A decorative electric-powered, rotating, portable room fan includes a decorative resin base; a coupling mechanism; and a fan head attached to the decorative base through the unique coupling mechanism, wherein the resin nature of the base allows the base to be designed in numerous different highly attractive decorative configurations and colors, allowing the fan to be much more decorative and aesthetically pleasing than fans in the past.
DECORATIVE FAN AND METHOD OF MAKING AND USING THE SAME

CROSS-REFERENCE TO RELATED APPLICATIONS


BACKGROUND OF THE INVENTION

[0002] Electric-powered, rotating, portable room fans for use in the home or office have been around since the advent of electricity for moving air in a room to cool and improve air circulation in the room. These fans, especially modern portable room fans, have been much more functional than decorative in nature. Modern portable room fans are typically generic in nature, and are made of cheap plastic and metal. Although these portable fans serve their functional cooling and circulation purpose, these fans are not attractive in a home or a professional setting.

SUMMARY OF THE INVENTION

[0003] The present inventors have determined that it would be desirable to create a decorative fan for home, business, or office use that would provide the functional cooling aspect of a normal fan, but would be decorative in nature.

[0004] In an aspect of the present invention, the decorative fan is a decorative electric-powered, rotating, portable room fan and includes a decorative resin or wood base, a unique coupling mechanism, and a fan head attached to the decorative base through the unique coupling mechanism. A resin base allows the base to be designed in numerous different highly attractive decorative configurations and colors, allowing the fan to be much more decorative and aesthetically pleasing than fans in the past. As a result, the decorative fan of the present invention serves both a functional and a decorative purpose in the home, business, or office.

[0005] A further aspect of the invention involves a decorative electric-powered, rotating, portable room fan. The decorative electric-powered, rotating, portable room fan includes a decorative resin or wood base including a power line with a first electric connector and a plug for plugging into an AC outlet, and a fan head attached to the decorative base and including fan motor and a second electric connector coupled thereto that is separate from, and coupleable with, the first electric connector, uncoupling the first electric connector and the second electric connector from each other if a problem exists with either the decorative base or wood base or the fan head and needs to be returned; and returning either the decorative resin or wood base or the fan head, but not both, depending on which has a problem.

BRIEF DESCRIPTION OF DRAWINGS

[0007] FIG. 1 is a perspective view of an exemplary embodiment of a decorative fan of the present invention;

[0008] FIG. 2 is a perspective view of the bottom of an embodiment of a unique coupling mechanism of the decorative fan of FIG. 1;

[0009] FIG. 3 is an alternative perspective view of the bottom of the unique coupling mechanism illustrated in FIG. 2;

[0010] FIG. 4 is a side-elevational view of the unique coupling mechanism illustrated in FIGS. 2 and 3;

[0011] FIG. 5 is a partial perspective view of the decorative fan of FIG. 1 in a partially disassembled condition, and illustrates the unique coupling mechanism of FIGS. 2-4;

[0012] FIG. 6 is an alternative perspective view of the decorative fan illustrated in FIG. 5, and illustrates an alternative view of the unique coupling mechanism of FIGS. 2-5;

[0013] FIG. 7 is a perspective view of an alternative embodiment of a decorative fan according to the present invention.

[0014] FIG. 8 is a rear perspective view of another embodiment of a decorative fan according to the present invention.

[0015] FIG. 9 is a rear perspective view, similar to FIG. 8, and shows a connector assembly of the fan disconnected.

DESCRIPTION OF EMBODIMENTS OF INVENTION

[0016] With reference to FIGS. 1-6, a decorative fan 100 constructed in accordance with an embodiment of the invention will now be described. The decorative fan 100 includes a decorative resin or wood base 110, a unique coupling mechanism 120, and a fan head 130 attached to the decorative base 110 through the unique coupling mechanism 120.

[0017] In a preferred embodiment, the decorative base is made of a resin material, which allows the base to be configured and colored in an infinite number of different configurations and coloring schemes. The base 110 is molded into the desired configuration and then hand painted in a desired color scheme. This allows the base 110 to appear as if it is made of fine metal, fine wood, and/or other fine materials, making the base 110 to be much more decorative and aesthetically pleasing than the bases of fans in the past. In the embodiment shown, the resin base 110 includes a bottom section 140 with an elaborate configuration and a fine-metal appearance, an intermediate section 150 with a fine wood-appearance, and a top section 160 with a fine metal appearance.

[0018] With reference to FIGS. 2 and 3, the top section 160 includes an externally threaded screw member 170 that is embedded in the resin material of the base 110. Although the base 110 has been described as being made of a resin material, in alternative embodiments, the base 110 is made of other/additional materials such as, but not limited to, wood, metal, ceramic, stone, and/or acrylic (which is injection molded). For example, but not by way of limitation, the
fan 100, and especially the base 110, may be made of resin, wood, resin and wood, or one or more of these materials combined with metal.

[0019] With reference additionally to FIG. 4, the unique coupling mechanism 120 is made of a metal material and is threadably engaged with the screw member 170. The unique coupling mechanism 120 includes a base attachment section 180 and a fan head attachment section 190. The base attachment section 180 is cylindrical, hollow, and includes a threaded interior that threadably engages the threaded exterior of the screw member 170. The fan head attachment section 190 is cylindrical with a diameter larger than the diameter of the base attachment section 180. The fan head attachment section 190 includes a bore 210 extending laterally there through. The fan head attachment section 190 includes a plastic cover thereon. In an alternative embodiment, the attachment section 190 does not include the plastic cover.

[0020] With reference to FIGS. 5 and 6, the fan head 130 includes a connection section 220, a fan motor housing 230, a rotating fan blade 240, and a protective blade screen 250. The connection section 220 includes brackets 260 with holes 270 therein. The connection section 220 allows the fan head 130 to tilt up and down.

[0021] To manufacture the fan 100, the base 110 is molded of a resin material to a desired configuration. The externally threaded screw member 170 is embedded in the resin material in the top section 160 of the base 110. The molded base 110 and the components of the fan head 130 are hand-painted to a desired color scheme and look. This allows the fan 100 and/or components of the fan 100 to appear as if it is made of fine metal, fine wood, and/or other fine materials. The components of the fan head 130 (e.g., connection section 220, fan motor housing 230, rotating fan blade 240, and a protective blade screen 250) are assembled. The unique coupling mechanism 120 is screwed onto the screw member 170. To connect the fan head 130 to the base 110, the fan head 130 is connected to the unique coupling mechanism 120. The brackets 260 are straddled over the fan head attachment section 190 so that the holes 270 of the brackets 260 are aligned with the bore 210 of the fan head attachment section 190. An externally threaded connecting pin (not shown) is inserted through the holes 270 of the brackets 260 and the fan head attachment section 190 to connect the fan head 130 to the unique coupling mechanism 120 so that the fan head 130 is connected to the base 110. Tilt adjustment knobs with internal threads are threadably connected to the end of the connecting pin, which may be externally threaded, to form an adjustable tilt mechanism 370 for controlling the angle of the fan head 130 relative to the base 110.

[0022] FIG. 7 is a perspective view of an alternative embodiment of a decorative fan including a resin base, a coupling mechanism, and a fan head similar to the resin base, the coupling mechanism, and the fan head described above, except having a different configuration/appearance. The decorative fan illustrated in FIG. 7 is an example of another elaborate configuration that may be provided in the resin base of the decorative fan.

[0023] Using resin as the material for the base 110 and hand molding the base to a desired configuration allows fans 100, especially the bases 110 of the fans, to be designed in numerous different highly attractive decorative configurations never realized in the past. Hand painting the base 110 and/or other components of the fan 100 make these components appear as if made of fine metal, fine wood, and/or other fine materials. Present fans on the market are made from machine-made parts that are injection molded. Fans according to the present invention are relatively inexpensive to manufacture, and are much more decorative and aesthetically pleasing than these fans in the past. As a result, such decorative fans serve both a functional and decorative purposes in the home, business, or office.

[0024] With reference to FIG. 8, another embodiment of a decorative fan 300 will be described. The decorative fan 300 is similar to the decorative fan 100 described above with respect to FIGS. 1-6. Accordingly, the information related to the decorative fan 100 is incorporated herein by reference as though set forth in full, and similar elements will be shown and described with like reference numbers.

[0025] The fan 300 includes an electrical connector assembly 310 including a first electric connector 320 associated with the decorative resin base 310 and a second electric connector 330 associated with the fan head 130. The first electric connector 320 comprises a plug on one end of a power cord 340. The power cord 340 extends through a port in the coupling mechanism 120 and at an opposite end of the power cord 340, a plug is provided for plugging the power cord 340 into an AC outlet. The second electric connector 330 comprises a receptacle at one end of a power cord 350. The opposite end of the power cord 350 connects to a fan motor. The first electric connector 320 is separate from, and coupleable with, the second electric connector 330. Together, the first electric connector 320 and the second electric connector 330 form the plug and receptacle connector assembly 310.

[0026] The fan speed is controllable with a speed controller 360. An adjustable tilt mechanism 370 including an externally thread pin and opposite internally threaded tilt adjustment knobs is provided for adjusting the angle of the fan head 130 relative to the base 110.

[0027] In the embodiment shown, the first electric connector 320 and the second electric connector 330 are external to the fan 300 (i.e., external relative to the fan components). In an alternative embodiment, the first electric connector 320 and/or the second electric connector are internal to the fan 300 (i.e., inside one or more of the fan components) or at least partially internal to the fan.

[0028] In use, the first electric connector 320 is connected with the second electric connector 330 and the opposite plug of the power cord 340 is plugged into an AC outlet to supply power to the fan motor for spinning the fan blade 240. The use controls fan speed using the speed controller 360 and controls the angle of the fan head 130 relative to the base 110 with the adjustable tilt mechanism 370.

[0029] If a problem exists with either the decorative resin base 110 or the fan head 130, instead of returning the entire fan 300, a user simply returns either the decorative resin base 110 or the fan head 130, depending on which component has a problem, to the manufacturer, the retailer, or other entity. The user disconnects the first electric connector 320 and the second electric connector 330 from each other if a problem exists with either the decorative resin base 110 or the fan head 130 and needs to be returned. The user then disconnects the fan head 130 and base 110 from each other. This may be done by unscrewing and removing tilt adjustment knobs and pin from the adjustable tilt mechanism 370 and then separating the brackets 260 of the connection
section 220 from the fan head attachment section 190 of the coupling mechanism 120. The user then returns either the decorative resin base 110 or the fan head 130, but not both, depending on which has a problem. Later, the user receives a new or repaired decorative resin base 110 or fan head 130 similar to that returned. The user then connects the fan head 130 and base 110 together. This may be done by aligning the holes of the brackets 260 of the connection section 220 and the fan head attachment section 190 of the unique coupling mechanism 120 together, and inserting a pin of the adjustable tilt mechanism 370 there through. Tilt adjustment knobs are screwed together, onto the externally threaded pin. The first connector 320 and the second connector 330 are then connected, and the plug of the power cord 340 is inserted into an AC outlet to power the fan 300.

[0030] Accordingly, if a problem exists with either the decorative resin base 110 or the fan head 130, instead of having to return the entire fan 300 to the manufacturer, the retailer, or other entity, the electrical connector assembly 310 allows a user to simply return either the decorative resin base 110 or the fan head 130, depending on which component has a problem, to the manufacturer, the retailer, or other entity.

[0031] While embodiments and applications of this invention have been shown and described, it would be apparent to those in the field that many more modifications are possible without departing from the inventive concepts herein. The invention, therefore, is not to be restricted except in the spirit of the appended claims.

What is claimed is:

1. A decorative electric-powered, rotating, portable room fan, comprising:
   a decorative resin base;
   a coupling mechanism; and
   a fan head attached to the decorative base through the unique coupling mechanism, wherein the resin nature of the base allows the base to be designed in numerous different highly attractive decorative configurations and colors, allowing the fan to be much more decorative and aesthetically pleasing than fans in the past.

2. The decorative electric-powered, rotating, portable room fan of claim 1, wherein the decorative resin base includes a top section having an externally threaded screw member embedded therein.

3. The decorative electric-powered, rotating, portable room fan of claim 1, wherein the coupling mechanism is threadably engaged with the screw member.

4. The decorative electric-powered, rotating, portable room fan of claim 1, wherein the coupling mechanism includes a base attachment section and a fan head attachment section.

5. The decorative electric-powered, rotating, portable room fan of claim 1, wherein the base attachment section is cylindrical, hollow, and includes a threaded interior.

6. The decorative electric-powered, rotating, portable room fan of claim 4, wherein the fan head attachment section is cylindrical with a diameter larger than the diameter of the base attachment section.

7. The decorative electric-powered, rotating, portable room fan of claim 4, wherein the fan head attachment section includes a bore extending laterally there through.

8. The decorative electric-powered, rotating, portable room fan of claim 7, wherein the fan head includes a connection section having brackets with holes therein, and a fastener that is receivable by the holes in the brackets and the bore in the fan head attachment section for connecting the fan head to the decorative resin base via the coupling mechanism.

9. The decorative electric-powered, rotating, portable room fan of claim 1, wherein the decorative resin base is painted to appear as if the decorative resin base is made of at least one of fine metal and fine wood.

10. The decorative electric-powered, rotating, portable room fan of claim 1, wherein the decorative resin base include a first electric connector associated therewith, and the fan head includes a second electric connector associated therewith that is separate from, and coupleable with, the first electric connector.

11. The decorative electric-powered, rotating, portable room fan of claim 10, wherein first electric connector and the second electric connector are external to the fan.

12. The decorative electric-powered, rotating, portable room fan of claim 10, wherein first electric connector and the second electric connector are at least partially internal to the fan.

13. The decorative electric-powered, rotating, portable room fan of claim 10, wherein first electric connector and the second electric connector include a plug and receptacle connector assembly.

14. A decorative electric-powered, rotating, portable room fan, comprising:
   a decorative resin base including a power line with a first electric connector and a plug for plugging into an AC outlet; and
   a fan head attached to the decorative base and including fan motor and a second electric connector coupled thereto that is separate from, and coupleable with, the first electric connector, wherein if a problem exists with either the decorative resin base or the fan head and needs to be returned, a user uncouples the first electric connector and the second electric connector from each other, and returns either the decorative resin base or the fan head, depending on which has a problem.

15. The decorative electric-powered, rotating, portable room fan of claim 14, wherein first electric connector and the second electric connector are external to the fan.

16. The decorative electric-powered, rotating, portable room fan of claim 14, wherein first electric connector and the second electric connector include a plug and receptacle connector assembly.

17. The decorative electric-powered, rotating, portable room fan of claim 14, wherein first electric connector and the second electric connector include a plug and receptacle connector assembly.

18. A method of using a decorative electric-powered, rotating, portable room fan, comprising:
   providing a decorative electric-powered, rotating, portable room fan including a decorative resin base with a power line having a first electric connector and a plug for plugging into an AC outlet, and a fan head attached to the decorative base and having a fan motor and second electric connector coupled thereto that is separate from, and coupleable with, the first electric connector,
uncoupling the first electric connector and the second electric connector from each other if a problem exists with either the decorative resin base or the fan head and needs to be returned; and
returning either the decorative resin base or the fan head, but not both, depending on which has a problem.

19. The method of claim 18, further including receiving a new or repaired decorative resin base or fan head similar to that returned, the new or repaired decorative resin base or fan head having a first electric connector or a second electric connector; and coupling the first electric connector or a second electric connector of the new or repaired decorative resin base or fan head with the first electric connector or a second electric connector of the resin base or fan head that was not returned.

* * * * *

* * * * *