

CLAIMS

1. An apparatus (1) for making a beverage, comprising:
- an infusion chamber (21) suitable for receiving a capsule containing a food substance for making a beverage;
 - 5 - an insertion opening (31) for inserting the capsule into the apparatus (1);
 - a transfer channel (32) for the capsule, which connects the insertion opening (31) to the infusion chamber (21);
 - an image acquisition device (4) intended, in use, to acquire at least one image of a portion of the capsule, the image acquisition device (4) including
 - 10 an optical sensor (42) facing towards an image capture zone (40) in which, in use, said capsule is located or passes, the image capture zone (40) being a stretch of the transfer channel (32);
 - a viewing window (45), made of transparent material, which is interposed between the optical sensor (42) and the image capture zone (40), the
 - 15 viewing window (45) having a first face (451) facing towards the optical sensor (42) and a second face (452) facing towards the image capture zone (40);
 - a heating device (6, 22);
- wherein the heating device (6, 22) is positioned in a first region (11) of the
- 20 apparatus (1) and the viewing window (45) is positioned in a second region (12) of the apparatus (1), the first region (11) being at a height that is lower than the second region (12);
- wherein the first region (11) and the second region (12) are in communication with each other, thereby allowing an airflow from the first
- 25 region (11) to the second region (12);
- the apparatus (1) being configured in such a way that, in use, the heating device (6, 22) heats air in the first region (11) and the heated air flows into the second region (12), where the heated air can make contact with the first face (451) and/or the second face (452) of the viewing window (45) and heat
- 30 the viewing window (45).

2. The apparatus (1) for making a beverage according to claim 1, wherein, in use, a natural ventilation that occurs due to a stack effect makes the heated air flow from the first region (11) to the second region (12).

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3. The apparatus (1) for making a beverage according to claim 1 or 2, wherein the heating device (6, 22) is or comprises a heater (22) for heating water for making the beverage.

10 **4.** The apparatus (1) for making a beverage according to claim 3, wherein the heater (22) comprises an outer shell (60) which is at least partly in the first region (11) and which heats up during use of the heater (22), so that the heating device (6, 22) heats air in the first region (11) by means of heat exchange between the outer shell (60) and the air.

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5. The apparatus (1) for making a beverage according to any of claims 1 to 4, wherein the image acquisition device (4) is positioned in a lateral seat (33) relative to the transfer channel (32) and wherein the viewing window (45) is at a distance from the transfer channel (32), the viewing window (45) being
20 in a back position in the lateral seat (33),
the second region (12) being between the viewing window (45) and the transfer channel (32), so that, in use, the heated air can make contact with the second face (452) of the viewing window (45).

25 **6.** The apparatus (1) for making a beverage according to any of claims 1 to 5, wherein the second region (12) is in communication with the transfer channel (32) or wherein the second region (12) is part of the transfer channel (32), so that, in use, the heated air can make contact with the second face (452) of the viewing window (45) and can go into the transfer
30 channel (32) until it comes out through the insertion opening (31).

7. The apparatus (1) for making a beverage according to any of claims 1 to 6, wherein the image acquisition device (4) comprises a box-shaped casing (5) which encloses an inner chamber (50) in which the optical sensor (42) is housed, the viewing window (45) being a part of the box-shaped casing (5), wherein the heating device (6, 22) is positioned below the box-shaped casing (5).

8. The apparatus (1) for making a beverage according to claim 7, wherein an air passage channel (57) is between a bottom wall (52) of the box-shaped casing (5) and the heating device (6, 22), the air passage channel (57) putting the first region (11) in communication with the second region (12), the flow of heated air from the first region (11) to the second region (12) being in the air passage channel (57).

9. The apparatus (1) for making a beverage according to claim 8 in combination with claim 4, wherein the air passage channel (57) is formed between the outer shell (60) of the heater (22) and the bottom wall (52) of the box-shaped casing (5).

10. The apparatus (1) for making a beverage according to any of claims 1 to 9, comprising a collection chamber (15) for used capsules, said collection chamber (15) being below the infusion chamber (21) and being in communication, through the infusion chamber (21), with the transfer channel (32),

the apparatus (1) comprising at least one partition wall (18) which separates the collection chamber (15) from the first region (11),

the first region (11) being in communication with the environment outside the apparatus (1) by means of at least one opening or slit (19) in an outer shell (10) of the apparatus (1).