dynamo model can drive a small 20 watt laptop. The mechanical interface needs to be easy to use and comfortable to operate. Two methods are used. For the smaller device, a hand crank is attached to the generator. The hand crank handle, rotating knob, folds out for easy operation without compromising on the compact size. For the second model, two pedals drive an internal shaft like a tricycle. The second model allows the operator to drive more power and use the device while sitting, hands free. One innovative feature of the second model is the incorporation of two generators in the legs that support the axle connected to the pedals.

Accordingly, embodiments~~it is a first object~~ of the present invention seek to provide a portable power generator.

Embodiments~~It is a further object~~ of the present invention also seek to provide such a device in which human power is translated into direct current power at a voltage of in the range of 120-240 volts.

Embodiments~~It is a further object~~ of the present invention also seek to provide such a device in which a standard household electrical receptacle is incorporated therein so that the typical 120 VAC two blade plug or a 240 VAC two pin plug accompanying a charger for a low powered DC device may easily be plugged into the invention.

Embodiments~~It is a still further object~~ of the present invention also seek to provide such a device in which power is provided, either by turning a hand crank or by pedaling pedals in a hands-free mode.

According to a first aspect of the present invention, there is provided a portable power generator, comprising: a) a housing containing a generator system including at least one generator; b) an actuator for said generator system extending outside said housing, said actuator converting human force input into rotation of said at least one generator; c) electrical power

output of said generator system connected to an electrical circuit within said housing, said electrical circuit converting said electrical power output of said generator system into outlet power at about 120 or 240 volts DC; and d) an electrical outlet mounted on said housing and connected to said outlet power.

According to a second aspect of the present invention, there is provided a portable power generator, comprising: a) a housing containing a generator system including a generator; b) an actuator for said generator system extending outside said housing, said actuator converting human force input into rotation of said generator, said actuator comprising a hand crank including a crank arm and a handle pivotably connected to said crank arm, said handle being pivotable from a first position at which it lies adjacent an end of said housing to a second position at which said handle is separated from said housing by said crank arm; c) electrical power output of said generator system connected to an electrical circuit within said housing, said electrical circuit converting said electrical power output of said generator system into outlet power at about 120 or 240 volts DC; and d) an electrical outlet mounted on said housing and connected to said outlet power.

These and other objects, aspects and features of the present invention will be better understood from the following detailed description of the preferred embodiments when read in conjunction with the appended drawing figures.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shows a front side perspective view of a first embodiment of the present invention.

What is claimed is:

1. A portable power generator, comprising:

a) a housing containing a generator system including at least one generator;

b) an actuator for said generator system extending outside said housing, said actuator converting human force input into rotation of said at least one generator;

c) electrical power output of said generator system connected to an electrical circuit within said housing, said electrical circuit converting said electrical power output of said generator system into outlet power at about 120 or 240 volts DC, and

d) a standard household electrical outlet mounted on said housing and connected to said outlet power.

2. The generator of claim 1, wherein said generator system includes a plurality of generators.

3. The generator of claim 2, wherein said plurality comprises two generators.

4. The generator of claim 3, wherein said generators are connected in parallel.

5. The generator of claim 1, wherein said actuator comprises a hand crank.

6. The generator of claim 5, wherein said hand crank includes a crank arm and a handle pivotably connected to said crank arm.

7. The generator of claim 6, wherein said handle is pivotable from a first position at which it lies adjacent an end of said housing to a second position at which said handle is separated from said housing by said crank arm.

8. The generator of claim 7, wherein said handle is connected to said crank arm via a coupling mechanism, said coupling mechanism including a flat body with opposes recesses, said crank arm including a detent engageable with either of said recesses to releasably lock said handle in said first position or second position.

9. The generator of claim 1, wherein said outlet power is at about 120 volts DC.

10. The generator of claim 9, wherein said electrical outlet comprises a standard 120 VAC outlet.

11. The generator of claim 1, wherein said outlet power is at about 240 volts DC.

12. The generator of claim 11, wherein said electrical outlet comprises a standard 240 VAC outlet.

13. The generator of claim 1, wherein said actuator comprises a pair of opposed cranks.

14. The generator of claim 13, wherein said generator system includes two generators.

15. The generator of claim 14, wherein each of said opposed cranks includes a foot pedal mounted thereto.

16. The invention of claim 15, wherein said pedals are 180 degrees offset with respect to one another.

17. The invention of claim 2, wherein each of said generators is connected to its own electrical circuit, said combinations of generator and electrical circuit being interconnected with one another in series.

18. The invention of claim 2, wherein each of said generators is connected to its own electrical circuit, said combinations of generator and electrical circuit being interconnected with one another in parallel.

19. A portable power generator, comprising:

a) a housing containing a generator system including a generator;

b) an actuator for said generator system extending outside said housing, said actuator converting human force input into rotation of said generator, said actuator comprising a hand crank including a crank arm and a handle pivotably connected to said crank arm, said handle being pivotable from a first position at which it lies adjacent an end of said housing to a second position at which said handle is separated from said housing by said crank arm;

c) electrical power output of said generator system connected to an electrical circuit within said housing, said electrical circuit converting said electrical power output of said generator system into outlet power at about 120 or 240 volts DC; and

d) a standard household electrical outlet mounted on said housing and connected to said outlet power.

20. The generator of claim 19, wherein said handle is connected to said crank arm via a coupling mechanism, said coupling mechanism including a flat body with opposes recesses, said crank arm including a detent engageable with either of said recesses to releasably lock said handle in said first position or second position.

21. The generator of claim 19, wherein said outlet power is at about 120 volts DC.

22. The generator of claim 21, wherein said electrical outlet comprises a standard 120 VAC household outlet.

CLAIMS

1. A portable power generator, comprising:

a) a housing containing a generator system including at least one generator;

b) an actuator for said generator system extending outside said housing, said actuator converting human force input into rotation of said at least one generator;

c) electrical power output of said generator system connected to an electrical circuit within said housing, said electrical circuit converting said electrical power output of said generator system into outlet power at about 120 or 240 volts DC; and

d) an electrical outlet mounted on said housing and connected to said outlet power.

2. The generator of claim 1, wherein said generator system includes a plurality of generators.

3. The generator of claim 2, wherein said plurality comprises two generators.

4. The generator of claim 3, wherein said generators are connected in parallel.

5. The invention of claim 2, wherein each of said generators is connected to its own electrical circuit, said combinations of generator and electrical circuit being interconnected with one another in series.

6. The invention of claim 2, wherein each of said generators is connected to its own electrical circuit, said combinations of generator and electrical circuit being interconnected with one another in parallel.

7. The generator of claim 1, wherein said actuator comprises a hand crank.

8. The generator of claim 7, wherein said hand crank includes a crank arm and a handle pivotably connected to said crank arm.

9. The generator of claim 8, wherein said handle is pivotable from a first position at which it lies adjacent an end of said housing to a second position at which said handle is separated from said housing by said crank arm.

10. The generator of claim 9, wherein said handle is connected to said crank arm via a coupling mechanism, said coupling mechanism including a flat body with opposes recesses, said crank arm including a detent engageable with either of said recesses to releasably lock said handle in said first position or second position.

11. The generator of claim 1, wherein said outlet power is at about 120 volts DC.

12. The generator of claim 11, wherein said electrical outlet comprises an outlet with two connector ports.

13. The generator of claim 1, wherein said outlet power is at about 240 volts DC.

14. The generator of claim 13, wherein said electrical outlet comprises an outlet with two connector ports.

15. The generator of claim 1, wherein said actuator comprises a pair of opposed cranks.

16. The generator of claim 15, wherein said generator system includes two generators.

17. The generator of claim 16, wherein each of said opposed cranks includes a foot pedal mounted thereto.

18. The invention of claim 17, wherein said pedals are 180 degrees offset with respect to one another.

19. A portable power generator, comprising:

a) a housing containing a generator system including a generator;

b) an actuator for said generator system extending outside said housing, said actuator converting human force input into rotation of said generator, said actuator comprising a hand crank including a crank arm and a handle pivotably connected to said crank arm, said handle being pivotable from a first position at which it lies adjacent an end of said housing to a second position at which said handle is separated from said housing by said crank arm;

c) electrical power output of said generator system connected to an electrical circuit within said housing, said electrical circuit converting said electrical power output of said generator system into outlet power at about 120 or 240 volts DC; and

d) an electrical outlet mounted on said housing and connected to said outlet power.

20. The generator of claim 19, wherein said handle is connected to said crank arm via a coupling mechanism, said coupling mechanism including a flat body with opposes recesses, said crank arm including a detent engageable with either of said recesses to releasably lock said handle in said first position or second position.

21. The generator of claim 19, wherein said outlet power is at about 120 volts DC.

22. The generator of claim 21, wherein said electrical outlet comprises an outlet with two connector ports.