

Claims

1. A kit comprising:
- 5 a. a beverage cup;
- b. an infusible material used in the preparation of the beverage in a closed compartment within the cup; and
- ~~1-c. a lid (1) for a~~ the beverage cup, comprising:
- aj. a lid body (2);
- bii. a beverage aperture (5) defined on a recessed area of the lid body through which a beverage can exit the lid for drinking when the lid is on a beverage cup; the beverage aperture further comprising a filter for filtering the beverage before it is drank; and
- 10 ~~ciii. a drinking rim (10) on the lid (1) which is raised relative to the beverage aperture (5),~~
- ~~d. and characterised in that~~ wherein the lid is arranged so that, in use for drinking, the beverage exits through the beverage aperture (5) and flows along the lid toward the drinking rim (10) so that the user can see the beverage after it has exited the beverage aperture (5) and before it reaches the rim (10) when the cup is held in a drinking position.
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2. A ~~lid for a beverage cup~~ kit according to claim 1, wherein the aperture comprises an area of the lid in which there is defined at least 20 apertures, the apertures being large enough to allow a beverage to be drank through the lid whilst obstructing passage of a filtrate material.
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3. A ~~kit~~ kit according to Claim 2 wherein there are provided at least 40, preferably at least 50 apertures in the lid.
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4. A ~~kit~~ kit according to any preceding claim wherein the filtrate is tea leaves and the lid is arranged to filter out tea leaf residue from loose tea leaves within the beverage cup, or wherein the filtrate is coffee grinds and the lid is arranged to filter out coffee residue from loose ground coffee beans within the beverage cup.
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5. ~~A kit comprising:~~
- ~~a. a beverage cup;~~
- ~~b. an infusible material used in the preparation of the beverage in a closed compartment within the cup;~~
- ~~c. and a lid according to any of claims 1 to 4 for the beverage cup.~~
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6.5. A kit according to ~~any preceding claim, 5~~ wherein the closed compartment is closed with an airtight tear-off member.

7.6. A kit according to ~~any preceding claim 5 or Claim 6~~ wherein the compartment comprises a tub inserted into the cup, and optionally wherein the tub is dimensioned to sit in the bottom of the cup, and further optionally wherein the tub has a tub mouth the periphery of which runs about and abuts the inside wall of the cup.

8.7. A kit according to ~~claim 5-1,~~ wherein the infusible material used in the preparation of a beverage is tea leaf or ground coffee.

9.8. A method for dispensation of a beverage comprising the steps of:

- a. providing a ~~kit according to any preceding claim~~ beverage cup;
- b. ~~providing an infusible material used in the preparation of the beverage in a closed compartment within the cup;~~
- c. opening the closed compartment; and
- d. infusing the material with a liquid to form the beverage; and
- e. providing a lid according to any of claims 1 to 4 on the beverage cup, the lid having a filter to filter out the infusible material from the beverage.

10. A method according to Claim 9 wherein the cup and lid take the form of a kit according to any of Claims 5 to 8.

Description

Field of the invention

[0001] The present invention relates to drinking vessels and in particular drinking vessels which have a cup and a drink-through lid on the cup. Of particular interest are disposable cups. Disposable cups are often given out with beverage sales for example from shops, on airlines, in public arenas such as theatres, cinemas, stadiums etc. The beverage is often tea or coffee. Typically the cup is designed as a take-away disposable cup the lid for preventing spillage of the liquid whilst being carried.

Background to the invention

[0002] Many types of drinking vessel have existed. These include vessels designed for various purposes including those having spouts or nozzles on a lid and through which the liquid to be drank must be sucked. Such arrangements are typically used on baby cups in particular to avoid spillage.

[0003] US Patent No. 5,657,898 describes a drink-through lid for a beverage cup which has a mechanism to suspend a tea bag by its drawstring out of contact with liquid in the container. A similar system is described in US Patent No. 7,806,044.

[0004] US Patent no. 6,076,450 discloses a drink-through lid for a beverage cup that has a pocket in which coffee grinds are placed. Above the pocket is an upper filter formed by a mesh, and below it is a lower filter formed by paper. Hot water is poured in through the top of the lid and thus the upper mesh filter through the coffee and then filters through the lower filter and into the container. The arrangement allows coffee to be infused into the hot water but prevents particulate matter from entering the cup as it is retained in the lid.

[0005] US Patent Publication No. 2008/0035652 provides a disposable drink-through lid with a filter screen. The filter is attached to the underside of the lid and extends across the entire area of the underside of the lid thus filtering all liquid before it reaches a relatively large drinking aperture on the lid.

[0006] US 2009/0065518 A1 discloses a lid according to the preamble of claim 1.

[0007] Typically with such lids, it is common for a user to spill a beverage while drinking. It is thus desirable to provide a lid which reduces the tendency of a user to spill a beverage while drinking.

[0008] Notwithstanding the prior art, it is desirable to provide a beverage container which enables the preparation of drinks from infusible materials within the container as well as an alternative lid for the container.

Summary of the invention

[0009] The invention relates to a lid according to claim 1.

[0010]—In one aspect the invention provides a kit according to claim 5.

[0011] This provides a beverage of freshly made quality but in a disposable cup.

[0012] The closed compartment may be closed with an airtight peel-off member such as a tear-off cover such as a foil.

[0013] The compartment may be a tub inserted into the cup and optionally is dimensioned to sit in the bottom of the cup. The tub desirably plugs into the bottom of the cup and has a tub mouth the periphery of which runs about and abuts the inside wall of the cup.

[0014] The drink-through lid may comprise:

a lid body;

a drink-through aperture defined in the lid body through which a beverage can exit the lid for drinking when the lid is on a beverage cup; whereby the drink-through aperture comprises an area of the lid in which there is defined at least 20 apertures, the apertures being large enough to allow a beverage to be drank through the lid whilst obstructing passage of a filtrate material from the beverage cup.

[0015] The advantage of the present invention is that a filter is associated with the drink-through aperture for filtering the beverage before it is drank. This means that drinks prepared from insoluble matter, such as tea leaves, coffee grinds, etc can be made within the beverage cup. There is then no need to worry about particular matter ending up in the mouth of a person using the beverage cup to drink. It means that freshly prepared beverages are possible, particularly freshly prepared coffee. This obviates the necessity to use items such as teabags, or coffee powder formed by dehydrating coffee (sometimes referred to as "instant coffee") solution. The filter is integrally formed as part of the lid. No additional components need to be attached to the lid. Desirably the lid is made of a plastics material. For example a thermoforming process can be utilised. The apertures may be formed as the lid is formed, or in subsequent aperture-forming step such as a punching step.

[0016] The apertures are of sufficient size and distribution so that a person drinking from the cup will not need to apply any substantial suction pressure to the cup to bring a beverage through the lid and into their mouth. The lid is thus constructed so that it is one through which a user can drink a beverage whilst the lid filters the beverage.

[0017] Desirably at least 40, preferably at least 50 apertures are formed. The greater the number of apertures the more liquid can be imbibed at any given time.

[0018] Desirably the drink-through aperture forms part of a mouthpiece through which a user drinks the beverage.

[0019] Suitably the area of the lid in which the apertures are provided comprises a visual indicator to a user as to where to place their mouth. This is desirably a recessed

area so that the apertures are then provided in the recessed area. It is desirable that the drink-through aperture comprises a border frame about the recessed area. Again this highlights the drink-through aperture.

[0020] The border frame may comprise apertures which also filter the beverage and will be large enough to allow a beverage to be drunk through the lid whilst obstructing passage of a filtrate material from the beverage container.

[0021] The filtrate may be any insoluble material which is a component in the formation of a beverage, for example tea leaves. In such a case the lid is arranged to filter out tea leaf residue from loose tea leaves within the beverage cup. Fresh tea leaves can thus be used and they can be used loose - that is they are free to circulate within the beverage cup. There is no requirement for any other strainer, filter or trap of any sort for the tea leaves.

[0022] Where the filtrate is coffee grinds the lid is arranged to filter out coffee residue from ground coffee beans within the beverage cup. Again there is no requirement for any other means of capturing the particulate material.

[0023] According to the invention the lid is arranged so that, in use for drinking, the beverage exits through the beverage aperture and flows along the lid toward the drinking rim so that the user can see the beverage after it has exited the beverage aperture and before it reaches the rim when the cup is held in a drinking position.

[0024] Such an arrangement is very desirable because it dramatically reduces the tendency of a user to spill the beverage. In particular, because the user can see the beverage as it flows out of the lid, they are less likely to spill it. In particular with conventional lids, the user cannot typically see the liquid before it is drunk. This means the user is more likely to miss some of the liquid and/or pour too much liquid out at one time, leading to spillage.

[0025] Desirably the beverage aperture is formed in an area of the lid that is a lower position relative to an outer rim of the lid. Desirably a wall portion of the drinking rim extends downwards to a lower position relative to an outer rim of the lid. The lower position can be a position proximate the beverage aperture and/or the aperture can extend into the wall portion. If the beverage aperture comprises a series of apertures one or more of those apertures can be formed in the wall portion.

[0026] The wall portion forms a fluid bed along which, in use for drinking, the beverage runs toward an upper part of the drinking rim.

[0027] Desirably the lid further comprises a filter associated with the beverage aperture for filtering the beverage before it is drunk. This means that the lid can be used where there are insoluble particles in liquid, for example tea leaves or coffee grinds.

[0028] Desirably both aspects of the invention may be combined in an embodiment. This means that within the kit of the invention the lid may be arranged so that, in use for drinking, the beverage exits through the beverage aperture and flows along the lid toward the drinking rim so

that the user can see the beverage after it has exited the beverage aperture and before it reaches the rim (when the cup is held in a drinking position, the lid is on the cup and there is a beverage in the cup) and the lid additionally has drink-through aperture defined in the lid body through which a beverage can exit the lid for drinking when the lid is on a beverage cup; and characterised in that the drink-through aperture comprises an area of the lid in which there is defined at least 20 apertures, the apertures being large enough to allow a beverage to be drunk through the lid whilst obstructing passage of a filtrate material from the beverage.

[0029] A skilled person will appreciate the permutations of number, shape, size and distribution of apertures that will fulfil the function of the apertures of the present invention. Apertures do not need to be uniform in size, shape or distribution. For example apertures may be provided that are from 50 to 300 microns in diameter, for example 75 to 275 microns in the diameter, such as 100 to 250 microns in diameter. In terms of number will typically be at least 50, for example at least 100, such as at least 150, typically about 200 apertures in the lid. The distance between adjacent apertures may be at least 2 microns, for example at least 6 microns and typically 10 microns. Where the apertures used are not uniform in size/shape and/or the distance between adjacent apertures is not uniform then these values can represent average values for the apertures and/or distance. The filter may be comprised of a material in which the intermolecular forces between the fluid and the apertures is sufficient to allow a fluid to pass through the apertures when the cup is held in a drinking position. For example, the material may be a nylon plastics material.

[0030] The present invention includes the assembly formed when a kit of the present invention is assembled.

[0031] As above the beverage cup comprises a sealed compartment in which a material used in the preparation of the beverage is held and which is opened for use of the material during preparation of the beverage. This keeps the contents of the cup fresh until use. The material used in the preparation of a beverage may be any material that leaves behind a solid residue that becomes the filtrate for the cup. For example the filtrate may be tea leaf or ground coffee.

[0032] The invention also relates to a method for dispensation of a beverage comprising the steps of:-

- (a) providing a beverage cup;
- (b) providing an infusible material used in the preparation of the beverage in a closed compartment within the cup;
- (c) opening the closed compartment;
- (d) infusing the material with a liquid to form the beverage; and
- (e) providing a drink-through lid according to claims 1-4 on the beverage cup, the lid having a filter to filter out the infusible material from the beverage.

according to claim 8.

claimed.

Claims

[Insert amended claims 1 to 8]

1. A lid (1) for a beverage cup comprising:
 - a. a lid body (2);
 - b. a beverage aperture (5) defined on a recessed area of the lid body through which a beverage can exit the lid for drinking when the lid is on a beverage cup; the beverage aperture further comprising a filter for filtering the beverage before it is drank;
 - c. a drinking rim (10) on the lid (1) which is raised relative to the beverage aperture (5),
 - d. and characterised in that the lid is arranged so that, in use for drinking, the beverage exits through the beverage aperture (5) and flows along the lid toward the drinking rim (10) so that the user can see the beverage after it has exited the beverage aperture (5) and before it reaches the rim (10) when the cup is held in a drinking position.
2. A lid for a beverage cup according to claim 1, wherein the aperture comprises an area of the lid in which there is defined at least 20 apertures, the apertures being large enough to allow a beverage to be drank through the lid whilst obstructing passage of a filtrate material.
3. A lid according to Claim 2 wherein there are provided at least 40, preferably at least 50 apertures in the lid.
4. A lid according to any preceding claim wherein the filtrate is tea leaves and the lid is arranged to filter out tea leaf residue from loose tea leaves within the beverage cup, or wherein the filtrate is coffee grinds and the lid is arranged to filter out coffee residue from loose ground coffee beans within the beverage cup.
5. A kit comprising:
 - a. a beverage cup;
 - b. an infusible material used in the preparation of the beverage in a closed compartment within the cup;
 - c. and a lid according to any of claims 1 to 4 for the beverage cup.
6. A kit according to Claim 5 wherein the closed compartment is closed with an airtight tear-off member.
7. A kit according to Claim 5 or Claim 6 wherein the compartment comprises a tub inserted into the cup, and optionally

wherein the tub is dimensioned to sit in the bottom of the cup,
and further optionally wherein the tub has a tub mouth the periphery of which runs about and abuts the inside wall of the cup.

8. A kit according to claim 5 wherein the infusible material used in the preparation of a beverage is tea leaf or ground coffee.
9. A method for dispensation of a beverage comprising the steps of:
 - a. providing a beverage cup;
 - b. providing an infusible material used in the preparation of the beverage in a closed compartment within the cup;
 - c. opening the closed compartment;
 - d. infusing the material with a liquid to form the beverage; and
 - e. providing a lid according to any of claims 1 to 4 on the beverage cup, the lid having a filter to filter out the infusible material from the beverage.
10. A method according to Claim 9 wherein the cup and lid take the form of a kit according to any of Claims 5 to 8.

Patentansprüche

1. Deckel (1) für einen Getränkebecher, der Folgendes aufweist:
 - a. einen Deckelkörper (2);
 - b. eine Getränkeöffnung (5), die an einem ausgenommenen Bereich des Deckelkörpers definiert ist, durch welche eine Getränk aus dem Deckel zum Trinken austreten kann, wenn der Deckel auf dem Getränkebecher ist; wobei die Getränkeöffnung weiter einen Filter aufweist, um das Getränk zu filtern, bevor es getrunken wird;
 - c. einen Trinkrand (10) an dem Deckel (1), der relativ zur Getränkeöffnung (5) erhaben ist,
 - d. und dadurch gekennzeichnet, dass der Deckel so angeordnet ist, dass bei der Verwendung zum Trinken das Getränk durch die Getränkeöffnung (5) austritt und entlang des Deckels zur Trinkkante (10) fließt, so dass der Anwender das Getränk sehen kann, nachdem es aus der Getränkeöffnung (5) ausgetreten ist und bevor es die Kante (10) erreicht, wenn der Becher in einer Trinkposition gehalten wird.
2. Deckel für einen Getränkebecher nach Anspruch 1, wobei die Öffnung einen Bereich des Deckels auf

- weist, in dem zumindest 20 Öffnungen definiert sind, wobei die Öffnungen groß genug sind, um zu gestatten, dass ein Getränk durch den Deckel getrunken werden kann, während sie das Durchlaufen eines Filtrerrückstandsmaterials behindern.
3. Deckel nach Anspruch 2, wobei zumindest 40, vorzugsweise zumindest 50 Öffnungen in dem Deckel vorgesehen sind.
 4. Deckel nach einem vorhergehenden Anspruch, wobei der Filtrerrückstand Teeblätter ist, und wobei der Deckel so angeordnet ist, dass er Teeblattreste von losen Teeblättern in dem Getränkebecher ausfiltert oder wobei der Filtrerrückstand gemahlener Kaffee ist, und wobei der Deckel so angeordnet ist, dass er Kaffeereste aus losen gemahlenden Kaffeebohnen in dem Getränkebecher ausfiltert.
 5. Bausatz, der Folgendes aufweist:
 - a. einen Getränkebecher;
 - b. ein Aufgussmaterial, welches bei der Zubereitung eines Getränks verwendet wird in einem geschlossenen Abteil in dem Becher;
 - c. und einen Deckel nach einem der Ansprüche 1 bis 4 für den Getränkebecher.
 6. Bausatz nach Anspruch 5, wobei das geschlossene Abteil mit einem luftdichten Abziehglied verschlossen ist.
 7. Bausatz nach Anspruch 5 oder Anspruch 6, wobei das Abteil ein Rohr aufweist, welches in den Becher eingeführt ist und wobei optional das Rohr so dimensioniert ist, dass es am Boden des Bechers sitzt, und wobei noch weiterhin optional das Rohr eine Rohrmündung hat, wobei dessen Umfang um die Innenwand des Bechers verläuft und daran anliegt.
 8. Bausatz nach Anspruch 5, wobei das Aufgussmaterial, welches bei der Zubereitung eines Getränks verwendet wird, Teeblätter oder gemahlener Kaffee ist.
 9. Verfahren zum Abgeben eines Getränks, welches folgende Schritte aufweist:
 - a. Vorsehen eines Getränkebechers;
 - b. Vorsehen bzw. Anordnen eines Aufgussmaterials, welches bei der Zubereitung eines Getränks verwendet wird in einem geschlossenen Abteil in dem Becher;
 - c. Öffnen des geschlossenen Abteils.
 - d. Aufgießen des Materials mit einer Flüssigkeit, um das Getränk zu bilden; und
 - e. Vorsehen eines Deckels nach einem der Ansprüche 1 bis 4 auf dem Getränkebecher, wobei der Deckel einen Filter hat, um das Aufgussmaterial aus dem Getränk zu filtern.
 10. Verfahren nach Anspruch 9, wobei der Becher und der Deckel die Form eines Bausatzes nach einem der Ansprüche 5 bis 8 annehmen.
- 10 Revendications**
1. Couvercle (1) pour un gobelet comprenant :
 - a. un corps de couvercle (2) ;
 - b. une ouverture de boisson (5) définie sur une zone évidée du corps de couvercle à travers laquelle une boisson peut sortir du couvercle pour la boire, lorsque le couvercle est sur un gobelet ; l'ouverture de boisson comprenant en outre un filtre pour filtrer la boisson avant qu'elle ne soit bue ;
 - c. un rebord pour boire (10) sur le couvercle (1) qui est relevé par rapport à l'ouverture de boisson (5),
 - d. et caractérisé en ce que le couvercle est agencé de sorte que, à l'usage pour boire, la boisson sort par l'ouverture de boisson (5) et s'écoule le long du couvercle vers le rebord pour boire (10) de sorte que l'utilisateur peut voir la boisson après qu'elle est sortie de l'ouverture de boisson (5) et avant qu'elle n'atteigne le rebord (10) lorsque le gobelet est maintenu dans une position pour boire.
 2. Couvercle pour un gobelet selon la revendication 1, dans lequel l'ouverture comprend une zone du couvercle dans laquelle on définit au moins 20 ouvertures, les ouvertures étant assez grandes pour permettre à une boisson d'être bue à travers le couvercle tout en empêchant le passage d'un matériau de filtrat.
 3. Couvercle selon la revendication 2, dans lequel on prévoit au moins 40, de préférence au moins 50 ouvertures dans le couvercle.
 4. Couvercle selon l'une quelconque des revendications précédentes, dans lequel le filtrat est des feuilles de thé et le couvercle est agencé pour filtrer les résidus de feuilles de thé des feuilles de thé en vrac à l'intérieur du gobelet, ou dans lequel le filtrat est des grains de café moulu et le couvercle est agencé pour filtrer les résidus de café des grains de café moulu en vrac à l'intérieur du gobelet.
 5. Kit comprenant :

- a. un gobelet ;
 b. une matière pouvant être infusée utilisée dans la préparation de la boisson dans un compartiment fermé à l'intérieur du gobelet ;
 c. et un couvercle selon l'une quelconque des revendications 1 à 4 pour le gobelet. 5
6. Kit selon la revendication 5, dans lequel le compartiment fermé est fermé avec un élément déchirable étanche à l'air. 10
7. Kit selon la revendication 5 ou la revendication 6, dans lequel le compartiment comprend un bac inséré dans le gobelet, et facultativement dans lequel le bac est dimensionné pour s'installer au fond du gobelet, et en outre facultativement dans lequel le bac a une bouche de bac dont la périphérie s'étend autour et vient en butée contre la paroi intérieure du gobelet. 15
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8. Kit selon la revendication 5, dans lequel la matière pouvant être infusée utilisée dans la préparation de la boisson est des feuilles de thé ou du café moulu.
9. Procédé pour distribuer une boisson, comprenant les étapes consistant à : 25
- a. prévoir un gobelet ;
 b. prévoir une matière pouvant être infusée utilisée dans la préparation de la boisson dans un compartiment fermé à l'intérieur du gobelet ; 30
 c. ouvrir le compartiment fermé ;
 d. infuser la matière avec un liquide afin de former la boisson ; et
 e. prévoir un couvercle selon l'une quelconque des revendications 1 à 4 sur le gobelet, le couvercle ayant un filtre pour filtrer la matière pouvant être infusée de la boisson. 35
10. Procédé selon la revendication 9, dans lequel le gobelet et le couvercle prennent la forme d'un kit selon l'une quelconque des revendications 5 à 8. 40

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