A plastic bag tie foldable upon itself to provide a locking section and a receiving section, the said receiving section being provided with a hole and a pair of spaced, upraised arms to respectively receive a locking lug and an integral projection affixed to the locking section when the bag tie is folded.

This invention relates to the general field of paper supplies and more particularly is directed to a novel, flexible plastic tie designed to secure the open end of plastic bags.

At the present time, it is the common practice to place food or other perishable articles within a flexible plastic bag fabricated from a thin sheet plastic such as polyethylene and then to secure the open end to retard the passage of air and thus to maintain the stored articles in as fresh condition as possible. Thin wire ties covered with paper are most commonly utilized for this purpose. While these ties are extremely inexpensive in manufacture their efficiency is very low due to the fact that a tight closure cannot be maintained. When such ties are employed, air openings invariably remain at the top of the bag no matter how hard the tie is twisted or how tightly it is knotted. Further, in many instances, the ties presently in use tear through the paper covering causing the wire components to interlock and resist opening.

In addition it is often desired to hang thin plastic bags for display purposes in stores and for storing articles of clothing such as shoes in the home. There is no device readily available for this purpose, and attempts to cut holes in the plastic material itself for hanging purposes almost always results in tearing the bag.

The instant invention seeks to overcome all of the shortcomings of the prior art devices by incorporating construction that completely eliminates the necessity for interior wire parts. In addition, upraised structure has been utilized to close a plastic bag opening and to positively prevent the passage of air.

It is therefore an object of this invention to provide an improved device of the type set forth.

It is another object of this invention to provide a flexible bag tie of resilient construction that resists permanent deformation.

It is another object of this invention to provide a novel bag tie incorporating integral locking features.

It is another object of this invention to provide a novel bag tie incorporating upraised bag engaging construction.

It is another object of this invention to provide a novel bag tie including integral means to positively seal the top opening of a thin plastic bag.

It is a further object of the instant invention to provide a novel bag tie incorporating construction to facilitate hanging the bag for display or storage purposes.

It is another object of this invention to provide a novel bag tie that is rugged in construction, extremely inexpensive in manufacture and trouble free upon use.

Other objects and fuller understanding of the invention will be had by referring to the following description and claims of a preferred embodiment thereof, taken in conjunction with the accompanying drawing wherein like reference characters refer to similar parts throughout the several views and in which:

FIG. 1 is a front perspective view of a novel bag tie in accordance with the instant invention.

FIG. 2 is a top plan view thereof.

FIG. 3 is a bottom plan view thereof.

FIG. 4 is a side elevational view thereof.

FIG. 5 is an end elevational view thereof.

FIG. 6 is an end elevational view thereof.

FIG. 7 is a top plan view of the invention in folded position.

FIG. 8 is a perspective view of the invention showing the bag tie in use.

FIG. 9 is a top sectional view taken across the top of the bag tie of FIG. 8.

FIG. 10 is a perspective view showing the bag tie utilized to hand a bag for display purposes.

Although specific terms are used in the following description for the sake of clarity, these terms are intended to refer only to the particular structure of my invention selected for illustration in the drawings and are not intended to define or limit the scope of the invention.

Referring now to the drawings, it will be seen that the bag tie **10** comprises a unitary, elongated, flat base section including a wider receiving section **12** and a narrower locking section **14** and accessory projections all integrally molded from a thermoplastic type of resilient plastic material such as polyethylene.

The receiving section terminates outwardly in a finger grasp **16** which may take the form of a circularly formed hole. The grasp can also serve to hang the bag upon a hook if desired. A receiving hole **18** pierces the section **12** inwardly from the finger grasp **16** and is sized to receive and retain the locking lug **20**. The lug **20** projects above the locking section **14** near its outward end and comprises a cylindrical body **22** which terminates upwardly in a mushroom type cap **24**. The cap **24** is generally dome-shaped and is fabricated to a greater diameter than that of the body **22** thereby providing a peripheral flat locking flange **26** at the juncture thereof. The dome shape serves to facilitate the entrance of the lug **20** into the receiving hole **18** and the flat flange **26** serves to lock it into the closed position.

A pair of bag engaging arms **28, 30** medially project above the tie **10** near the transition piece **32** which joins the respective sections **12, 14**. Each arm **28, 30** is substantially semi-circularly formed, with the highest point being shifted slightly toward the wider end of the tie. The upper portions of the arms **28, 30** bulge inwardly toward each other in bulbous engaging lugs **34, 36** to receive the knob-like projection **38** which extends above the locking section **14** inwardly from the locking lug **20**. The projection **38** is semi-circularly formed and axially positioned to overlie the space **40** remaining between the engaging lugs **34, 36** when the tie **10** is folded over about the transition piece **32**. The projection **38** terminates upwardly in a locking knob **42** having a width greater than the space **40** and a depth sufficient to project below the engaging lugs **34, 36** when folded to the locked position hereinafter more fully described.

In order to use my invention, a thin plastic bag **44** is first opened, the goods to be enclosed are placed therein and the top is pinched together. The bag tie **10** is then applied to the previously restricted portion of the bag top and is folded about the transition piece **32** to the position indicated in FIG. 7. The locking lug **20** is forced into the receiving opening **18**, and the natural resiliency of the plastic material allows the cap **24** to pass there through. The material of the receiving section **12** then returns to its natural position thus locking the flange **26**

against the underside **46** of the receiving section **12** to secure the bag tie **10** to the plastic bag **44**.

In this folded position, the projection **38** overlies the space **40** between the arms **28, 30** and the plastic material of the bag is interposed therebetween. By simple pressing the locking section **14** against the receiving section **12** by use of the thumb and forefinger, the knob **42** of the projection **38** can be forced between the engaging lugs **34, 36** of the arms **28, 30**. The resiliency of the arms permit them to flex outwardly to receive the knob **42** and then to return to their original positions once the knob has passed. It will be appreciated that the knob will also force two thicknesses of the plastic bag between the arms **28, 30** and thus the bag will be firmly clamped and closed in airtight engagement between the knob **42** and the lugs **34, 36**.

Although I have described my invention with a certain degree of particularity, it is understood that the present disclosure has been made only by way of example and that numerous changes in the details of construction and the combination and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as hereafter claimed.

What is claimed is:

1. In a bag tie, the combination of

a flat receiving section and

a flat locking section extending therefrom,

said locking section being narrower than the said receiving section,

said locking section joining said receiving section through a transition piece, and

said receiving section being provided with a receiving opening near its free end;

a locking lug integrally formed with the said locking section and located near its free end,

said locking lug being insertable within the said receiving opening, and a portion of the said locking lug being of greater diameter than the said receiving opening;

a pair of spaced arms integrally formed in the said receiving section,

said arms being inwardly positioned from the said receiving opening,

said arms terminating upwardly in inwardly projecting engaging lugs to define a space therebetween;

and an integral projection rising above the said locking section inwardly from the said locking lug,

said projection terminating upwardly in lug locking means, said locking means terminating upwardly in a widened knob, the width of said knob being greater than the said space defined between the said engaging lugs, whereby the said widened knob may be secured between the said spaced arms below the engaging lugs when the receiving section and the locking section are pressed together.

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