Claims

1. A container (1) for accommodating an ophthalmic lens during a lens treatment process, the container having a longitudinal axis (12) and comprising a containment portion (2), a mounting portion (3), and a retaining element (4),

wherein the containment portion (2) comprises a tubular section (21) and a bottom (22) arranged at one longitudinal end of the tubular section (21) of the containment portion (2), the bottom (22) protruding convexly towards the outside at one end of the tubular section (21) to form a bottom end of the container (1) and being provided with a number of apertures (23, 24) enabling a free flow of a treatment liquid into and out of the containment portion (2),

wherein the mounting portion (3) comprises a plurality of flow openings allowing a treatment liquid to flow into and out of an inner space of the mounting portion, the mounting portion further comprising an access opening (11) arranged at a longitudinal end of the mounting portion remote from the containment portion (2) to form a top end of the container (1),

and wherein the retaining element (4) is arranged inside the mounting portion (3) at that end of the tubular section (21) of the containment portion (2) remote from the bottom (22), the retaining element (4) prohibiting the ophthalmic lens from being washed out of the containment portion (2) and further permitting access of a gripper through the access opening (11) into the containment portion (2) for insertion and removal of an ophthalmic lens,

and wherein the mounting portion (3) extends along the longitudinal axis of the container from the access opening (11) to that end of the tubular section (21) of the containment portion (2) remote from the bottom (22) in a manner so as to enable introduction of the containment portion (2) of another such container (1) into the mounting portion (3) through the access opening (11), wherein the mounting portion (3) comprises a leg portion having a plurality of legs (31) extending along the longitudinal axis (12) of the container from the access opening (11) to that end of the tubular section (21) of the containment portion (2) remote from the bottom (22), with the flow openings being arranged between the legs (31) of the leg portion.

2. The container (1) according to claim 1, wherein the tubular section (21) of the containment portion (2) has an outer diameter and the mounting portion (3) or leg portion has an inner diameter, and wherein the outer diameter of the containment portion (2) is smaller than the inner diameter of the mounting portion (3) or leg portion.

3. The container (1) according to claim 2, wherein the legs (31) are arranged to conically taper from the access opening (11) towards the end of the tubular section (21) remote from the bottom (22).

4. The container (1) according to claim 1, wherein the tubular section (21) of the containment portion (2) has an outer diameter and the mounting portion (3) or leg portion has an inner diameter, and wherein the outer diameter of the containment portion (2) is smaller than the inner diameter of the mounting portion (3) or leg portion.

5. The container (1) according to claim 1, wherein each leg (31) is provided with an end stop (32) arranged at its longitudinal end remote from the containment portion.

6. The container (1) according to claim 5, comprising four legs (31) circumferentially arranged around the longitudinal axis (12) of the container (1) at an equal distance from the longitudinal axis (12), with adjacent legs (31) being arranged by an angular displacement of 90° relative to one another, wherein the end stops (32) are designed such as to form four corners of a square.

7. The container (1) according to claim 6, wherein at least two of the legs (31) are provided with a resilient locking tab (33) arranged beneath the end stop (32).

8. The container (1) according to claim 6, wherein the retaining element (4) comprises a diaphragm having flexible fins (41) which extend from a circumferential, portion of the retaining element (4) towards a center of the diaphragm, and wherein the flexible fins (41) are inclined towards the bottom (22) of the container and are provided with fin through-holes (42) enabling free passage of treatment liquid into an out of the containment portion (2).

9. The container (1) according to claim 8, wherein the container comprises an annular shoulder (25) at the transition from the mounting portion (3) or leg portion to the containment portion (2) of the container (1), and wherein the circumferential, preferably cylindrical, portion of the retaining element (4) rests against the annular shoulder (25).

10. The container (1) according to claim 5, wherein at least two of the legs (31) are provided with a resilient locking tab (33) arranged beneath the end stop (32).

11. The container (1) according to claim 5, wherein the end stops (32) are provided with a locking pin (34) extending from the respective end stop in a direction towards the bottom end of the container (1).

12. The container (1) according to claim 1, wherein each leg (31) is provided with an end stop (32) arranged at its longitudinal end remote from the containment portion.

13. The container (1) according to claim 1, wherein the apertures (23, 24) in the bottom (22) of the container (1) comprise bottom through-holes (23) and longitudinal slots (24), the longitudinal slots (24) extending from a transition of the bottom (22) into the tubular section (21) towards the retaining element (4).

14. The container (1) according to claim 1, wherein the retaining element (4) comprises a diaphragm having flexible fins (41) which extend from a circumferential, portion of the retaining element (4) towards a center of the diaphragm, and wherein the flexible fins (41) are inclined towards the bottom (22) of the container and are provided with fin through-holes (42) enabling free passage of treatment liquid into an out of the containment portion (2).

15. The container (1) according to claim 14, wherein the container comprises an annular shoulder (25) at the transition from the mounting portion (3) or leg portion to the containment portion (2) of the container (1), and wherein the circumferential, portion of the retaining element (4) rests against the annular shoulder (25).

16. The container (1) according to claim 15, further comprising a retainer ring (45) for clamping the circumferential, portion of the retaining element (4) between the retainer ring (45) and an inner wall section (35) of mounting portion (3) or leg portion as well as between the retainer ring (45) and the annular shoulder (25).

17. The container (1) according to claim 16, wherein the retainer ring (45) comprises a circumferentially running inner tapered section (450) for an abutment of the containment portion (2) of another such container upon introduction into the mounting portion (3) or leg portion.

18. A transport carrier assembly comprising at least two transport carriers (**5**) arranged in a manner stacked one above the other, each transport carrier (**5**) comprising an elongated web (**50**) as well as two engagement portions capable of engaging with a transport device, one of the two engagement portions being arranged at one longitudinal end of the elongated web (**50**) and the other one of the two engagement portions being arranged at the other end of the elongated web (**50**), each transport carrier (**5**) further comprising a plurality of adjacently arranged through-holes (**51**) in the elongated web (**50**), with a container (**1**) according to claim **1** being arranged in each of the through-holes (**51**) of the elongated web (**50**) of the respective transport carrier (**5**), and wherein the at least two carriers are stacked one above the other in a manner such that the containment portion (**2**) of each of the containers (**1**) arranged in the through-holes (**51**) of the web (**50**) of the respective upper transport carrier (**5**) is arranged in the mounting portion (**3**) or leg portion of a corresponding container (**1**) arranged in the through holes (**51**) of the respective lower transport carrier (**5**).

19. The transport carrier (**5**) assembly according to claim **18**, wherein the web (**50**) of each of the transport carriers (**5**) comprises locking recesses arranged in the web (**50**) around the through-holes (**51**), the locking recesses being arranged such as to accommodate the locking pins (**34**) of the containers (**1**) extending from the respective end stops (**32**) to secure the containers (**1**) to the respective transport carrier (**5**).