HAIR CARE APPLIANCE

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority to U.S. Application No. 17/737,518 filed on May 5, 2022 and entitled "Hair Care Appliance," to U.S. Application 17/737,565 filed on May 5, 2022 and entitled "Hair Care Appliance," to U.S. Application No. 17/737,596 filed on May 5, 2022 and entitled "Hair Care Appliance," each of which claims priority to U.S. Provisional Application No. 63/279,041 filed on November 12, 2021 and entitled "Hair Care Appliance," each of which is hereby incorporated by reference herein in their entireties.

BACKGROUND

[0002] Hair care appliances are devices used for drying and styling of hair. Hair care appliances can include a variety of components operable to provide a fluid flow via a fluid flow path extending through the device. The fluid flow path receives ambient air and directs the ambient air through the hair care appliance via a motor and fan assembly. The fluid flow path is directed across a heating assembly to generate heated air at an outlet of the hair care appliance. Air is expelled from the hair care appliance via the fluid flow path to enable a user to dry or style hair. One or more attachments are often used with the hair care appliance depending on the user's hair styling or treatment needs.

SUMMARY

[0002a] According to an aspect, there is provided a hair care appliance, including: a handle having an inlet and a fan assembly, having an outlet, and a fluid flow path extending between the inlet and the outlet, the fan assembly configured to generate a flow of fluid at a flow rate from the inlet along the fluid flow path to the outlet, the body a body coupled to the handle at a joint such that the body is movable between a straight configuration in which the body is aligned with a longitudinal axis of the handle, and a fully bent configuration in which the body extends along an axis that is transverse to the longitudinal axis of the handle, the handle and the body having a total length in the straight configuration, and the handle having a length that is about 2/3 the total length and the body having a length that is about 1/3 the total length, wherein the fan assembly is positioned adjacent to the joint to provide the flow of fluid therethrough such that the flow rate in the fully bent configuration is no more than 11% less than the flow rate in the straight configuration.

[0003] In general, hair care devices and accessories are provided for use in drying and/or styling hair. In one embodiment, a hair care appliance is provided and can include a handle and a body movably coupled to one another at a joint such that the body can be movable between a straight configuration in which the body can be longitudinally aligned with a longitudinal axis of the handle and a bent configuration in which the body can extend along an axis transverse to the longitudinal axis of the handle. The handle and the body can have a fluid flow path extending there through from an inlet in the handle to an outlet in the body,

CLAIMS

1. A hair care appliance, comprising:

a handle having an inlet and a fan assembly, a body having an outlet, and a fluid flow path extending between the inlet and the outlet, the fan assembly configured to generate a flow of fluid at a flow rate from the inlet along the fluid flow path to the outlet, the body coupled to the handle at a joint such that the body is movable between a straight configuration in which the body is aligned with a longitudinal axis of the handle, and a fully bent configuration in which the body extends along an axis that is transverse to the longitudinal axis of the handle, the handle and the body having a total length in the straight configuration, and the handle having a length that is about 2/3 the total length and the body having a length that is about 1/3 the total length, wherein the fan assembly is positioned adjacent to the joint to provide the flow of fluid therethrough such that the flow rate in the fully bent configuration is no more than 11% less than the flow rate in the straight configuration.

2. The hair care appliance of claim 1, wherein in the straight configuration, the joint is configured to release the body from the handle to initiate rotation of the joint in response to a force in a range of about 3.1 N to 3.6 N.

3. The hair care appliance of claim 1, wherein in the fully bent configuration, the joint is configured to release the body from the handle to initiate rotation of the joint in response to a force in a range of about 5.1 N to 5.3 N.

4. The hair care appliance of claim 1, wherein, when the joint is in a position between the straight configuration and the fully bent configuration, the joint is configured to rotate in response to a force in a range of about 3.6 N to 4.0 N.

5. The hair care appliance of claim 1, wherein the joint is configured to rotate in response to a torque in a range of about 0.1 N to 0.7 N.

6. The hair care appliance of claim 1, wherein the body has a constant cylindrical shape along an entirety of the length of the body and the handle has a tapered cylindrical shape along an entirety of the length of the handle.

7. The hair care appliance of claim 1, wherein the total length of the handle and the body in the straight configuration is between 26.0 cm and 31.0 cm.

8. The hair care appliance of claim 1, wherein in the fully bent configuration, the length of the handle is between 19.5 and 24.5 cm, and the length of the body is between 8.5 cm and 13.5 cm.

9. The hair care appliance of claim 1, further comprising a heater assembly in the body, the fan assembly configured to receive the fluid from the inlet and to direct the fluid through the joint into the heater assembly and out of the outlet.

10. The hair care appliance of claim 9, wherein the inlet comprises a substantially C-shaped cylindrical porous outer housing and a filter disposed therein.

11. The hair care appliance of claim 9, further comprising a user interface surface extending along a portion of the handle and including at least one button for controlling at least one of the fan assembly and the heater assembly, the user interface extending from a first end of the handle adjacent to the inlet toward a second end of the handle adjacent to the joint.

12. The hair care appliance of claim 11, wherein the inlet extends at least partially around a circumference of the handle at the first end of the handle, and the user interface surface intersects the inlet.

13. The hair care appliance of claim 11, wherein the at least one button is flush or recessed with respect to the user interface surface.

14. The hair care appliance of claim 11, wherein the user interface surface comprises an elongate region having opposite edges extending longitudinally along the handle to facilitate gripping the handle.

15. The hair care appliance of claim 11, wherein the user interface surface is located in a scalloped portion of the handle.

16. The hair care appliance of claim 11, wherein the user interface surface comprises at least one illumination element illuminating the at least one button or the user interface surface.

17. The hair care appliance of claim 11, wherein the user interface surface comprises a blow out button configured to shut off the heater assembly and to cause non-heated fluid to flow through the outlet.

18. The hair care appliance of claim 11, wherein the user interface surface is located between a first longitudinal edge of a first handle housing of the handle and a second longitudinal edge of a second handle housing of the handle, the first longitudinal edge opposite the second longitudinal edge.

19. The hair care appliance of claim 11, wherein the at least one button is configured to be repeatedly engaged to select at least one setting controlling operation of the at least one of the fan assembly and the heater assembly.

20. The hair care appliance of claim 9, further comprising an appliance mating portion located in the body adjacent to the outlet, the appliance mating portion configured to releasably couple a hair care attachment to the body so as to receive the fluid from the outlet.