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United States Patent [19]

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Arfele et al.

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[54] **FIVE BLADE DRILL BIT**

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[73] Assignee: **Dresser Industries, Inc.,** Houston, Tex.

[**] Term: **14 Years**

[21] Appl. No.: **80,371**

[22] Filed: **Dec. 2, 1997**

[51] **LOC (6) Cl. 15-09**

[52] **U.S. Cl. D15/139**

[58] **Field of Search** D15/139; 175/379, 175/385, 393, 418, 420.1, 421, 430, 427, 431, 432; 299/29

[56] **References Cited**

U.S. PATENT DOCUMENTS

D. 340,248	10/1993	Brady	.....	D15/139
D. 351,174	10/1994	Brady	.....	D15/139
4,373,593	2/1983	Phaal et al.	.	
5,007,493	4/1991	Coolidge et al.	.....	175/421 X
5,111,895	5/1992	Griffin	.	
5,159,857	11/1992	Jurewicz	.	
5,443,565	8/1995	Strange, Jr.	.	
5,549,171	8/1996	Mensa-Wilmot et al.	.	
5,551,522	9/1996	Keith et al.	.....	175/420.2
5,582,261	12/1996	Keith et al.	.....	175/431
5,651,421	7/1997	Newton et al.	.	

OTHER PUBLICATIONS

Catalogue/Brochure pages: "DP6 PDC Drill Bit."
 Catalogue/Brochure pages: "Diamond Drill Bits." Cristal Profor. Tarbes, France.
 Catalogue/Brochure pages: "A Strong Line of Natural Diamond and PDC Bits." Smith Diamond.
 Catalogue/Brochure pages: IADC S946, et al. Smith Diamond.
 Catalogue/Brochure pages: "Cut Drilling Costs 40 Percent or More with a Strata Bit PDC Bit Tailored to the Formation." Strata Bit.

Catalogue/Brochure page: "The Fast Track to the Bottom Line," p. 8. Strata Bit.
 Catalogue/Brochure pages: "Standard PDC Bits; Standard Ringcutter PDC Bits; Gold Series Bits."
 Catalogue/Brochure page: "Hycalog Introduces the Hybrid-Fishtail." Hycalog.
 Catalogue/Brochure page: "Longer Bit Life and Superior Downhole Performance." Hycalog.
 Catalogue/Brochure pages: 6 3/4 in. DS42H, et al. Hycalog.
 Catalogue/Brochure pages: "Nortrak Navigation Drilling Systems." pp. 4-5. Nortrak.
 Catalogue/Brochure pages: "VIII. Diamond Drilling & Coring Bits," pp. 47-48. Eastman Christensen.
 Catalogue/Brochure pages: "Technical Data." Eastman Christensen.
 Catalogue/Brochure pages: Rock Digger 15, et al.
 Catalogue/Brochure pages: "Diamond Products." Smith International, pp. 12-13.
 Catalogue/Brochure page: "PD-7 Rotary and Motor Bit; PD-11 Rotary Bit; PD-11X2 Rotary Bit."
 Catalogue/Brochure page: "Strata-Cut Drilling-Bits."
 Catalogue/Brochure pages: "TD 2000 Series Drill Bits; PD Steel Body Drill Bits." Diamond Boart Stratabit.
 Catalogue/Brochure pages: "Diamond Compact Bits (R-Series)." Norton Christensen Drilling Products.

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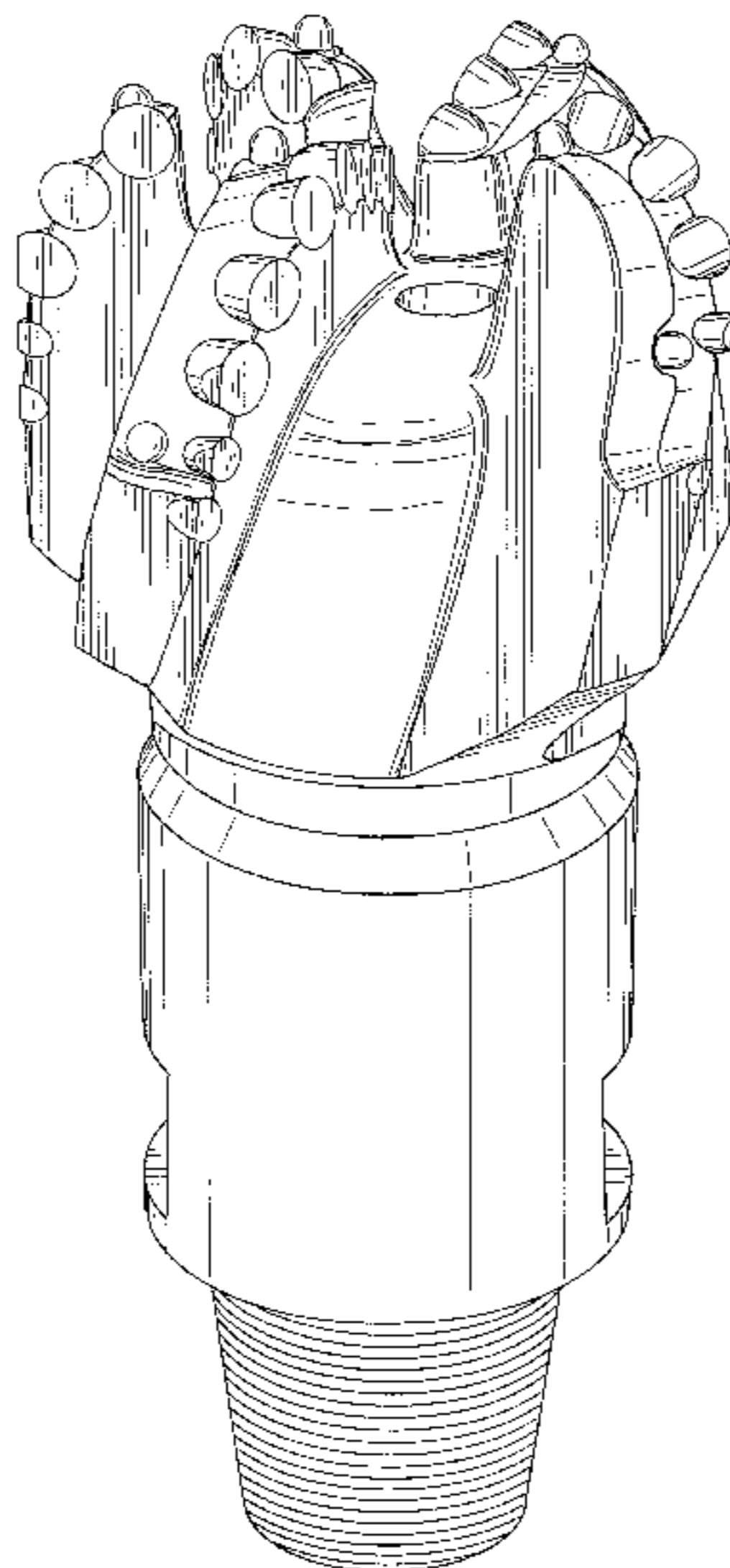
[57] **CLAIM**

The ornamental design for a five blade drill bit, as shown and described.

DESCRIPTION

FIG. 1 is a top plan view of a four blade drill bit showing our new design;
 FIG. 2 is a front elevational view thereof;
 FIG. 3 is a right side elevational view thereof;
 FIG. 4 is a left side elevational view thereof;
 FIG. 5 is a rear elevational view thereof;
 FIG. 6 is a bottom plan view thereof; and,
 FIG. 7 is a top, front, left side perspective view thereof.

1 Claim, 7 Drawing Sheets



OTHER PUBLICATIONS

Catalogue/Brochure pages: "Bit Description".

Catalogue/Brochure page: "Put the Best on the Bottom."
BiTech.

Catalogue/Brochure pages: 8 1/2 in Hornet 4, et al. Reed
Tool Company.

Catalogue/Brochure pages: "Diamond Compact Bits
(R-Series)," pp. 11-12. Eastman Christensen.

Catalogue/Brochure page: "Smith Diamond's New S-95:
The right Direction in Soft Formations." Smith Interna-
tional.

Catalogue/Brochure pages: "Drilling Bits." Petroleum Dia-
mond Products.

Catalogue/Brochure page: "Diataq DS."

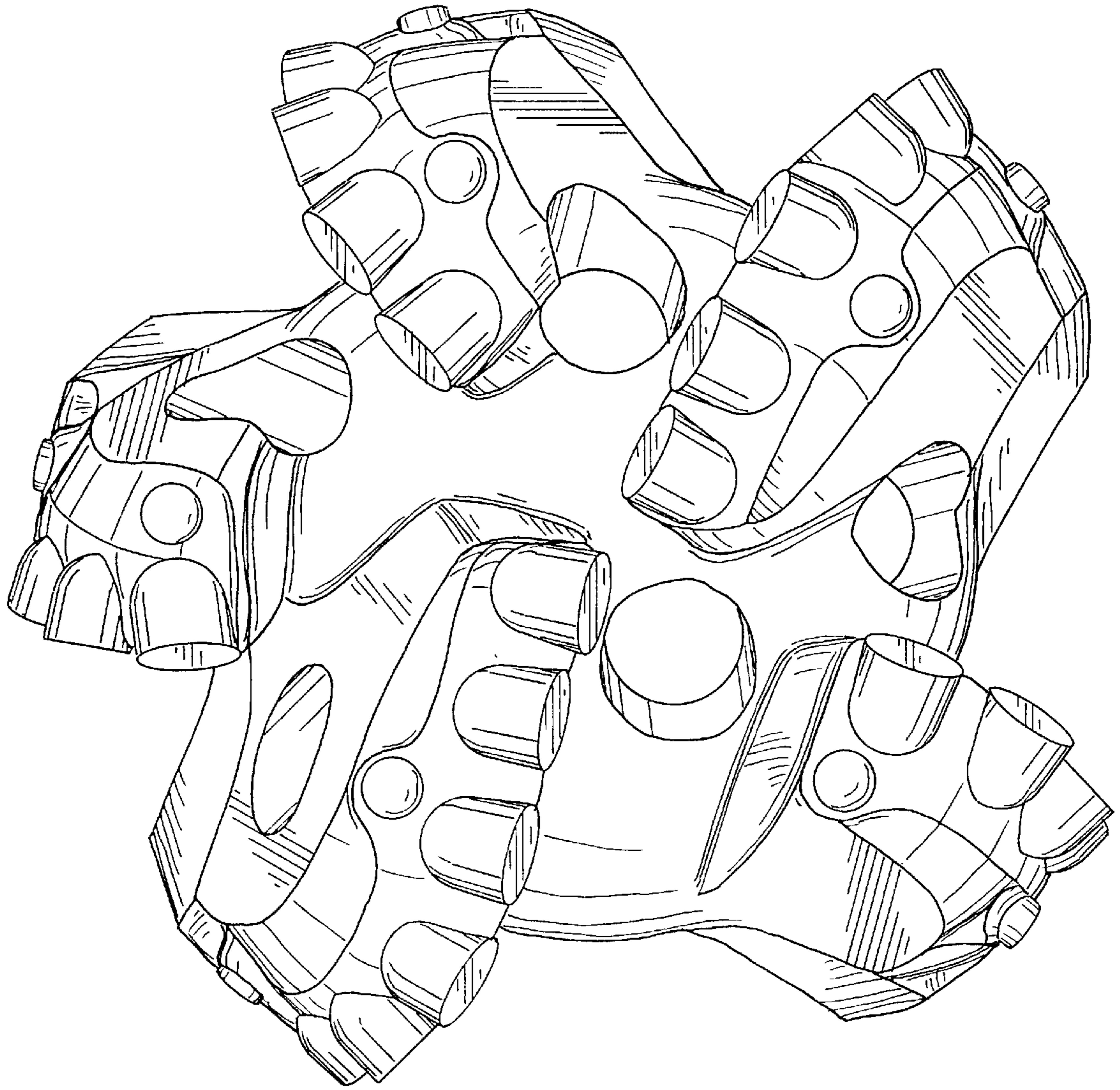


FIG. 1

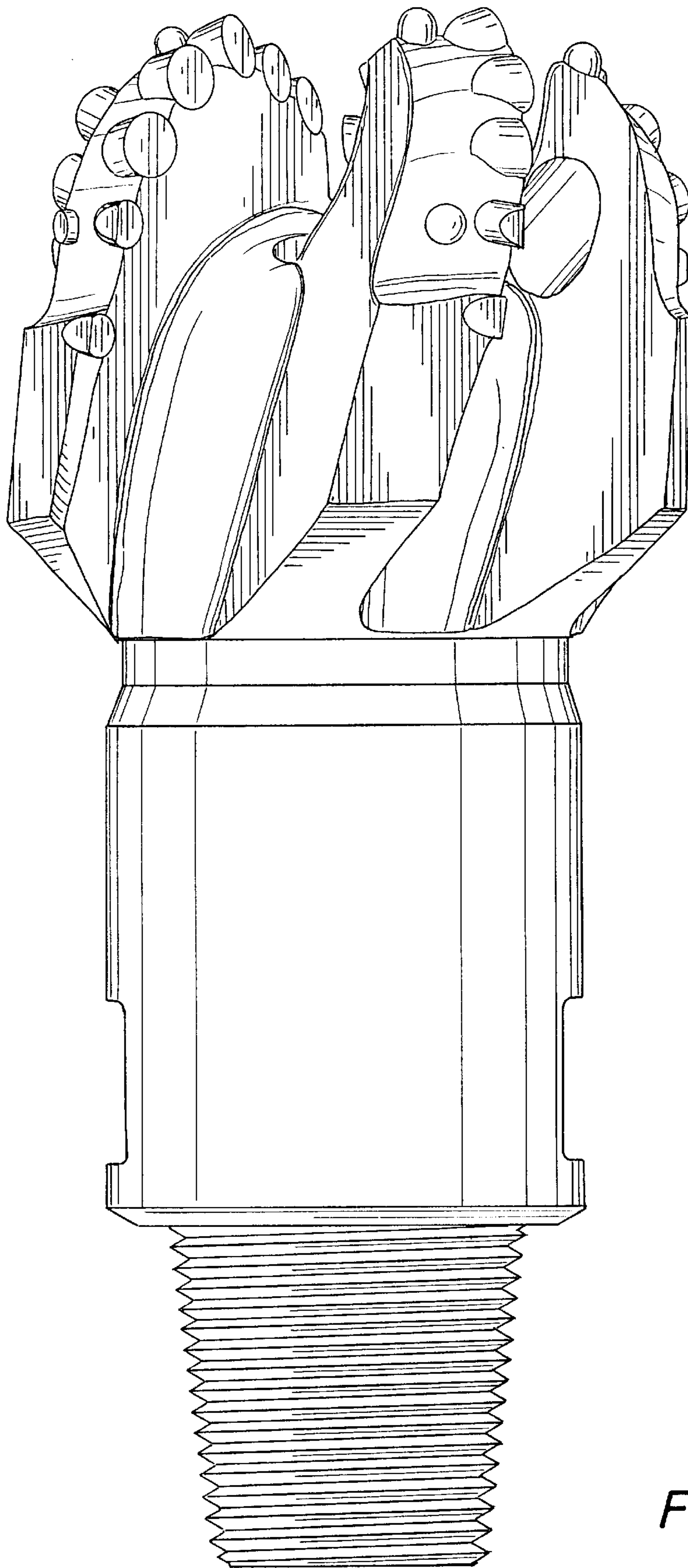


FIG. 2

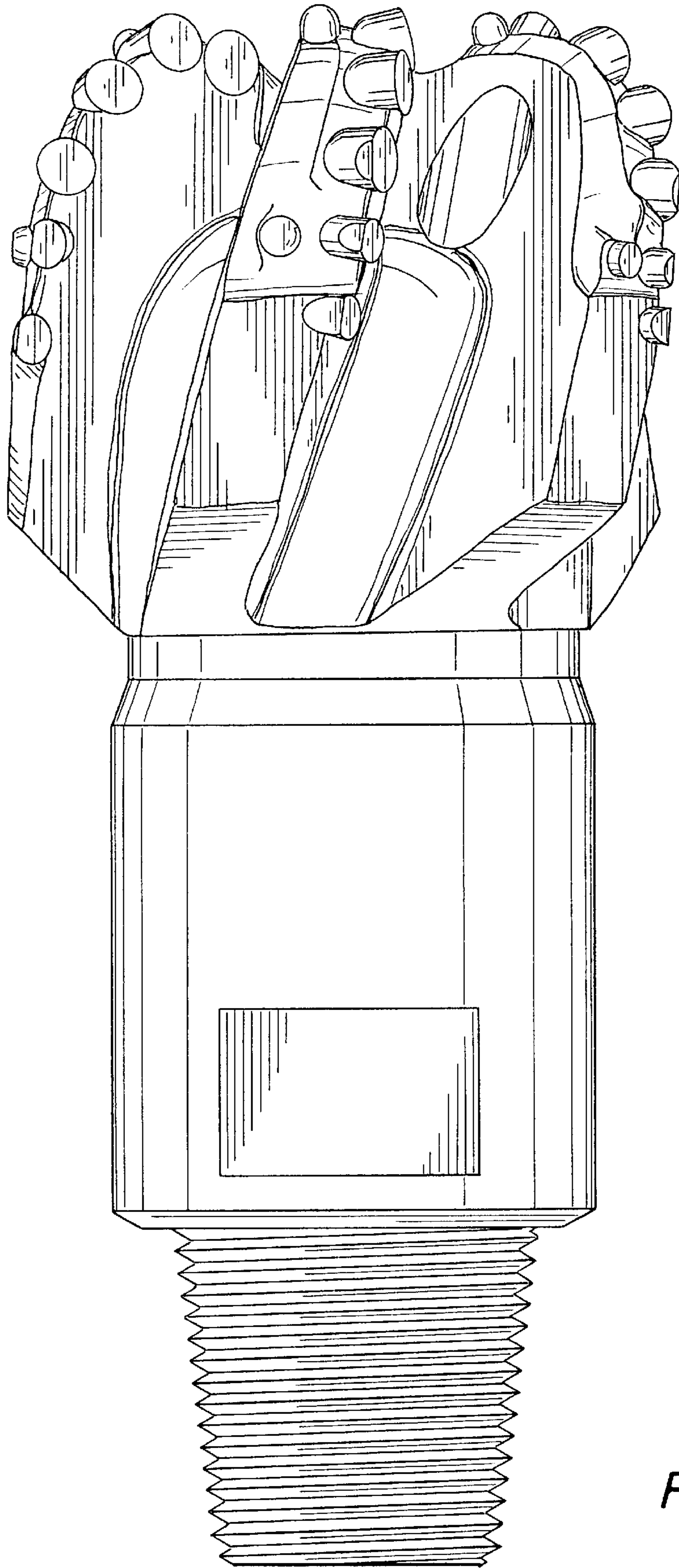


FIG. 3

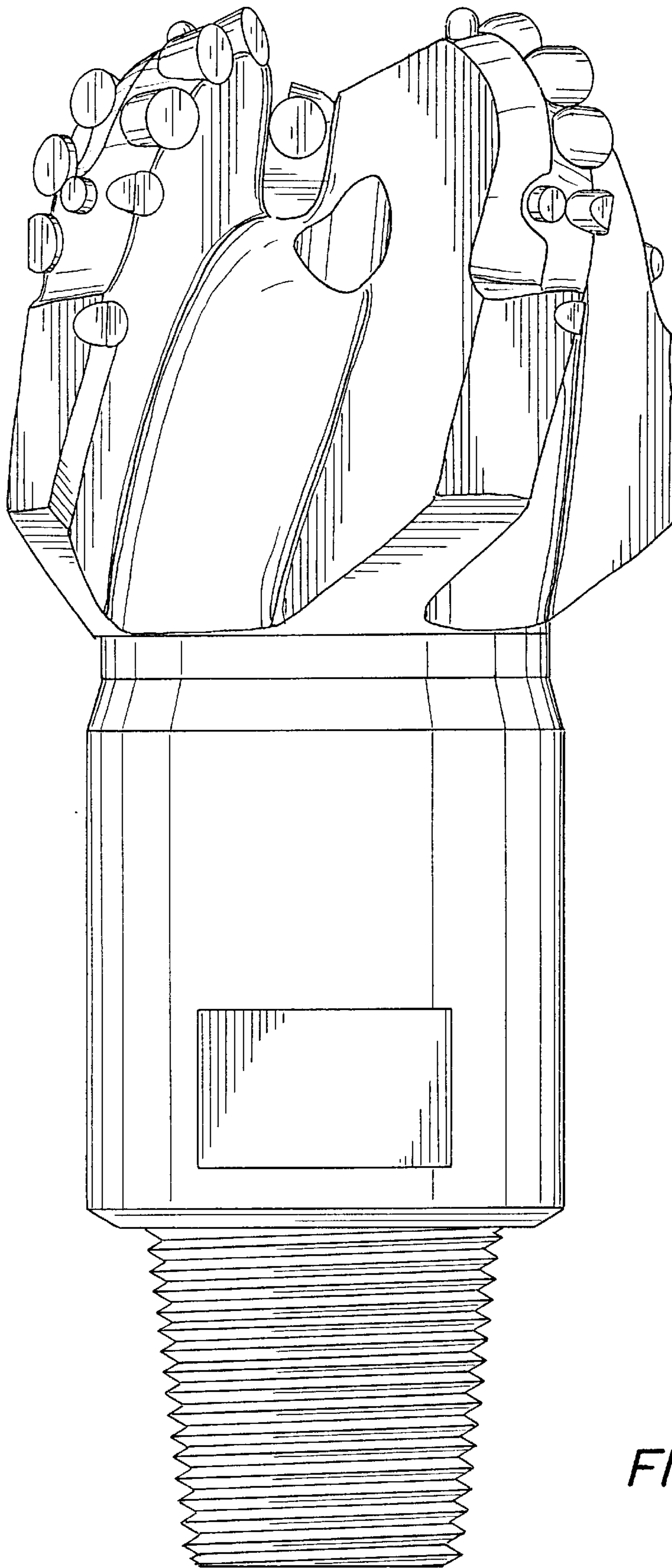


FIG. 4

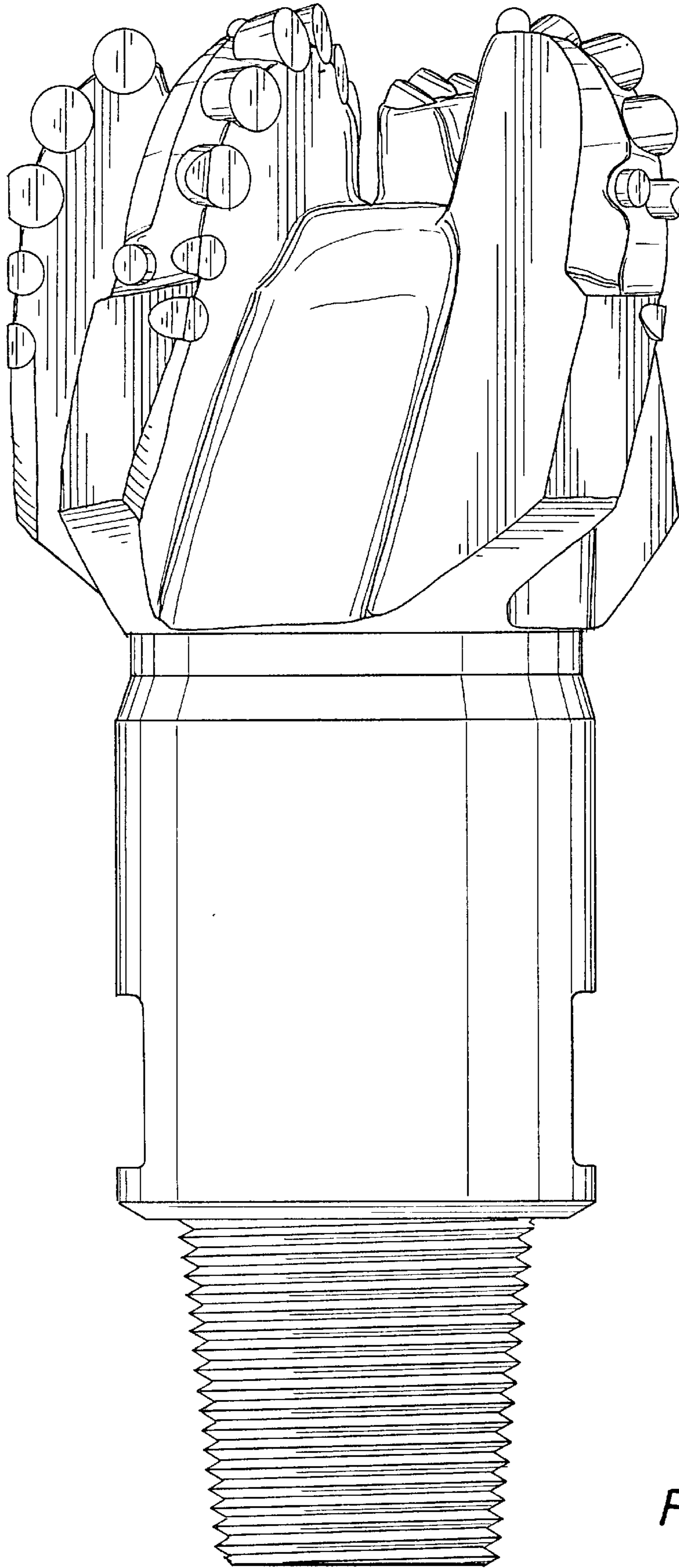


FIG. 5

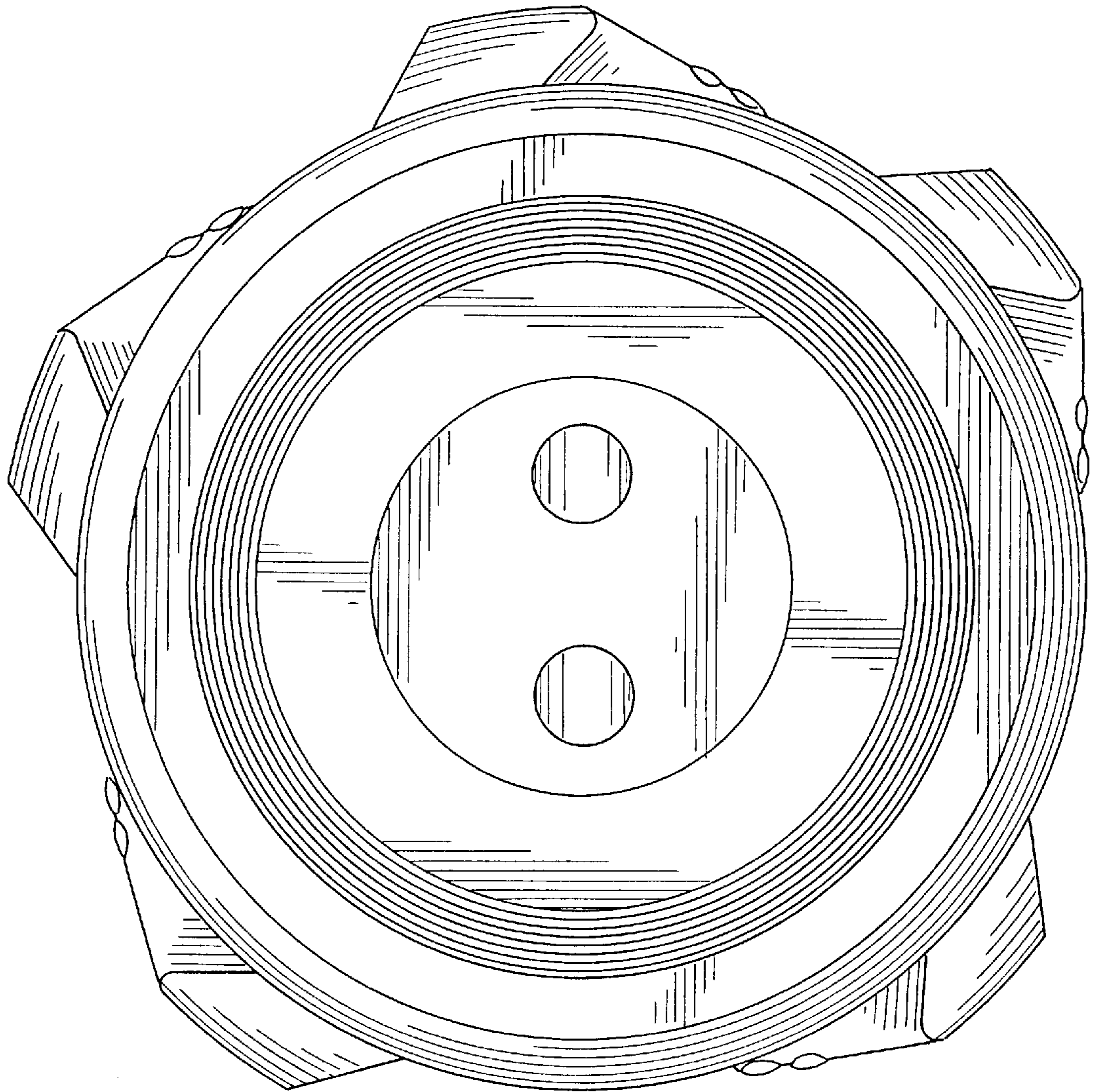


FIG. 6

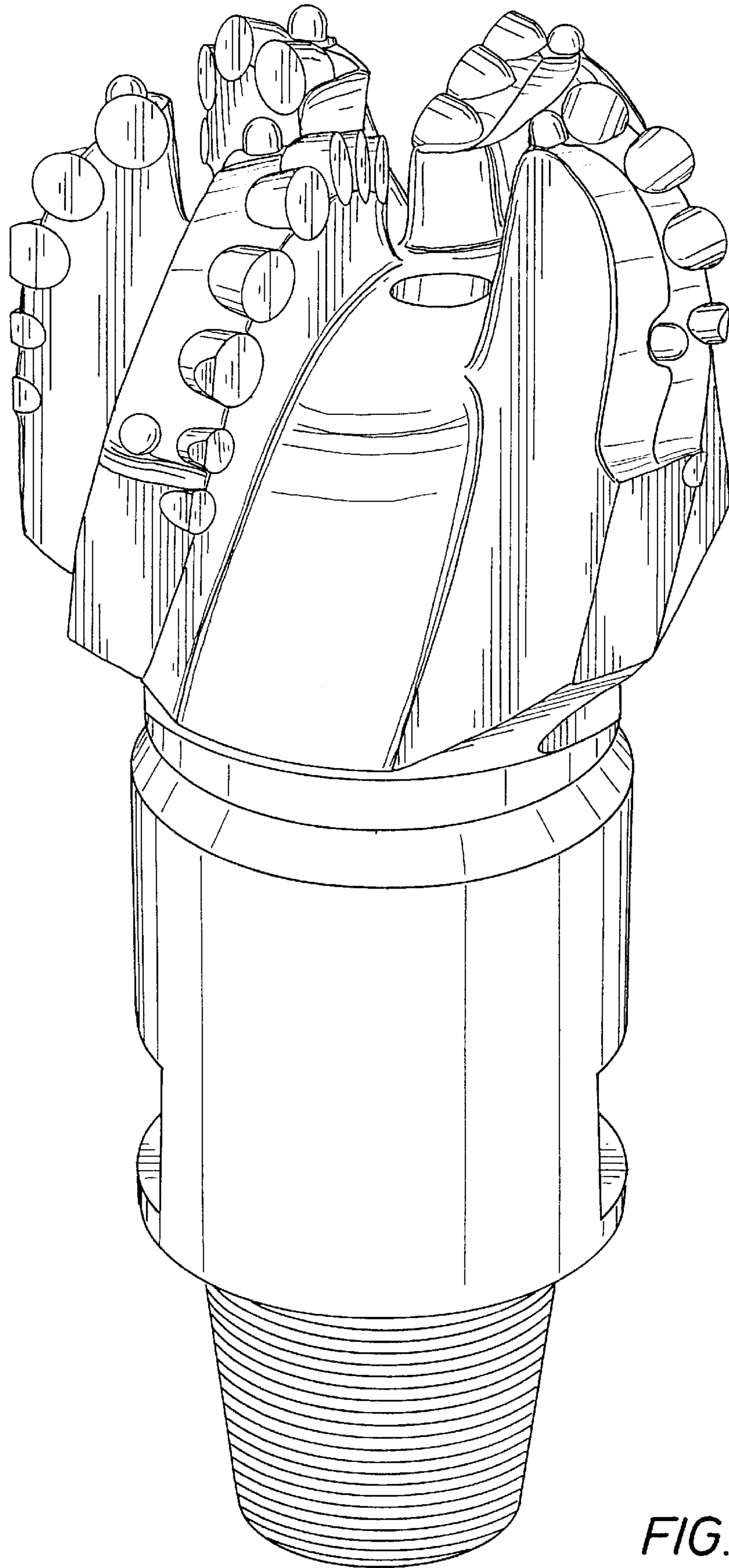


FIG. 7