



US00D727247S

(12) **United States Design Patent**  
**Martin et al.**

(10) **Patent No.:** **US D727,247 S**  
(45) **Date of Patent:** **\*\* Apr. 21, 2015**

(54) **NON-PNEUMATIC TIRE**  
(71) Applicant: **Caterpillar Inc.**, Peoria, IL (US)  
(72) Inventors: **Kevin L. Martin**, Washburn, IL (US);  
**Maria Cristina Herrera de Kontz**,  
Chillicothe, IL (US)

D401,896 S \* 12/1998 Chandler et al. .... D12/501  
6,615,885 B1 9/2003 Ohm  
6,681,822 B2 1/2004 Adams et al.  
D499,065 S \* 11/2004 Shapiro et al. .... D12/501  
6,845,796 B2 \* 1/2005 Katoh et al. .... 152/209.1  
D507,522 S 7/2005 Becker et al.  
D536,298 S 2/2007 Becker et al.

(Continued)

(73) Assignee: **Caterpillar Inc.**, Peoria, IL (US)

**FOREIGN PATENT DOCUMENTS**

(\*\*) Term: **14 Years**

JP D1416103 5/2011  
JP D1416237 5/2011

(21) Appl. No.: **29/449,654**

(Continued)

(22) Filed: **Mar. 15, 2013**

**OTHER PUBLICATIONS**

(51) **LOC (10) Cl.** ..... **12-15**

U.S. Appl. No. 13/599,307 of Kevin L. Martin et al., titled "Non-Pneumatic Tire," filed Aug. 30, 2012.

(52) **U.S. Cl.**

USPC ..... **D12/570**; D12/605

(Continued)

(58) **Field of Classification Search**

CPC ..... B60C 1/00

USPC ..... D12/568-603; 152/209.1-209.28

See application file for complete search history.

*Primary Examiner* — George D Kirschbaum

(74) *Attorney, Agent, or Firm* — Saidman DesignLaw Group, LLC

(56) **References Cited**

(57) **CLAIM**

**U.S. PATENT DOCUMENTS**

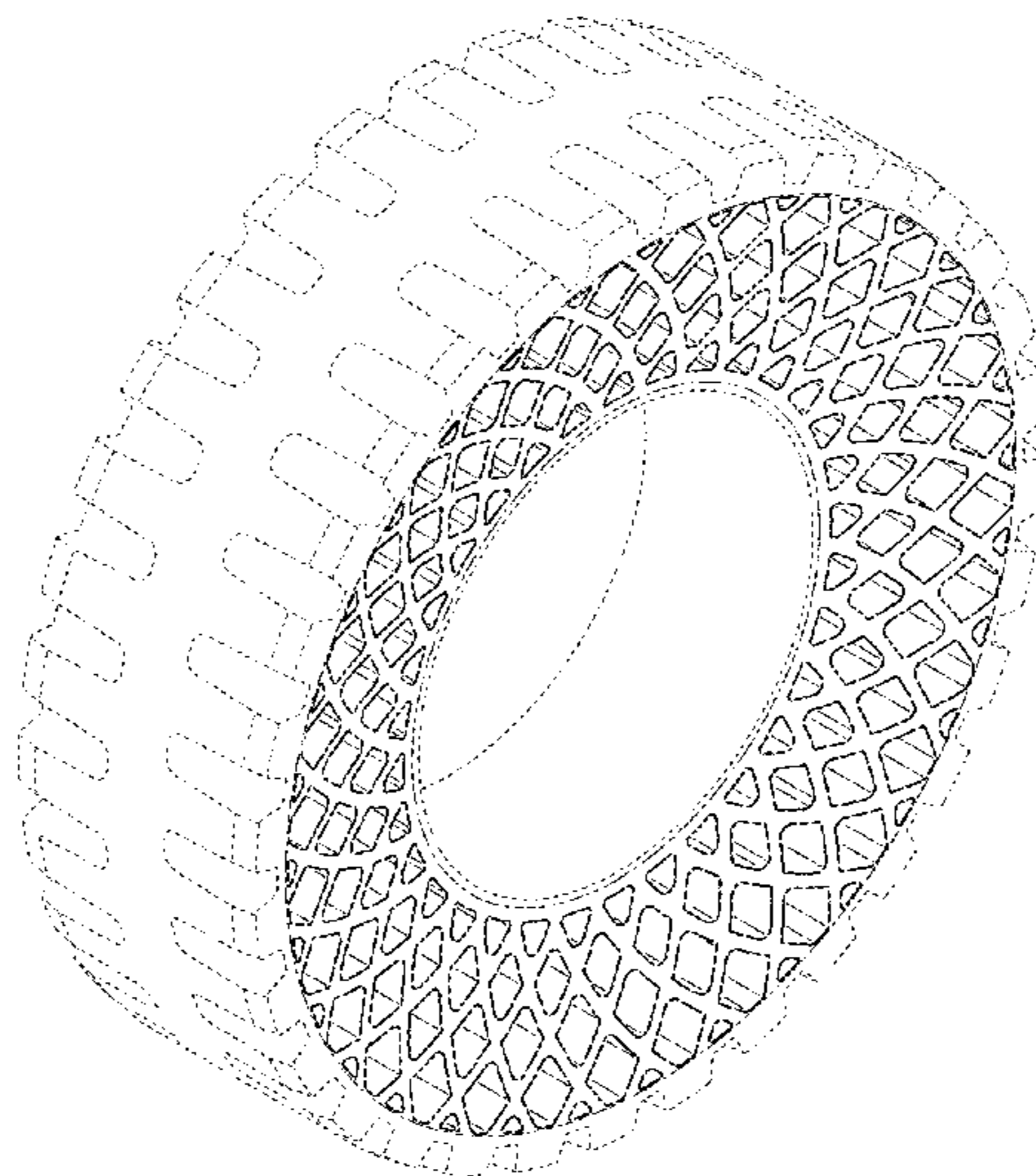
The ornamental design for a non-pneumatic tire, as shown and described.

|             |         |                 |
|-------------|---------|-----------------|
| 854,699 A   | 5/1907  | Nash            |
| 1,125,191 A | 1/1915  | Scotucci et al. |
| 1,164,887 A | 12/1915 | Strauch et al.  |
| D50,873 S   | 6/1917  | Jones           |
| D59,024 S   | 9/1921  | McCullough      |
| D67,515 S   | 2/1925  | Gillam          |
| D68,536 S   | 2/1925  | Lenhoff         |
| 2,620,844 A | 12/1952 | Lord            |
| 2,742,941 A | 4/1956  | Johnson         |
| 3,219,090 A | 11/1965 | Cislo           |
| 4,226,273 A | 10/1980 | Long et al.     |
| 4,553,577 A | 11/1985 | Gregg           |
| 4,934,425 A | 6/1990  | Gajewski et al. |
| 4,945,962 A | 8/1990  | Pajtas          |
| 5,042,544 A | 8/1991  | Dehasse         |
| 5,223,599 A | 6/1993  | Gajewski        |
| 5,343,916 A | 9/1994  | Duddey et al.   |

**DESCRIPTION**

FIG. 1 is perspective view of a non-pneumatic tire showing our new design;  
FIG. 2 is a left side view thereof, the right side, top, and bottom views being identical;  
FIG. 3 is front view thereof, the rear view being identical; and,  
FIG. 4 is an enlargement of the bracketed area in FIG. 3.  
The dotted broken lines illustrate environmental structure and form no part of the claimed design. The dot-dash broken lines represent unclaimed boundaries and form no part of the claimed design.

**1 Claim, 4 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

7,174,936 B2 2/2007 Becker et al.  
 D548,681 S 8/2007 Becker et al.  
 D602,852 S \* 10/2009 Laskowitz et al. .... D12/570  
 D615,920 S \* 5/2010 Kline et al. .... D12/570  
 8,056,593 B2 11/2011 Palinkas et al.  
 8,091,596 B2 1/2012 Louden  
 8,104,524 B2 1/2012 Manesh et al.  
 8,109,308 B2 2/2012 Manesh et al.  
 8,176,957 B2 5/2012 Manesh et al.  
 8,555,941 B2 \* 10/2013 Perron et al. .... 152/326  
 2007/0029020 A1 2/2007 Wietharn et al.  
 2007/0119531 A1 \* 5/2007 Steinke et al. .... 152/324  
 2009/0120548 A1 5/2009 Norbits  
 2009/0211674 A1 8/2009 Hanada et al.  
 2009/0211678 A1 8/2009 Palinkas et al.  
 2009/0211681 A1 8/2009 Palinkas et al.  
 2010/0132858 A1 6/2010 Arakawa et al.  
 2011/0024008 A1 2/2011 Manesh et al.  
 2011/0079335 A1 4/2011 Manesh et al.  
 2012/0060991 A1 3/2012 Mun et al.  
 2012/0234444 A1 9/2012 Palinkas et al.  
 2012/0241062 A1 9/2012 Manesh et al.  
 2012/0247635 A1 10/2012 Manesh et al.  
 2013/0240272 A1 \* 9/2013 Gass et al. .... 180/54.1  
 2013/0287882 A1 \* 10/2013 Wilson ..... 425/425  
 2014/0000777 A1 \* 1/2014 Choi et al. .... 152/246  
 2014/0034219 A1 \* 2/2014 Chadwick et al. .... 156/113  
 2014/0083581 A1 \* 3/2014 Schaedler et al. .... 152/5  
 2014/0110024 A1 \* 4/2014 Anderfaas et al. .... 152/17  
 2014/0159280 A1 \* 6/2014 Martin et al. .... 264/299  
 2014/0238561 A1 \* 8/2014 Choi et al. .... 152/17  
 2014/0251518 A1 \* 9/2014 Abe et al. .... 152/75

FOREIGN PATENT DOCUMENTS

JP D1446802 6/2012  
 JP D1446806 6/2012

JP D1446808 6/2012  
 JP D1447054 6/2012  
 JP D1447056 6/2012  
 JP D1447059 6/2012

OTHER PUBLICATIONS

U.S. Appl. No. 13/599,419 of Kevin L. Martin et al., titled "Non-Pneumatic Tire," filed Aug. 30, 2012.  
 U.S. Appl. No. 13/599,505 of Kevin L. Martin et al., titled "Non-Pneumatic Tire," filed Aug. 30, 2012.  
 U.S. Appl. No. 13/599,628 of Kevin L. Martin et al., titled "Non-Pneumatic Tire," filed Aug. 30, 2012.  
 U.S. Appl. No. 13/599,705 of Kevin L. Martin et al., titled "Non-Pneumatic Tire," filed Aug. 30, 2012.  
 Bridgestone, "Bridgestone Announces Development of Non-Pneumatic (Airless) Concept Tire," <<http://www.bridgestone.com/corporate/news/20111129m.html>>, Nov. 29, 2011.  
 Toxel, "Innovative Airless Tires by Michelin," <<http://www.toxel.com/tech/2009/07/05/innovative-airless-tires-by-michelin/>>, Jul. 5, 2009.  
 Core 77, "Innovation Gets Tired, Part 1: The Non-Pneumatic Tire," <[http://www.core77.com/blog/transportation/innovation\\_gets\\_tired\\_part\\_1\\_the\\_non-pneumatic\\_tire\\_21410.asp](http://www.core77.com/blog/transportation/innovation_gets_tired_part_1_the_non-pneumatic_tire_21410.asp)>, Dec. 27, 2011.  
 Resilienttech, "Non-Pneumatic Tire (NPT)," <<http://www.resilienttech.com/products/non-pneumatic-tire/>>, copyright 2011.  
 Soldiersystems, "SOLIC—Polaris Defense Non-Pneumatic Tire," <<http://soldiersystems.net/2012/05/22/solic-polaris-defense-non-pneumatic-tire/>>, May 22, 2012.  
 Caterpillar®, "Introducing the Cat® generation II Flexport™ tires available in 3 different tread options for SSL, wheel loader applications," Sep. 2011.  
 Caterpillar®, "Cat® Flexport™ Tires for Skid Steer Loaders," copyright 2005.  
 Caterpillar®, "Caterpillar Introduces Next Generation of Flexport™ Tires for Wheel Loaders," available Mar. 2010.

\* cited by examiner

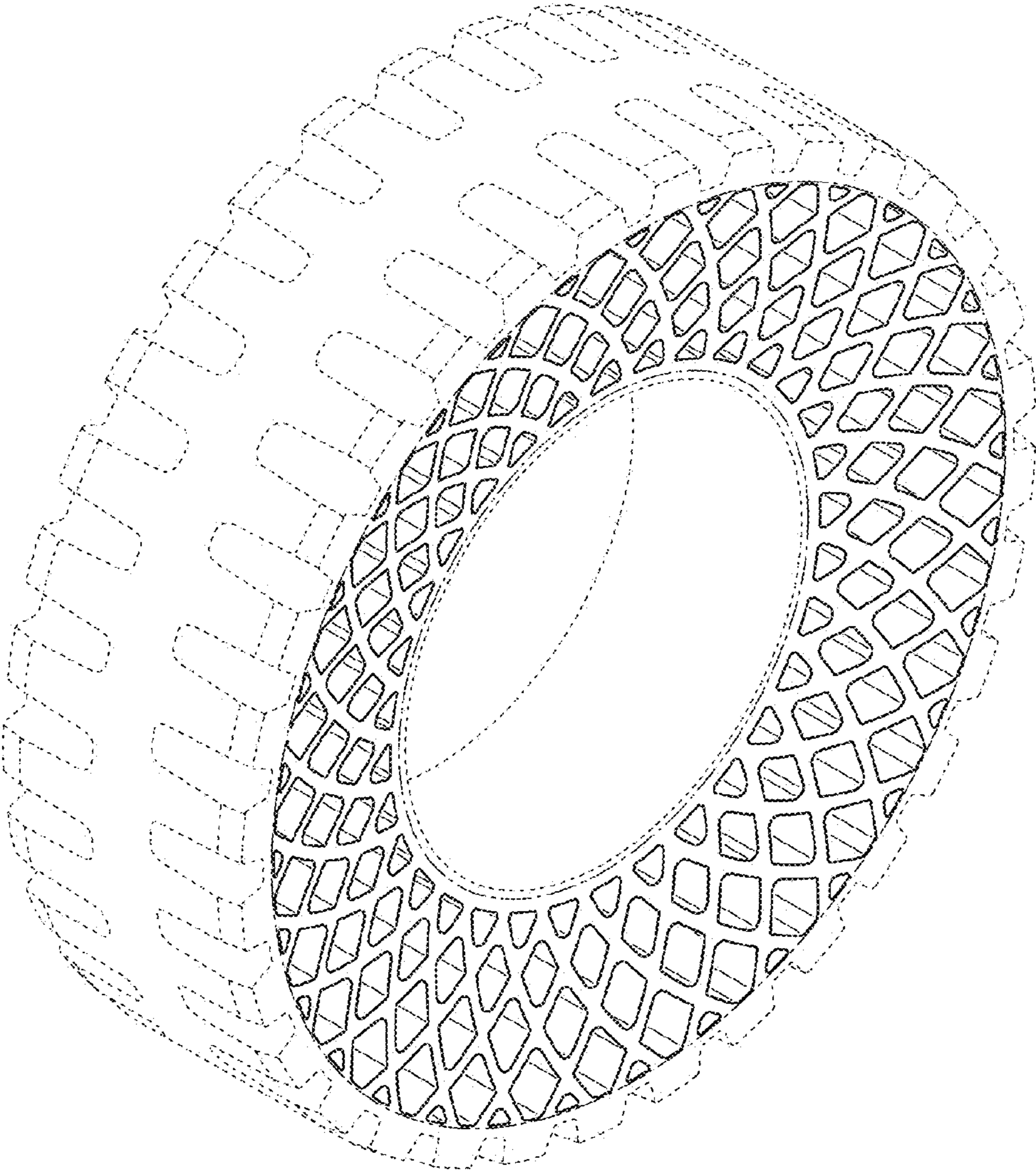
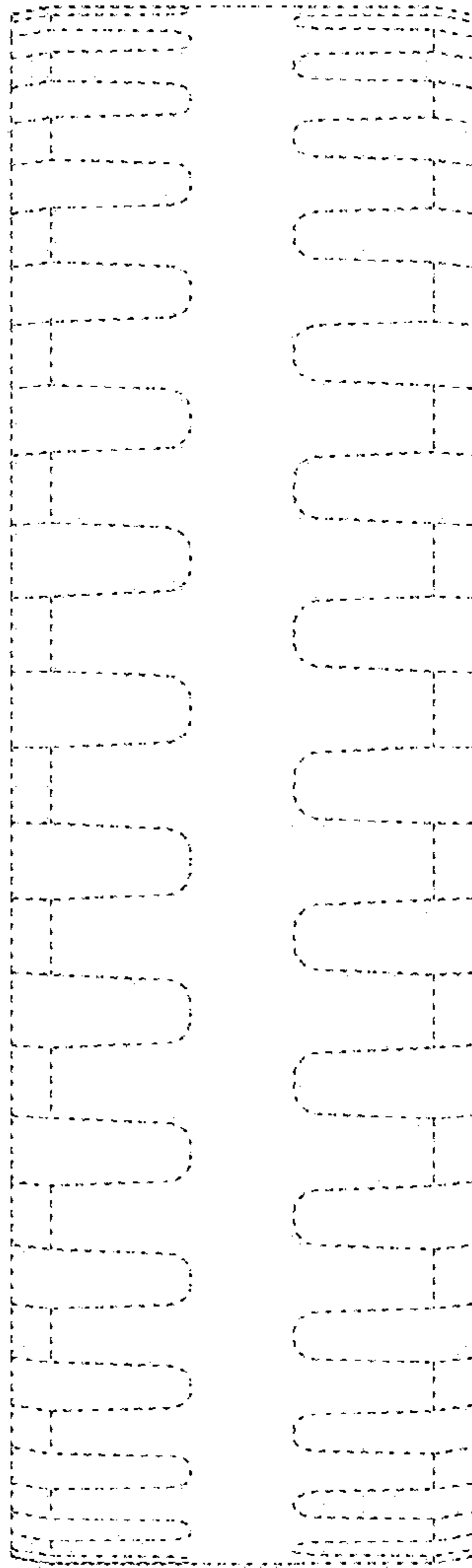


Fig. 1



*Fig. 2*

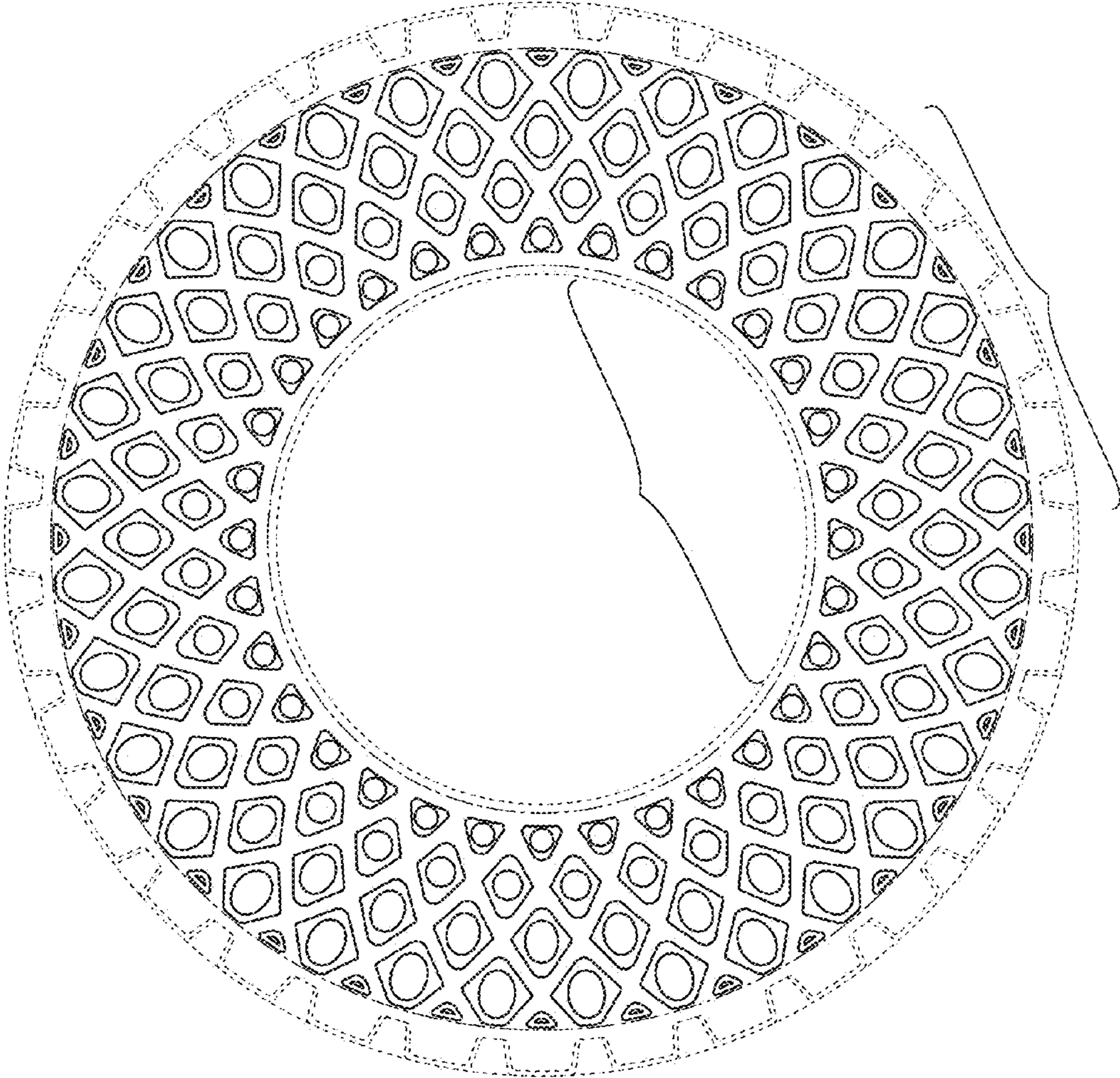


Fig. 3

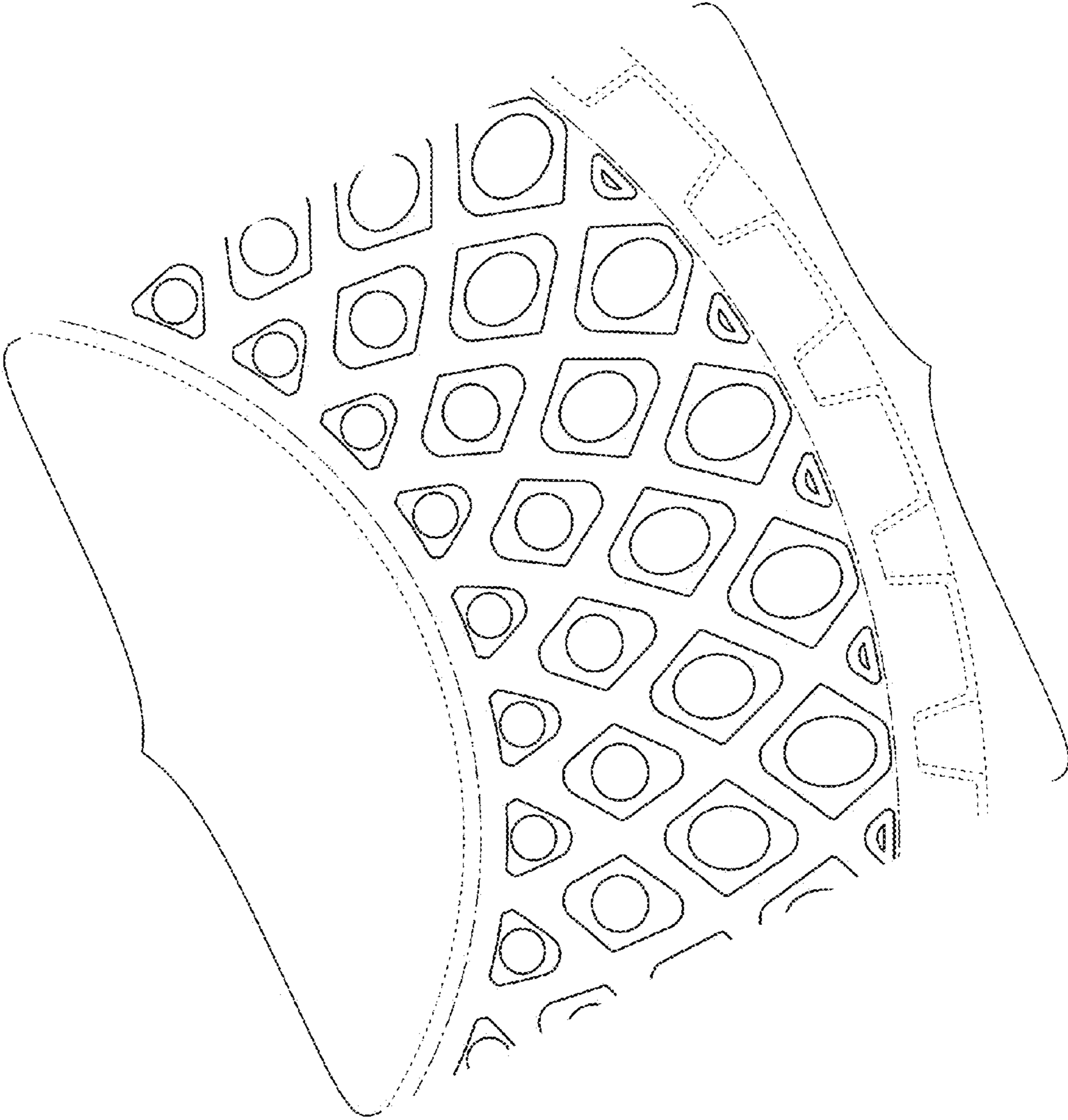


Fig. 4