



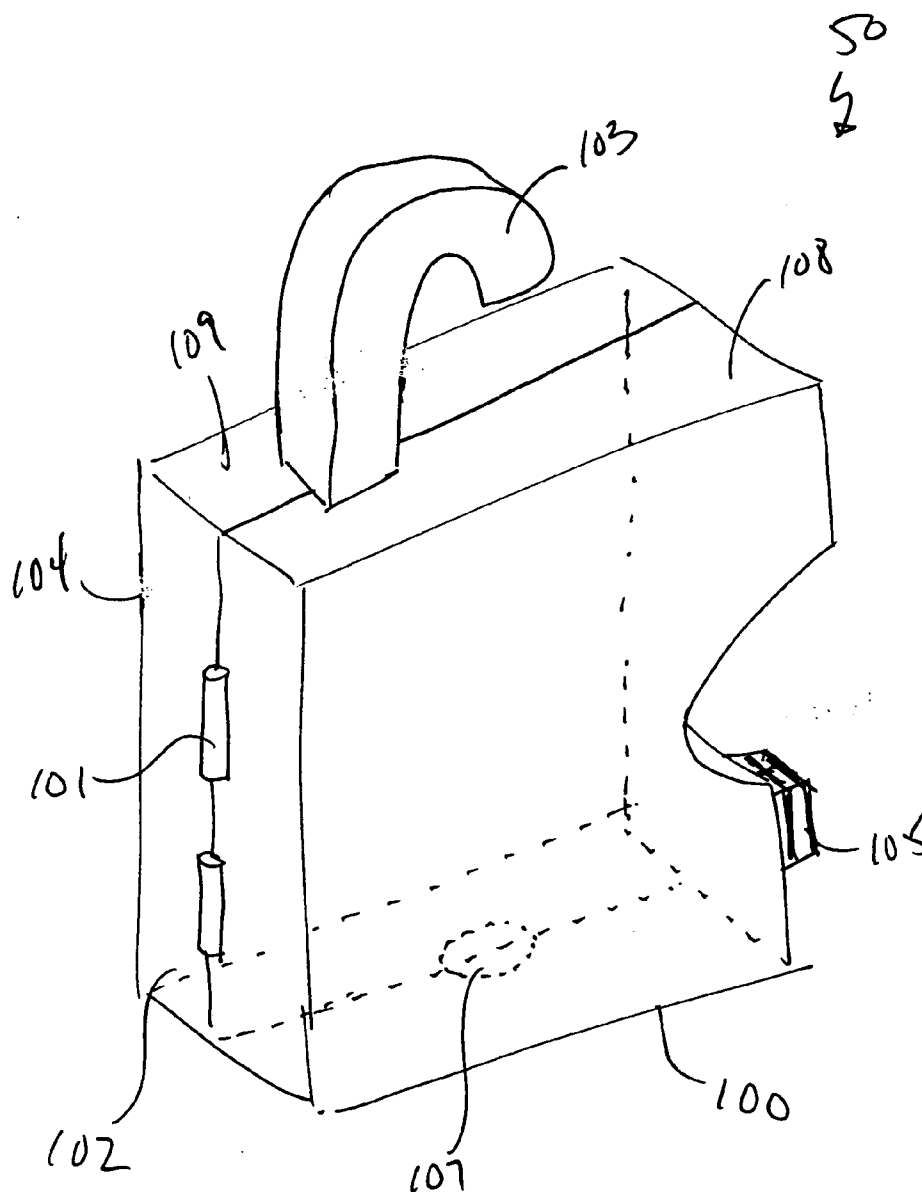
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(19) **United States**(12) **Patent Application Publication**
Jackson(10) **Pub. No.: US 2008/0073237 A1**(43) **Pub. Date: Mar. 27, 2008**(54) **SPRAY DEVICE STORAGE APPARATUS****Publication Classification**(76) Inventor: **David Jackson**, Pewaukee, WI
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MILWAUKEE, WI 53203(51) **Int. Cl.****B65D 73/00** (2006.01)**A45C 11/26** (2006.01)**B65D 71/00** (2006.01)(52) **U.S. Cl.** **206/457; 206/576; 206/349**(57) **ABSTRACT**

An apparatus comprised of an upper and lower housing member, a handle, insert support members containing compartments for the insertion of a spray device and spray device accessories such as spray device tips and filters, and also having an aperture for a hose so that a spray device may be stored without disconnecting the hose.

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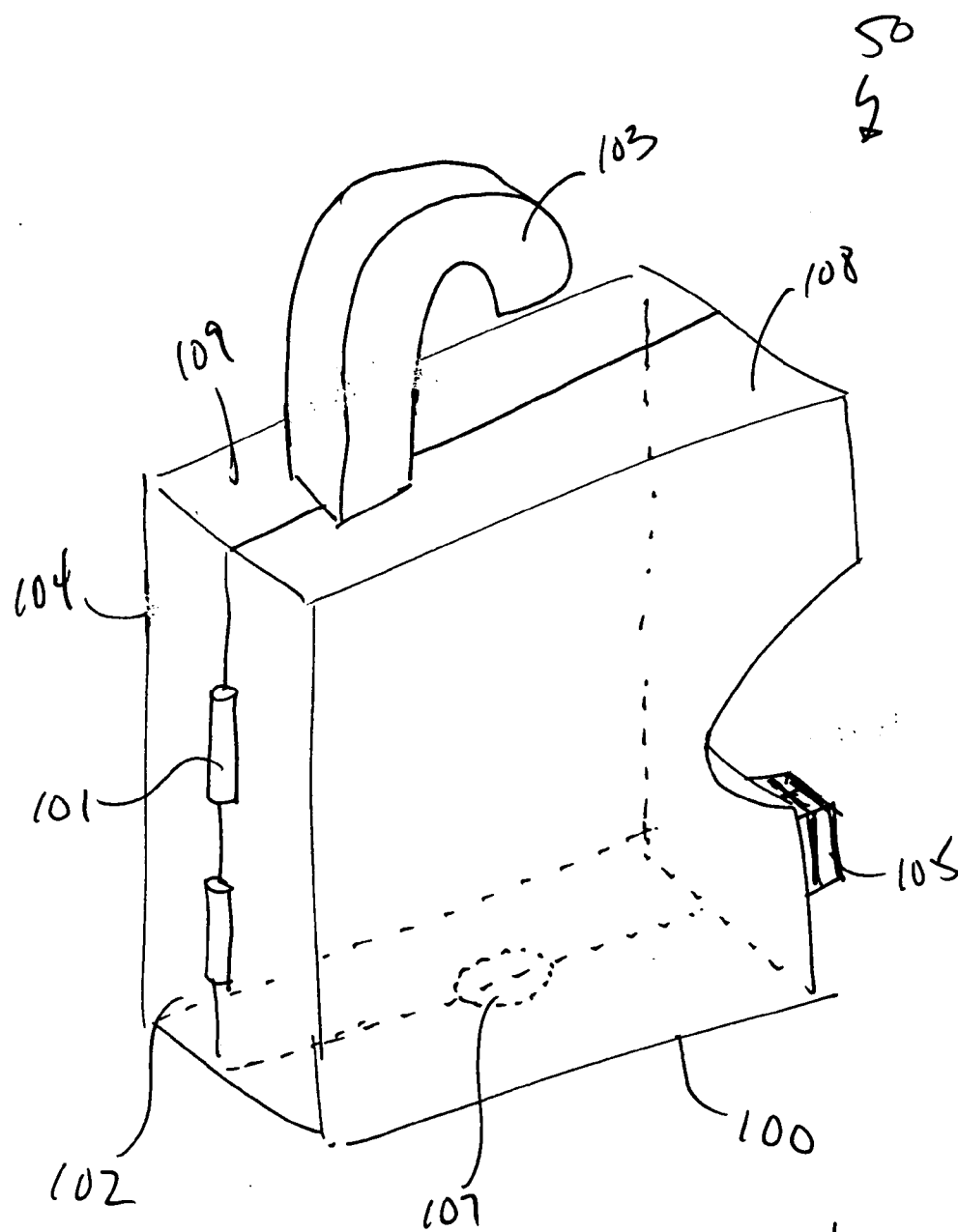


Figure 1

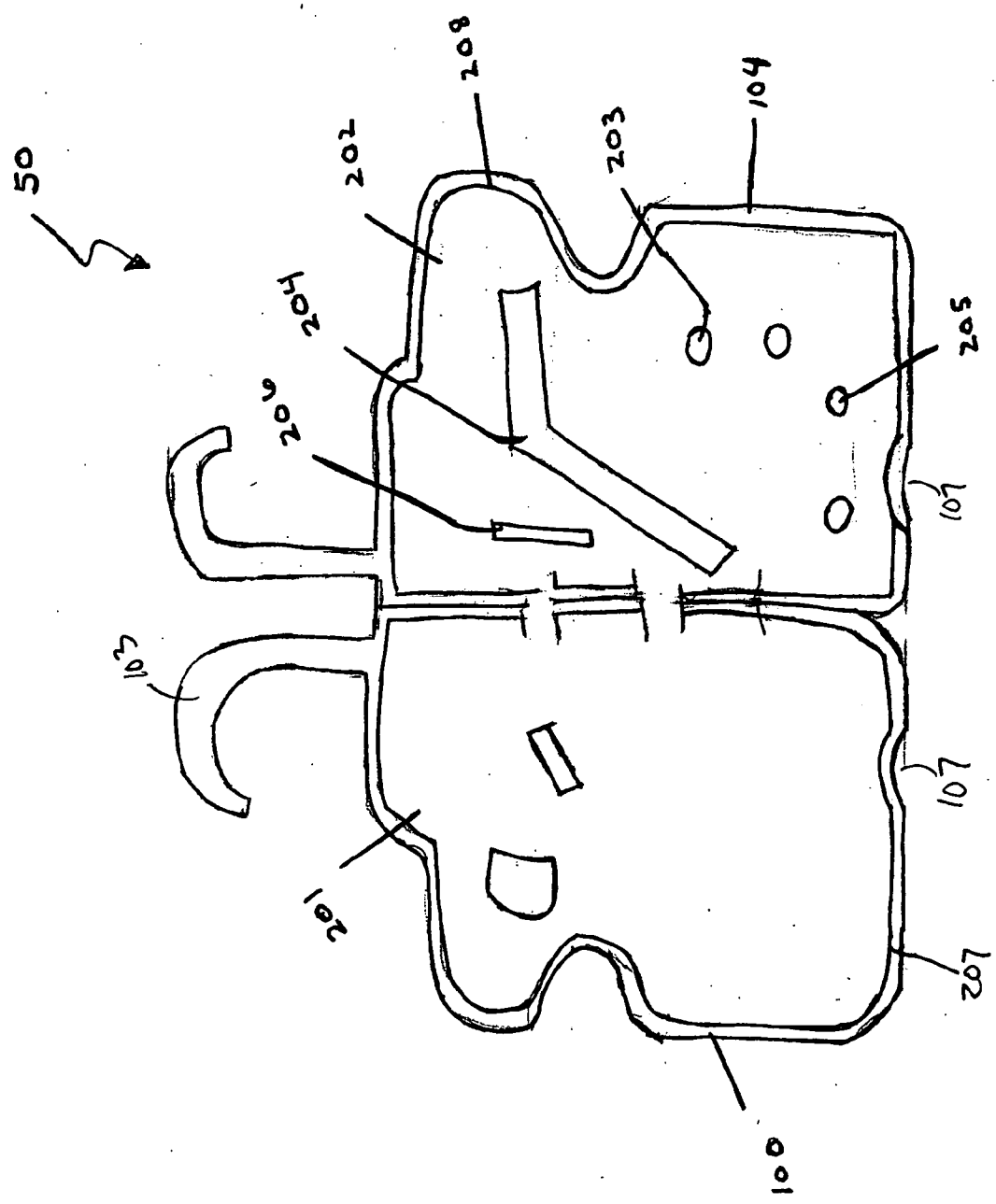


Figure 2

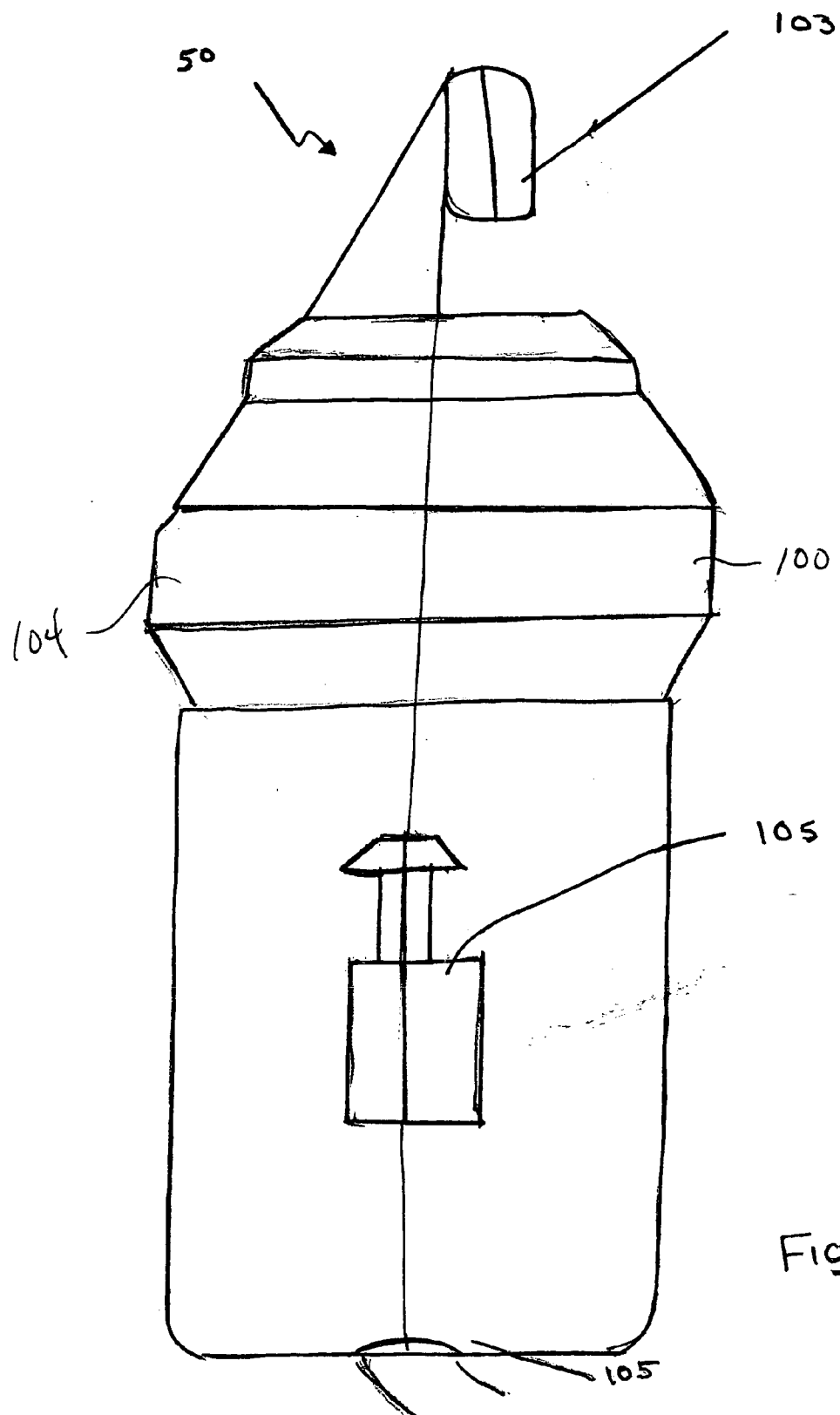


Figure
3

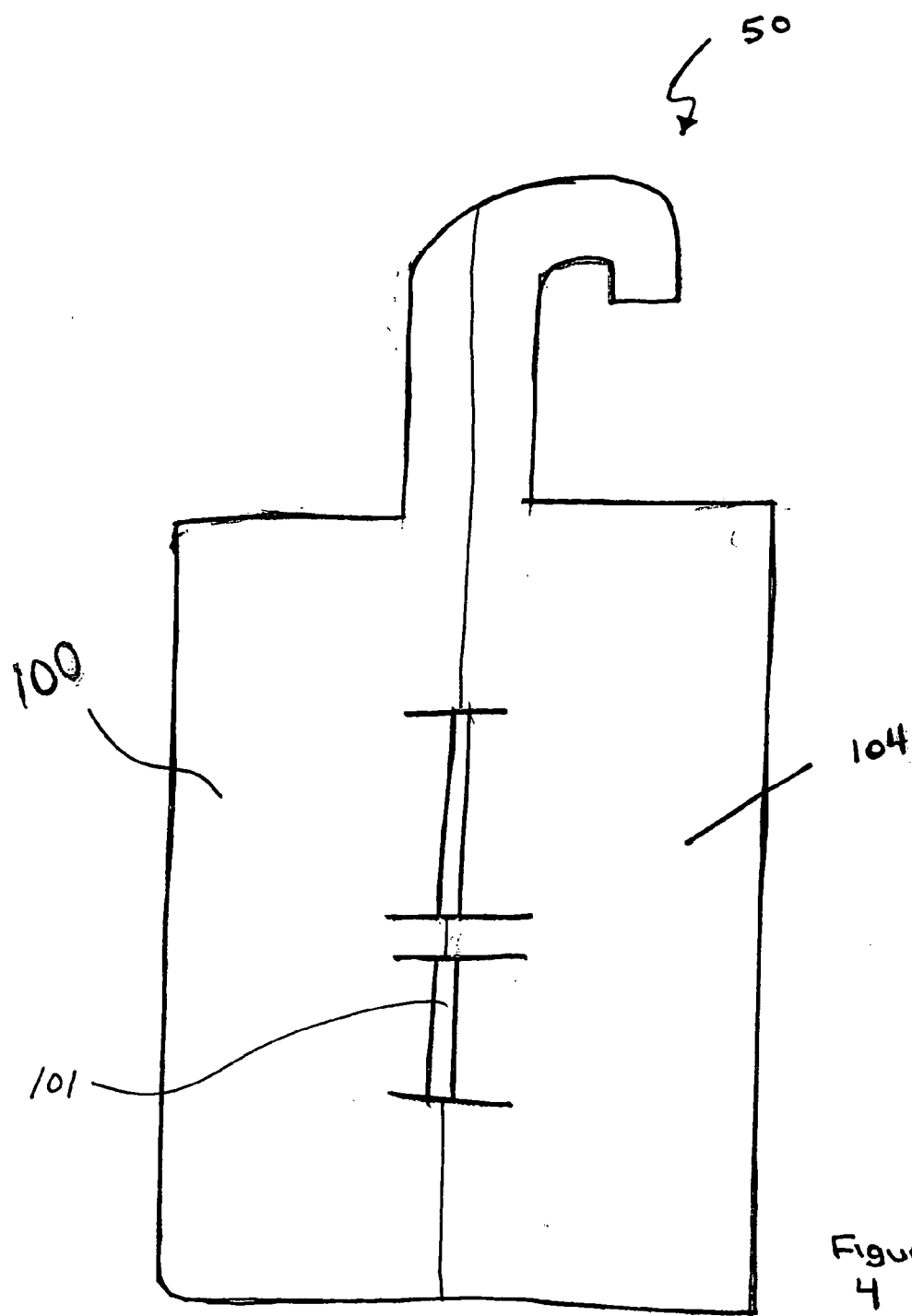


Figure
4

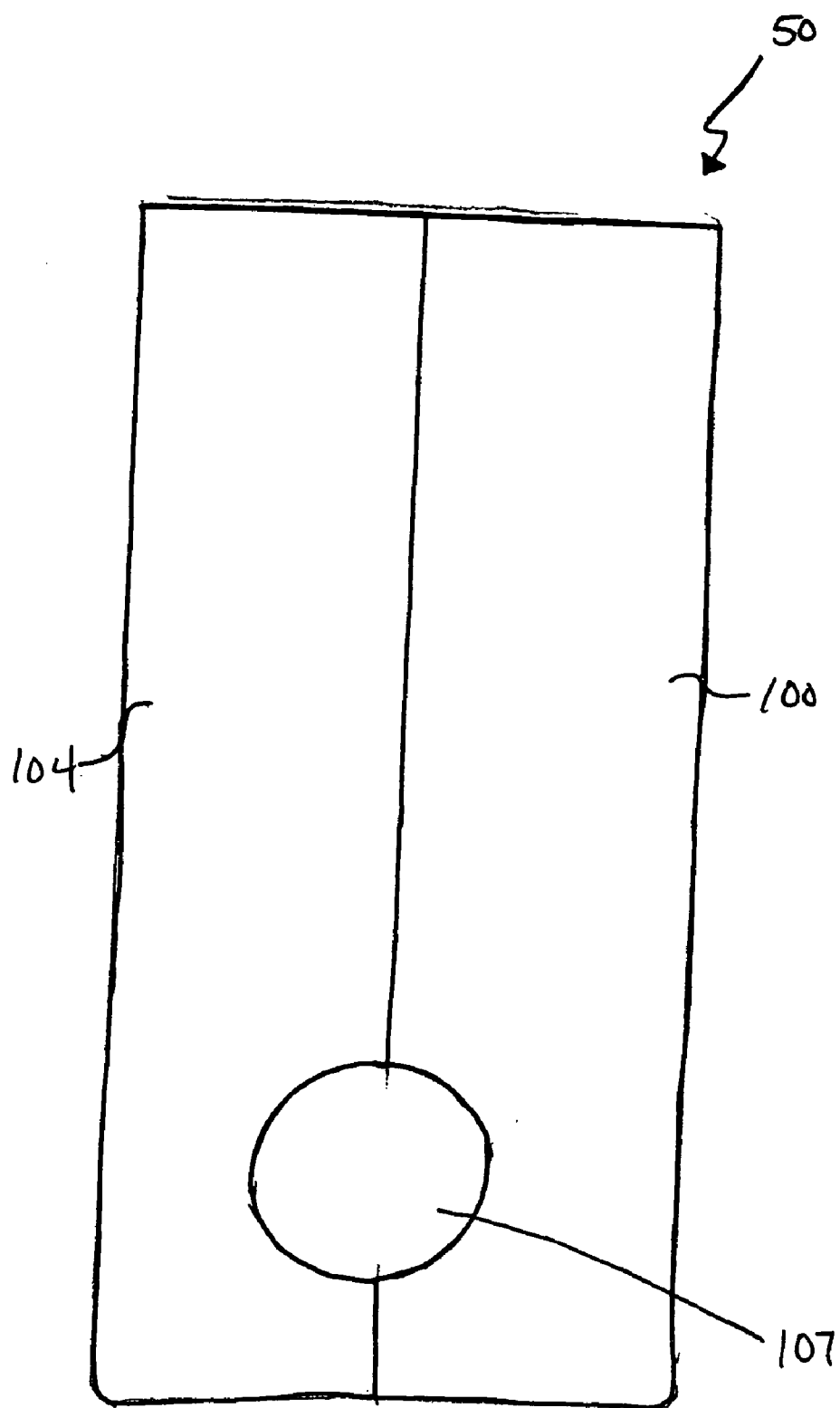


Figure 5

SPRAY DEVICE STORAGE APPARATUS

FIELD OF INVENTION

[0001] This invention relates generally to the field of spray devices and, more specifically, to storage apparatus for a spray device and parts of a spray device.

BRIEF DESCRIPTION OF THE DRAWINGS

[0002] FIG. 1 shows a front perspective view of one embodiment of a spray device storage apparatus in the closed position.

[0003] FIG. 2 shows a front view of the embodiment of the spray device storage apparatus shown in FIG. 1 in the open position.

[0004] FIG. 3 is a side view of the embodiment of the spray device storage apparatus shown in FIG. 1 in which a closure mechanism can be seen

[0005] FIG. 4 shows a side view of the embodiment of the spray device storage apparatus shown in FIG. 1 in which a hinge can be seen.

[0006] FIG. 5 shows a bottom view of the embodiment of the spray device storage apparatus shown in FIG. 1 in which a hose aperture can be seen.

BACKGROUND OF THE INVENTION

[0007] Many types of liquid and liquid based substances, such as paint, insecticides, disinfectants and food products, are dispensed by spray devices. Such substances are often-times dispensed by a hose, tube or similar structure. A spray device may be used with accessories such as spraying or dispensing tips, filters or other components. When not in use, spraying devices require storage. Various systems and apparatuses for storing spray devices may increase the convenience and functionality of the spray devices and the retrieval of accessories used in connection with the spray devices.

[0008] As used herein, a “spray device” refers to any device that attaches to a hose and is capable of being used to dispense or spray a substantially liquid substance, viscous substance, slurry, paste or substance suspended in liquid. Examples for which the device can be used include the Graco contractor, Graco contractor 2, Wagner GXO7, and Spraytech 2finger G10XL.

DETAILED DESCRIPTION OF EMBODIMENTS OF THE INVENTION

[0009] For the purpose of promoting an understanding of the present invention, references are made in the text hereof to one exemplary embodiment of a spray device storage apparatus, one of which is depicted in the figures. It should nevertheless be understood that no limitations on the scope of the invention are thereby intended. One of ordinary skill in the art will readily appreciate that modifications such as those involving the number of components, positioning of the components relative to one another, materials from which the components are made, the size of the components, and the inclusion of additional elements do not depart from the spirit and scope of the present invention. Some of these possible modifications are mentioned in the following description. In addition, in the embodiments depicted herein, like reference numerals refer to identical structural elements in the various drawings. Therefore, specific details disclosed herein are not to be interpreted as limiting, but rather as a basis for the claims and as a representative basis for teaching

one skilled in the art to employ the present invention in virtually any appropriately detailed system, structure, or manner.

[0010] Moreover, the term “substantially” or “approximately” as used herein may be applied to modify any quantitative representation that could permissibly vary without resulting in a change in the basic function to which it is related.

[0011] Referring now to the figures, FIG. 1 shows a front perspective view of one embodiment of spray device storage apparatus 50 having a first housing member 100 and second housing member 104. First housing member 100 and second housing member 104 are substantially rectangular shaped and include side surfaces 102, top surfaces 108 and 109, and bottom surfaces (not visible from this perspective) such that first housing member 100 and second housing member 104, when opposing each other, are capable of containing or enclosing objects.

[0012] Positioned on top surface of first housing member 100 and second housing member 104 is handle formation 103. In the embodiment shown, handle formation 103 is a curved, generally semi-circular structure, with half of handle formation 103 being positioned on top surfaces 108 of first housing member 100 and half of handle formation 103 being positioned on top surface 109 of second housing member 104. In an alternate embodiment, handle formation 103 is positioned only on one of first housing member 100 (as can be seen in FIG. 3, discussed in greater detail infra) or only on second housing member 104. It should also be understood that, in alternate embodiments of spray device container apparatus 50, handle structure 103 may be rectangular shaped, triangular shaped, consist of a flexible strap, connected on both ends to top surface 108 and/or 109 or of any other configuration or shape capable of functioning as a handle or allowing spray device container apparatus 50 to be gripped or hung. The embodiment shown is particularly useful for easily hanging spray device container apparatus 50. In alternate embodiments, handle formation 103 may be located on another portion of spray device storage apparatus 50 capable of allowing a user to hang or hold spray device storage apparatus 50.

[0013] One side surface 102 of first housing member 100 and one side surface 102 of second housing member 104 are joined by two (2) pivotal members 101 to form a hollow container or chamber. In the embodiment shown, pivotal members 101 are each a hinge. One of ordinary skill in the art should understand that an alternate number of pivotal members 101 could be used, including zero (0). In alternate embodiments of spray device container apparatus 50, pivotal members 101 include pins, screws, straps, bearings, rubber, wood, metal or molded plastic insertions anything commonly used in the art including combinations thereof.

[0014] Also visible in FIG. 1 is closure member 105 which may be used to secured shut first housing member 100 with second housing member 104. As used herein, “closure member” is any device, structure or configuration which permits upper housing member and lower housing member to form and enclosed hollow structure. In the embodiment shown, closure member 105 is two (2) molded plastic locking members but could alternately be snaps, pins, screws, hinges, straps buckles, interlocking molded metal, rubber, wood, plastic or anything commonly used in the art including combinations thereof.

[0015] In the embodiment shown, first housing member 100 and second housing member 104 are each formed of a single plastic molded piece. However, in other embodiments, first housing member 100 and second housing mem-

ber 104 may be constructed from multiple parts and may be made of metal, wood, rubber, stainless steel, wood, Plexiglas, glass, resin, leather or any other natural or man-made material capable of being adapted to form housing members 100 and 104, including combinations thereof. In the embodiment shown, first housing member 100 is pivotally attached to second housing member 104 using pivotal members 103. In the embodiment shown, the pivotal members are hinges formed from the molded plastic. However, other embodiments may not contain pivotal members or which are attached separately to upper housing member 100 and lower housing member 104, or which consists of alternate structures such as pins, screws, straps, interlocking members or structures capable of achieving the same functional result of facilitating the joining and movement of one upper housing member 100 and lower housing member 104. In the embodiment shown, closure member 105 secures upper housing member 100 to lower housing member 104 in a closed position.

[0016] In the embodiment shown closure member 105 is created from molded plastic sections of upper housing member 100 and lower housing member 104 which protrude and fit together in such a manner as to permit closure member 105 to slide over them and secure upper housing member 100 and lower housing member 104 together in a closed position. Other embodiments may not include a closure member or may contain a closure member formed from alternative items as snaps, pins interlocking pieces or may be constructed by molding or shaping upper housing member 100 and lower housing member 104 to permit the interlocking of upper housing member 100 and lower housing member 104 without the use of closure member 105.

[0017] Hose aperture 107 permits spray hose or cord to protrude when spray device storage apparatus 50 is in a closed position so that the hose or cord does not have to be disconnected from the spray device. As used herein "closed position" means a position where first housing member 100 is in contact with second housing member 104 so that any items held within either first housing member 100 or second housing member 104 are enclosed within the chamber formed by first housing member 100 and second housing member 104.

[0018] FIG. 2 shows a front view of the embodiment of spray device storage apparatus 50 shown in FIG. 1 in the open position. Both first housing member 100 and second housing member 104 can be appreciated. First insert member 201 is positioned on first housing member 100 and second insert member 202 is contained in second housing member 104. In the embodiment shown, first insert member 201 and second insert member 202 include a plurality of compartments 203 in various shapes, sizes and depths for storing objects such as spray devices, tips for spray devices, filters for spray devices, and other parts or tools. Compartments 203 may be in any shape or size, to enable storage of spray devices and spray device component parts such as spray device tips, filters, covers, nozzles, handles, measuring tools, scraping or cleaning items, decorating devices, food processing devices, devices for dispensing repair materials such as caulk, stenciling items or any other devices or implements using in connection with spraying or dispensing a substantial liquid substance from a devices. Similarly, in alternate embodiments first insert member 201 and second insert member 202 may be structurally integrated with first housing member 100 and second housing member 104 or may contain more fewer or no compartments but accomplish the same functional result. In the embodiment shown, spray

device compartment 204 permits storage of a spray device, spray tip compartments 205 permit storage of spray tips and filter compartment 206 permit storage of filters.

[0019] In the embodiment shown, first support structure 201 and second support structure 202 are made from synthetic foam material affixed to inside surface 207 of first housing member 100 and inside surface 208 of second housing member 104 using an adhesive substance. However, other embodiments may not include upper support structure 201 and lower support structure 202 or upper support structure 201 and lower support structure 202 may be constructed from plastic, paper, foam, metal, wood, rubber, stainless steel, Plexiglas, rubber cloth or any other natural or man-made material capable of operating as a support structure and in which from which compartments 203 are capable of being formed. As used herein the term "support structure" means an element capable of supporting objects so as to restrict their movement within upper housing member 100 and lower housing member 104. Compartments may be of varying types, and used for specific functions. For example, as used herein, an "accessory compartment" is used to hold an accessory; a "spray device compartment" is used to hold a spray device and a "filter compartment" is used to hold a filter.

[0020] FIG. 3 is a side view of the embodiment of spray device storage apparatus 50 shown in FIG. 1 in which closure member 105 can be viewed. In the embodiment shown, handle formation 103 is a semicircular protrusion which operates as a handle which may gripped by the human hand, or which hung on railing or vehicle such as a spray machine cart, boom lift, scissor lift or any other structure from which it is desirable to hang spray device storage apparatus 50. In the embodiment shown, a spray device, spare filters and multiple storage tips have been stored with the a hose protruding from hose aperture 107 so that storage of the spray device has been accomplished without disconnecting the spray device from the spray pump machine and the spray device may, but is not required to be, protected from impact, rust or other events which may cause damage or aging to the spray device.

[0021] FIG. 4 shows a side view of the embodiment of spray device storage apparatus 50 shown in FIG. 1 in which hinge 101 can be seen. In the embodiment shown, the pivotal members are hinges formed from molded plastic. However, in other embodiments, the pivotal members may be metal, rubber, wood, resin, plastic, cloth, leather, or any other substance capable of forming structural components which allow the coupling and separation of upper housing member 100 and lower housing member 104.

[0022] FIG. 5 shows a bottom view of the embodiment of spray device storage apparatus 50 shown in FIG. 1 in which hose aperture 107 can be seen. Hose aperture 107 allows a spray device to be stored without disconnecting a hose or tube. In the embodiment shown, hose aperture 107 is formed from molded plastic, and the edges of the compartment are coated with or a fitted ring is inserted. Other embodiments may have a coating or around the compartment of a different substance or may have no coating. The compartment in the embodiment shown is located in the approximate center of spray devices storage apparatus 50 and is formed as a result of the molded shape of both first housing member 100 and second housing member 104. However, in other embodiments, hose aperture 107 may be located in a different position, or may be formed by the molding of only one

housing member, or may be drilled, cut or created using any method taking into account the specific materials and processes used in constructing first housing member **100** and second housing member **104**.

[0023] While spray device storage apparatus **50** has been shown and described with respect to several embodiments, it is to be understood that the same is not limited thereto, but is susceptible to numerous changes and modifications as known to a person skilled in the art, and it is intended that the present invention not be limited to the details shown and described herein, but rather cover all such changes and modifications obvious to one of ordinary skill in the art.

What is claimed is:

1. An apparatus comprised of:

- a first housing member, said first housing member having a top surface, a bottom surface, and at least one side surface;
- a second housing member, said second housing member having a top surface, a bottom surface, and at least one side surface;
- a pivotal member, said pivotal member secured to said side surface of said first housing member and to said side surface of said second housing member and allowing said first housing member to pivot between an open position and a closed position;
- a closure member, said closure member securing said first housing member to said second housing member in said closed position;
- a first insert member positioned within said first housing member, and
- a second insert member positioned within said second housing member, at least one of said first insert member and second insert member including at least one compartment adapted for holding one or more spray devices.

2. The apparatus of claim **1** further comprised of a hose aperture, said hose aperture adapted to allow said apparatus to be in said closed position without a hose being disconnected from said one or more spray devices.

3. The apparatus of claim **1**, wherein said apparatus is further comprised of a handle formation affixed to said first housing member.

4. The apparatus of claim **1**, wherein said apparatus is further comprised of a handle formation, said handle formation having a first half and a second half, said first half affixed to said first housing member and said second half affixed to second housing member, said first half and said second half mating when said apparatus is in said closed position.

5. The apparatus of claim **1**, wherein at least one of said first insert member and said second insert member are comprised of at least one compartment adapted to receive and support at least one accessory selected from a group comprised of a spray tip and a filter.

6. An apparatus comprised of:

- a first housing member, said first housing member having a top surface, a bottom surface, and at least one side surface;
- a second housing member, said second housing member having a top surface, a bottom surface, and at least one side surface;
- a pivotal member, said pivotal member secured to said side surface of said first housing member and to said side surface of said second housing member and allow-

ing said first housing member to pivot between an open position and a closed position;

- a closure member, said closure member securing said first housing member to said second housing member in said closed position;
- a first insert member positioned within said first housing member;
- a second insert member positioned within said second housing member, at least one of said first insert member and second insert member including at least one compartment adapted for holding one or more spray devices; and
- a hose aperture, said hose aperture adapted to allow said apparatus to be in said closed position without a hose being disconnected from said one or more spray devices.

7. The apparatus of claim **6**, wherein said apparatus is further comprised of a handle formation affixed to said first housing member.

8. The apparatus of claim **6**, wherein said apparatus is further comprised of a handle formation, said handle formation having a first half and a second half, said first half affixed to said first housing member and said second half affixed to second housing member, said first half and said second half mating when said apparatus is in said closed position.

9. The apparatus of claim **1**, wherein at least one of said first insert member and said second insert member are comprised of at least one filter tip compartment adapted for insertion of at least one filter tip.

10. An apparatus adapted to hold a spray gun comprised of:

- a first housing member, said first housing member having a top surface, a bottom surface, and at least one side surface;
- a second housing member, said second housing member having a top surface, a bottom surface, and at least one side surface;
- a pivotal member, said pivotal member secured to said side surface of said first housing member and to said side surface of said second housing member and allowing said first housing member to pivot between an open position and a closed position;
- a closure member, said closure member securing said first housing member to said second housing member in said closed position;
- a first insert member positioned within said first housing member;
- a second insert member positioned within said second housing member, at least one of said first insert member and second insert member including at least one compartment adapted to hold said spray gun;
- a handle formation affixed to said first housing member; and
- a hose aperture, said hose aperture adapted to allow said apparatus to be in said closed position without a hose being disconnected from said one or more spray devices

11. The apparatus of claim **10**, wherein at least one of said first insert member and said second insert member are comprised of at least one filter tip compartment adapted for insertion of at least one filter tip.