Abstract:
A device for sealing a plurality of different sized containers, the device including a plurality of different sized rims, each of the different sized rims being for engaging with a respective different sized container, to seal the container.

Title: A DEVICE FOR SEALING A CONTAINER

Fig. 3A
A DEVICE FOR SEALING A CONTAINER

Field of the Invention
The present invention relates to a device for sealing a container, and in one particular example, a lid or cap for sealing a container such as a can or the like. According to one particular example, the device is used to seal the container when the container contains food or beverage.

Description of the Background Art
The reference in this specification to any prior publication (or information derived from it), or to any matter which is known, is not, and should not be taken as an acknowledgment or admission or any form of suggestion that the prior publication (or information derived from it) or known matter forms part of the common general knowledge in the field of endeavour to which this specification relates.

Presently, for many containers such as for example, cans, it is difficult to re-seal them once they have been opened. This can cause the contents of cans, which typically include effervescent drinks to ruin and thus be inedible.

Furthermore, for containers such as cans, or the like, it is often difficult to carry a plurality of containers at once. For example, at events such as music festivals, a person may purchase a plurality of cans filled with drink, where the cans are typically opened upon purchase. Thus, it is often difficult to carry the plurality of cans without spillage.

The present invention seeks to substantially overcome, or at least ameliorate, one or more disadvantages of existing arrangements, or to provide alternatives to existing arrangements.

Summary of the Present Invention
In a first broad form, there is provided herein device for sealing a plurality of different sized containers, the device including a plurality of different sized rims, each of the different sized rims being for engaging with a respective different sized container, to seal the container.
According to one particular example, the rims extend from a first surface of the device.

In yet a further example, the device includes a walled portion for holding another container on the device, when the device is sealing the container.

According to another aspect, the walled portion extends from a second surface of the device.

With respect to a further form, the first and second surfaces are opposite sides of a floor of the device.

According to yet another example, the first and second surfaces are the same surface and form a floor of the device.

In a further example, the floor of the device has a domed portion. In yet another aspect, the floor of the device is substantially flat.

In another example, the device is circular in shape and includes a plurality of concentric rims, each of the plurality of rims being configured to fit around an edge of the respective container.

According to an additional example, the device includes a tab protruding from a side of the device, the tab being configured to be used to pull the device off a container.

In yet a further aspect the device includes at least one venting hole formed within a floor of the device.

With respect to another example, the device includes a sliding tab, the sliding tab being moveable between open and closed positions, where in the open position, a recess formed in a floor of the device allows for contents within the container to be accessed, and where in the closed position, the recess is sealed by the sliding tab.

In yet a further form, the device includes at least one rib, the rib being formed within the device such that when a container is stacked on the device, the rib provides a space between the device and the stacked container.
According to another form, the device is configured to be used with aluminium cans.

In a second broad form, there is provided a device for sealing/capping a container, the device including a rim for sealing with an edge of the container.

In one particular example, the device is circular in shape and includes a plurality of concentric rims, each of the plurality of rims being configured to fit around the edge of a different sized container. According to another example, the device includes a walled portion, wherein the walled portion is configured to support another container placed on the device.

In a third broad form, there is provided a device for sealing a container, the device including:

- a first surface having a rim for sealing with an edge of the container;
- a second surface having a walled portion extending from the second portion, the walled portion being configured to hold a second container on the second surface.

In a fourth broad form, there is provided a device for sealing a plurality of different sized containers, the device including a plurality of different sized rims extending from a surface of the device, each of the plurality of different sized rims being configured to engage with an edge of a respective container.

In a fifth broad form, there is provided a device for sealing a container, the device including:

- a sealing portion, the sealing portion having a rim for sealing with an edge of the container;
- a walled portion, the walled portion being operatively connected to the sealing portion, the walled portion being configured to hold a second container on/at least partially within the device.

It will be appreciated that any of the forms/examples described herein may be used individually or in combination.
Brief Description of the Drawings

An example of the present invention will now be described with reference to the accompanying drawings, in which:

Figure 1A is a schematic diagram of an example of a device for sealing a container;
Figure 1B is a schematic diagram of the example device of Figure 1, used on a container;
Figure 1C is a schematic diagram of the example device of Figure 1, used to stack a plurality of containers on top of another container;
Figure 2A is a schematic diagram of a top view of an example of a device for sealing a container;
Figure 2B is a schematic diagram of a bottom view of the example device of Figure 2A;
Figure 2C is a schematic diagram of a top perspective view of the example device of Figure 2A, cut at cross-section A-A;
Figure 2D is a schematic diagram of a top perspective view of the example device of Figure 2A;
Figure 2E is a schematic diagram of a side cross-sectional view of the example device of Figure 2A, cut at cross-section A-A;
Figure 2F is a schematic diagram of a side view of the example device of Figure 2A;
Figure 2G is a schematic diagram of a bottom perspective view of the example device of Figure 2A;
Figure 3A is a schematic diagram of a top view of an example of another device for sealing a container;
Figure 3B is a schematic diagram of a bottom view of the example device of Figure 3A;
Figure 3C is a schematic diagram of a top perspective view of the example device of Figure 3A, cut at cross-section A-A;
Figure 3D is a schematic diagram of a top perspective view of the example device of Figure 3A;
Figure 3E is a schematic diagram of a side cross-sectional view of the example device of Figure 3A, cut at cross-section A-A;
Figure 3F is a schematic diagram of a side view of the example device of Figure 3A;
Figure 3G is a schematic diagram of a bottom perspective view of the example device of Figure 3A;
Figure 4A is a schematic diagram of a top view of another example device;
Figure 4B is a schematic diagram of a top perspective view of the example device of Figure 4A;
Figure 4C is a schematic diagram of a side view of the example device of Figure 4A;
Figure 4D is a schematic diagram of a bottom perspective view of the example device of Figure 4A;
Figure 4E is a schematic diagram of a side view of the example device of Figure 4A stacked with other devices;
Figure 4F is a schematic diagram of a top perspective view of the device of Figure 4A stacked with other devices;
Figures 5A and 5B are schematic diagrams of the device of Figure 4A being used to seal a first can and stack a second can onto the first can;
Figure 6A is a schematic diagram of a perspective bottom view of another example of a device for sealing a container;
Figure 6B is a schematic diagram of a side view showing rims of the example device of Figure 6A;
Figure 6C is a schematic diagram of a side view of the example device of Figure 6A;
Figure 7A is a schematic diagram of a perspective bottom view of another example of a device for sealing a container;
Figure 7B is a schematic diagram of a side view showing rims of the example device of Figure 7A;
Figure 7C is a schematic diagram of a side view of the example device of Figure 7A;
Figures 8A to 8X are a schematic diagram showing example cross-sections of variations of the device of Figure 1;
Figure 9 is another schematic diagram shown further example cross-sections of the variations of the device of Figure 1;
Figure 10A is a schematic diagram of a top view of another example device of Figure 1, showing a sliding tab in a closed position;
Figure 1OB is a schematic diagram of a top view of the example device of Figure 1OA, showing the sliding tab in an open position;

Figure 1OC is a schematic diagram of a bottom view of the example device of Figure 1OA, showing the sliding tab in a closed position;

Figure 1OD is a schematic diagram of a bottom view of the example device of Figure 1OA, showing the sliding tab in an open position;

Figure 1OE is a schematic diagram of a side cross-sectional view of the device of Figure 1OA, showing the cross section of the sliding tab;

Figure 1OF is a schematic diagram of a top perspective cross-sectional view of the device of Figure 1OA, showing the cross section of the sliding tab;

Figure 1OG is a schematic diagram of a top perspective view of the example device of Figure 1OA, showing the sliding tab in an open position;

Figure 1OH is a schematic diagram of a top perspective view of the example device of Figure 1OA, showing the sliding tab in a closed position;

Figures 101 to 1OK are schematic diagrams shown examples of the sliding tab as used in Figures 1OA to 1OH;

Figure HA is a schematic diagram of a top view of another example device of Figure 1, showing venting holes and ribs/cavities;

Figures HB and HF are schematic diagrams of a top perspective views of the example device of Figure 11A, showing venting holes and ribs/cavities;

Figures HC and HD are schematic diagrams of side views of the example device of Figure HA;

Figure HE is a schematic diagram of a bottom view of the example device of Figure HA, showing venting holes and ribs/cavities;

**Modes For Carrying Out The Invention**

A device of sealing/capping a container is shown in Figure 1.

In particular, Figures 1A and 1B shows a device 1, which includes a rim 5 for sealing with an edge of a container 10. The rim 5 for sealing can form a part of a sealing portion 12. Notably,
the sealing portion 12 can also be an engaging portion, where the rim 5 can engage with an edge of the container. This is further discussed below.

Figures 1A to 1C show that the device 1 can include a walled portion 15, where the walled portion 15 is configured to support another container 10 placed on/at least partially within the device 1 (as particularly shown in Figure 1C). Thus, the walled portion 15 can also be referred to as a receiving portion, where it is formed to receive and/or hold another container, or as described below, another device for sealing 1.

In the example shown in Figures 1A to 1C, the device 1 can include a first surface 20 having a rim 5 for sealing with an edge of the container 10. The device 1 can also include a second surface 25 which can include the walled portion 15 extending there from, where the walled portion 15 is configured to hold a second container 10 on the second surface 25. Notably, the first and second surfaces can be opposing sides of the same surface, where each opposing side includes the respective walled and sealing portions, or according to another example, can be the same surface of the device, and can be referred to as the floor or the base of the device 1.

Figures 2A to 2G show another example of the device 1, where the sealing portion 12 includes two rims 5A and 5B. A further example of the device 1 is shown in Figures 3A to 3G, where the walled portion 15 includes two walls 14A and 14B.

In the examples shown in Figures 2A to 3G, the inner wall 14B and/or the inner rim 5B can be shorter in height than the outer wall 14A and/or the outer rim 5A, respectively. This limits the interference by the shorter walls with the stacking functionality of the device, and further limits the interference of the shorter rims when the device is being used to seal a larger container (with the outer rims).

Thus, it will be appreciated that the device shown can include a plurality of walls 14 for receiving the base of different sized containers, and can also include a plurality of rims 5 to fit to different sized containers. Thus, the device described herein can be used to seal different sized cans for food and beverage ranging from cans, which for example can range from 50mm to 160mm in diameter.
Furthermore, it will also be appreciated that the sealing feature can be improved by having a plurality of rims as the rim immediately inside the rim being used to seal the container can press against the edge of the container to further engage with the container.

Additionally, in the examples shown in Figures 2A to 3G, the sealing portion 12 has a smaller diameter than the walled portion 15, and although the sealing portion 12 can be connected to the walled portion 15 by any operable means, in this particular example, due to the change in diameter, they are connected via a stepped portion 13.

Figures 4A to 4F show yet a further example of the device 1, where the device 1 includes a tab 35, which in this example is semi-circular in shape and can be used by a user to lift the device 1 off a container. Notably, the tab 35 can be formed on any side of the device 1.

Figures 4E and 4F also show that a plurality of devices 1 can be stacked due to the stepped portion 13, which allows for the sealing portion 12 of a device 1 to be received by the walled portion 15 of another device 1 (as in this example, they are formed on different sides of a holding surface of the device, or on two opposing surfaces).

Figures 5A to 5B show examples of cans 40, being stacked by use of the device 1. Thus, the device 1 can be used to seal a first can, whilst also being used to provide a stacking mechanism for a second can on top of the first can.

Figures 6A to 6C show further examples of a configuration of the device 1. In this particular example, the sealing portion 12 is arcuate (or circular) in shape (around its perimeter) and includes a plurality of concentric rims 5A and 5B, where each of the rims 5A, 5B is configured to fit around and/or engage with the edge of a different sized container. In particular, Figure 3 shows that the rims 5A and 5B may include a widened or flanged portion 7, which is particularly designed to snap-lock with an edge of a container. Notably, in the example device 1 shown in Figures 2 to 4, the diameter of the sealing portion is less than the diameter of the walled portion.

Figures 7A to 7C show a variation of the device 1, where the sealing portion 12 and the walled portion 15 have the same diameter. This is effectively a reversible device where the
sealing portion 12 includes a walled portion 15 on either side of a holding surface 30. Both sides of the holding surface 30 include rims 5, such that the device 1 can be used at either side for varying sizes of containers. Thus, it will be appreciated that the sealing portion 12 and the walled portion 15 can be operatively connected, depending on the configuration of the device 1.

In a further example, the holding surface 30, which can be the first and second surfaces as described herein, can be either domed or flat. Notably, the holding surface can be referred to as a base, or the like.

It will be appreciated by persons skilled in the art that the device 1 can be formed with a combination of a plurality of walled and sealing portions, on the same side or either sides of the holding surface. Figures 8A to 8X shows a cross-section of the various combinations of walled portions and sealing portion of the device 1.

In particular, Figures 8A to 8M show examples of devices with the surfaces being flat, whereas Figures 8N to 8X show examples of devices with the surface being domed on one side.

Figure 8A shows an example of a device with one rim and no stacking wall, Figure 8B shows an example device with one rim and one stacking wall, Figure 8C shows an example device with one rim and two stacking walls. Figure 8D shows an example of the device with one stacking wall and two rims on one side, Figure 8E shows an example of a device with one rim on each side and no stacking walls. Figure 8F shows an example of a device with three rims, with two on one side and one or two stacking walls, Figure 8G shows an example of a device with three rims, with two on one side and one no stacking walls. Figure 8H shows an example of a device with two rims on one side and two stacking walls, whereas Figure 8I shows example devices with two stacking walls and a rim on either side.

Furthermore, Figure 8J shows example devices with no stacking wall, but with a combination of two or more rims on either side. Figure 8K and 8L show examples of a device with one stacking wall and one rim on either side. Figure 8M shows an example device with one rim and one stacking wall on either side of the holding surface.
Figure 8N shows example devices with two rims on one side, and one rim on the other side, with no stacking wall. Figure 80 shows example devices with one rim on either side of the device with one staking wall on one side. Figure 8P shows an example of a device with one rim on either side and one staking wall, whereas Figure 8Q shows an example of devices having on rim on either side and a wall on either side. Figure 8R shows an example of a device with two rims on one side and a stacking wall.

Figure 8S shows example devices having a rim on either side and no stacking wall. Figure 8T shows example devices having three rims with two rims on one side and one rim on the other side, and either one or no stacking walls. Figure 8U shows an example of a device with two rims (arranged on the same or either side) and two stacking walls. Figure 8V shows an example of a device with one rim and no stacking wall. Figure 8W shows an example device with one rim and one stacking wall. Figure 8X shows an example device with one rim and two stacking walls.

Figure 9 also shows further examples of the different variations of walls and rims which can form a part of the device 1.

Notably, the device 1 described and shown in the figures is arcuate (or circular or elliptical) in shape so as to fit around the edge of an aluminium can, or the like, for sealing a drink within the can. However, it will be appreciated by persons skilled in the art that the device is not limited to these shapes, and may be used to seal other types of containers, and thus the device can be manufactured for any other shape such as triangular, rectangular, square, or the like.

Furthermore, it will also be appreciated that the device 1 can be referred to as a cap, lid, closure, or the like, and the walled and/or sealing portions may not necessarily surround the entire diameter of the device, and may include discrete portions.

Thus, as described herein, there can be provided a device 1 for sealing a plurality of different sized containers, where the device 1 can include a plurality of different sized rims, where each of the different sized rims engage with a respective different sized container, to seal the container.
The rims typically extend from a first surface of the device, and the device can include a walled portion for holding another container on the device, when the device is sealing the container, or stack another device with the device, for storage or the like. The walled portion can extend from a second surface of the device 1, and according to one particular example, the first and second surfaces are opposite sides of a floor of the device, or alternatively, as described herein, the first and second surfaces are the same surface and form a floor of the device.

Furthermore, as shown in some of the figures, the floor of the device can have a domed portion, or be substantially flat.

It will further be appreciated that in the examples shown herein, the device 1 is circular in shape and includes a plurality of concentric rims, each of the plurality of rims being configured to fit around an edge of the respective container. Thus, the device 1 is particularly suitable for use with aluminium cans, plastic cups, or the like. However, other shapes of the device 1 are also possible and are considered to fall within the scope of the present application.

As also described herein, the device 1 can include numerous features, including but not limited to tabs, venting holes, a sliding tab, and ribs or cavities.

Thus for example, a tab can be formed to protrude from a side of the device, where the tab is configured to be used to pull the device off a container. Furthermore, at least one venting hole formed within a floor of the device to allow for excess pressure to be released from the container, once the container is sealed.

The device can also include a sliding tab, where the sliding tab is moveable between open and closed positions, where in the open position, a recess formed in a floor of the device allows for contents within the container to be accessed, and where in the closed position, the recess is sealed by the sliding tab.
Additionally, the device can also include at least one rib/cavity, where the rib/cavity is formed within the device such that when a container is stacked on the device, the rib provides a space between the device and the stacked container.

Further examples of the device, and the features outlined above are given below.

Further Examples

The device described herein, in one example, is a round plastic cap or lid, which can allow soft drink and alcoholic beverage cans to be stacked on top each of each other to be held or carried, minimise spillage from an opened can, and may also help retain the carbonation or effervescence of the liquid in the can.

Thus, the device described may reduce the problem of spilling liquid from an opened can. The roof (or surface) and rim of the sealing section of the device can also allow the liquid to fall back into the can. It does this by providing a seal over the can which stops/limits liquid, which has come out of the opening of the can, from falling away from the can.

In one particular example, a test was performed where a can was opened and was consequently sealed with the device described herein. After a twelve hour period, the carbonated beverage within the can was still almost fully effervescent, due to the seal provided by the device. Notably, the domed example of the device described herein may provide a tighter seal allowing the carbonated beverage to retain its effervescence for a longer period.

According to a further example, the stacking feature described above can allow for another can to be placed on top of the can with the device. Accordingly, this can allow for two or more cans to be carried by a person, in each hand, either whilst walking or moving their arms whilst standing still. In one particular example, the stacking feature is a lcm wall around the outer edge of the device top. The internal diameter of the wall is the same as the diameter of a large can. Thus, the wall may be able to reduce the amount that the can placed on top moves with respect to the can underneath and thereby reduces the risk of dropping the can on top.
Notably, if two cans are stacked on top of each other without using the device described herein, then the risk of slippage of at least one of the cans due to movement may be increased and a significant amount of the contents of the can may be lost.

Thus, it will be appreciated that the device for sealing a container can be used for a variety of situations. In one particular example, attendees at a music festival, which is typically held at a park can use the device to buy several beverages at once and carry the beverages to their friends.

The device described herein can reduce the chance of the top can slipping off. Notably, if the top can also has a device on it, the device can minimise the amount of the contents that leak out as well as keeping the drinking rim of the can clean, when the can hits the ground (which may be imperative in festival environment).

Most music festivals allow people to buy several cans of drink at a time. It is not uncommon to see people holding two cans of beer in each hand. They do this by holding the top of one can and the bottom of the other can in each hand. Every time they take a drink from the can they are drinking from they lose liquid from the can underneath it. If they get bumped they quite often drop a can or cans.

Accordingly, the device described herein can allow for a person with two cans to have two of the cans in one hand being sealed and one of the can on the bottom of the other hand that they are drinking from to be sealed, where the person then only needs to hold the bottom can in each hand.

Additionally, a person holding an opened can with the device described herein placed on the can, as well as another opened can sitting in the stacking section of the device, may be able to drink from the top can without spilling liquid from the bottom can whilst only holding the bottom can. At most, they might have to use one finger and thumb to stop the top can from falling out of the stacking section when they turn the can up past 90° to drink from the top can.
Thus, the device described herein has numerous features which can be used separately or in combination. These features include, a stackable wall feature, no openings, the ability to be fitted up to at least three different can top sealing rims which can be applied in up to twelve combinations, a domed sealing roof/stackable floor to increase the tightness of the seal, and can also be carried conveniently in someone's pocket.

In one particular example, the device is a round plastic product that has the diameter of a common soft drink can and it is about 1.5 cm high. On the topside is the stacking feature. This is a wall approximately 1 cm high at the outer edge of the device, which can receive a top can. Notably, the internal dimension of the stacking wall can be the same as the diameter of a large drink can.

It will be appreciated that whilst the stackable side can have a flat surface, it is also possible that the surface can include a domed floor, which is pushed down onto the can, and increases the tightness of the device seal on the can.

Furthermore, the sealing feature is on the bottom side of the device. This generally includes a rim which clips around the bottom edge of the top of a drink can. The rim is what attaches the device to the can top as well is helping to seal the can. The device can include two or more rims such that it can be used with varying sized drink cans. Accordingly, the device can be used with different types of cans. Notably, the rims can include a rim which is particularly suited for slim-line cans.

According to one particular example, the inner wall of the sealing rim has a cavity which is the length of a can top. The rim also generally includes edge, which is almost the width of the can top, and which clips under the bottom edge of the can top.

Thus, the sealing rim, combined with the floor of the stacking feature, can stop/limit liquid from spilling out of an opened can and helps the liquid to fall back into the can.

The stacking and sealing features are further described below:
The Stacking Feature:

In one particular example, the stacking feature can be a wall or a wall portion which is approximately 1 cm high at the outer edge of the device which the top can may be placed into. A second shorter stacking wall allows a can with a different or smaller diameter to be stacked. The height of the second shorter stacking rim will not interfere with a larger can being placed in the larger outer wall stacking rim. The stacking feature generally has a flat bottom surface and can thus reduce the amount of sway a can placed into it has. The wall can run almost 1 cm, or more or less, up the outside edge of the can placed into it and the internal dimension of the wall can be the same as the diameter of a can of a large drink can.

Accordingly, the stacking feature can reduce the amount of sway a can placed into it has. Thus, a person holding a bottom can with the device placed on the can and a can in the stacking feature, also with a device on top can, would be able to move their hand and greatly reduce the chances of dropping, contaminating or spilling either drink.

As described above, the stacking feature may also have a domed floor. This floor would get pushed down as the device is being applied to the can top. It would increase the tightness that the device attaches to the can top and therefore increase the seal, which reduces the chances of dropping, contaminating or spilling either drink.

It will also be appreciated that the stacking feature with a domed floor may also give more space for liquid in the opened can to flow into which would reduce the probability of the device being popped off by the pressure within the can.

It will also be appreciated that the device can also be made without the stacking feature, and can thus be used for domestic or office use.

The Sealing Feature:

The sealing feature is generally on the bottom side of the device and can include a rim which clips around the bottom edge of the top of a drink can. The rim is generally what attaches the device to the can top as well is helping to seal the can.
It will be appreciated that the device can include one, two, three or more of these rims as there are generally two diameters of large drink top cans and slim-line cans, which can allow for only one device to be used for the different types of cans.

Notably, the inner wall of the sealing rim may have a cavity which is the length of a can top, and may also include an edge, which is almost the width of the can top, which clips under the bottom edge of the can top. The sealing rim, combined with the floor of the stacking feature as described above, may stop/limit liquid from spilling out of the can and helps it to fall back into the can.

It will be appreciated that many variations of the above-described features are possible, this can include but is not limited to a device which can be made with up to many different combinations of one, two, or three or more rims and in any combination of the three rims, with or without the stacking features on one or both sides of the device, and/or with either a flat floor/ceiling or a domed floor/ceiling.

Thus, the device described herein may include a stacking section with a flat floor and three rims in the sealing section. Two of the rims for the larger beverage cans and one rim for the slim-line can.

The device may also be made in a smaller version which is particularly designed to fit slim-line cans. The slim-line device may be made with or without a stacking feature and either a flat floor ceiling or domed floor ceiling.

Thus, it will be appreciated that various combinations of the features of the device described herein are possible. Accordingly, the device may have three, two, or one rim on one side, which can be arranged in at least seven different combinations with a different number of rims on the other side. This can lead to 49 or so different combinations of rims. The 49 or so different combination of rims can be made with two, one, or no stacking feature, which can lead to 147 different combinations. Furthermore, the device can have either a flat or domed floor, which can lead to 296 or so different combinations of features. The device is not limited to 3 sealing rims and 2 stacking walls.
Notably, the device described herein has been designed to fit cans from various manufacturers around the world. This may include making minor adjustments to the diameter of the sealing rim for various sizes and shapes of cans in the future.

The sliding tab feature

Figures 1OA to 1OK show an example of the device 1, where the floor 50 includes a recess 55. The recess 55 is typically accessible to allow for contents of a container, which the device 1 I sealing to be consumed, poured out, released, emptied, accessed, or the like.

In this particular example, the recess 55 has associated therewith, a sliding tab 60. The sliding tab 60 is typically used to cover the recess 55, when sealing of the container is required and the recess 55 is not required for use (that is, for example, if the device 1 is being used to cover a can of drink then if a user does not want to drink from the can, they can use the sliding tab 60 to cover the recess 55). Thus, according to one particular example, the hole/recess 55 in the floor 50 of the device 1 is similar in size to that of a common aluminium drink can.

Accordingly, the sliding tab 60 of this example, can be slid open to create an opening (in the recess 55) for the contents of the container to be accessed/emptied without necessarily removing the device 1 from the container. Thus, when the tab 60 is slid shut, the device 1 can seal the container.

Figures 1OA to 1OH show examples where the tab 60 is formed on the underside of the device 1 (that is, the side of the device 1 which typically faces the interior of the container which the device 1 is sealing, when the device is in use on a container).

In this particular example, the tab 60 attaches to the device 1 by clipping on to a ball 65 at the centre (or substantially the centre) of the underside of the device 1. This allows the tab 60 to rotate (or pivot) and either opens or closes the hole in the floor 50 of the device 1.

Furthermore, as shown in this example, the tab 60 is shaped similar to a tennis racket. Thus, in this example, the head of the tab 60 has a semi-circular dome which fills the hole in the floor of the device. On one edge of the dome is a small plinth 70 to aid a user move the tab
60. The plinth 70 may snap into slots on the edges of the hole/recess 55 in the floor 50 of the device 1 to secure the tab 60 and thus keep the hole/recess 55 either open or shut.

The examples shown in Figures 10A to 10K further show that the outside head of the dome of the tab 60 can include a small raised edge 75 which, when the tab 60 is in the closed position (as shown, for example, in Figure 10A), can line up with an identical shaped groove (not shown) in the underside of the device floor 50. The raised edge 70 and the groove can work together to help increase the seal of the device 1 when the tab 60 is in the closed position. The carbonation or pressure of the contents of the container may also push the tab 60 away from the contents of the container, and thus aid in the sealing of the container.

It will be appreciated that the tab 60 described herein is formed such that a second container is able to be stacked on the device 1, as described herein.

Notably, it will also be appreciated that although there has been described herein, a sliding tab 60 for covering the recess 55, any cover which will be apparent to persons skilled in the art is considered to fall within the scope of the present application. Furthermore, it will also be appreciated that this feature of the device 1 may be helpful on aeroplanes, in cars, in situations where insects may crawl into a container, or the like.

**Venting Holes and ribs/Cavities**

Figures 11A to 11F show that the device 1 can also include at least one venting hole 80 in the floor 50 of the device 1.

The venting holes 80 can allow for pressure within the container to be released when the device is in use, sealing a container.

Notably, in this particular example, there are two venting holes 80, although it will be appreciated by persons skilled in the art that any number of venting holes can be used (such as, for example 1 to 4). It will further be appreciated that the venting holes may be formed anywhere on the device 1, such as the sidewalls or the like. Further still, the diameters and shape of the venting holes 80 may differ depending on the use of the device 1.
Figure 11A to 11F show the device 1 including one or more ribs/cavities 85. The ribs/cavities can be used in combination with the venting holes 80. Thus for example, if the venting holes 80 are formed on the floor 50 of the device 1, and the device 1 is being used on a container, then pressure released from this container may build if another container is stacked on the device 1.

Accordingly, in order to prevent/limit the device 1 being dislodged from the container it is sealing by the pressure being released from the container, in this particular example, six ribs 85 can be formed to protrude and/or recess (when in the form of a cavity or the like) from the inner wall of a stacking wall. The ribs 85 can lift the container stacked on the device 1 (or create a space between the container stacked and the device 1, if recessing into the device 1), and allow for pressure to escape from underneath the stacked container and up the side of the stacked container through channels formed by the ribs.

In this particular example, the ribs 85 are 1mm wide and protrude from and/or recess (in the form of a cavity) into the device 0.2mm, and thus can lift the stacked container by 0.2mm. Notably, the ribs 85 can be wider and protrude higher from or recess lower into the device 1, if necessary (thus any size which is required can be used).

Notably, the ribs 85 can also strengthen/tighten the hold on or engagement with the stacked container.

It will be appreciated that the device described herein can be used in a variety of industries, including but not limited to products for sealing food and beverage containers.

According to one particular example, the device described herein can be applied to any container which can be used to hold beverages. These include, and is not limited to, cups, mugs, canisters, or the like. Thus, for example, in large events when drinks are often served in plastic cups, the device of the present application may be used to secure the contents of the plastic cups, and in yet a further example, may also be used to stack multiple plastic cups on one another, so that they are easier to carry.
It will also be appreciated that the device described herein can provide the following advantages - the device can be used to seal an open can which may have some liquid within it, can stop/limit liquid from being spilt from an opened can, may allow for cans to be stacked on top of each other, may allow an opened can containing a carbonated beverage to stay carbonated for a longer period of time, and may also allow for multiple cans (either open or closed) to be held or carried in one hand.

It will also be appreciated that the above-described device can also avoid having to dispose of leftover carbonated liquid. The device can also provide longer lasting effervescence once a can or the like has been opened. Additionally, this can limit the chance of contamination of the liquid in an open can (which can cause sickness).

The foregoing describes only some embodiments of the present invention, and modifications and/or changes can be made thereto without departing from the scope and spirit of the invention, the embodiments being illustrative and not restrictive.

In the context of this specification, the word "comprising" means "including principally but not necessarily solely" or "having" or "including", and not "consisting only of. Variations of the word "comprising", such as "comprise" and "comprises" have correspondingly varied meanings.
The claims defining the invention are as follows:

1) A device for sealing a plurality of different sized containers, the device including a plurality of different sized rims, each of the different sized rims being for engaging with a respective different sized container, to seal the container.

2) The device of claim 1, wherein the rims extend from a first surface of the device.

3) The device of any one of claims 1 or 2, wherein the device includes a walled portion for holding another container on the device, when the device is sealing the container.

4) The device of claim 3, wherein the walled portion extends from a second surface of the device.

5) The device of any one of claims 2 or 4, wherein the first and second surfaces are opposite sides of a floor of the device.

6) The device of any one of claims 2 or 4, wherein the first and second surfaces are the same surface and form a floor of the device.

7) The device of any one of claims 5 or 6, wherein the floor of the device has a domed portion.

8) The device of any one of claims 5 or 6, wherein the floor of the device is substantially flat.

9) The device of any one of claims 1 to 8, wherein the device is circular in shape and includes a plurality of concentric rims, each of the plurality of rims being configured to fit around an edge of the respective container.

10) The device of any one of claims 1 to 9, wherein the device includes a tab protruding from a side of the device, the tab being configured to be used to pull the device off a container.

11) The device of any one of claims 1 to 10, wherein the device includes at least one venting hole formed within a floor of the device.
12) The device of any one of claims 1 to 11, wherein the device includes a sliding tab, the sliding tab being moveable between open and closed positions, where in the open position, a recess formed in a floor of the device allows for contents within the container to be accessed, and where in the closed position, the recess is sealed by the sliding tab.

13) The device of any one of claims 1 to 12, wherein the device includes at least one rib, the rib being formed within the device such that when a container is stacked on the device, the rib provides a space between the device and the stacked container.

14) The device of any one of claims 1 to 13, wherein the device is configured to be used with aluminium cans.
### Flat Floor/Ceiling

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### Domed Floor/Ceiling

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*Fig. 9*
**INTERNATIONAL SEARCH REPORT**

**A. CLASSIFICATION OF SUBJECT MATTER**

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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)

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

WPI, EPODOC: IPC B65D 41/01, B65D 21/032, B65D 21/036, B65D 43/02-43/08, A47G 19/23, A47G 23/02, A47J 36/06; USC 215/319 & Keywords (different, plural, multiple, various, numerous, dual, mouth, flange, Hp, seal, cap, skirt, periphery, lid, cover, stack, pile, concentric, dome, closure, stack, spacer, vent, hole, aperture and slot).

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

<table>
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<tr>
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<tr>
<td>X</td>
<td>US 3655089 A (TOWER) 11 April 1972 Abstract, Col 2 line 49-Col 3 line 17, Figs. 1-3</td>
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<td>US 5695086 A (VIOLA) 9 December 1997 Abstract, Col 2 line 48-Col 3 line 6, Figs. 1-8</td>
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[X] Further documents are listed in the continuation of Box C

[X] See patent family annex

- **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 filing date
- **L** document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another application or other special reason (as specified) but later than the priority date claimed
- **O** document referred to as an oral disclosure, use, exhibition or other means
- **P** document published prior to the international filing date

Date of the actual completion of the international search: 15 February 2010

Date of mailing of the international search report: 17 February 2010

Name and mailing address of the ISA/AU

AUSTRALIAN PATENT OFFICE
PO BOX 200, WODEN ACT 2606, AUSTRALIA
E-mail address: pct@ipaustralia.gov.au
Facsimile No. +61 2 6283 7999

Authorized officer
RONISH CHAUDHARY
AUSTRALIAN PATENT OFFICE
(ISO 9001 Quality Certified Service)
Telephone No: +61 2 6283 2722
### DOCUMENTS CONSIDERED TO BE RELEVANT

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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