A segmented, reclosable container device. This device is characterized by bottom removable cup member attached to a cylindrical middle member that is further attached to a top removable closure means. The top removable closure affixes to the cylindrical middle member and forms a hermetically sealed container. The middle cylindrical member then affixes to a bottom removable cup member that holds a portion of the volume of the entire contents of said container but is also functions to hermetically seal the container. During operation, both the top removable closure means and bottom removable cup may be removed to reach contents of container. Both mechanisms, but especially the bottom removable cup facilitates the extraction of the contents of the container by allowing the consumer to easily reach the product, either manually or with a utensil.
SEGMENTED RECLOSEABLE CONTAINER

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention generally relates to a container for hermetically sealing contents such as foodstuffs, cosmetics, or industrial chemicals. More specifically, the present invention relates to a segmented reclosable container that allows easy access to the content in the bottom of the segmented reclosable container.

[0003] 2. Background Information

[0004] The use of reclosable containers, and specifically those used to hermetically seal foodstuffs, is known in the art. More specifically, reclosable containers heretofore devised and utilized are known to consist basically of familiar, expected and obvious configurations, notwithstanding the myriad of designs encompassed by the crowded prior art.

[0005] Reclosable containers have been developed for the fulfillment of countless objectives and requirements and are a necessity in many industries, including foodstuffs, cosmetics, and industrial chemicals. Reclosable containers facilitate convenient, repeated access to a container's contents while hermetically sealing the bulk contents from external contaminates when the bulk contents are not being accessed. Further, reclosable containers cut down on product waste, provide economical packaging, and give consumers an incentive to purchase the packaged product. Reclosable containers require similar, if not the same, shipping containers, distribution methods, and display units. A segmented reclosable container provides the convenience of the known art, with enhancement in product usage and consumer appeal.

[0006] Conventional containers for foodstuffs, cosmetics, industrial chemicals and other like products have one basic flaw; once the product has been used to a certain level, it becomes difficult to extract the remaining product from the container. Not only does it take extra time and effort, it can become a messy task. Frequently, the product spills on surrounding materials and may even find its way on to the user himself. This can become more than a mere annoyance. Chemical solutions, oil based products and cosmetics may cause discoloration and permanent damage to the materials the product lands upon. Depending on the product, it may even be harmful if it comes into contact with human skin. Many consumers find it easier to discard the product remaining in the bottom of the container, rather than suffer the time and hassle to extract the remaining product or risk possible damage to oneself, ones clothes or the surrounding area. Economically, the consumer is wasting money by not fully utilizing the contents of the container for which he has fully paid. Environmentally, this practice contributes to the solid waste problem flagging the world's overcrowded landfills. Consumers and the environment would benefit from a segmented reusable container that allows them to utilize all of the product for which they have paid.

[0007] The invention at hand consists of a two-part vessel that contains the bulk contents and a reclosable sealing means. The reclosable sealing means can be via a threaded screw cap, an interlocking pressure sealed lid, or other means known in the art. This container allows product to be shipped, stored, distributed and displayed as any other container currently on the market. The benefit of this container is when the consumer utilizes the product; the consumer uses the container in a normal fashion, extracting the product from the top lid of the container. Once the product becomes difficult to access or remove from the container, the consumer removes the bottom cup to extract the product contained within the bottom cup. By removing the bottom cup, the remaining product becomes easily accessible, and the consumer does not waste any product through spillage or simply making the container refuse.

[0008] To extract the content of foodstuffs from containers, a utensil is frequently required. The standard kitchen case knife is eight inches long, and it is generally the longest utensil in a flatware set. With today's bulk purchasing capacity, consumers are buying foodstuffs in containers that are frequently greater than eight inches in depth. When trying to extract the material not using a utensil, it becomes difficult, if not impossible, when using conventional flatware because the utensil is simply not long enough to reach the bottom of the container. Consequently, consumers may throw the canister away, rather than try in vain to reach the bottom-most contents. If consumers can reach the contents, this is a messy process by which the utensil and the utensil handle becomes covered in the foodstuff, as does the hand of the user.

[0009] Using utensils to extract materials may cause additional hardship on people with limited manual dexterity. People with arthritis and hand injuries, for instance, need to be able to grasp a utensil fully in order to fully utilize it when extracting the contents of a container. A person with limited manual dexterity or limited finger strength does not have the ability to grasp the tail end of a utensil between their thumb and index and/or middle finger while inserting the full length of the utensil into a container whose height is equal to or greater than the utensil's length. Therefore persons with limited manual dexterity or limited finger strength are unable to extract the contents in the bottom of containers. The segmented reclosable container, however, allows someone with the dexterity issues to reach the bottom contents of the container by removing the bottom cup member to gain easy access to the bottom contents. The segmented, reclosable jar allows easy access to the remaining contents of the container without the pain, difficulty or impossibility that the prior art of containers represents.

[0010] In addition, many container mouth openings are too small for the average adult hand to pass through, especially when the hand is in the shape of a fist and holding a utensil. Furthermore, people with limited manual dexterity or limited finger strength do not have the ability to grasp the end of the utensil in order to reach the bottom contents of the container. If the contents of the container are viscous, like peanut butter for example, then the contents will remain in the bottom of the container even if the container is turned upside down. Even if the contents are fluid or semi-fluid, the volume is difficult to control and frequently the entire remaining content of the jar falls out, causing a ruined product, waste and a mess.

SUMMARY OF THE INVENTION

[0011] The general purpose of the present invention, which will be described subsequently in greater detail, is to
provide a new segmented reclosable container which has many of the advantages of the reclosable containers known in the art and many novel features that result in a new segmented reclosable container which is not anticipated, rendered obvious, suggested, or even implied by any of the known devices, either alone or in any combination thereof.

[0012] It is an object of the present invention to provide a container that allows ease of access to the lower portion of container contents.

[0013] It is another object of the present invention to provide a hermetically sealed removable bottom cup that may be quickly and easily removed to allow access to the bottom portion of the container.

[0014] It is another object of the present invention to provide a hermetically sealed removable bottom cup that may remain sealed with the contents located inside the container.

[0015] It is another object of the present invention to allow exposure of contents of container outside the container when the bottom removable cup is actually removed from the middle cylindrical portion of the container.

[0016] It is another object of the present invention to allow access to the contents of the container through a top closure means.

[0017] It is another object of the present invention to hermetically seal the contents of the container when the top closure means is in place.

[0018] It is another object of the present invention to provide a segmented, reclosable container that allows access to the entire content of the container through either the top or bottom closure means.

[0019] It is another object of the present invention to allow extraction of the content of the container through either the top or bottom closure means.

[0020] It is another object of the present invention to provide a segmented, reclosable container that eliminates waste of the contents of the container due to inability to access the contents.

[0021] It is another object of the present invention to provide a segmented, reclosable container that is affordable.

[0022] In view of the foregoing and other related objectives, the present invention provides a segmented, reclosable container. Generally, the present device is beneficial in that it provides a means for accessing the entire contents of a container through either the top closure means or through a bottom cup member which can be detached and reattached. Both the top and bottom closure means allow for a hermetically sealed container. When either the top or bottom closure means have been separated from the middle cylindrical member, the contents of the container may be accessed.

[0023] The novel configuration of the present device is thought to provide several benefits. For instance, the present device is thought to replace containers that typically require the consumer to discard the bottom portion of the container because it is inaccessible. After all, the depth and width of a container may make it difficult or nearly impossible to access the bottom portion of the contents when the contents are gelatinous or semi-solid. Those types of contents will not come out freely on their own and the consumer is forced to try to remove them with either their hands or utensils. Frequently, the container is of a depth that various kitchenwares are not able to access the bottom portion of the contents, therefore the consumer will discard the container with remaining product as waste. Furthermore, the consumer may have limited manual dexterity which precludes them from holding a kitchen utensil at such a grip as to scrape out the bottom contents of a container. Simply being able to open the bottom removable cup allows extraction of the lower contents of the container in a much easier and faster fashion than the standard method.

[0024] The present device is characterized by a standard top closure means affixed to a cylindrical middle member and a bottom removable cup member. The top closure means and the middle cylindrical member are removably engaged for a hermetically sealing closure to maintain contents of the container. The middle cylindrical member and bottom removable cup are engaged. The middle cylindrical member holds the major volume of the reclosable container, while the remaining portion of the contents is held in the removable bottom cup. When the contents of the container are appropriately depleted, the removable bottom cup may be taken off the middle cylindrical member for access to the contents remaining in the removable bottom cup. That is, the consumer can easily reach the bottom portion of the contents because the removal of the bottom removable cup allows direct exposure of the remaining lower contents. By virtue of this bottom removable cup, the consumer can easily access the lower contents without unnecessary spilling of contents or soiling of hands and surrounding area. The relative proximity of the removable bottom cup to the middle cylindrical member establishes the hermetically sealed device which makes it an optimum container for biodegradable products including foodstuffs and chemicals. That is, the consumer can easily access the materials and contents without any special equipment or effort. The hermetic seals can be repeatable broken to allow access to the bulk contents within the segmented resealable container invention and resealed to hermetically seal the remaining bulk contents within the segmented resealable container invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0025] FIG. 1 is an exploded perspective view of a resealable segmented container.

[0026] FIG. 2 is a perspective view of resealable segmented container of FIG. 1 in an assembled condition.

[0027] FIG. 3 is a cross-sectional view of assembled resealable segmented container.

[0028] FIG. 4 is a cross-sectional view of the bottom cup removed from resealable segmented container of FIG. 1.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0029] Referring to FIG. 1, the segmented reclosable container of the present invention is generally designated by the reference numeral 10. In the preferred embodiment, container 10 is constructed primarily of glass, plastic, metal, metal alloy, or combination thereof. Such is the case in that glass, plastic, metal, metal alloy or combination thereof
provides the hermetic properties required to hermetically seal the contents associated with use of container 10.

[0030] The preferred embodiment of the present container 10 is primarily characterized by tube 24 with two ends, top cap 20 and bottom cup 28. In the preferred embodiment, top cap 20 has female screw threads 32 that engage with male screw threads 34 on tube 24. Screwing top cap 20 onto tube 24 creates a hermetic seal between top cap 20 and tube 24. The hermetic seal between top cap 20 and tube 24 is created by engagement of female screw threads 32 with male screw threads 34, a gasket means (not shown), or various other means known in the art.

[0031] In the preferred embodiment, bottom cup 28 has female screw threads 38 that engage with male screw threads 36 on tube 24. Screwing bottom cup 28 onto tube 24 creates a hermetic seal between bottom cup 28 and tube 24. The hermetic seal between bottom cup 28 and tube 24 is created by engagement of female screw threads 38 with male screw threads 36, a gasket means (not shown), or various other means known in the art.

[0032] Screwing tube 24 into bottom cup 28 creates a vessel suitable for holding contents such as liquid, semi-liquid, solid, or a combination thereof. The major volume of such contents is held within tube 24 with the minor volume held within bottom cup 28. Screwing top cap 20 onto the vessel created by engaging tube 24 and bottom cup 28 creates a hermetic container container 10. Top cap 20 holds a negligible portion of the volume within hermetic container container 10.

[0033] In easy fashion, someone can manually break the hermetic seal between top cap 20 and tube 24 by unscrewing top cap 20 to gain access to all or a portion of the contents of container 10. In similarly easy fashion, someone can manually reestablish the hermetic seal by screwing top cap 20 onto the vessel formed by tube 24 and bottom cup 28. The hermetic seal between top cap 20 and tube 24 can be repeatedly broken, allowing bulk contents 40 to be extracted in small portions, and resealed such that bulk contents 40 remain protected within container 10.

[0034] As small portions are extracted from the bulk contents within container 10, the level of the bulk contents drops from the top of tube 24, when container 10 is full, to the bottom of bottom cup 28, when container 10 is empty. Somewhere between full and empty, the extraction of small portions of the bulk contents from container 10 becomes difficult or, in some cases, nearly impossible. Extraction becomes difficult when, in the case of foodstuffs, such as peanut butter, the distance between the top of the bulk contents and the top of tube 24 exceeds the usable length of standard utensils such as flatware dinner knives, spoons, and forks which are typically used to extract contents from containers.

[0035] Referring to FIG. 3, when the level of the bulk contents 40 within container 10 is reduced to a point where extraction becomes difficult, bottom cup 28 can be removed from container 10. In easy fashion, someone can manually break the hermetic seal between tube 24 and bottom cup 28 by unscrewing bottom cup 28 to gain access to all or a portion of the bulk contents 40 within bottom cup 28.

[0036] Referring to FIG. 4, removing bottom cup 28 from container 10 allows easy access to bulk contents 40. Removing bottom cup 28 from container 10 allows the use of standard utensils such as flatware dinner knives, spoons, and forks to extract portions of bulk contents 40 from bottom cup 28. The remaining bulk contents 40 can be easily resealed within container 10 by manually screwing bottom cup 28 onto the vessel formed by tube 24 and top cap 20, in combination. In the alternative, bottom cup 28 may be engaged directly with top cap 20 (disposing of tube 24) in those cases where (as is envisioned in the preferred embodiment), the threads of the container 10 are made interchangeably engageable.

[0037] The hermetic seal between bottom cup 28 and tube 24 (and/or between bottom cup 28 and top cap 20) can be repeatedly broken, to allow bulk contents 40 of bottom cup 28 to be extracted in small portions, and resealed such that bulk contents 40 remains protected within container 10. As such, the primary advantage of container 10 is providing easy access to the bottom contents of a container.

[0038] An alternative embodiment of the present invention (not shown in the drawings) may include the use of multiple segments which form tube 24. For example, tube 24 ("middle member" in the claims) may itself be configured of multiple, removably engaged segments, each threadingly engaged with the other, and with a bottom-most such segment being engaged with bottom cup 28, and a top-most such segment being engaged with top cap 20. Such a configuration will allow the progressive shortening of container 10, as the contents thereof are exhausted over time.

[0039] A further, alternative embodiment of the present invention involves the substitution, for some or all of the treated configurations described thus far, of snap-together, bayonet and/or telescopic engagement schemes between adjacent segments or components, all as are known in the art of conduit and occluding means engagement, and as may be appropriate to the intended contents of such an embodiment of the present invention.

[0040] As described above, container 10 serves several functions. Container 10, by virtue of the container formed by top cap 20, tube 24, and bottom cup 28 hermetically seals bulk content 40 away from the outside environment. Also, container 10 provides for a quick and effortless way to extract all or portions of bulk content 40 using standard extraction utensils. Finally, container 10 provides for a quick and effortless way to extract all or portions of bulk content 40 when standard extraction utensils are too short to reach the bottom of container 10.

[0041] Although the invention has been described with reference to specific embodiments, this description is not meant to be construed in a limited sense. Various modifications of the disclosed embodiments, as well as alternative embodiments of the inventions will become apparent to persons skilled in the art upon the reference to the description of the invention. It is, therefore, contemplated that the appended claims will cover such modifications that fall within the scope of the invention.

I claim:

1. A segmented reclosable container comprising:
   a bottom cup;
   a middle member removably engaged with said bottom cup member;
a top closure means removably engaged with said middle member, said top closure means, said middle member and said bottom cup member being respectively configured for substantially, hermetically sealing said contents within said reclosable container.

2. The invention of claim 1 wherein said middle member comprises two or more middle member segments, each being removably engaged with each other, a bottom-most said middle member segment being removably engaged with said bottom cup, and a top-most said middle member segment being removably engaged with said top closure means.

3. The invention of claim 1, wherein said bottom cup member and said middle member are respectively configured for threaded engagement.

4. The invention of claim 1 wherein said middle member and said top cap are respectively configured for threaded engagement.

5. A method for facilitating access to contents of an reversibly accessible enclosure comprising the steps of:
   selecting a segmented reclosable container comprising:
   a bottom cup member for holding a minor volume of said reclosable container contents;
   a middle member hermetically engaged with said bottom cup member; and
   a top cap hermetically engaged with said middle member,
   said top cap and said middle member and said bottom cup member being configured for hermetically sealing said contents within said reclosable container;
   removing said top cup, filling said segmented reclosable container with said contents, and resealing said top cap to hermetically seal said contents within said reclosable container;
   removing and resealing said top cap to extract portions of said contents of said reclosable;
   removing and resealing said bottom cup member to extract portions of said contents of said segmented reclosable container by removing the bottom cup member.

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