APPARATUS FOR MOUNTING A CANISTER THEREETO AND FOR CONTROLLED SPRAYING FROM SAID CANISTER

Inventors: Giuseppe Di Bono, Mira Venice (IT); Tangent Lue, Dongguan City (CN); Jacobus Simon Petrus Van Diepen, Dongguan City (CN)

Assignee: RECKITT BENCKISER NV, WTHOOFDDORP (NL)

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ABSTRACT

An apparatus for mounting and controlling sprayed application of a substance from a canister with a manual actuator mechanism. The apparatus comprises a main body portion with means for removable mounting of a canister. A handle extends from the main body portion. A trigger is connected to the handle. The trigger is adapted for causing said canister to emit a spray upon manual actuation thereof. The handle is in the form of a tube. Disposed within the tube is a rigid linkage cooperating with the aerosol canister and the trigger. The linkage has a resilient arm bias against the interior of the tube.
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[0001] The present invention relates to an apparatus for mounting and controlling sprayed application of a substance from a canister.

[0002] Product dispensers, e.g. aerosol canisters, are extremely commonplace and are used for the dispensing of a multitude of products including cleaning and personal care products.

[0003] In certain applications, for convenience the aerosol canister is not hand held but is distanced from a user by being mounted on an apparatus. These kind of apparatus are particularly useful when the contents of the aerosol are intended to be dispensed at a distance from the user, e.g. in a floor cleaning operation. In this manner the user does not have to bend down to ensure good contact/discharge of the aerosol contents onto the floor.

[0004] One problem with these kinds of apparatus arises because of their structure. Typically the apparatus use an extension rod which contains an internal linkage between a trigger (operated by a user) and an aerosol canister. In use the linkage moves around within the rod causing an unpleasant noise as it contacts the internal surface of the rod.

[0005] It is an object of the present invention to obviate or mitigate one or more of the problems outlined above.

[0006] According to a first aspect of the invention there is provided an apparatus for mounting and controlling sprayed application of a substance from a canister with a manual actuator mechanism, said apparatus comprising a main body portion with means for removable mounting of a canister; with a handle extending therefrom, and a trigger connected to said handle, said trigger adapted for causing said canister to emit a spray upon manual actuation thereof; wherein the handle is in the form of a tube and disposed within the tube is a rigid linkage cooperating with the canister and the trigger, characterized in that the linkage has a resilient arm bias against the interior of the tube.

[0007] The apparatus may be removable connected to the means for removable mounting of a canister and thus be in the form of an (extension) handle. Thus according to a second aspect of the invention there is provided an apparatus for use in controlling sprayed application of a substance from a canister with a manual actuator mechanism, said apparatus comprising a handle for association with a canister (or a mounting/housing therefore), having a trigger connected to said handle, said trigger adapted for causing said canister to emit a spray upon manual actuation thereof; wherein the handle is in the form of a tube and disposed within the tube is a rigid linkage cooperating with the canister and the trigger, characterized in that the linkage has a resilient arm bias against the interior of the tube.

[0008] Preferably the canister comprises an aerosol canister.

[0009] With an apparatus in accordance with the invention it has been found that unpleasant noises caused by the contact of the linkage and the rod are prevented.

[0010] Preferably the resilient arm acts as spring.

[0011] Preferably the linkage has multiple arms for enhanced distancing from the tube of the main body.

[0012] The arms are preferably arranged opposing sides of the linkage. Such arrangement may be in pairs, e.g. with a number of pairs of arms arranged along the length (or a portion thereof) of the rod. With this arrangement central disposition of the linkage within the tube may be achieved.

With the use of the arms a reduction of friction caused by operation of the linkage has been observed, this is thought to be due to reduced contact of the linkage with the tube. Generally the linkage is in the form of a solid rod with vanes extending therefrom. Preferably the arms are mounted on the vanes. Preferably the mounting is on a surface of the vanes most distant from the solid rod.

[0013] Generally the linkage comprises a plastics material. Generally the main body comprises a metallic material, e.g. aluminum.

[0014] In use operation of the trigger causes movement of the linkage within the main body. Generally this movement is relative to the main body in an axial dimension. The movement of the linkage is such as to bring about activation of an aerosol canister.

[0015] According to a third aspect of the invention there is provided the use of the apparatus of the first and second aspects on the invention.

[0016] Preferably said use is with an aerosol in a floor/carpet cleaning operation.

[0017] The invention is further illustrated with reference to the following non-limiting figures in which:

[0018] FIG. 1 is a plan view of a device according to the invention; and

[0019] FIG. 2 is a linkage of a device according to the invention.

[0020] In the figures an apparatus 1 for mounting and controlling sprayed application of a substance from an aerosol canister 2 is shown. The apparatus 1 comprises a main body portion 3 with means for removable mounting of an aerosol canister 2. The main body portion 3 has a handle 4 extending therefrom. The handle 4 has a trigger 5 connected thereto, said trigger 5 adapted for causing said aerosol canister 2 to emit a spray upon manual actuation thereof. The handle 4 is in the form of a tube and disposed within the tube is a rigid linkage 6 (not visible in FIG. 1) cooperating with the aerosol canister 2 and the trigger 5.

[0021] The linkage 6 is in the form of a rod. The rod has a plurality of axial vanes 7 branching therefrom. On the vanes 7 are arranged a plurality of resilient arms 8. The arms 8 act against the inside of the handle 4, ensuring that the linkage 6 does not audibly contact the handle 4.

1. An apparatus adapted for mounting and controlling sprayed application of a substance from a canister which includes a manual actuator mechanism, said apparatus comprising: a main body portion with means for removable mounting of a canister; a handle extending from the main body portion, and a trigger connected to said handle, said trigger adapted for causing said canister to emit a spray upon manual actuation thereof; wherein the handle is in the form of a tube and disposed within the tube is a rigid linkage which linkage has a resilient arm bias against an inner portion of the tube, wherein the linkage causes the manual actuator mechanism of the canister to spray the substance when the trigger is actuated.

2. An apparatus adapted for controlling sprayed application of a substance from a canister which includes a manual actuator mechanism, said apparatus comprising a handle for association with a canister or mounting or housing a trigger connected to said handle, said trigger causing said canister to emit a spray upon manual actuation thereof; wherein the handle is in the form of a tube which tube has disposed within...
a rigid linkage cooperating with the canister and the trigger, and which linkage has a resilient arm bias against the interior of the tube.

3. An apparatus according to claim 1 wherein the canister comprises an aerosol canister.

4. An apparatus according to claim 1, wherein the apparatus comprises multiple arms.

5. An apparatus according to claim 4, wherein the arms are arranged at opposing sides of the linkage.

6. An apparatus according to claim 1, wherein the linkage is in the form of a rod with vanes.

7. An apparatus according to claim 6, wherein the arms mounted on the vanes.

8. An apparatus according to claim 1, wherein the linkage is slideable within the handle.

9. A method of operating an aerosol canister containing a substance and having a manual activator mechanism, which method comprises the steps of:

   providing an apparatus according to claim 1;
   mounting the aerosol canister within the apparatus;
   operating the apparatus to dispense a controlled spray of the substance from the canister.

10. An apparatus according to claim 2, wherein the canister comprises an aerosol canister.

11. An apparatus according to claim 2, wherein the apparatus comprises multiple arms.

12. An apparatus according to claim 11, wherein the arms are arranged at opposing sides of the linkage.

13. An apparatus according to claim 2, wherein the linkage is in the form of a rod with vanes.

14. An apparatus according to claim 13, wherein the arms mounted on the vanes.

15. An apparatus according to claim 2, wherein the linkage is slideable within the handle.

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