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(12) **United States Design Patent** (10) **Patent No.:** **US D803,116 S**
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(54) **FRICITION DISC WITH SURFACE PATTERN**

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(52) **U.S. Cl.**
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(58) **Field of Classification Search**

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D6/602, 608, 612, 617; D19/1, 5, 8;
D25/138, 147, 150, 151; D2/500, 741;
D15/10, 26, 131, 5, 148; D12/177, 180
CPC . B32B 3/266; B32B 5/024; B44F 1/00; B44F
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11/06; D03D 1/00; D04H 1/00; D10B
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D21H 27/02

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D307,120 S * 4/1990 Ingley D12/561
6,293,382 B1 * 9/2001 Nishide F16D 13/72
192/107 R

D448,709 S * 10/2001 Le D12/600
D456,324 S * 4/2002 Burden D12/177
D458,215 S * 6/2002 Le D12/600
D478,093 S * 8/2003 Bentley D15/5
D497,127 S * 10/2004 Veneziano D12/180
D503,672 S * 4/2005 Cullinan D12/534
D504,865 S * 5/2005 Maziarka D12/521
D524,201 S * 7/2006 Okabe D12/180
D530,262 S * 10/2006 Chapman D12/543

(Continued)

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(57) **CLAIM**

The ornamental design for a friction disc with surface pattern, as shown and described.

DESCRIPTION

FIG. 1 is a front view of a first embodiment of a friction disc with surface pattern;

FIG. 2 is a side view of the design of FIG. 1 showing that the features on the front of the design are also applied to the rear;

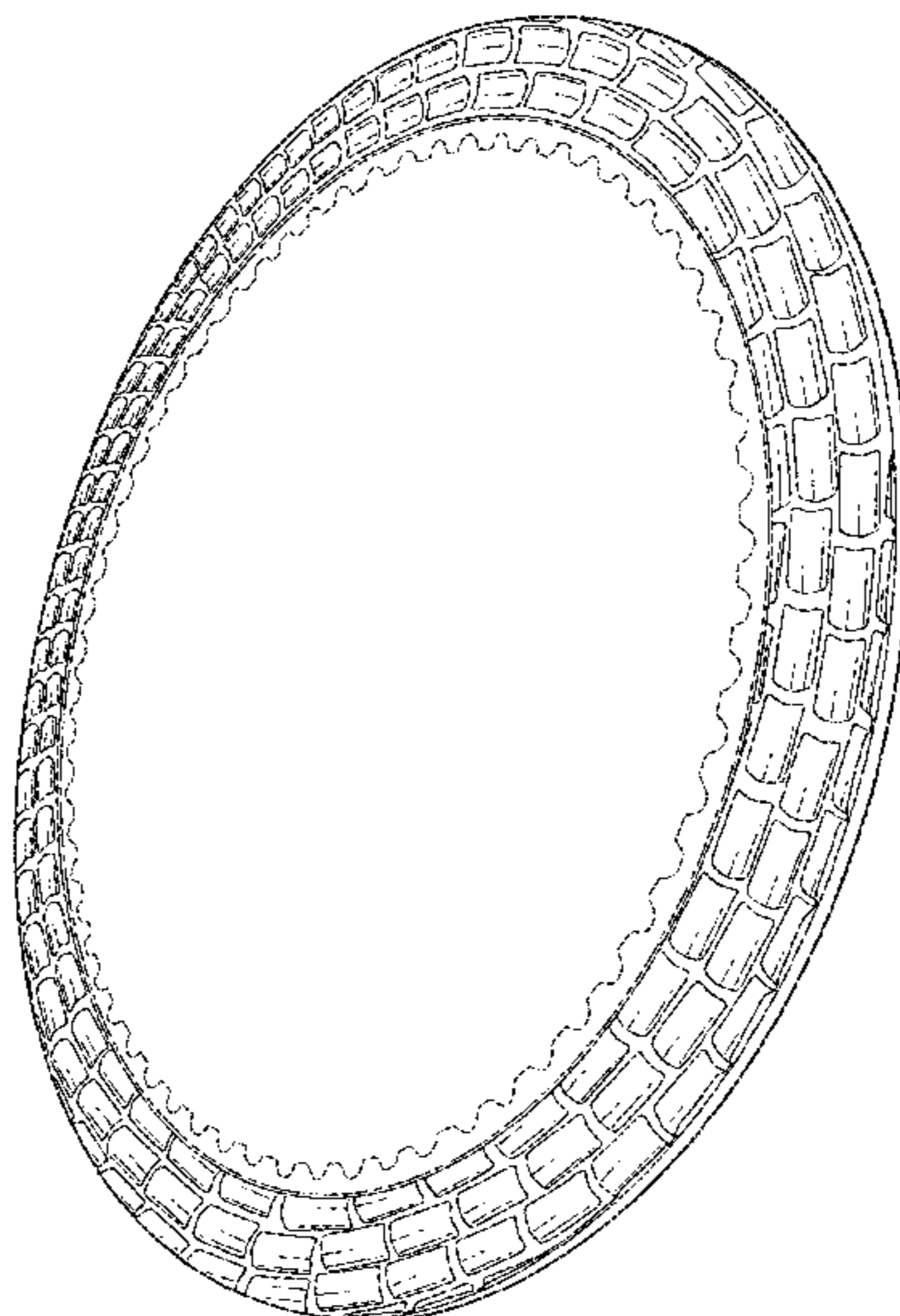
FIG. 3 is a front view of a second embodiment of a friction disc with surface pattern; and,

FIG. 4 is a perspective view of the design of FIG. 3.

The ornamental design includes surface texturing formed by embossed or debossed features having a trailing edge with a V-shape in friction material of a friction disc to give the appearance of a pattern of rows spiraling in a common clockwise or counterclockwise direction, the V-shape trailing edge defining an interior boundary of the design.

The dot-dash-dot broken line immediately adjacent to the interior solid line is the boundary of the claim and forms no part thereof. The broken line and areas within the broken line boundary depict portions of the friction disc with surface pattern that form no part of the claimed design.

1 Claim, 3 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

D581,844 S * 12/2008 Ohigashi D12/180
D590,327 S * 4/2009 Barrett D12/574
D595,641 S * 7/2009 Carter D12/579
D608,259 S * 1/2010 Becocci D12/180
D645,396 S * 9/2011 Jacobs D12/600
D648,261 S * 11/2011 Rayman D12/579
D661,632 S * 6/2012 Shinagawa D12/180
D661,633 S * 6/2012 Shinagawa D12/180
D693,280 S * 11/2013 Shinagawa D12/180
D709,114 S * 7/2014 Chavdar D15/148
D730,273 S * 5/2015 Schimmoeller D12/601
D736,143 S * 8/2015 Rizzo D12/536
D741,787 S * 10/2015 Wang D12/579
D749,477 S * 2/2016 Dunlap, III D12/180
D783,475 S * 4/2017 Wen D12/180
2003/0230463 A1 * 12/2003 Fabricius F16D 13/648
192/113.36
2007/0000747 A1 * 1/2007 Miyazaki F16D 13/648
192/70.12
2009/0229939 A1 * 9/2009 Gold F16D 13/683
192/57
2011/0275266 A1 * 11/2011 Lecostaouec B29B 11/16
442/240
2012/0160082 A1 * 6/2012 Erlendsson D04C 1/12
87/6
2013/0032271 A1 * 2/2013 Reiners F16D 13/64
156/60
2014/0290845 A1 * 10/2014 Collis

* cited by examiner

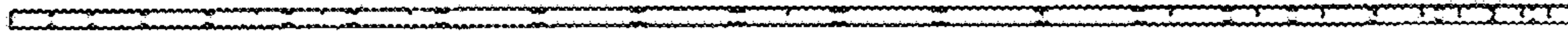


FIG. 2

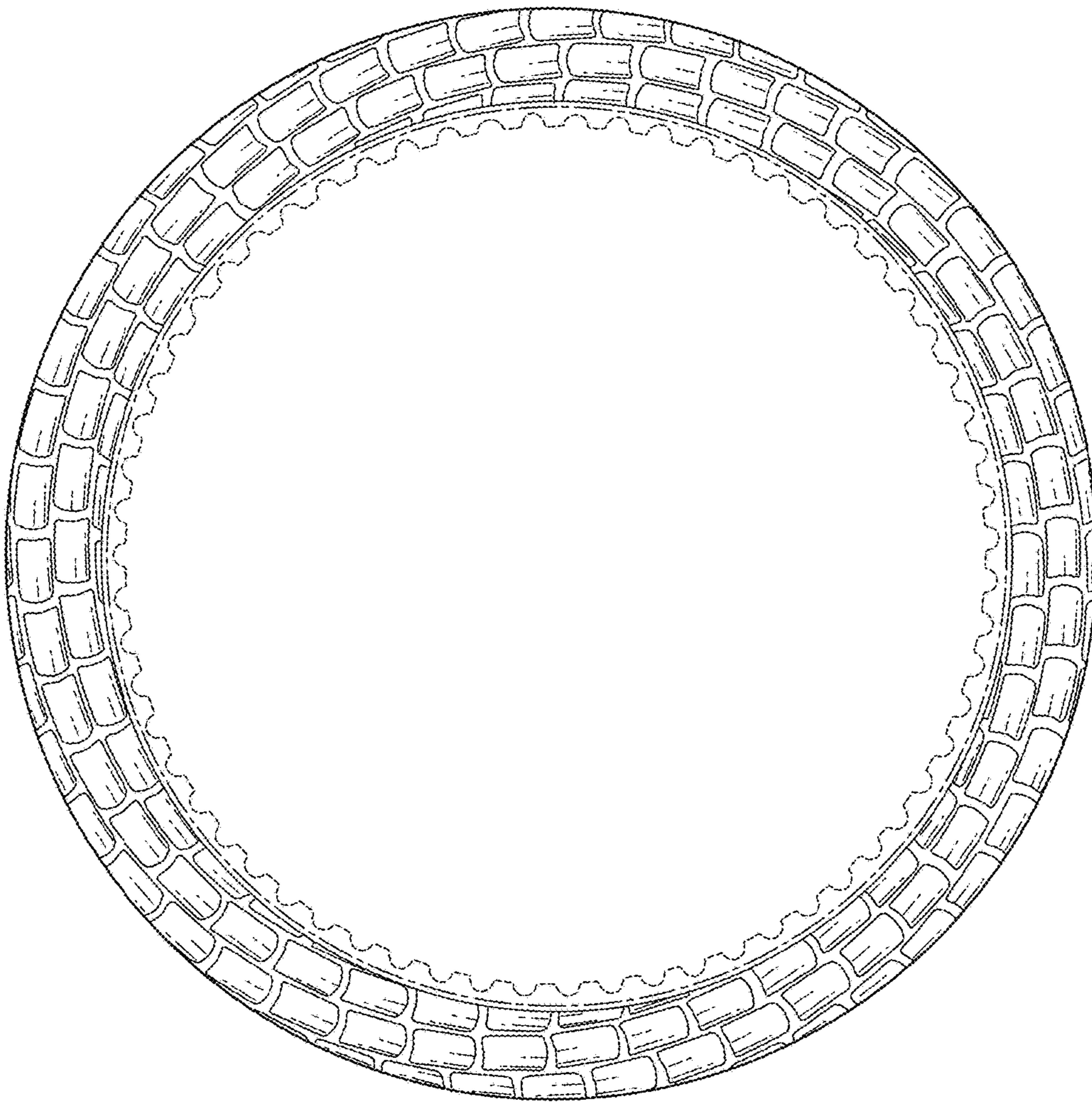


FIG. 1

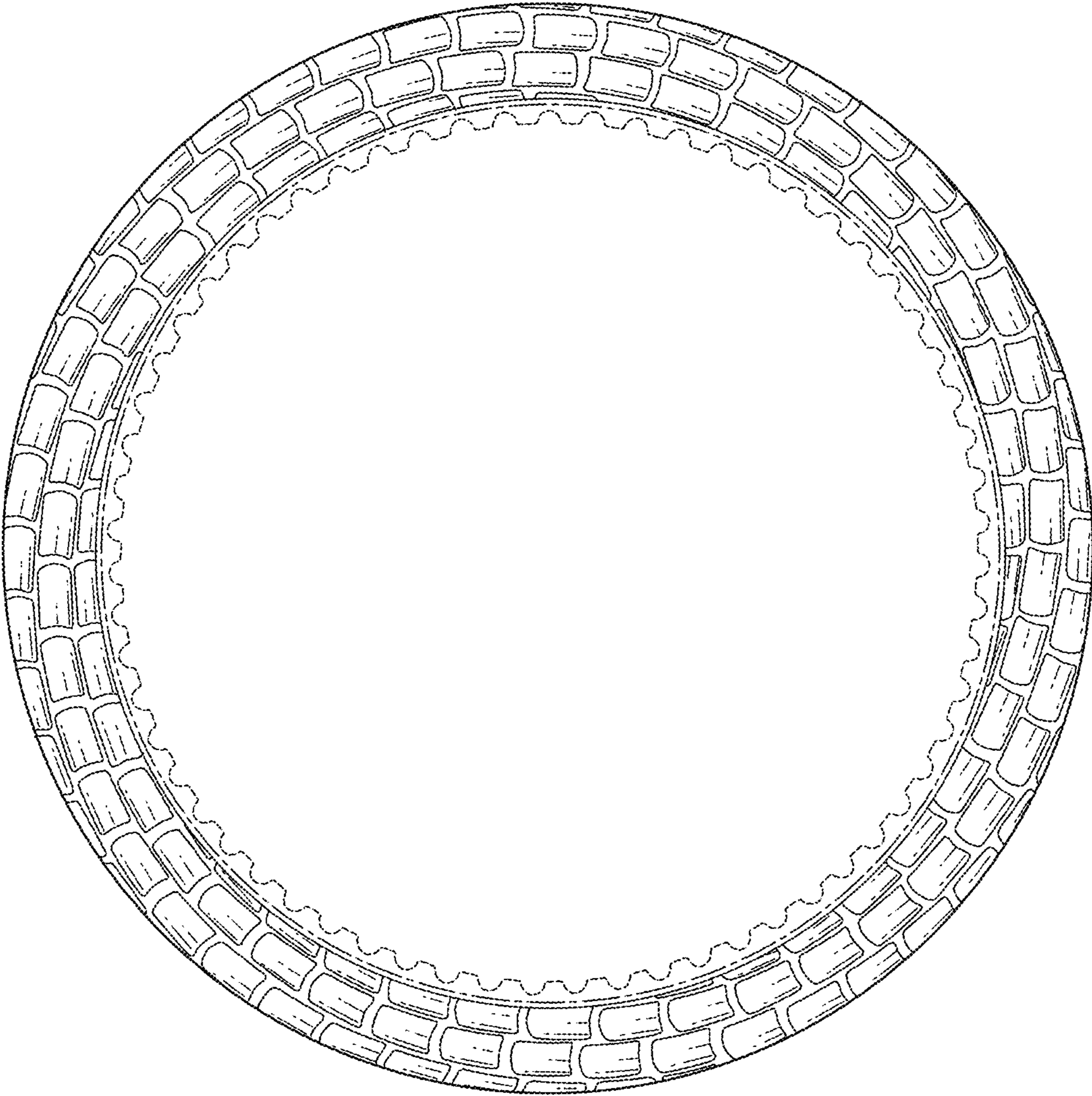


FIG. 3

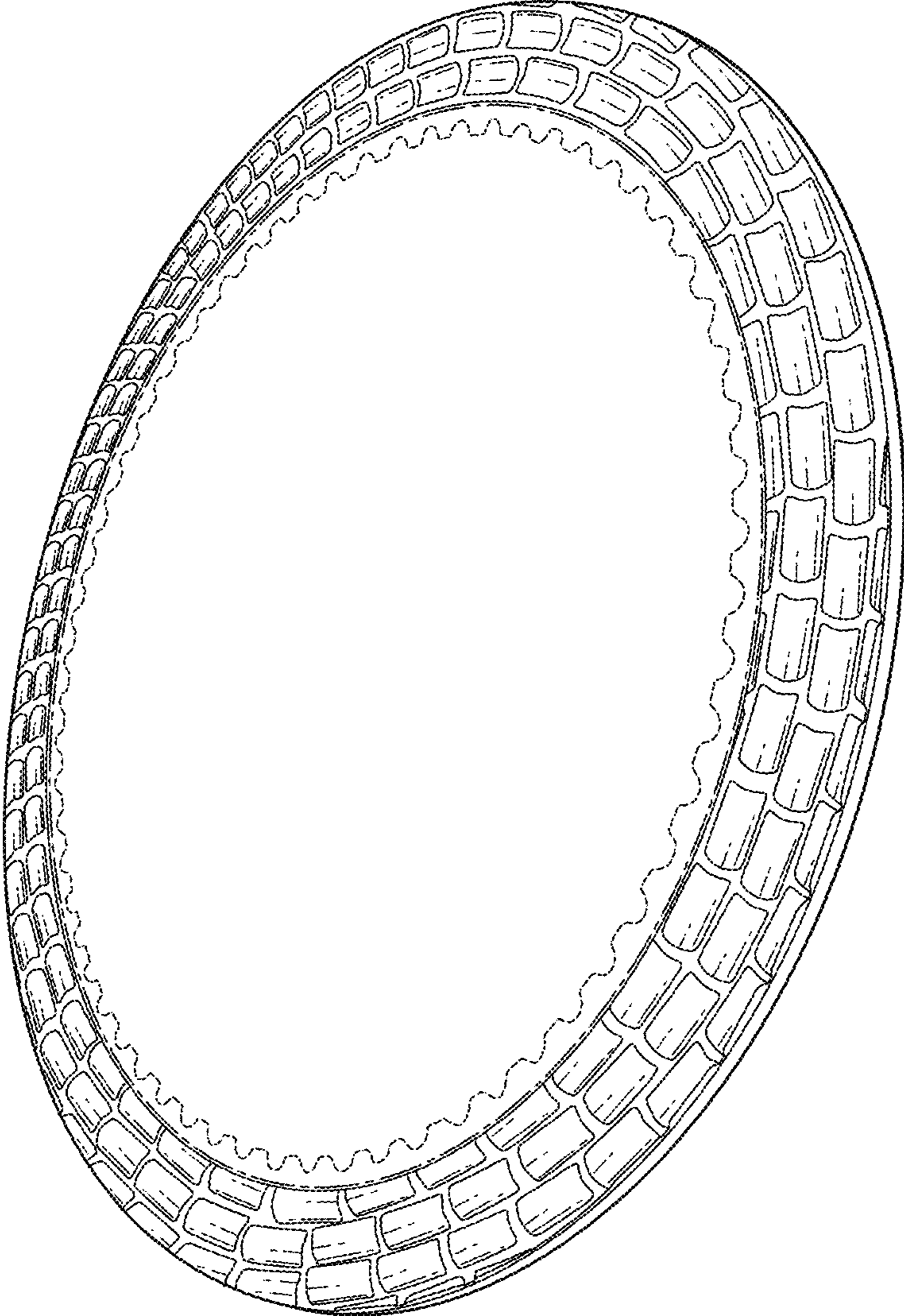


FIG. 4