A specimen container (50) comprises a receptacle or body (52) having an opening (54) to receive a liquid sample. The container (50) comprises a handle (56) which extends from an outer surface (58) of the body (52), the handle 56 being pivotal through a pivotal connection (66) relative to the body (52) to an extended position as shown.
Field of the Invention

The present invention relates to a specimen container.

5 Background to the Invention

Containers used to collect samples of urine for medical analysis commonly comprise a small cylindrical container having a lid. While such small containers are well suited to storage and transport of specimens and are relatively inexpensive to produce in the large quantities required, they can present difficulties in the process of providing the sample.

The usual process comprises the patient simply holding the container around the outer surface while providing the sample. Holding the container in this manner to effectively collect the sample while keeping the hands out of the way can be difficult for women, and in particular pregnant women who are often required to provide urine samples for testing.

The present invention comprises a specimen container aimed at overcoming, at least in part, the abovementioned problem while still resulting in a container that is simple and inexpensive to produce in large quantities.

References to prior art in this specification are provided for illustrative purposes only and are not to be taken as an admission that such prior art is part of the common general knowledge in Australia or elsewhere.

Summary of the Invention

According to one aspect of the present invention there is provided a specimen container comprising:

- a receptacle having an opening to receive a sample;
- a lid to engage with the receptacle and seal across the opening; and
- a handle extending from an outer surface of the receptacle;
wherein the handle is pivotable relative to the receptacle.

Preferably, the handle is pivotally connected to the outer surface at a first end thereof and pivots between a first position in which the handle extends generally downwardly from the first end, parallel to the outer surface, and a second extended position. Preferably, in the second position a second outer end of the handle extends upwardly of the first end.

In a preferred embodiment, the handle comprises a flat elongate member having a curvature in transverse cross section being the same as that of the outer surface of the receptacle. Further, the thickness of the handle is configured such that the handle does not protrude beyond the extents of the lid when in the first position.

The handle is preferably connected to the outer surface by a hinge means including a flexible web of material joining the handle to the receptacle. Advantageously, the handle includes a retaining means to retain the handle in the first position and one or more resilient members to bias the handle to move towards the second position when released from the retaining means.

A pair of resilient members may be provided, one on each side of the hinge means, the resilient members each comprise a portion of resilient material extending parallel to the outer surface when the handle is in the first position thereof. The retaining means may comprise a pair of lugs located between the hinge means and the resilient members when the handle is in the first position such that edges of the first end of the handle engage with recesses in the lugs to retain the handle.

According to another aspect of the present invention there is provided a container comprising: a body having an opening to receive a liquid; and a handle connected to the body; the handle being movable between a first position, in which the handle extends along the body, and a second position, in which the handle extends away from the body, to allow a person to hold the
body by gripping the handle in preparation for fluid being received through the opening.

Preferably a pivot pivotally connects the handle to the body. The handle may include at least one member offset from the pivot, the or each at least one member being arranged for bearing against the body to resist movement of the handle from the second position to the first position.

In preferred arrangements of the present invention, the or each at least one member includes a free end advantageously disposed below the pivot, when the handle is in the second position, with the or each at least one member being sufficiently resilient to accommodate movement of the handle to the first position, with the free end moving from below to above the pivot. The first position is preferably a retracted position and the second position is preferably an extended position.

Preferably the body includes at least one raised portion disposed below the pivot. The or each at least one raised portion is preferably arranged to force the or each at least one member to move sideways as the handle is moved from the second position to the first position. Preferably the at least one raised portion is adapted to cause a snapping action of the or each at least one member.

The at least one member may be adapted to flex downwardly and also in a sideways direction. The at least one member may be adapted to flex at a join between the at least one member and the remainder of the handle.

The handle may be moveable between the first position and an overextended position lying beyond the second position. Preferably when the handle is disposed between the second position and the overextended position, the connection between the handle and the body biases the handle towards the second position.
Preferably when the handle is raised away from the body so as to extend therefrom, at an acute angle, the at least one member is arranged to bear against the body at a position above the pivot to bias the handle towards the first position.

Preferably at a predetermined angle of about 90 degrees, the free end of the or each at least one member is arranged to snap, as in quickly move, from bearing against the body above the pivot, to bearing against the body below the pivot.

Preferably in the first condition the at least one member is arranged to extend above the pivot and is adapted to be held between the body and a cap of the container, when the cap is tightened to close the opening.

Preferably the container is a specimen container for the collection of urine.

According to a further aspect of the present invention there is provided a container having a body; and a handle rotatable between a first position and a second position, relative to the body; wherein the handle and the body are moulded as a unitary piece of plastics material.

According to a further aspect of the present invention there is provided a method of manufacturing a specimen container, the method comprising: moulding a body of the container in a position in which a handle extends from the body and is joined to the body by an upper join and a lower join spaced respectively; cutting the lower join to provide an abutment portion of the handle; wherein, in use, the upper join is adapted to act as a pivot for the handle with the abutment portion being adapted to flex as the handle is rotated to push the abutment portion from below or above the pivot to above or below the pivot, respectively.

The method preferably further comprises forming the lower join by moulding two resilient members provided on the handle on either side of a central
member forming the upper join, the two resilient members forming abutment portions for abutting the body of the container when the handle is in the extended position.

Other aspects, preferred arrangements and advantages will be apparent from the drawings and detailed description provided below.

Throughout the specification, unless the context requires otherwise, the word "comprise" or variations such as "comprises" or "comprising", will be understood to imply the inclusion of a stated integer or group of integers but not the exclusion of any other integer or group of integers. Likewise the word "preferably" or variations such as "preferred", will be understood to imply that a stated integer or group of integers is desirable but not essential to the working of the invention.

**Brief Description of the Drawings**

The nature of the invention will be better understood from the following detailed description of several specific embodiments of the specimen container, given by way of example only, with reference to the accompanying drawings, in which:

- Figure 1 is a side view of a specimen container in accordance with an embodiment of the present invention with the handle in a first position;
- Figure 2 is a side view of the specimen container of Figure 1 with the handle in a second extended position;
- Figure 3 is an upper perspective view of the specimen container of Figure 1 with the handle in the first position and the lid removed;
- Figure 4 is an upper perspective view of the specimen container of Figure 1 with the handle in the second extended position and the lid removed;
- Figure 5 is a lower perspective view of the specimen container of Figure 1 with the handle in the second extended position and the lid removed;
Figure 6 is a side cross sectional view of the specimen container of Figure 1 with the handle in the first position and the lid removed;

Figure 7 is a side cross sectional view of the specimen container of Figure 1 with the handle in the second extended position and the lid removed;

Figure 8 is a view of two of the specimen containers of Figure 1 stacked on top of each other with the handles in the first position; and

Figure 9 is a perspective view of a specimen container according to a further preferred embodiment of the present invention, with the specimen container being shown in a first condition;

Figure 10 is a perspective view of the specimen container shown in Figure 9, with the specimen container being shown in a second condition;

Figure 11 is a perspective view of the specimen container shown in Figure 9, with the specimen container being shown in a third condition;

Figures 12a and 12b comprise a perspective view and a side view respectively illustrating the operation of the specimen container shown in Figure 9;

Figure 13 is a further perspective view of the specimen container shown in Figure 9; and

Figure 14a is a top plan view of the container of Figure 9 with the handle extended and without a lid, and Figure 14b is a top plan view of the container of Figure 9 with the handle extended and with the lid in place.

Detailed Description of Preferred Embodiments

A preferred embodiment of specimen container 10 in accordance with the invention, as illustrated in Figures 1 to 8, comprises a receptacle 12 having an opening 14 for receiving a sample. The specimen container 10 also includes a lid 16 to engage with the opening 14 and seal the opening 14.

The receptacle 12 in the embodiment shown comprises a standard cylindrical container of a type known for use as a specimen container having an outer thread 18 around the opening 14. The outer thread 18 engages with an inner
thread on the lid 16. The specimen container 10 is expected to be constructed
from a suitable plastic material.

The specimen container 10 of the present invention includes also a handle 20
secured to an outer surface 22 of the cylindrical receptacle 12. The handle 20
is secured at a first end 24 thereof to the outer surface 22 of the receptacle 12
such that the handle 20 is pivotable relative to the receptacle 12.

The handle 20 comprises a relatively flat elongate member which is pivotable
about the first end 24 thereof. The handle 20 is pivotable upwardly from a first
position (as shown in Figure 1) to a second extended position (as shown in
Figure 2). In the first position, the handle 20 extends generally downwardly
from the first end 24, parallel to the outer surface 22. In pivoting to the second
extended position, the handle 20 preferably moves through over ninety
degrees such that a second outer end 26 of the handle extends slightly
upwardly of the first end 24. The angle of the handle in the second extended
position assists in allowing for the convenient collection of a specimen sample
by a patient and also provides good support for the added weight of the
specimen container 10 when it is filled with fluid.

The handle 20 also is preferably slightly arcuate in transverse cross section,
with the curvature being the same as the outer surface 22 of the receptacle
12. In the first position, the handle 20 therefore rests flush against the outer
surface 22. Preferably, the thickness of the handle 20 is such that it does not
protrude beyond the outer extents of the lid 16 in the first position.

The pivotable connection of the first end 24 of the handle 20 with the outer
surface 22 of the receptacle 12 is via a hinge means 28. The hinge means
comprises a central portion 30 of the first end 24 of the handle 20 connected
to a protrusion 32 on the outer surface 22 by a web 34 of the material from
which the container 10 is constructed. The web 34 is sufficiently thin to be
flexible such that the handle 20 can pivot about the protrusion 32.
The handle 20 also includes a retaining means to hold the handle 20 in the first position thereof and at least one resilient member 36 to bias the handle 20 to move towards the second position thereof when released from the retaining means. In the embodiment shown, there are provided two resilient members 36 provided at the first end 24 of the handle 20, one on either side of the hinge 28. Each of the resilient members 36 comprise a portion of material connected from the first end 24 of the handle 20 to the outer surface 22 of the receptacle 12. The resilient members 36 comprise resilient plastic material flexed into a curved condition when the handle 20 is in the first position thereof such that the resilient members 36 will tend to straighten when released and move the handle 20 towards the second position.

The retaining means comprises a pair of lugs 38 on the outer surface 22 of the receptacle 12. Each of the lugs 38 is received in a gap 40 between the hinge 28 and one of the resilient members 36 when the handle 20 moves to the first position. Each of the lugs 38 includes a recess 42 on a lower side thereof. The recesses 42 are positioned such that inner edges 44 of the gaps 40 engage in the recesses 42 (as can be seen in Figure 6) when the handle 20 is in the first position.

It is expected that the receptacle 12 and handle 20 of the specimen container 10 will be moulded as a single plastic unit resulting with the handle 20 in an extended position. The handle 20 will then be flexed about its pivotal connection and moved to the first position in which the lugs 38 engage with the handle 20 and retain the handle 20 in place. The specimen container is then supplied to the end user in this configuration. The lid 16 of the container 10 is preferably shaped to receive the lower end of the receptacle 12 so that the containers 10 can be stacked for transport, as shown in Figure 8.

When required for use, the outer end 26 of the handle 20 is pulled outwards to disengage from the lugs 38. The resilient members 36 then cause the handle 20 to pivot outwardly and remain held in the second extended position. The user can then hold the specimen container 10 by the second
end 26 of the handle 20 when providing a sample to ensure their hands are
well clear of the receptacle.

Referring now to Figure 9 there is shown a specimen container 50 according
to a further preferred embodiment of the present invention. The specimen
container 50 is considered to be advantageous as it is relatively readily
moulded, manufactured, packaged and employed.

As shown in Figure 9 the specimen container 50 includes a body 52 having
an opening 54 for receiving a liquid. A handle 56 is connected to the body 52,
and a pair of lugs 51 are provided on the outer surface 58 of the body 52.
The handle 56 is moveable between a retracted position shown in Figure 10
and an extended position shown in Figure 11. In the retracted position,
shown in Figure 10, the handle 54 extends along the surface 58 of the body
52 substantially in line with a longitudinal axis 60 thereof. In the extended
position, shown in Figure 11, the handle 56 is inclined at an angle 62, relative
to the body 52, so as to extend upwardly and outwardly away from a base 64
of the body 52.

In the extended position the handle 56 is adapted to engage the body 52 so
as to bear against the surface 58. This allows a person to hold the handle 56
in preparation for liquid to be received through the opening 54 of the body 52.

As shown in Figure 11 a pivotal connection 66 is provided between the body
52 and the handle 56. A first arm 68 and a second arm 70 of the handle 56
are spaced either side of the pivotal connection 66. The handle 56 has a
body 74.

The first arm 68 and the second arm 70 each have a free end 76 and are
connected to the remainder of the handle 56 at connecting regions 78. The
connecting regions 78 are of a similar thickness to the body 74 of the handle
56. This is considered to be advantageous for reasons relating to
manufacture.
With the arrangement, the pivotal connection 66 is provided as a hinge 80. In the extended position shown in Figure 11, the first arm 68 and the second arm 70 are disposed to present the free ends 76 to bear against the surface 58 of the body 52. As would be apparent, holding the handle 56 with a thumb and an index finger at position 82, and pouring fluid through the opening 54 will operate to urge the body 52 to rotate about the hinge line of the hinge 80. This causes free ends 76 of the first arm 68 and the second arm 70 to bear against the surface 58 to keep the body 52 upright, and resist movement of the handle 56 away from the extended position shown in Figure 11. The free ends 76 bear advantageously against raised portions 88 as is described in more detail below.

As shown in Figure 10, the free ends 76 of the first arm 68 and the second arm 70 extend above the hinge 80 when in the retracted position. In order to accommodate movement of the free ends 76 from below the hinge 80 to above the hinge 80 (and vice versa), the arms 68, 70 are flexibly connected to the body 74 of the handle 56. In this arrangement, the arms 68, 70 are relatively rigid and function as cantilevers flexing primarily at the connecting regions 78. In other arrangements the arms 68, 70 flex appreciably along a much greater portion of their lengths.

In order to provide a snapping action when moving the handle 56 from the extended position to the retracted position, the two arms 68, 70 are slightly longer in length than the central portion 83 of the handle which is joined to the hinge 80, providing a snapping action when moving the free ends 76 from below the hinge 80 to above the hinge 80.

As shown in Figure 12 the raised portions 88 are of a similar width to each of the arms 68, 70. Figure 12 illustrates that a person moving the handle 56 from the extended position to the retracted position will cause downwards and sideways flexing of the arms 68, 70 at the connecting regions 78. Flexing in the sideways direction is illustrated by arrows 92 and flexing in the
downwards direction is illustrated by arrows 94. The arms 68, 70 flex primarily at their connecting regions 78 until they have moved substantially away from the raised portions 88 and then snap upwardly. A pair of slots 79 separates the arms 68, 70 from the hinge 80.

During the snapping action the arms 68, 70 splay outwards and then move above the hinge 80. This is assisted by the free ends 76 having outwardly inclined surfaces that point upwardly when in the retracted position. The free ends 76 are chamfered to engage with the projections 88 as shown in Figure 11 and then snap upwardly through the position shown in Figure 12.

In the arrangement, the specimen container 50 is manufactured in a moulding process to form a unitary piece of plastics material as illustrated in Figure 9. The first arm 68 and the second arm 70 are moulded so as to be joined to the raised portions 88. Following this, a cutting action is performed to separate the first arm 68 and the second arm 70 from the raised portions 88.

As shown in Figure 13, the handle 56 is moveable to an overextended position 96 lying beyond the extended position. The hinge 80 operates between the overextended position 96 and the extended position to bias the handle 56 towards the extended position shown in Figure 11.

It is to be appreciated that when in the retracted position, moving the handle 56 towards the extended position will cause the first and second arms 68, 70 to bear against an upper portion 90 of the body 52 shown in Figure 10. Before the angle between the body 52 and the handle 56 reaches about 90 degrees, the arms 68, 70 bear against the upper portion 90 to bias the handle 56 towards the retracted position.

The arms 68, 70 are configured for being held underneath a cap 93 when the cap is screwed onto the upper portion 90. This assists with keeping the handle 56 in the retracted position during transportation. Advantageously the
handle 56 lies within the margins of the rim of the cap when in the retracted position.

By way of overview, the method of manufacture of the container 50 comprises moulding the container 50 in a position in which the handle 56 extends from the body 52 and is joined to the body 52 by an upper join at the hinge 80 and two lower joins at the arms 68, 70. Following this the two lower joins are cut to provide the handle 56 with abutment portions at the end of the arms 68, 70. The handle 56 is adapted to pivot about the hinge 80 with the arms 68, 70 being adapted to flex as the handle 56 is rotated to push the end of the abutment portions from below the pivot to above the pivot, and vice versa.

Although not shown the handle 56 includes a slight ridge along its length to strengthen the rigidity of the handle. As described, the specimen container 50 is considered to be advantageous for the reasons discussed above. These reasons include those relating to manufacture, packaging and use.

It will be readily apparent to persons skilled in the relevant arts that various modifications and improvements may be made to the foregoing embodiments, in addition to those already described, without departing from the basic inventive concepts of the present invention. Therefore, it will be appreciated that the scope of the invention is not limited to the specific embodiments described.
The Claims defining the Invention are as follows:

1. A specimen container comprising:
   a receptacle having an opening to receive a sample;
   a lid to engage with the receptacle and seal across the opening; and
   a handle extending from an outer surface of the receptacle;
   wherein the handle is pivotable relative to the receptacle.

2. A specimen container as defined in claim 1, wherein the handle is pivotally connected to the outer surface at a first end thereof and pivots between a first position in which the handle extends generally downwardly from the first end, parallel to the outer surface, and a second extended position.

3. A specimen container as defined in claim 2, wherein in the second position a second outer end of the handle extends upwardly of the first end.

4. A specimen container as defined in claim 1 or claim 2, wherein the handle comprises a flat elongate member having a curvature in transverse cross section being the same as that of the outer surface of the receptacle.

5. A specimen container as defined in any one of claim 2 to claim 4, wherein the thickness of the handle is configured such that the handle does not protrude beyond the extents of the lid when in the first position.

6. A specimen container as defined in any one of the preceding claims, wherein the handle is connected to the outer surface by a hinge means including a flexible web of material joining the handle to the receptacle.

7. A specimen container as defined in any one of claim 2 to claim 6, wherein the handle includes a retaining means to retain the handle in the first position and one or more resilient members to bias the handle to move towards the second position when released from the retaining means.

8. A specimen container as defined in claim 7, wherein a pair of resilient members is provided, one on each side of the hinge means, the resilient members each comprise a portion of resilient material extending parallel to the outer surface when the handle is in the first position thereof.
9. A specimen container as defined in claim 7 or claim 8, wherein the retaining means comprises a pair of lugs located between the hinge means and the resilient members when the handle is in the first position such that edges of the first end of the handle engage with recesses in the lugs to retain the handle.

10. A container comprising: a body having an opening to receive a liquid; and a handle connected to the body; the handle being movable between a first position, in which the handle extends along the body, and a second position, in which the handle extends away from the body, to allow a person to hold the body by gripping the handle in preparation for fluid being received through the opening.

11. A container as defined in claim 10, wherein a pivot pivotally connects the handle to the body.

12. A container as defined in claim 11, wherein the handle may include at least one member offset from the pivot, the or each at least one member being arranged for bearing against the body to resist movement of the handle from the second position to the first position.

13. A container as defined in claim 11 or claim 12, wherein the or each at least one member includes a free end disposed below the pivot, when the handle is in the second position, with the or each at least one member being sufficiently resilient to accommodate movement of the handle to the first position, with the free end moving from below to above the pivot.

14. A container as defined in any of one claims 10 to 13, wherein the first position is a retracted position and the second position is an extended position.

15. A container as defined in any one of claims 11 to 14, wherein the body includes at least one raised portion disposed below the pivot.

16. A container as defined in claim 15, wherein the or each at least one raised portion is arranged to force the or each at least one member to move
sideways as the handle is moved from the second position to the first position.

17. A container as defined in claim 15 or claim 16, wherein the at least one raised portion is adapted to cause a snapping action of the or each at least one member.

18. A container as defined in any one of claims 12 to 15, wherein the at least one member may be adapted to flex downwardly and also in a sideways direction.

19. A container as defined in claim 18, wherein the at least one member may be adapted to flex at a join between the at least one member and the remainder of the handle.

20. A container as defined in any one of claims 10 to 15, wherein the handle is moveable between the first position and an overextended position lying beyond the second position.

21. A container as defined in claim 20, wherein when the handle is disposed between the second position and the overextended position, the connection between the handle and the body biases the handle towards the second position.

22. A container as defined in any one of claims 13 to 21, wherein when the handle is raised away from the body so as to extend therefrom, at an acute angle, the at least one member is arranged to bear against the body at a position above the pivot to bias the handle towards the first position.

23. A container as defined in any one of claims 13 to 22, wherein at a predetermined angle of about 90 degrees, the free end of the or each at least one member is arranged to snap, as in quickly move, from bearing against the body above the pivot, to bearing against the body below the pivot.

24. A container as defined in any one of claims 13 to 23, wherein in the first condition the at least one member is arranged to extend above the pivot and is adapted to be held between the body and a cap of the container, when the cap is tightened to close the opening.
25. A container as defined in any one of claims 10 to 24, wherein the container is a specimen container for the collection of urine.

26. A container having a body; and a handle rotatable between a first position and a second position, relative to the body; wherein the handle and the body are moulded as a unitary piece of plastics material.

27. A method of manufacturing a specimen container, the method comprising: moulding a body of the container in a position in which a handle extends from the body and is joined to the body by an upper join and a lower join spaced respectively; cutting the lower join to provide an abutment portion of the handle; wherein, in use, the upper join is adapted to act as a pivot for the handle with the abutment portion being adapted to flex as the handle is rotated to push the abutment portion from below or above the pivot to above or below the pivot, respectively.

28. A method of manufacturing a specimen container as defined in claim 27, the method further comprising forming the lower join by moulding two resilient members provided on the handle on either side of a central member forming the upper join, the two resilient members forming abutment portions for abutting the body of the container when the handle is in the extended position.

29. A specimen container substantially as herein described with reference to and as illustrated in any one or more of the accompanying drawings.

30. A container substantially as herein described with reference to and as illustrated in any one or more of the accompanying drawings.

31. A method of manufacturing a specimen container substantially as herein described with reference to and as illustrated in any one or more of the accompanying drawings.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl.

B65D 25/28 (2006.01)  B65D 1/00 (2006.01)
-467///(90(2006.01)  B65D 1/40 (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC.

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC WPI IPC B65D-., A6 1/-, B29/-, GOIN/-. with keywords: container, handle, pivot, mold, flex, position and similar terms.

Google Patents & ESPACE with similar keywords.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category¹</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<tbody>
<tr>
<td>X</td>
<td>US 6485438 B1 (MINUEN) 26 November 2002 Column 2, line 50-column 4, line 30; figures 1-4</td>
<td>1-7, 10, 11, 14, 20, 25, 26</td>
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<td>Y</td>
<td>Column 2, line 50-column 4, line 30; figures 1-4</td>
<td>15</td>
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<tr>
<td>Y</td>
<td>US 3318493 A (BELPEDI) 9 May 1967 See the annular ring below the pivot 15 as shown in figure 2</td>
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<tr>
<td>X</td>
<td>US 676 1282 B1 (ANDERSON) 13 July 2004 Column 2, line 42-column 4, line 37; figures 1-8</td>
<td>26</td>
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</table>

Further documents are listed in the continuation of Box C

See patent family annex

¹ Special categories of cited documents:
A document defining the general state of the art which is not considered to be of particular relevance

E earlier application or patent but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

I later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

& document member of the same patent family

Date of the actual completion of the international search 20 August 2009

Date of mailing of the international search report 7 SEP 2009

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Form PCT/ISA/2 10 (second sheet) (July 2008)
<table>
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<td>X</td>
<td>US 6126035 A (SCHAPER ET AL) 3 October 2000 Column 2, line 61-column 4, line 24; figures 1-7</td>
<td>26</td>
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Note: For Y indication, the first document can be combined with the second document for claim 15.
## INTERNATIONAL SEARCH REPORT

**Box No. II** Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. [ ] Claims Nos.:
   - because they relate to subject matter not required to be searched by this Authority, namely:

2. [X] Claims Nos.: 29-31
   - because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
     - The claims do not comply with Rule 6.2(a) because they rely on references to the description and/or drawings.

3. [ ] Claims Nos.:
   - because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

**Box No. III** Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

[See Supplemental Box]

1. [ ] As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. [X] As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. [ ] As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. [ ] No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

- [ ] The additional search fees were accompanied by the applicant’s protest and, where applicable, the payment of a protest fee.
- [ ] The additional search fees were accompanied by the applicant’s protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- [ ] No protest accompanied the payment of additional search fees.
Continuation of Box No: Box III

This International Application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept.

In assessing whether there is more than one invention claimed, I have given consideration to those features which can be considered to potentially distinguish the claimed combination of features from the prior art. Where different claims have different distinguishing features they define different inventions.

This International Searching Authority has found that there are different inventions as follows:

- Claims 1-9 are directed to a specimen container comprising: a receptacle having an opening to receive a sample; a lid to engage with the receptacle and seal across the opening; and a handle extending from an outer surface of the receptacle; wherein the handle is pivotable relative to the receptacle. It is considered that the lid comprises a first distinguishing feature.

- Claims 10-25 are directed to a container having a movable handle. It is considered that the handle being movable between a first position, in which the handle extends along the body, and a second position, in which the handle extends away from the body, to allow a person to hold the body by gripping the handle in preparation for fluid being received through the opening comprises a second distinguishing feature.

- Claim 26 is directed to a container having a body; and a handle rotatable between a first position and a second position, relative to the body. It is considered that the handle and the body being moulded as a unitary piece of plastics material comprises a third distinguishing feature.

- Claims 27 and 28 are directed to a method of manufacturing a specimen container, the method comprising: moulding a body of the container in a position in which a handle extends from the body and is joined to the body by an upper join and a lower join spaced respectively; cutting the lower join to provide an abutment portion of the handle; wherein, in use, the upper join is adapted to act as a pivot for the handle with the abutment portion being adapted to flex as the handle is rotated to push the abutment portion from below or above the pivot to above or below the pivot, respectively. It is considered that the steps of cutting the lower join to provide an abutment portion of the handle and the upper join being adapted to act as a pivot for the handle with the abutment portion being adapted to flex as the handle is rotated to push the abutment portion from below or above the pivot to above or below the pivot, respectively comprise a fourth distinguishing feature.

[See Supplemental Box II]
Supplemental Box II
(To be used when the space in any of Boxes I to VIII is not sufficient)

Continuation of Box No: Supplemental Box I

PCT Rule 13.2, first sentence, states that unity of invention is only fulfilled when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding special technical features. PCT Rule 13.2, second sentence, defines a special technical feature as a feature which makes a contribution over the prior art.

The only feature common to all of the claims is a container having a movable handle. However this concept is not novel in the light of:

D1-US 5875913 (LETICA) Published 2 March 1999 (see figures 1 to 5)
D2-US 6485438 (MINUE) Published 26 November 2002 (see figures 1 to 5)
D3-US 6761282 (ANDERSON) Published 13 July 2004 (see figures 1 & 2)
D4-US 5027973 (DROGOS) Published 2 July 1991 (see figure 2)
D5-US 5215210 (OSTRUM ET AL) Published 1 June 1993 (see figures 1 & 2)
D6-US 6126035 (SCHAPER ET AL) Published 3 October 2000 (see figures 1 & 2)
D7-US 6644492 B1 (MITCHELL) Published 11 November 2003 (see figure 5)
D8-US 3384258 A (SINGER) Published 21 May 1968 (see figures 1 & 2)

This means that the common feature can not constitute a special technical feature within the meaning of PCT Rule 13.2, second sentence, since it makes no contribution over the prior art.

Because the common feature does not satisfy the requirement for being a special technical feature it follows that it cannot provide the necessary technical relationship between the identified inventions. Therefore the claims do not satisfy the requirement of unity of invention a posteriori.

As the search and examination for the additional inventions will each require negligible additional search and examination effort over that for the first invention and each other, no additional search fees are warranted.
This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX