

CLAIMS:

1. A shaver head (12) for an electric shaver (10) comprising:
a base portion (20) for connection of the shaver head to a main housing (15) of the electric shaver (10);
a supporting portion (26) mounted to the base portion (20);
5 a linear guiding structure (22,23) for enabling the supporting portion (26) to linearly move in a movement direction relative to the base portion (20) between a first, retracted, position and a second, extended, position;
a spring member (30) for biasing the supporting portion (26) away from the base portion (20) in the movement direction from the first position to the second position;
10 at least two hair-cutting units (13) supported by the supporting portion (26) and each comprising an external cutting member with hair-entry openings and an internal cutting member with a plurality of cutting elements which is rotatable relative to the external cutting member; and
a respective drive spindle (40) for each hair-cutting unit (13);
15 characterized in that the shaver head (12) further comprises:
a locking mechanism (30,32) for selectively setting the supporting portion in a locked condition, wherein the supporting portion has a locked position in the movement direction relative to the base portion, or in an unlocked condition, wherein the supporting portion is enabled to move in the movement direction relative to the base portion.
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2. A shaver head as claimed in claim 1, wherein the locking mechanism comprises:
a shaft (30) extending parallel to the movement direction and a collar (32) arranged around the shaft for interaction with the shaft, wherein one of the shaft and the collar is mounted, in the movement direction, in a fixed position relative to the supporting
25 portion (26) and the other of the shaft and the collar is mounted, in the movement direction, in a fixed position relative to the base portion (20),
wherein the shaft (30) and the collar (32) are rotatable relative to each other

about an axis of rotation extending parallel to the movement direction, to set the locked condition or the unlocked condition of the supporting portion.

3. A shaver head as claimed in claim 2, wherein the shaft (30) has an external
5 thread (34) and the collar (32) has an internal thread (36) arranged for engagement with said external thread, wherein the external thread and the internal thread have a predefined mutual clearance in an axial direction parallel to the axis of rotation allowing movement of the shaft relative to the collar in the axial direction.

10 4. A shaver head as claimed in claim 3, wherein:
in the first position of the supporting portion, movement of the supporting portion in the movement direction further towards the base portion is prevented by mutual abutment of a first pair of abutment elements mounted in fixed positions relative to, respectively, the supporting portion and the base portion; and
15 in the second position of the supporting portion, movement of the supporting portion in the movement direction further away from the base portion is prevented by mutual abutment of a second pair of abutment elements mounted in fixed positions relative to, respectively, the supporting portion and the base portion.

20 5. A shaver head as claimed in claim 4, wherein the locking mechanism (30,32) is configured to set the supporting portion in a first locked condition, wherein the supporting portion is locked in the first position relative to the base portion by mutual abutment of the abutment elements of the first pair and by mutual abutment of the internal thread and the external thread.

25 6. A shaver head as claimed in claim 4 or 5, wherein the locking mechanism (30,32) is configured to set the supporting portion in a second locked condition, wherein the supporting portion is locked in the second position relative to the base portion by mutual abutment of the abutment elements of the second pair and by mutual abutment of the internal
30 thread and the external thread.

7. A shaver head as claimed in any of claims 4 to 6, wherein the locking mechanism is configured to set the supporting portion in a fully unlocked condition, wherein

the supporting portion is enabled to move in the movement direction relative to the base portion over a maximum distance from the first position to the second position.

8. A shaver head as claimed in any of the claims 4 to 7, wherein the locking mechanism is configured to set the supporting portion in a partially unlocked condition, wherein the supporting portion is enabled to move in the movement direction relative to the base portion over a limited distance from either the first position or the second position to an intermediate position between the first position and the second position which is defined by mutual abutment of the internal thread and the external thread.

9. A shaver head as claimed in any one of claims 2 to 8, wherein the shaft is mounted in a fixed position relative to the supporting portion, and wherein the collar is mounted, in the movement direction, in a fixed position relative to the base portion and rotatable relative to the base portion about the axis of rotation.

10. A shaver head as claimed in claim 9, wherein the linear guiding structure comprises a guiding axle (22), mounted in a fixed position to the base portion and extending parallel to the movement direction, and a guiding bush (23) mounted in a fixed position to the supporting portion (26), wherein the guiding bush (23) is moveably guided along the guiding axle (22) parallel to the movement direction, wherein the shaft (30) is arranged in a fixed position relative to and circumferentially around the guiding bush (38), and wherein the collar (32) is rotatable about the shaft and the guiding bush.

11. A shaver head as claimed in claim 10, wherein the shaft and the guiding bush are integrally formed.

12. A shaver head as claimed in any one of claims 2 to 11, wherein the collar (32) is rotatable by means of an electric motor or by a manually actuatable operating member.

13. A shaver head (12) as claimed in any one of claims 1 to 12, wherein the base portion (20) includes a coupling structure (44) by means of which the shaver head (12) is releasably couplable to the main housing (15) of the electric shaver (10).

14. A shaver head (12) as claimed in any one of the claims 1 to 13, wherein each drive spindle (40) comprises a coupling head for engagement with the internal cutting member of a respective one of the hair-cutting units (13), wherein the supporting portion is arranged centrally between the hair-cutting units, and wherein each hair-cutting unit (13) is
- 5 pivotal relative to the supporting portion about an axis (50) extending tangentially relative to a central axis of the hair-cutting unit.
15. An electric shaver comprising:
- a main housing (15) which accommodates an electric motor; and
- 10 a shaver head (12) as claimed in any one of claims 1 to 14 coupled to the main housing (15).