Claims

1. A humidification chamber for humidifying gases, comprising:

a water tub that is configured to receive a volume of water;

a gases inlet for receiving a flow of gases into an interior volume of the humidification chamber;

a gases outlet through which a humidified flow of gases may exit the interior volume of the humidification chamber;

one or more fill apertures in fluid communication with the water tub such that the water tub can be filled with water through the one or more fill apertures; and

a sealing closure configured to be releaseably mounted on the humidification chamber, the sealing closure being configured to sealingly close each fill aperture when the sealing closure is mounted on the humidification chamber to resist gas and/or vapour escaping from the one or more fill apertures,

wherein the sealing closure is further provided with at least one hinge or hinge region extending at least partially across the sealing closure and configured to enable one end region of the sealing closure to hinge relative to an opposed end region.

2. A humidification chamber according to claim 1 wherein the sealing closure comprises one or more sealing formations configured to sealingly engage a region of the humidification chamber that defines, or is adjacent, the one or more fill apertures, so as to close the one or more fill apertures.

3. A humidification chamber according to claim 2 comprising a plurality of fill apertures, the sealing closure comprising a corresponding plurality of sealing formations.

4. A humidification chamber according to claim 2 or claim 3 wherein each sealing formation comprises a plug depending from the sealing closure, each plug being received in a respective fill aperture when the sealing closure is mounted on the humidification chamber.

5. A humidification chamber according to claim 4 wherein the sealing closure comprises a mounting formation configured to engage the humidification chamber to mount the sealing closure to the humidification chamber such that the sealing formation is maintained in sealing engagement with the humidification chamber.

6. A humidification chamber according to claim 5 wherein the mounting formation comprises at least one rib which projects outwardly from the sealing formation.

7. A humidification chamber according to any one of claims 2 to 6 wherein each sealing formation of the sealing closure is resiliently deformable so as to at least partially deform into sealing engagement with the region of the humidification chamber that defines, or is adjacent, the one or more fill apertures when the sealing closure is mounted on the humidification chamber.

8. A humidification chamber according to any one of the preceding claims further comprising a peripheral seal extending around the periphery of the sealing closure, the peripheral seal being configured to sealingly engage one or both of:

a margin of the humidification chamber; and/or

a respiratory apparatus in which the humidification chamber is used.

9. A humidification chamber according to claim 8 wherein the peripheral seal comprises a downwardly directed peripheral skirt depending generally downwardly from the periphery of the sealing closure.

10. A humidification chamber according to claim 8 or 9 wherein the peripheral seal comprises a bead projecting upwardly and/or radially outwardly from an upper surface of the sealing closure.

11. A humidification chamber according to any one of the preceding claims wherein the sealing closure comprises a hand or finger grip formation configured to be gripped to remove the sealing closure from the humidification chamber.

12. A humidification chamber according to claim 11 wherein the hand or finger grip formation comprises a tab projecting from the sealing closure.

13. A humidification chamber according to any one of the preceding claims wherein the sealing closure is substantially planar.

14. A humidification chamber according to any one of claims 3 to 13 when dependent on claim 2 wherein the sealing closure comprises an upper surface and an undersurface, the undersurface being adjacent and/or in contact with the humidification chamber when the sealing closure is mounted on the humidification chamber, wherein the sealing formation projects from the undersurface.

15. A humidification chamber according to claim 14 wherein the shape and/or cross sectional profile and/or dimensions of the undersurface of the sealing closure is/are configured to correspond to and mate with the shape and/or cross sectional profile and/or dimensions of the part or parts of the humidification chamber that are adjacent the undersurface when the sealing closure is mounted on the humidification chamber, wherein the entire undersurface of the sealing closure is configured to mate with the entire upper surface of the humidification chamber adjacent the undersurface, such that the undersurface of the sealing closure seals against the entire upper surface of the humidification chamber.

16. A humidification chamber according to any one of the preceding claims wherein the hinge region comprises an elongate channel.

17. A humidification chamber according to claim 16 wherein the hinge region comprises a plurality of parallel channels extending across the sealing closure from one margin to another opposed margin.

18. A humidification chamber according to any one of the preceding claims further comprising a lid hingedly coupled to the water tub for enclosing the water tub to define the interior volume of the humidification chamber and which is movable between a closed position in which the water tub is closed by the lid and an open position in which the water tub is open, and one or more operable clips for securing the lid in the closed position; the sealing closure being configured to be releasably mounted on the lid.

19. A humidification chamber according to any one of the preceding claims, wherein the one end region and the opposed end region each are located on a respective opposite side of the at least one hinge, and each have a sealing formation configured to sealingly engage a corresponding one of the fill apertures, the sealing engagement sealingly closing each fill aperture.

20. A humidification chamber according to claim 19, wherein the sealing formations in the one end region and the opposed end region are in the form of plugs that at least partially fit inside the corresponding fill apertures of the humidification chamber.

21. A humidification chamber according to claim 19 or claim 20, wherein when the one end region is pivoted about the at least one hinge, the opposed end region remains attached to the humidification chamber.

22. A respiratory assistance device configured to provide a heated and humidified gases stream, comprising:

a device gases inlet configured to receive a supply of gases;

a blower configured to generate a pressurised gases stream from the supply of gases;

a humidifier configured to heat and humidify the pressurised gases stream;

a device gases outlet for the heated and humidified gases stream; and

a flow path for the gases stream through the respiratory device from the gases inlet though the blower unit and humidification unit to the gases outlet,

and wherein the humidifier comprises a sealable humidification compartment that is configured to receive and retain a removable humidification chamber according to any one of the preceding claims.

23. A respiratory device according to claim 22 wherein the device is a CPAP respiratory device.

24. A sealing closure for a humidification chamber for humidifying gases, the humidifying chamber comprising:

a water tub that is configured to receive a volume of water;

a gases inlet for receiving a flow of gases into an interior volume of the humidification chamber;

a gases outlet through which a humidified flow of gases may exit the interior volume of the humidification chamber;

one or more fill apertures in fluid communication with the water tub such that the water tub can be filled with water through the or each fill aperture;

the sealing closure being configured to be releaseably mounted on the humidification chamber, the sealing closure being further configured to sealingly close the or each fill aperture when the sealing closure is mounted on the humidification chamber to resist gas and/or vapour escaping from the one or more fill apertures,

wherein the sealing closure is further provided with at least one hinge or hinge region extending at least partially across the sealing closure and configured to enable one end region of the sealing closure to hinge relative to an opposed end region.

25. A sealing closure according to claim 24, wherein the one end region and the opposed end region each are located on a respective opposite side of the at least one hinge, and each have a sealing formation configured to sealingly engage a corresponding one of the fill apertures, the sealing engagement sealingly closing each fill aperture.

26. A sealing closure according to claim 25, wherein the sealing formations in the one end region and the opposed end region are in the form of plugs that at least partially fit inside the corresponding fill apertures of the humidification chamber.

27. A sealing closure according to claim 25 or claim 26, wherein when the one end region is pivoted about the at least one hinge, the opposed end region remains attached to the humidification chamber.