What is claimed is:

CLAIMS

1. A hair care appliance, comprising:
a handle having an air inlet at a first end and an air outlet at a second end;
a body having an air inlet at a first end and at least one air outlet at the second end, the first end of the body being coupled to the second end of 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 bent configuration in which the body extends along an axis that is transverse to the longitudinal axis of the handle;
a first diverter disposed within the handle, between the air inlet at the first end and a fan assembly, the first diverter being configured to aid air flow distribution to the fan assembly;
the fan assembly being disposed within the handle and comprising:
    a fan configured to draw air in through the air inlet in the handle and to direct air through the air outlet in the handle, into the air inlet in the body, and out the at least one air outlet in the body; and
a motor coupled to the fan for driving the fan, the motor being positioned between the fan and the second end of the handle;
and
a heater assembly positioned within the body and configured to heat air flowing through the body.

2. The hair care appliance of claim 1, wherein the handle includes a grasping portion spaced a distance from the first end, the grasping portion extending to the second end and the fan and motor being positioned within the grasping portion.

3. The hair care appliance of claim 1, wherein the first diverter is coupled to an annular frame provided at a side of a cylindrical housing of the fan assembly facing the air inlet in the handle.

4. The hair care appliance of claim 3, wherein the first diverter is coupled to the annular frame by a plurality of supports extending radially from the first diverter toward the annular frame.

5. The hair care appliance of claim 3, wherein the cylindrical housing extends between the fan and the second end of the handle and encloses the motor therein.

6. The hair care appliance of claim 3, wherein the cylindrical housing includes a motor frame having a plurality of curved vanes arranged about a circumference of the motor, the motor frame arranged within the cylindrical housing.

7. The hair care appliance of claim 6, wherein the first diverter is configured to distribute air flow through the motor frame.

8. The hair care appliance of claim 1, wherein the body includes a second diverter positioned between the joint and the heater assembly, the motor and the second diverter positioned on opposing sides of the joint.

9. The hair care appliance of claim 1, wherein a center of the motor is positioned about 145-155 mm from the first end of the handle in the straight configuration and the bent configuration.

10. The hair care appliance of claim 1, wherein the motor and the heater assembly are aligned along respective longitudinal axes of the handle and body so as to balance a center of mass of the hair care appliance.

11. A hair care appliance, comprising:

a hollow elongate housing having a handle portion and a body portion pivotally coupled to one another at a hinge joint, the hollow elongate housing having an air flow path from an air inlet in the handle portion, through an opening in the hinge joint, and through at least one air outlet in the body portion;

at least one printed circuit board (PCB) disposed within the air flow path in the handle portion;

a first diverter disposed within the handle, between the at least one PCB and a fan assembly, the first diverter being configured to aid air flow distribution to the fan assembly;

the fan assembly being disposed within the handle, between the first diverter and the opening in the hinge joint, and comprising:

a fan configured to draw air in through the air inlet in the handle and to direct air through the opening in the hinge joint and out the at least one air outlet in the body portion; and

a motor disposed between the fan and the opening in the hinge joint , the motor being operably coupled to the fan;

and

a heater assembly disposed within the body portion and configured to receive air from the opening in the hinge joint and to provide heated air to the at least one air outlet in the body portion.

12. The hair care appliance of claim 1 or 11, wherein the first diverter includes a central dome configured to distribute air flow radially through the fan assembly.

13. The hair care appliance of claim 11, wherein the at least one printed circuit board includes first and second printed circuit boards separated from each other by a gap of 1.5mm to 2.0 mm.

14. The hair care appliance of claim 1 or 11, wherein the handle portion includes a filter assembly positioned adjacent a first end of the handle portion and having the air inlet, and a grasping portion positioned between the filter assembly and the hinge joint.

15. The hair care appliance of claim 14, wherein the fan and motor are positioned within the grasping portion.

16. The hair care appliance of claim 14, wherein the PCB is positioned within the grasping portion.