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(54) **Apparatus for spraying liquids, and disposable containers and liners suitable for use therewith**
Vorrichtung zum Sprühen von Flüssigkeiten und Einwegbehälter und "Liner" dafür
Appareil de pulvérisation de liquides et récipients et garnitures jetables utilisables avec celui-ci

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Description

[0001] The present invention relates to apparatus for spraying liquids (for example, spray guns) according to the preamble of claim 1, and, to the liquid containers or reservoirs of such apparatus according to the preamble of claim 14. Such apparatus and containers are known from US-A-4 811 904.

[0002] There are many uses, in many different fields, for disposable containers. For example, many goods are packaged in disposable containers (e.g. bags) either before or after purchase. When the disposable container is a plastic bag, it will often be re-used by the purchaser as a disposable liner for another receptacle, for example a refuse bin. In some cases, disposable liners are produced specifically for use in other, re-usable, receptacles: in those cases, the liner may be intended to aid disposal of the contents of the receptacle (as in the case of a liner in a refuse bin); to protect the receptacle or its contents; or to facilitate, or even eliminate, the cleaning of the receptacle.

[0003] The use of a liner in a receptacle in which a substance like glue, paint or plaster is mixed or contained for use can be particularly advantageous, in terms of facilitating the cleaning of the receptacle after use and of preventing substances in the receptacle from being contaminated by the remains of other substances.

Receptacles in which paints are mixed or contained for use, for example, must be clean to ensure that the colour or quality of the paint is not altered by traces of other substances: that is particularly important, as explained above, when a vehicle is being re-painted and the paint is required to match an existing one. To avoid contamination problems when mixing paints, it is often the practice in vehicle body shops to use disposable waxed paper cups as mixing containers, particularly when only a small amount of paint is required. An alternative approach, proposed in US-A-4 383 635, involves the provision of a disposable container which, for use, is located in a re-usable frame-like receptacle.

[0004] In the field of spray guns, it has been proposed for various reasons that a disposable liner should be used in the reservoir of the gun (see US-A-3 211 324, 3 255 972, 3 432 104, 4 151 929, 4 951 875 and 5 143 294, and EP-A-0 678 334). Guns for spraying liquids (e.g. paints, garden chemicals etc.) are generally well known and typically comprise a reservoir in which a liquid to be dispensed is contained, and a spray nozzle through which the liquid is dispensed, under pressure, under the control of a trigger mechanism. The liquid may be fed from the reservoir under gravity and/or it may be entrained in a stream of pressurized fluid, for example air or water, which is supplied to the gun from an external source.

[0005] When a user wishes to change the liquid in the reservoir of a spray gun, it is usually necessary to clean the gun very thoroughly to ensure that no traces of the old liquid remain in the gun to contaminate the new liquid. That applies particularly to paint spray guns because any

traces of an old batch of paint remaining in a gun may affect the colour of a new batch of paint to the extent that the new batch of paint becomes useless. This can cause problems especially in vehicle body shops where the paint applied to a vehicle is often required to match existing paint work exactly. Alternatively, if paint residues have been allowed to dry within the gun, they may flake and contaminate the new batch of paint. The cleaning of spray guns is, however, a comparatively complex and time consuming operation. Moreover, in the case of paint spray guns, the cleaning operation involves the use of comparatively large amounts of solvents which, for environmental reasons, should be handled and disposed of with care. That, in turn, can add substantially to the cost of a painting operation. It has already been suggested (see, for example, EP-A-0 678 334 mentioned above) that the use of a disposable liner in the paint reservoir (i.e. the paint pot) of a spray gun can simplify the cleaning of the gun and reduce the amount of solvent required.

[0006] The present invention is concerned with the provision of a container which is sufficiently inexpensive to be disposable and which can preferably be collapsed when it is to be disposed of but which, nevertheless, is comparatively easy to handle and to fill when in use. The present invention is also concerned with enabling the cleaning of spray guns and like apparatus to be simplified, and with thereby enabling the time and expense associated with that operation to be reduced. In one aspect, the present invention provides liquid spraying apparatus as defined in claim 1. Other preferred features are defined in the dependent claims.

[0007] The container preferably comprises side walls and a comparatively-rigid base thermo/vacuum-formed from a plastics material; wherein the side walls are thin in comparison to the base and are collapsible, but the container is capable of standing unsupported, on the base with the side walls extended and upright.

[0008] More especially, the container comprises a base, and side walls extending from the base; wherein the base and side walls are thermo/vacuum formed together from a plastics material in such a manner that the base is comparatively rigid and the side walls are thin in comparison to the base and are collapsible but the container is capable of standing unsupported, on the base with the side walls extended and upright.

[0009] Some embodiments provide a gravity-fed spray gun comprising a fluid reservoir having a removable lid located in an opening in the reservoir; and a spray nozzle for dispensing fluid drawn from within the reservoir through an outlet in the lid; wherein the reservoir is removable from the gun and is capable of standing on its own to enable fluid to be loaded into the reservoir through the opening.

[0010] Some embodiments provide a spray gun comprising a fluid reservoir; and a spray nozzle for dispensing fluid from within the reservoir; the reservoir comprising a self-supporting container which is removable from the gun and is collapsible for disposal.

[0011] In another aspect, the present invention provides a gravity feed reservoir for a spray gun as defined in claim 13. Other preferred features are defined in the dependent claims.

[0012] Some embodiments provide a fluid reservoir for attachment to a spray gun, the reservoir having a removable lid which is located in an opening in the reservoir and in which is formed a fluid outlet for the reservoir, the fluid outlet being shaped for attachment to the spray gun; and a closable air vent in the end of the reservoir remote from the lid.

[0013] The term "thermo/vacuum-forming" as used herein means a process by which a sheet of material is heated to a softened condition and formed into a required shape, defined by a mould, while in that softened condition. It includes the case in which the application of a differential air pressure is used to assist in forming the material into the required shape and, in particular, includes the case in which a vacuum is produced on one side of the material to assist in forming it into the required shape (also known simply as "vacuum-forming").

[0014] The term "collapsible" as used herein with reference to the side walls of a container in accordance with the invention indicates that the side walls can be distorted so that, by the application of moderate pressure (e.g. hand pressure), the rim of the container can be pushed towards the base of the container, without the side walls being ruptured.

[0015] The term "paint" is used herein to include all forms of paint-like coating materials that can be applied to a surface using a spray gun, whether or not they are intended to colour the surface. The term includes, for example, primers, base coats, lacquers and similar materials.

[0016] By way of example only, embodiments of the invention will be described with reference to the accompanying drawings, in which:

Fig. 1 is a perspective view of a prior art spray gun, shown partly-disassembled so that it can be filled with paint;

Fig. 2 is a view of an alternative form of paint reservoir according to the present invention;

Figs. 3 and 4 show modified forms of a component of Fig. 2; and

Fig. 5 illustrates the use of a holder for the paint reservoir of Fig. 2;

[0017] Fig. 1 of the drawings illustrates a typical prior art paint spray gun 1 of the gravity-feed type. The gun 1 comprises a body 2, a handle 3 which extends downwards from the rear end of the body, and a spray nozzle 4 at the front end of the body. The gun is manually-operated by a trigger 5 which is pivotally-mounted on the sides of the gun. The paint reservoir, or paint pot, 6 which contains paint (or similar material) to be discharged by the gun, is located on the top of the body 2 and communicates with an internal passageway (not visible) for com-

pressed air, which extends through the gun from a connector 7 at the lower end of the handle 3 to the nozzle 4. In use, the connector 7 is connected to a source of compressed air (not shown) so that, when the user pulls on the trigger 5, compressed air is delivered through the gun to the nozzle 4 and entrains and atomizes paint which is being delivered under gravity from the pot 6. The paint is then discharged through the nozzle 4 with the compressed air, as a spray.

[0018] The paint which is contained in the pot 6 is often mixed by hand (for which a separate receptacle, for example a jug, is required), and poured into the pot. To ensure that there are no unwanted particles in the paint, which would spoil the finish of the painted surface, the paint is usually poured into the pot 6 through a filter. Fig. 1 shows the cap 8 of the pot 6 removed for this purpose, and a conical filter 9 about to be positioned on the open end of the pot. The filter 9 is shown as being a known type of disposable conical filter, having solid sides and a filter mesh portion 10 at the pointed end of the cone. When the pot 6 has been filled with paint, the filter 9 is removed and discarded, and the cap 8 of the pot is replaced. If the filter 9 is a reusable filter then, like the gun, it should be cleaned thoroughly before it is used with a different liquid (e.g. a paint of a different colour or a liquid having a different chemical composition).

[0019] Fig. 2 illustrates an alternative form of paint pot 40 for a spray gun 1, which is entirely disposable. The paint pot 40 has a disposable container 41, described below.

[0020] The container 41 of Fig. 2 can be any conventional disposable container suitable for containing paint and for attachment to a paint pot lid 42. The container 41 is formed from a translucent, preferably thin, plastics material, so that the contents of the container are visible and having markings 43 on the side walls to enable the volume of the contents of the container to be determined. An air hole 44 is formed in the base of the container, together with some means for closing the air hole when desired. That means may take the form of a strip of adhesive tape (not shown) which is peeled back to open the hole 44 and can be re-adhered to close the hole when required. Alternatively, a flip-top closure or some simple hand-operated valve mechanism may be provided. The container 41 has an external screw-thread at its open end, for attachment of the lid 42 and is shaped, at its upper end 42A, for attachment to a spray gun (if necessary by means of a suitable adapter). The lid 42 may be formed from the same material as the container 41 and, as shown, may also be translucent. A flat filter mesh 45, which is also disposable, extends across the mouth of the container 41. The mesh 45 may be a separate item, held at its periphery between the lid 42 and the container 41, or it may be formed integrally with the lid.

[0021] To use the pot 40, the lid 42 and filter mesh 45 are removed from the container 41 which is then filled with paint (care being taken that the air hole 44 in the base of the container is closed). It is unnecessary to strain

the paint when it is put into the container 41 and, as described above, it is possible to mix the paint in the container thereby avoiding the need for a separate receptacle for that purpose. The lid 42 and mesh 45 are then put back in position on the container 41, the lid 42 is attached to the (inverted) spray gun 1 which is then returned to its normal position, and the air hole 44 in the base of the container is opened. The spray gun 1 can now be used in the usual way. On completion of the spraying operation, the air hole 44 is closed-off again, the pot 40 is detached from the gun 1 and may then be discarded leaving only the gun to be cleaned. Before the pot 40 is detached, the spray gun 1 can be re-inverted and the trigger 5 of the gun operated to allow excess paint remaining in the gun to drain back into the pot. In either case, if sufficient paint remains in the pot 40, the pot could be re-sealed (instead of being discarded) and used again.

[0022] Advantageously, the container 41 of the pot is formed so that it can be collapsed after use. In some cases, it may be possible for the lid 42 also to be collapsible.

[0023] As an alternative, the lid 42 could be a reusable component and would be cleaned with the gun. With an arrangement of that type, it is possible for the disposable container 41 to be supplied as a cartridge already filled with paint and sealed by a cover which would simply be removed before the container is attached to the lid 42. The filter mesh 45 could be either a disposable or a reusable component. As a further alternative, the container 41 and lid 42 together could be supplied as a cartridge sealed by a removable cover, at the upper end 42A of the lid, which would be removed before the cartridge is attached to the gun.

[0024] Through an appropriate selection of the dimensions of the lid 42 of the paint pot 40, it is possible for the one lid 42 to be used with containers 41 of different sizes. The user would then select, in each case, the container 41 that contains the most suitable amount of paint. It may also be desirable for a range of filters 45 having different mesh sizes to be provided so that the user can select the mesh size that is best suited to the type of paint that is being used. It is not essential for the filter mesh 45 to have the form and/or location shown in Fig. 2: it could, for example, have a conical form as shown in Fig. 3 and/or could be located in the outlet of the lid 42, as shown in Fig. 4.

[0025] The lid 42 need not have the exact shape shown in Fig. 2 and could, for example, be replaced by a push-in lid in combination with a screw-on collar.

[0026] When the container 41 (with or without the lid 42) is supplied as a cartridge containing paint (or other coating material) it may be desirable in some cases for the paint/coating material to be contained within a sealed collapsible liner within the cartridge. That may, for example, be desirable if it is necessary for the paint/coating material to be kept isolated, for example from the air or from light, until it has been sprayed onto the surface to be coated. The air hole 44 in the container 41 can then

remain open all the time.

[0027] Depending on the shape of the container 41, it may be desirable to provide a holder in which the container can be located to ensure that it will not be knocked over. One suitable holder 50, shown in Fig. 5, comprises container portion 51 which is of similar shape to, but slightly larger than, the container 41 and is provided with an enlarged base 52. The container 41 is placed in the container portion 51 to ensure that it remains upright while it is being filled and/or attached to the spray gun 1.

[0028] Although the above description refers to a paint spray gun, it should be understood that it applies also to other types of spray gun including, for example, guns of the type which are attached to water hoses (rather than air supply lines) for spraying substances such as garden chemicals. The container may be formed from any suitable thermoplastic material capable of forming a thin film which is impervious to the materials it is intended to contain. In some cases, it may be desirable to use a material which is in the form of a laminate. For certain applications, such as food packaging, plastics with a low gas-permeability may be preferred. For most applications, however, polyolefins such as polyethylene or polypropylene are preferred since these are relatively cheap, are readily thermo-formable, and are inert to most aqueous and organic fluids.

Claims

1. Liquid spraying apparatus comprising a gravity feed spray gun (1) and a reservoir (40), the reservoir (40) comprising a disposable container (41) having a base and side walls extending from the base to an open end spaced from the base and a removable lid (42), the lid (42) being arranged to close the open end of the container (41) **characterised in that** the base of the container (41) is provided with an air hole (44) that can be opened and closed together with means for closing the air hole (44), wherein the container (41) is made of a translucent plastics material chosen so that contents of the container (41) are visible and has markings (43) on the side walls to enable the volume of contents to be determined, wherein the lid (42) is provided with an outlet for transferring liquid from the reservoir (40) to an inlet of the spray gun (1), and wherein a filter (45) is arranged to filter liquid withdrawn from the reservoir (40) through the outlet in the lid (42), the filter (45) being located in the lid (42).
2. Liquid spraying apparatus according to claim 1 **characterised in that** the means for opening/closing the air hole (44) comprises a re-sealable strip of tape or a flip-top closure or a valve mechanism.
3. Liquid spraying apparatus according to claim 1 **characterised in that** a range of filters (45) having dif-

ferent mesh sizes is provided for selection of a suitable mesh size.

4. Liquid spraying apparatus according to any one of claims 1 to 3 **characterised in that** the or each filter (45) is of flat, conical or cylindrical form. 5
5. Liquid spraying apparatus according to any one of the preceding claims **characterised in that** the lid (42) is a screw fit on the container (41). 10
6. Liquid spraying apparatus according to any one of claims 1 to 4 **characterised in that** the lid (42) is a push fit on the container (41) and is secured by means of a screw-on collar. 15
7. Liquid spraying apparatus according to any one of the preceding claims **characterised in that** the outlet is shaped for attachment to the spray gun. 20
8. Liquid spraying apparatus according to any one of claim 1 to 7 **characterised in that** an adapter is provided for attaching the outlet to the spray gun.
9. Liquid spraying apparatus according to any one of the preceding claims **characterised in that** means is provided for sealing the reservoir (40) when disconnected from the spray gun. 25
10. Liquid spraying apparatus according to any one of the preceding claims **characterised in that** the lid (42) is disposable after use. 30
11. Liquid spraying apparatus according to any one of the preceding claims **characterised in that** a holder (50) is provided to receive the container (41) in an upright condition for filling and/or attaching the reservoir (40) to the spray gun. 35
12. Liquid spraying apparatus according to claim 11 **characterised in that** the holder (50) comprises a container portion (51) which is of similar shape to but slightly larger than the container (41) and is provided with an enlarged base (52). 40
13. A gravity feed reservoir (40) for a spray gun comprising a disposable container (41) having a base and side walls extending from the base to an open end spaced from the base and a removable lid (42) for securing to the container (41) to close the open end **characterised in that** the base of the container (41) is provided with an air hole (44) that can be opened and closed together with means for closing the air hole (44), wherein the container (41) is made of a translucent plastics material chosen so that the contents of the container (41) are visible and has markings (43) on the side walls to enable the volume of contents to be determined, wherein the lid (42) is 45

provided with an outlet for transferring fluid from the reservoir (40) to a spray gun (1), and wherein a filter (45) is arranged to filter liquid withdrawn from the reservoir (40) through the outlet in the lid (42), the filter (45) being located in the lid (42).

14. A gravity feed reservoir according to claim 13 **characterised in that**, in use, the reservoir (40) is inverted so that the base is above the open end for transferring fluid to the spray gun (1).
15. A gravity feed reservoir according to claim 13 or claim 14 **characterised in that** a range of filters having different mesh sizes is provided for selection of a suitable mesh size.
16. A gravity feed reservoir according to any one of claims 13 to 15 **characterised in that** the reservoir (40) can be sealed when dis-connected from the spray gun to store unused paint and re-connected when it is desired to use the stored paint.
17. A gravity feed reservoir according to any one of claims 13 to 16 **characterised in that** the container (41) can be stood upright so that the open end is above the base for adding fluid with the lid (42) removed.

Patentansprüche

1. Flüssigkeitsspritzvorrichtung mit einer Schwerkraft-zufuhr-Spritzpistole (1) und einem Tank (40), wobei der Tank (40) einen entsorgbaren Behälter (41), der einen Boden und Seitenwände hat, die sich vom Boden zu einem vom Boden beabstandeten offenen Ende erstrecken, und einen entfernbaren Deckel (42) aufweist, wobei der Deckel (42) so angeordnet ist, dass er das offene Ende des Behälters (41) verschließt, **dadurch gekennzeichnet, dass** der Boden des Behälters (41) mit einem Luftloch (44), das geöffnet und geschlossen werden kann, zusammen mit einer Einrichtung zum Schließen des Luftlochs (44) versehen ist, wobei der Behälter (41) aus einem durchsichtigen Kunststoffmaterial hergestellt ist, das so ausgewählt ist, dass Inhalte des Behälters (41) sichtbar sind, und Markierungen (43) an den Seitenwänden hat, damit das Volumen der Inhalte bestimmt werden kann, wobei der Deckel (42) mit einem Auslass zum Überführen von Flüssigkeit aus dem Tank (40) zu einem Einlass der Spritzpistole (1) versehen ist und wobei ein Filter (45) so angeordnet ist, dass es Flüssigkeit filtert, die aus dem Tank (40) durch den Auslass im Deckel (42) entnommen wird, wobei das Filter (45) im Deckel (42) angeordnet ist. 50
2. Flüssigkeitsspritzvorrichtung nach Anspruch 1, **dadurch gekennzeichnet, dass** die Einrichtung zum 55

Öffnen/Schließen des Luftlochs (44) einen wiederabdichtbaren Bandstreifen oder einen Schnappverschluss oder einen Ventilmechanismus aufweist.

3. Flüssigkeitsspritzvorrichtung nach Anspruch 1, **dadurch gekennzeichnet, dass** eine Auswahl von Filtern (45) mit unterschiedlichen Maschengrößen zur Auswahl einer geeigneten Maschengröße vorgesehen ist. 5
4. Flüssigkeitsspritzvorrichtung nach einem der Ansprüche 1 bis 3, **dadurch gekennzeichnet, dass** das oder jedes Filter (45) eine flache, konische oder zylindrische Form hat. 10
5. Flüssigkeitsspritzvorrichtung nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** der Deckel (42) auf den Behälter (41) aufgeschraubt wird. 15
6. Flüssigkeitsspritzvorrichtung nach einem der Ansprüche 1 bis 4, **dadurch gekennzeichnet, dass** der Deckel (42) auf den Behälter (41) durch eine Schiebepassung aufgedrückt wird und mittels eines Aufschraubbandes befestigt wird. 20
7. Flüssigkeitsspritzvorrichtung nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** der Auslass zur Befestigung an der Spritzpistole geformt ist. 25
8. Flüssigkeitsspritzvorrichtung nach einem der Ansprüche 1 bis 7, **dadurch gekennzeichnet, dass** ein Adapter zum Befestigen des Auslasses an der Spritzpistole vorgesehen ist. 30
9. Flüssigkeitsspritzvorrichtung nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** eine Einrichtung zum Abdichten des Tanks (40) vorgesehen ist, wenn er von der Spritzpistole gelöst ist. 35
10. Flüssigkeitsspritzvorrichtung nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** der Deckel (42) nach Gebrauch entsorgbar ist. 40
11. Flüssigkeitsspritzvorrichtung nach einem der vorhergehenden Ansprüche, **dadurch gekennzeichnet, dass** ein Halter (50) vorgesehen ist, um den Behälter (41) in einem aufrechten Zustand zum Füllen und/oder Befestigen des Tanks (40) an der Spritzpistole aufzunehmen. 45
12. Flüssigkeitsspritzvorrichtung nach Anspruch 11, **dadurch gekennzeichnet, dass** der Halter (50) einen Behälterabschnitt (51) aufweist, der eine ähnliche Form wie der Behälter (41) hat, aber etwas größer 50

und mit einem vergrößerten Boden (52) versehen ist.

13. Schwerkraftzuführungstank (40) für eine Spritzpistole, mit einem entsorgbaren Behälter (41), der einen Boden und Seitenwänden hat, die sich vom Boden zu einem vom Boden beabstandeten offenen Ende erstrecken, und mit einem entfernbaren Deckel (42) zum Befestigen am Behälter (41), um das offene Ende zu schließen, **dadurch gekennzeichnet, dass** der Boden des Behälters (41) mit einem Luftloch (44), das geöffnet und geschlossen werden kann, zusammen mit einer Einrichtung zum Schließen des Luftlochs (44) versehen ist, wobei der Behälter (41) aus einem durchsichtigen Kunststoffmaterial hergestellt ist, das so ausgewählt ist, dass Inhalte des Behälters (41) sichtbar sind, und Markierungen (43) an den Seitenwänden hat, damit das Volumen der Inhalte bestimmt werden kann, wobei der Deckel (42) mit einem Auslass zum Überführen von Fluid aus dem Tank (40) zu einer Spritzpistole (1) versehen ist und wobei ein Filter (45) so angeordnet ist, dass es Flüssigkeit filtert, die aus dem Tank (40) durch den Auslass im Deckel (42) entnommen wird, wobei das Filter (45) im Deckel (42) angeordnet ist. 55
14. Schwerkraftzuführungstank nach Anspruch 13, **dadurch gekennzeichnet, dass** der Tank (40) im Gebrauch umgedreht wird, so dass der Boden über dem offenen Ende ist, um Fluid zur Spritzpistole (1) zu übertragen.
15. Schwerkraftzuführungstank nach Anspruch 13 oder 14, **dadurch gekennzeichnet, dass** eine Auswahl von Filtern mit unterschiedlichen Maschengrößen zur Auswahl einer geeigneten Maschengröße vorgesehen ist.
16. Schwerkraftzuführungstank nach einem der Ansprüche 13 bis 15, **dadurch gekennzeichnet, dass** der Tank (40) abgedichtet werden kann, wenn er von der Spritzpistole gelöst ist, um unbenutzte Farbe zu lagern, und wieder verbunden werden kann, wenn die gelagerte Farbe verwendet werden soll.
17. Schwerkraftzuführungstank nach einem der Ansprüche 13 bis 16, **dadurch gekennzeichnet, dass** der Behälter (41) aufrecht aufgestellt werden kann, so dass das offene Ende über dem Boden ist, um bei entferntem Dekkel (42) Fluid zuzugeben.

Revendications

1. Appareil de pulvérisation de liquides comprenant un pistolet de pulvérisation alimenté par gravité (1) et un réservoir (40), le réservoir (40) comprenant un récipient jetable (41) ayant une base et des parois latérales s'étendant à partir de la base jusqu'à une 55

- extrémité ouverte espacée de la base, et un couvercle amovible (42), le couvercle (42) étant arrangé de manière à fermer l'extrémité ouverte du récipient (41), **caractérisé en ce que** la base du récipient (41) est pourvue d'un trou d'air (44) pouvant être ouvert et fermé ensemble avec des moyens pour fermer le trou d'air (44), le récipient (41) étant constitué d'une matière plastique translucide choisie de telle sorte que le contenu du récipient (41) soit visible et présentant des marquages (43) sur les parois latérales pour permettre de déterminer le volume du contenu, le couvercle (42) étant pourvu d'une sortie pour transférer du liquide à partir du réservoir (40) vers une entrée du pistolet de pulvérisation (1), et un filtre (45) étant arrangé de manière à filtrer le liquide aspiré hors du réservoir (40) à travers la sortie dans le couvercle (42), le filtre (45) étant situé dans le couvercle (42).
2. Appareil de pulvérisation de liquides selon la revendication 1, **caractérisé en ce que** des moyens pour ouvrir/fermer le trou d'air (44) comprennent une bande de ruban rescellable ou une fermeture à abattant ou un mécanisme de soupape.
 3. Appareil de pulvérisation de liquides selon la revendication 1, **caractérisé en ce qu'une** pluralité de filtres (45) présentant des tailles de tamis différentes sont prévus afin de sélectionner une taille de tamis appropriée.
 4. Appareil de pulvérisation de liquides selon l'une quelconque des revendications 1 à 3, **caractérisé en ce que** le ou chaque filtre (45) est de forme plate, conique ou cylindrique.
 5. Appareil de pulvérisation de liquides selon l'une quelconque des revendications précédentes, **caractérisé en ce que** le couvercle (42) est vissé sur le récipient (41).
 6. Appareil de pulvérisation de liquides selon l'une quelconque des revendications 1 à 4, **caractérisé en ce que** le couvercle (42) est placé via un ajustage à pression sur le récipient (41) et est fixé au moyen d'un collier fileté.
 7. Appareil de pulvérisation de liquides selon l'une quelconque des revendications précédentes, **caractérisé en ce que** la sortie est configurée de manière à être attachée au pistolet de pulvérisation.
 8. Appareil de pulvérisation de liquides selon l'une quelconque des revendications 1 à 7, **caractérisé en ce qu'un** adaptateur est prévu pour attacher la sortie au pistolet de pulvérisation.
 9. Appareil de pulvérisation de liquides selon l'une quelconque des revendications précédentes, **caractérisé en ce que** des moyens sont prévus pour sceller le réservoir (40) lorsqu'il est déconnecté du pistolet de pulvérisation.
 10. Appareil de pulvérisation de liquides selon l'une quelconque des revendications précédentes, **caractérisé en ce que** le couvercle (42) peut être jeté après usage.
 11. Appareil de pulvérisation de liquides selon l'une quelconque des revendications précédentes, **caractérisé en ce qu'un** support (50) est prévu pour recevoir le récipient (41) dans une position debout pour remplir et/ou attacher le réservoir (40) au pistolet de pulvérisation.
 12. Appareil de pulvérisation de liquides selon la revendication 11, **caractérisé en ce que** le support (50) comprend une partie de récipient (51) qui est de forme similaire au récipient (41) mais est légèrement plus grande que lui et présente une base agrandie (52).
 13. Réservoir alimenté par gravité (40) pour un pistolet de pulvérisation, comprenant un récipient jetable (41) ayant une base et des parois latérales s'étendant à partir de la base jusqu'à une extrémité ouverte espacée de la base, et un couvercle amovible (42) à fixer au récipient (41) pour fermer l'extrémité ouverte, **caractérisé en ce que** la base du récipient (41) est pourvue d'un trou d'air (44) pouvant être ouvert et fermé ensemble avec des moyens pour fermer le trou d'air (44), le récipient (41) étant constitué d'une matière plastique translucide choisie de telle sorte que le contenu du récipient (41) soit visible et présentant des marquages (43) sur les parois latérales pour permettre de déterminer le volume du contenu, le couvercle (42) étant pourvu d'une sortie pour transférer du fluide à partir du réservoir (40) vers un pistolet de pulvérisation (1), et un filtre (45) étant arrangé de manière à filtrer le liquide aspiré hors du réservoir (40) à travers la sortie dans le couvercle (42), le filtre (45) étant situé dans le couvercle (42).
 14. Réservoir alimenté par gravité selon la revendication 13, **caractérisé en ce que**, lors de l'utilisation, le réservoir (40) est retourné de sorte que la base soit au-dessus de l'extrémité ouverte pour transférer du fluide dans le pistolet de pulvérisation (1).
 15. Réservoir alimenté par gravité selon la revendication 13 ou 14, **caractérisé en ce qu'une** pluralité de filtres présentant des tailles de tamis différentes sont prévus afin de sélectionner une taille de tamis approprié.
 16. Réservoir alimenté par gravité selon l'une quelcon-

que des revendications 13 à 15, **caractérisé en ce que** le réservoir (40) peut être scellé lorsqu'il est déconnecté du pistolet de pulvérisation afin de stocker la peinture non utilisée, et être reconnecté lorsque l'on souhaite utiliser la peinture stockée.

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17. Réservoir alimenté par gravité selon l'une quelconque des revendications 13 à 16, **caractérisé en ce que** le récipient (41) peut être dressé verticalement de sorte que l'extrémité ouverte soit au-dessus de la base pour ajouter du fluide lorsque le couvercle (42) est enlevé.

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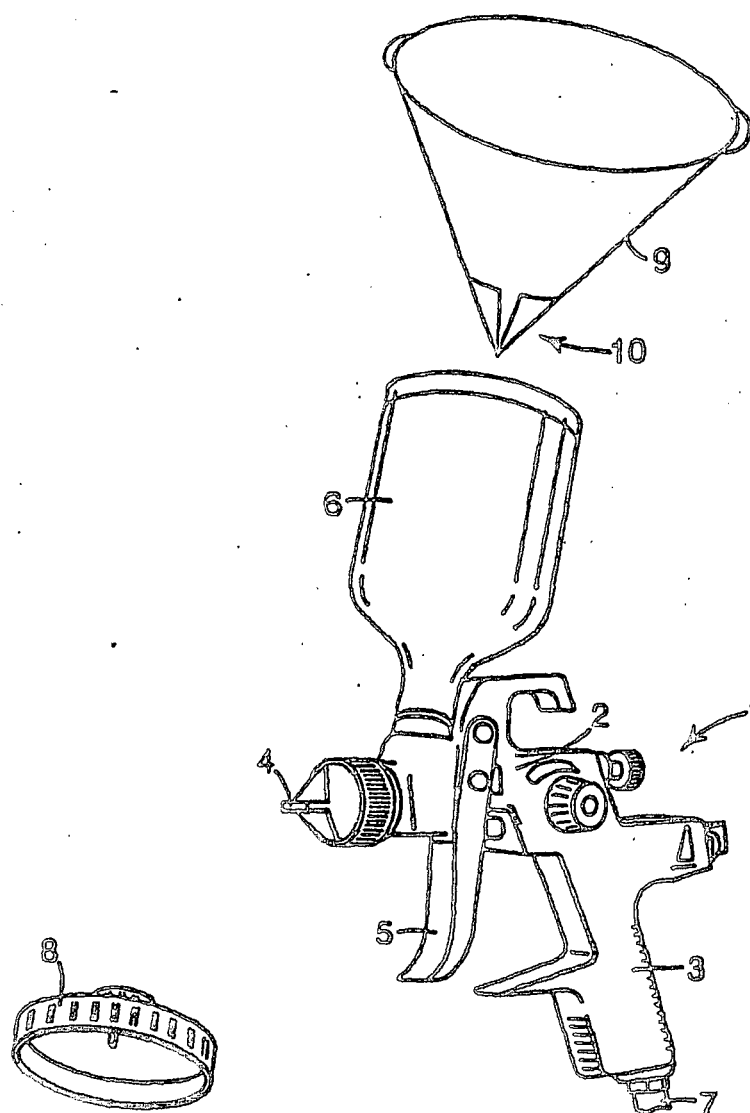


Fig. 1
PRIOR ART

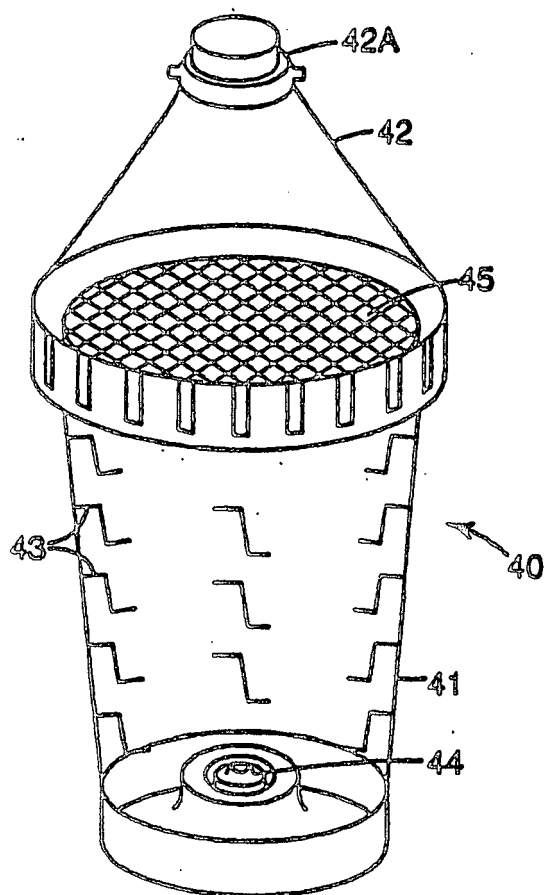


Fig. 2.

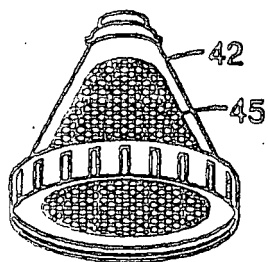


Fig. 3.

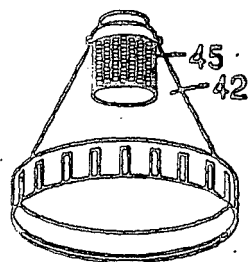


Fig. 4.

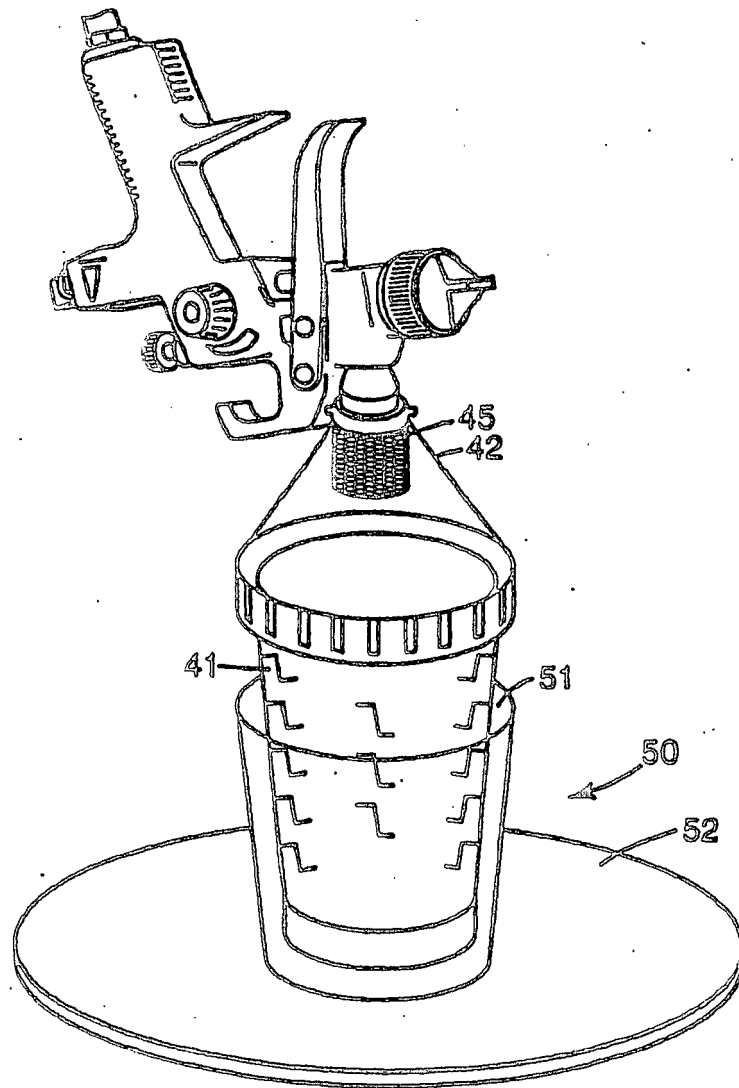


Fig. 5.

REFERENCES CITED IN THE DESCRIPTION

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