

Claims

1. A hairstyling device comprising:
 - a heatable hair contact member having a hair-contactable surface, the hair contact member being operable to apply heat to a tress of hair of a user via the hair-contactable surface; and
 - a controller configured to:
 - determine that the hair contact member is moving along the tress from a first end of the tress towards a second end of the tress; and
 - based on the determining, control heating of the hair contact member to cause the operating temperature of the hair contact member to change as the hair contact member moves along the tress from the first end of the tress towards the second end of the tress.
2. A hairstyling device according to claim 1,
 - wherein the first end of the tress comprises a hair-root end of the tress, and
 - wherein the second end of the tress comprises a hair-tip end of the tress.
3. A hairstyling device according to claim 2, wherein the controller is configured to cause the operating temperature of the hair contact member to increase as the hair contact member moves along the tress from the hair-root end of the tress towards the hair-tip end of the tress.
4. A hairstyling device according to any preceding claim,
 - wherein the hairstyling device comprises sensor equipment configured to generate a sensor output dependent on movement of the hair contact member, and
 - wherein the controller is configured to:
 - receive the sensor output from the sensor equipment; and
 - process the sensor output to determine that the hair contact member is moving along the tress.
5. A hairstyling device according to claim 4, wherein the controller is configured to:

determine, based on the sensor output, a displacement of the hair contact member from the first end of the tress; and

control heating of the hair contact member based on the determined displacement.

6. A hairstyling device according to claim 5,

wherein the controller is configured to control heating of the hair contact member based on a predetermined threshold operating temperature of the hair contact member, and

wherein the predetermined threshold operating temperature is dependent on the determined displacement of the hair contact member from the first end of the tress.

7. A hairstyling device according to any of claims 4 to 6, wherein the controller is configured to:

determine, based on the sensor output, a speed of the hair contact member; and

control heating of the hair contact member based on the determined speed.

8. A hairstyling device according to claim 7, wherein the controller is configured

to cause the operating temperature of the hair contact member to increase at a rate dependent on the determined speed.

9. A hairstyling device according to any of claims 4 to 8, wherein the sensor

equipment comprises an inertial measurement unit, IMU.

10. A hairstyling device according to any of claims 4 to 9, wherein the sensor

equipment comprises a Hall effect sensor.

11. A hairstyling device according to any of claims 4 to 10, wherein the controller

is configured to process the sensor output using a velocity and/or position estimation algorithm.

12. A hairstyling device according to claim 11, wherein the velocity and/or position

estimation algorithm comprises a Madgwick filter.

13. A hairstyling device according to any preceding claim, wherein causing the

operating temperature to change comprises adjusting an amount of energy used to heat the hair

contact member as the hair contact member moves along the tress from the first end of the tress towards the second end of the tress.

14. A hairstyling device according to any preceding claim, wherein the controller is configured to cause the operating temperature of the hair contact member to increase at a predetermined rate as the hair contact member moves along the tress from the first end towards the second end.

15. A hairstyling device according to any preceding claim, wherein the controller is configured to cause the operating temperature of the hair contact member when the hair contact member is at the second end to be between 40 and 80 degrees higher than the operating temperature of the hair contact member when the hair contact member is at the first end.

16. A hairstyling device according to any preceding claim, wherein the controller is configured to:

determine whether the hairstyling device is being used according to a first styling behaviour or a second, different styling behaviour; and

control heating of the hair contact member in dependence on whether the hairstyling device is being used according to the first styling behaviour or the second styling behaviour.

17. A hairstyling device according to claim 16, wherein the controller is configured to cause the operating temperature of the hair contact member to increase at a rate that is dependent on the whether the hairstyling device is being used according to the first styling behaviour or the second styling behaviour.

18. A hairstyling device according to any preceding claim,
wherein the hairstyling device comprises a heating element operable to heat the hair contact member, and

wherein the controller is configured to control the heating element to cause the operating temperature of the hair contact member to change as the hair contact member moves along the tress from the first end towards the second end.

19. A hairstyling device according to any preceding claim, wherein the hairstyling device comprises a hair straightening device and/or a hair curling device.

20. A method of operating a hairstyling device, the hairstyling device comprising a heatable hair contact member having a hair-contactable surface, the hair contact member being operable to apply heat to a tress of hair of a user via the hair-contactable surface,

the method comprising:

determining that the hair contact member is moving along the tress from a first end of the tress towards a second end of the tress; and

based on the determining, controlling heating of the hair contact member to cause the operating temperature of the hair contact member to change as the hair contact member moves along the tress from the first end of the tress towards the second end of the tress.

21. A computer program comprising a set of instructions which, when executed by a computerised device, cause the computerised device to perform a method of operating a hairstyling device, the hairstyling device comprising a heatable hair contact member having a hair-contactable surface, the hair contact member being operable to apply heat to a tress of hair of a user via the hair-contactable surface,

the method comprising:

determining that the hair contact member is moving along the tress from a first end of the tress towards a second end of the tress; and

based on the determining, controlling heating of the hair contact member to cause the operating temperature of the hair contact member to change as the hair contact member moves along the tress from the first end of the tress towards the second end of the tress.