

[54] HANGER FOR DUST BAG

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248/302; 211/106, 31

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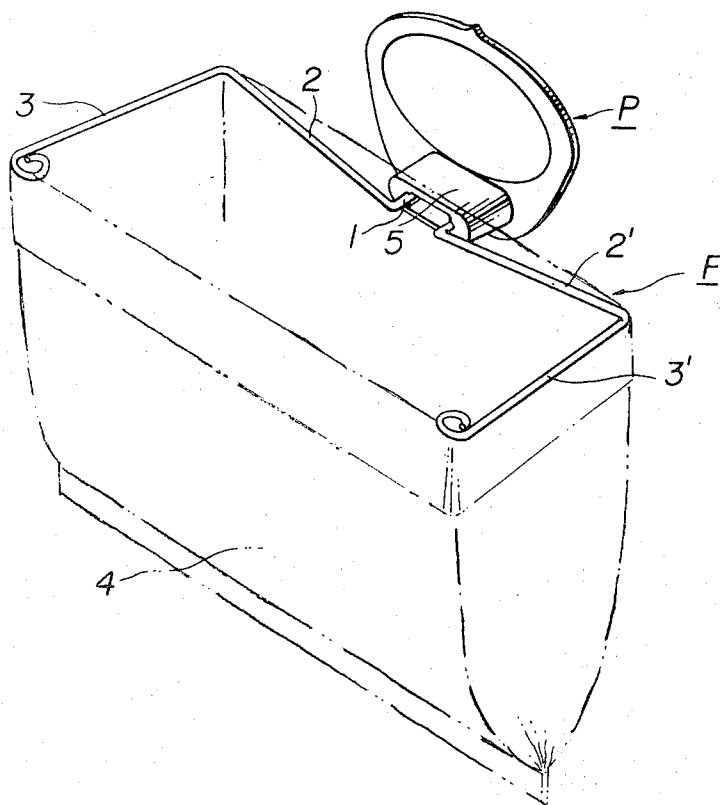
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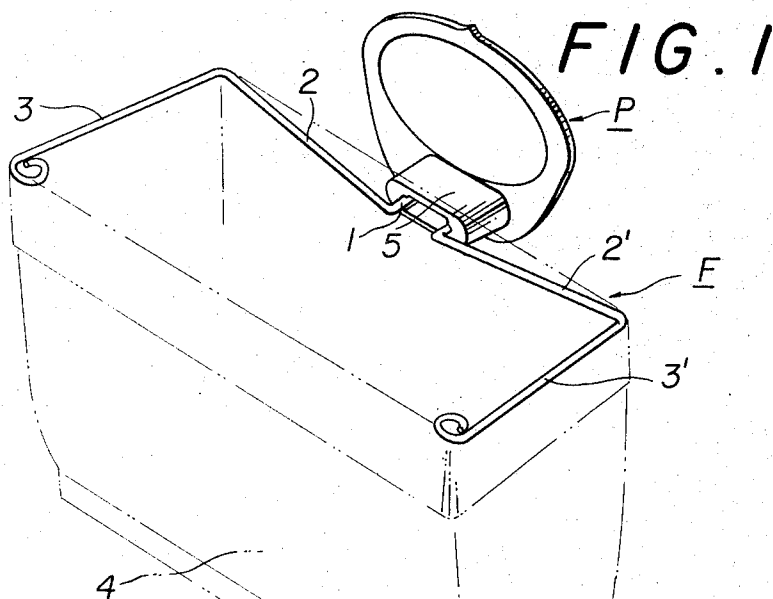
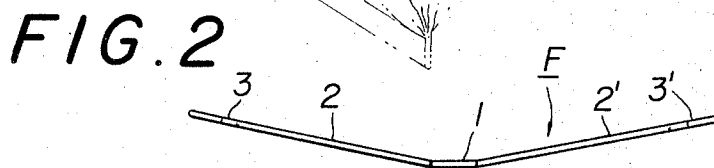
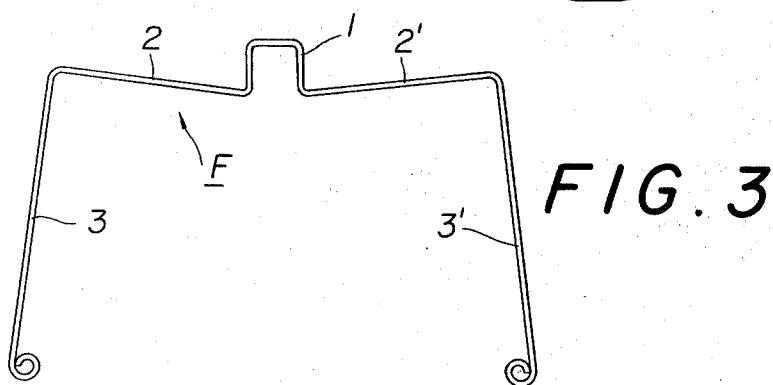
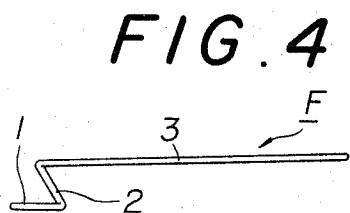
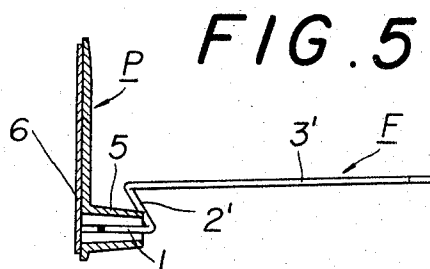
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ABSTRACT

A hanger for supporting a dust bag has a horizontally oriented single wire U-shaped frame designed and structurally adapted to spread and hold the bag unobstructedly open and an adhesive backed mounting plate fixedly secured to the frame for mounting the bag in a vertical position on a wall. In use, all three sides of the U-configuration resiliently urge against the inside wall of the dust bag to hold it firmly in its open operative position and simultaneously the two free sides of the U-configuration tend to move outwardly against the inside wall of the dust bag with increasing force as the bag with its contents becomes heavier.

2 Claims, 5 Drawing Figures





HANGER FOR DUST BAG

BACKGROUND OF THE INVENTION

This invention relates to a hanger for a dust bag, and more particularly to a hanger for a dust bag in which a main frame portion is extended symmetrically in right and left direction with an inclination and tip portions thereof being bent with an angle of providing an expansion slightly outside and arm frame portions thereof being extended in a forward direction to form the frame body. The frame body is provided thereby with elastic function whereby the dust bag can be mounted positively and firmly by the elastic function when the dust bag is mounted on the frame body at its opening and also this frame body is arranged to be suspended or hung in a desired location such as the wall in a room by means of an adhesive-backed mounting plate.

There have been proposed various types of hangers for a dust bag in which a vinyl bag is mounted on the frame body at its opening and this frame body is installed at a desired location in the room so as to suspend or hang the bag. However the conventional hangers for the dust bag when mounting the bag at its opening require a special engaging fixture, for example, a clipping metal fixture or the frame body itself is provided with an integrally formed thorn like portion, and in both cases, there have been drawbacks that the bags are not capable of bearing sufficiently the weight of the dust accommodated in the bag and thus the bag tends to fall off from the frame body.

SUMMARY OF THE INVENTION

An object of the present invention is to provide a hanger for a dust bag, for example, a polyethylene bag, which can be suspended at a desired location such as the wall in the kitchen or the side wall of the sink.

Another object of the present invention is to provide a hanger for a dust bag in which the hanger for the dust bag is made of a metal wire formed in a frame body, and this frame body is formed by extending the main frame portion from the base end portion symmetrically in right and left direction in wing-form inclined upwardly and being bent at its tip portions and the arm frame portions are extended in forward direction, and the arm frame portions are provided with an elastic function of expanding outside and a vertically vibrating elastic function, and the opening of the bag is mounted on the frame body by the tension of expanding outside, and simultaneously, the dust bag is mounted and retained sufficiently for the weight of the bag in which the dust is accommodated by the vertically vibrating elasticity.

In essence, the present invention relates to a hanger for supporting a foldable-type walled dust bag having an open top end in a vertical position on a wall support, the hanger comprising a horizontally oriented frame body designed and structurally adapted to spread and hold the bag top end unobstructedly open, the frame body being made from a single wire having a bendable, but self-shape-sustaining characteristic and embodying a U-shaped base portion, each of the free ends of the U being bent outwardly at a substantially right angle and slightly backwardly and upwardly to form a pair of duplicate longitudinally side members, each of the side members being bent at a substantially right angle in the same direction to form a pair of duplicate longitudinally spaced parallel coplanar arm members, each of

the arm members terminating in a coiled tip portion, the side members and the arm members with tip portions forming a U-shaped enclosure whereby all three sides of the U-shaped enclosure resiliently urge against the inside wall of the dust bag to hold it firmly in its open position and simultaneously the two free sides of the U-configuration tend to move outwardly against the inside wall of the dust bag with increasing force as the bag with its contents become heavier; a mounting plate having a cylindrical bore therethrough, the U-shaped base portion of the frame body being fitted and fixedly retained in the cylinder bore; and means associated with the mounting plate including a flat plate member having an adhesive backing thereon for readily attachably and detachably securing the hanger to the wall support.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view of a frame body-type hanger for a dust bag showing the bag mounted and installed in the frame body;

FIG. 2 is a front elevation of the frame body;

FIG. 3 is a top view of the frame body;

FIG. 4 is a side view of a part of the frame body; and

FIG. 5 is a cross sectional view of an essential part of the invention in which the base portion of the frame body is inserted into a mounting plate so as to be integrally fixed and installed therein.

DETAILED DESCRIPTION OF THE INVENTION

The present invention includes a frame body whose shape is indicated by letter F and which is made of a metal wire or a plastic material of about 2 - 3 mm in diameter flat plate P is integrally connected with the frame body F.

The frame body F consists of a single wire and includes a base frame portion 1 formed by being bent in a U-shape, supporting side frame portions 2, 2' extending in wing form symmetrically in right and left direction from the respective free end portions of the base frame portion 1, and arm frame portions 3, 3' extending in forward direction by being bent in a substantially right angle direction at the respective tips of the supporting frame portions 2, 2'. The supporting frame portions 2, 2' are extended upwardly with a slight inclination in a backward direction and thereby the tip portions of the supporting frame portions 2, 2' are positioned higher than the base frame portion 1. As a result, the supporting frame portions 2, 2' are provided with a vertically vibrating elastic function. The arm frame portions 3, 3' are expanded slightly outwardly at the tips of the supporting frame portions 2, 2' are bent in substantially right angle direction and are extended in a forward direction horizontally. As a result, they are provided with an elastic function of elastically expanding the arm frame portions 3, 3'. A bag 4 can be positively mounted on the frame body F with the opening of the bag 4 by the tension of the arm frame portions 3, 3' expanding elastically when the bag is mounted on the frame body F with the opening.

The mounting plate P is provided with a cylindrical core portion 5 of a flat shape at its top surface, and the base frame portion 1 of the frame body F is inserted into the cylindrical portion 5 so as to be integrally fixed and installed therewith.

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The reverse surface of the mounting plate P is coated with an adhesive agent 6 so that it can be readily attached and detached on a desired location on the wall of the kitchen or the side wall of the sink by virtue of the adhesiveness of the adhesive agent 6.

The present invention has been explained in the foregoing with respect to the mounting arrangement of the bag 4 which has an opening that is of a slightly smaller diameter than that of the frame body F. Thus the bag 4 is positively mounted and installed by its opening on the frame body F as the tension of expanding outside elastically is worked by the elastic function provided in the arm frame portions 3, 3'. Furthermore, when the dust is accommodated in the bag 4, the weight of the bag with its dust contents can be sufficiently supported by the vertical elastic function provided on the supporting frame portions 2, 2' and simultaneously when the bag receives the weight of dust, the tip portions of the supporting frame portions 2, 2' are swung in a slightly lower position and the interval between the right and left arm portions 3, 3' expands. As a result the outer periphery of the frame body F is enlarged as a whole, so that the opening function of the bag 4 can be positively obtained and the bag can be operatively mounted and retained on the frame body F.

What is claimed is:

1. A hanger for supporting a foldable-type walled dust bag having an open top end in a vertical position on a wall support, said hanger comprising a horizontally oriented frame body designed and structurally

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adapted to spread and hold said bag top end unobstructedly open, said frame body being made from a single wire having a bendable, but self-shape-sustaining characteristic and embodying a central, horizontally disposed U-shaped base portion, a pair of members bent outwardly at a substantially right angle and slightly backwardly and upwardly from said U-shaped base portion to form a pair of duplicate side portions, each of said members being bent at a substantially right angle to said side portions in the same direction to form a pair of duplicate longitudinally spaced parallel coplanar arm portions, each of said portions terminating in a coiled tip portion, said side portions and said arm portions with tip portions forming a U-shaped enclosure whereby all three sides of said U-shaped enclosure resiliently urge against the inside wall of the dust bag to hold it firmly in its open position and simultaneously the two free arm portions tend to move outwardly against the inside wall of the dust bag with increasing force as the bag with its contents becomes heavier; a vertical mounting plate having a horizontally disposed cylindrical bore therethrough, the U-shaped base portion of said frame body being fitted and fixedly retained in said cylindrical bore; and means associated with said mounting plate for readily attachably securing said hanger to said wall support.

2. A hanger as defined in claim 1 wherein said means associated with said mounting plate is a flat plate member having an adhesive backing thereon.

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