



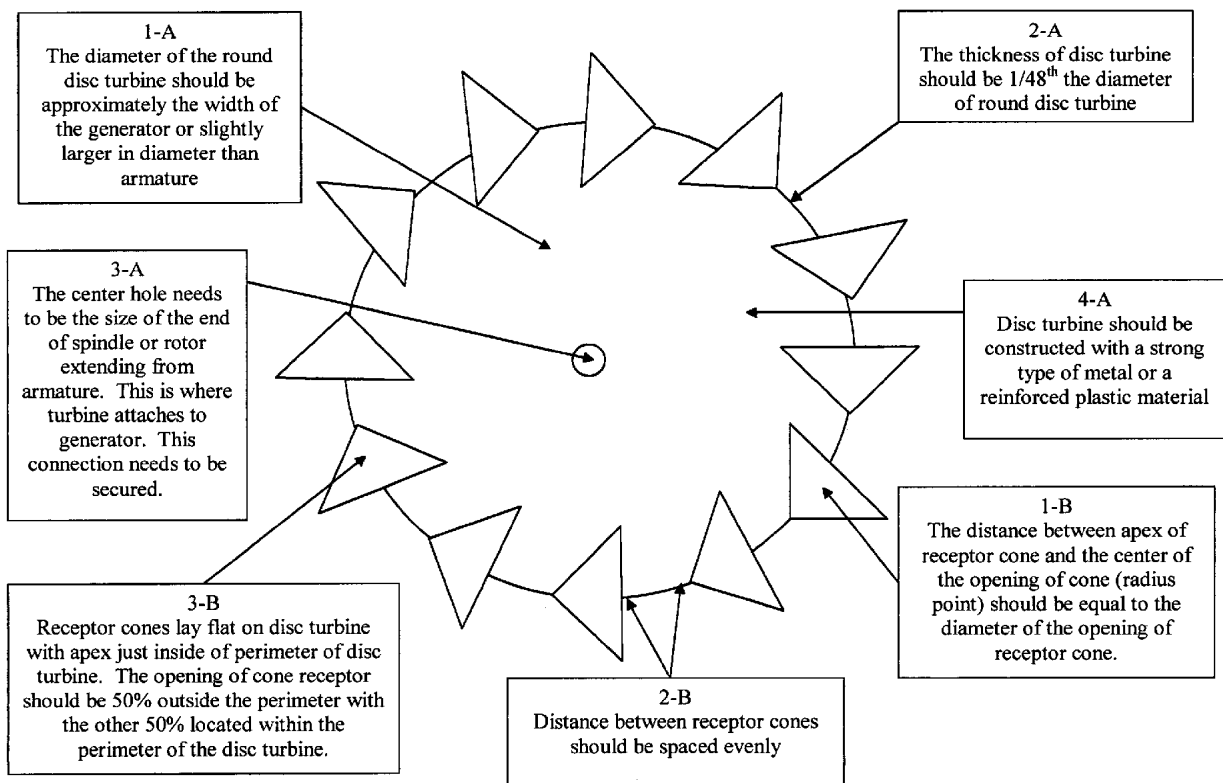
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(19) **United States**(12) **Patent Application Publication**  
**Jackson**(10) **Pub. No.: US 2004/0033129 A1**(43) **Pub. Date: Feb. 19, 2004**(54) **PINWHEEL TURBINE****Related U.S. Application Data**(76) Inventor: **Robert William Jackson**, Plano, TX  
(US)

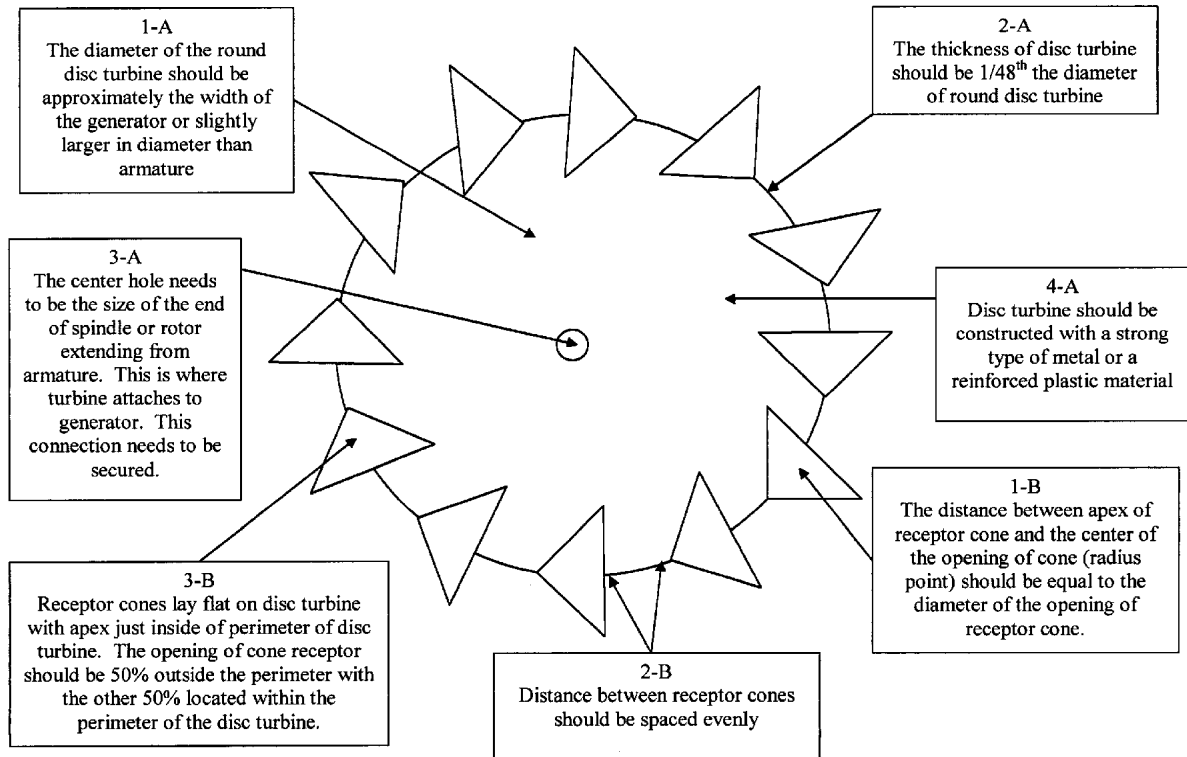
(60) Provisional application No. 60/409,171, filed on Sep. 9, 2002. Provisional application No. 60/402,424, filed on Aug. 10, 2002.

**Publication Classification**(51) **Int. Cl.<sup>7</sup>** ..... **F04D 1/12**  
(52) **U.S. Cl.** ..... **415/88**Correspondence Address:  
**Robert William Jackson**  
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**Plano, TX 75075 (US)**(57) **ABSTRACT**

I designed this turbine to be used with pressure (thrust) from water that emits from water pumps or air that emits from air compressors. This pressure (thrust) is directed at point of turbine which creates the most efficient rotation (RPM's) of turbine which is attached to a generator.

(21) Appl. No.: **10/637,903**(22) Filed: **Aug. 8, 2003**

Pinwheel Turbine Inventor Robert William Jackson  
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**PINWHEEL TURBINE****CROSS REFERENCE TO RELATED  
APPLICATION**

[0001] This application is based on the following provisional patent application. Title: Pinwheel Turbine U.S. Pat. No. 60/409171 Filing Date: Sep. 9, 2002

**STATEMENT REGARDING FEDERALLY  
SPONSORED RESEARCH OR DEVELOPMENT**

[0010] “Not Applicable”

**REFERENCE TO SEQUEL LISTING, A TABLE,  
OR A COMPUTER PROGRAM LISTING  
COMPACT DISC APPENDIX**

[0011]

TABLE FOR DIMENSIONS FOR VARIOUS SIZES OF PINWHEEL TURBINE (WITH 12 CONES)

Diameter of Round Disc Turbine	Circumference of Round Disc Turbine	Thickness of Round Disc Turbine	Diameter of Round Opening of Each Receptor Cone	Circumference of Round Opening of Each Receptor Cone	Distance Between Apex of Cone and Radius Point of Opening of Receptor Cone	Length of Spacing Between Each Cone
12 inches	37.68 inches	¼ inch	2 inches	6.28 inches	2 inches	1.14 inches
24 inches	75.36 inches	½ inch	4 inches	12.56 inches	4 inches	2.28 inches
36 inches	113.04 inches	¾ inch	6 inches	18.84 inches	6 inches	3.42 inches
48 inches	150.72 inches	1 inch	8 inches	25.12 inches	8 inches	4.56 inches
60 inches	188.4 inches	1¼ inch	10 inches	31.4 inches	10 inches	5.70 inches

[0002] The application related to the following provisional patent Title: Municipal Hydroelectric Power Generator Patent No. 60/402424 Filing Date: Aug. 10, 2002

[0003] This application is related to the following provisional patent Title: Self-Powered Hydroelectric Generator Patent No. 60/363271 Filing Date: Mar. 11, 2002

[0004] This application is related to the following provisional patent Title: Self-Powered Air-Driven Electric Generator Patent No. 60/368394 Filing Date: Mar. 29, 2002

[0005] This application is related to the following non-provisional application Title: Self-Powered Hydro-Electric Generator Patent No. 10/136521 Filing Date: May 1, 2002

[0006] This application is related to the following non-provisional application Title: Self-Powered Air-Driven Electric Generator Patent No. 10/136063 Filing Date: May 1, 2002

[0007] Robert William Jackson requests that Disclosure Document number 506280 also be included in the examination of this application. Title: Self-Powered Hydro-Electric Generator. Filing Date: Feb. 28, 2002.

[0008] Robert William Jackson requests that Disclosure Document number 514683 also be included in the examination of this application. Title: Emergency Hydro-Electric Generator. Filing Date: Jul. 8, 2002.

[0009] Robert William Jackson requests that Disclosure Document number 512933 also be included in the examination of this application. Title: Municipal Water Supply Generator System. Filing Date: Jun. 6, 2002.

**BACKGROUND OF THE INVENTION**

[0012] This invention deals with generating electricity. This turbine could be used with most generators in use today.

[0013] I thought of this design for this turbine on the 4<sup>th</sup> of July 2001. I noticed the efficiency of the rotation of a pinwheel firework. At the time I had some ideas about generating electricity with water and air. I combine the concepts and developed some plans. I started a timeline on Oct. 15, 2001, dealing with these concepts and this particular turbine. I documented my efforts by mailing information to myself.

[0014] On or around Jan. 21, 2002, I attempted to get a provisional patent. I met with 2 different patent attorneys and called many more.

[0015] One of the patent attorneys said he would help me if I had a drawing made up. I was confused. I thought a drawing was required. It took about a month for a mechanical engineer to get this project done.

[0016] I ordered the patent kit from the patent office around Jan. 23, 2002. It took over 2 weeks to get to me. I mailed a Disclosure Document on Feb. 11, 2002 that deals with this turbine. Filing date Feb. 28, 2002. Document number 506280.

[0017] After paying the lawyers and mechanical engineer fees I didn't have enough money to hire the lawyer to submit my provisional patent.

[0018] I submitted my own patent application. Filing date Mar. 11, 2002, patent application Ser. No. 60/363271. This patent application is the first one on file for me that deals with this turbine. I list this turbine in numerous other applications. I believed this turbine is unique and is a good design.

#### BRIEF SUMMARY OF THE INVENTION

[0019] This is a high pressure turbine. This design is for high PSI (Pounds per Square Inch) pressure coming from either air or water. The theory is to create the most RPM's (Revolutions Per Minute) with this thrust of pressure in the most efficient manner.

[0020] This turbine needs to be attached to a generator in which RPM's determine power output. I call this turbine the pinwheel because of its basic design is pattern after this firework. This design has 12 receptor cones.

#### BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING

[0021] 1 -A—Diameter of disc dimensions

[0022] 2 -A—Thickness of disc turbine

[0023] 3 -A—Center hole dimensions

[0024] 4 -A—Material used in making of Pinwheel Turbine

[0025] 1 -B—Receptor cone dimensions

[0026] 2 -B—Spacing between receptor cones

[0027] 3 -B—Position of receptor cones

#### DETAILED DESCRIPTION OF THE INVENTION

[0028] The basic design is patterned after the pinwheel firework. My design is a solid disc. This disc should have 12 receptor cones positioned around the perimeter (circumference) of the round disc (See chart on page 5). These receptors should be spaced evenly (see 2-B).

[0029] The turbine should be constructed with a strong metal or a reinforced plastic material (See 4-A).

[0030] The diameter of the round disc turbine should be approximately the width of the generator or slightly larger in diameter than Armature (See 1-A). This is calculated when turbine is vertical and generator is horizontal or turbine is horizontal and generator is vertical. The spindle or rotor extending from Armature should be center point for measuring this dimension. This is where turbine attaches to generator.

[0031] The thickness of disc turbine should be  $\frac{1}{48}$ <sup>th</sup> the diameter of round disc turbine (see Box 2-A).

[0032] The center hole needs to be the size of the end of spindle or rotor that extends from Armature. This is where turbine attaches to generator. This connection needs to be secured. (See 3-A).

[0033] The center hole should be approximately  $\frac{1}{10}$  the diameter of disc turbine, but this could vary due to size of generator to which it is attached.

[0034] The distance between apex of receptor cone and the center of the opening of cone (radius point) should be equal to the diameter of the opening of receptor cone. (See 1-B)

[0035] Receptor cones lay flat on disc turbine with apex just inside of perimeter of disc turbine. The opening of cone receptor should be 50% outside the perimeter with the other 50% located within the perimeter of the disc turbine. (See 3-B)

[0036] The disc turbine and the receptor cones needs to be either one solid object or receptor cones needs to be securely attached to round disc turbine.

[0037] This turbine is similar to the Pelton hydroelectric turbine. I claim my turbine is different because I use cones instead of buckets as the receptors. This is the only turbine that is similar to mine that I'm aware of.

1. I claim this turbine can be used with the thrust of air or water.

2. I claim this turbine can be adapted and can be used with most generators on the market today.

3. I claim this turbine can be used with a newly designed generator.

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