US00D927931S

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

(10) **Patent No.: US D927,931 S**
(45) **Date of Patent: ** Aug. 17, 2021**

(54) **MIXING IMPELLER**

(71) Applicant: **PRC DeSoto International, Inc.**, Sylmar, CA (US)

(72) Inventors: **Paul Kuchinski**, Valley Village, CA (US); **Goldi Singh**, Chino Hills, CA (US); **Oscar Santillan**, Camarillo, CA (US)

(73) Assignee: **PRC-DeSoto International, Inc.**, Sylmar, CA (US)

(**) Term: **15 Years**

(21) Appl. No.: **29/730,507**

(22) Filed: **Apr. 6, 2020**

(51) **LOC (13) Cl.** **31-00**

(52) **U.S. Cl.**
USPC **D7/412**; D7/376; D7/378; D7/383

(58) **Field of Classification Search**
USPC D7/372, 376–386, 412–413, 602, 629, D7/665–666, 669, 679, 693–694; D13/115; D23/200; D24/220
CPC A21C 1/02; A21C 1/04; A23N 1/00; A23N 1/02; A47J 43/04; A47J 43/25; A47J 43/27; A47J 43/042; A47J 43/044; A47J 43/046; A47J 43/075; A47J 43/0722; A47J 43/0727; B01F 3/00; B01F 3/0807; B01F 3/0853; B01F 7/00341; B01F 7/00633; B01F 7/22; B01F 13/0059; B01F 13/0064; B01F 15/00019; B02C 1/08; B02C 2/04; B02C 4/42; B02C 4/142; B02C 4/143; B02C 4/423; B02C 13/1835; B02C 18/20; B28C 5/10; B28C 5/12; B28C 5/14; B28C 5/16
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,461,933 A * 8/1969 Mantelet A47J 43/046 241/199.12
4,930,709 A * 6/1990 Steffens B02C 18/20 241/282.2
D432,621 S * 10/2000 Etschel D12/214
(Continued)

OTHER PUBLICATIONS

U.S. Appl. No. 63/005,527 to Kuchinski, "Mixing Impellers for Sealant Cartridges", filed Apr. 6, 2020.

Primary Examiner — Ricky Pham
(74) *Attorney, Agent, or Firm* — Alan G. Towner

(57) **CLAIM**

The ornamental design for mixing impeller, as shown and described.

DESCRIPTION

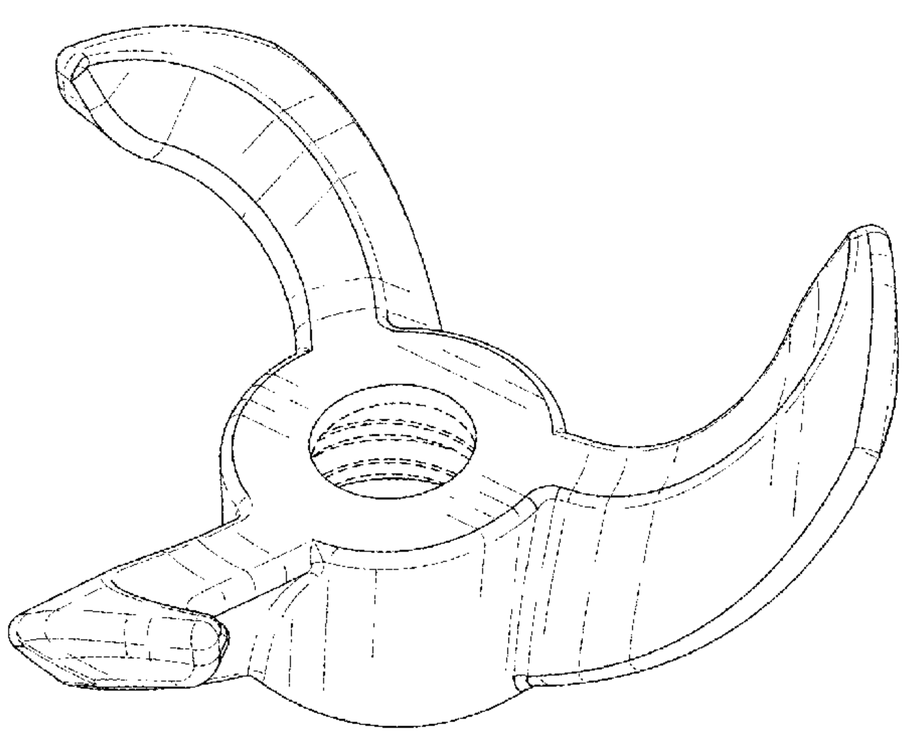
FIG. **1** is a top perspective view of a mixing impeller showing an embodiment of our new design;
FIG. **2** is a bottom perspective view thereof;
FIG. **3** is a front view thereof;
FIG. **4** is a right side view thereof;
FIG. **5** is a top view thereof;
FIG. **6** is a bottom view thereof;
FIG. **7** is a top perspective view of a mixing impeller showing another embodiment of our new design;
FIG. **8** is a bottom perspective view thereof;
FIG. **9** is a front view thereof;
FIG. **10** is a top view thereof; and,
FIG. **11** is a bottom view thereof.

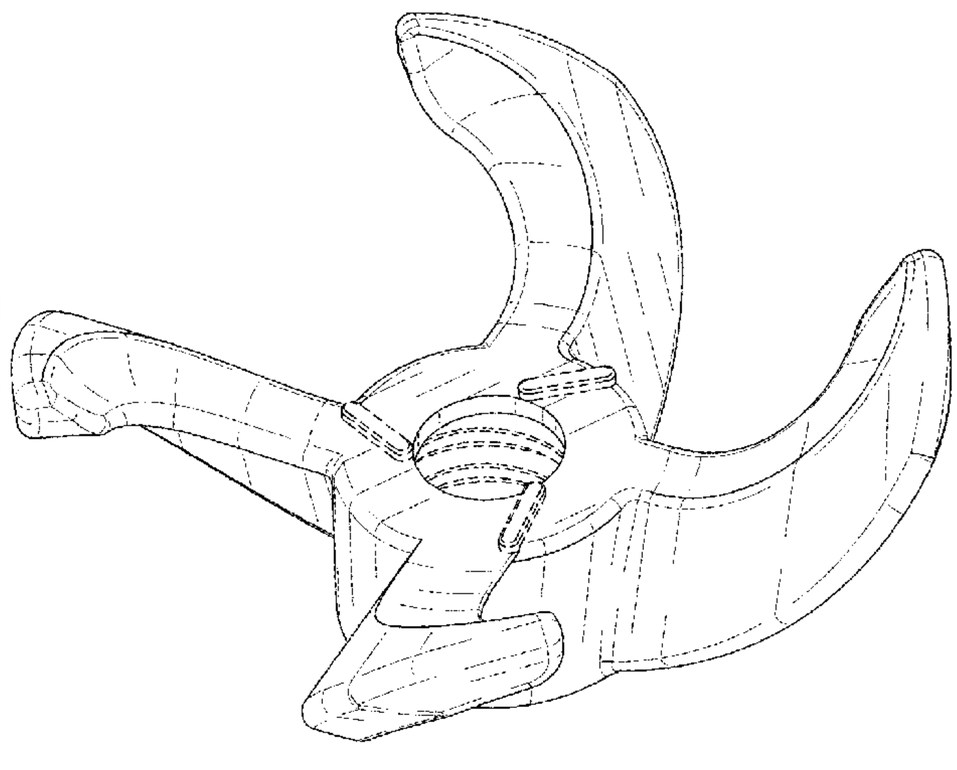
The broken lines are for environmental purposes only and form no part of the claimed design.

The mixing impeller of the embodiment of FIGS. **1-6** is rotationally symmetrical at 120° intervals around a central vertical axis thereof.

The mixing impeller of the embodiment of FIGS. **7-11** is being rotationally symmetrical at 90° intervals around a central vertical axis thereof, such that the right side, left side and rear views are substantially identical to the front view of FIG. **9**.

1 Claim, 6 Drawing Sheets





(56) **References Cited**

U.S. PATENT DOCUMENTS

6,834,818	B2 *	12/2004	Lee	A47J 43/0722 241/282.2
7,473,025	B1 *	1/2009	Howk	B01F 7/00341 366/270
D708,902	S *	7/2014	Audette	D7/412
9,289,733	B2 *	3/2016	Maxon	B01F 15/00019
9,334,874	B2 *	5/2016	Xia	B01F 7/00341
9,731,256	B2 *	8/2017	Dinnison	B01F 7/22
D829,172	S *	9/2018	Cooper	D13/115
D891,634	S *	7/2020	Skakoon	D24/220
10,894,238	B2	1/2021	Singh et al.	
2002/0139884	A1 *	10/2002	Williams	A47J 43/0722 241/282.1
2010/0246320	A1 *	9/2010	Sands	B01F 7/00633 366/246

* cited by examiner

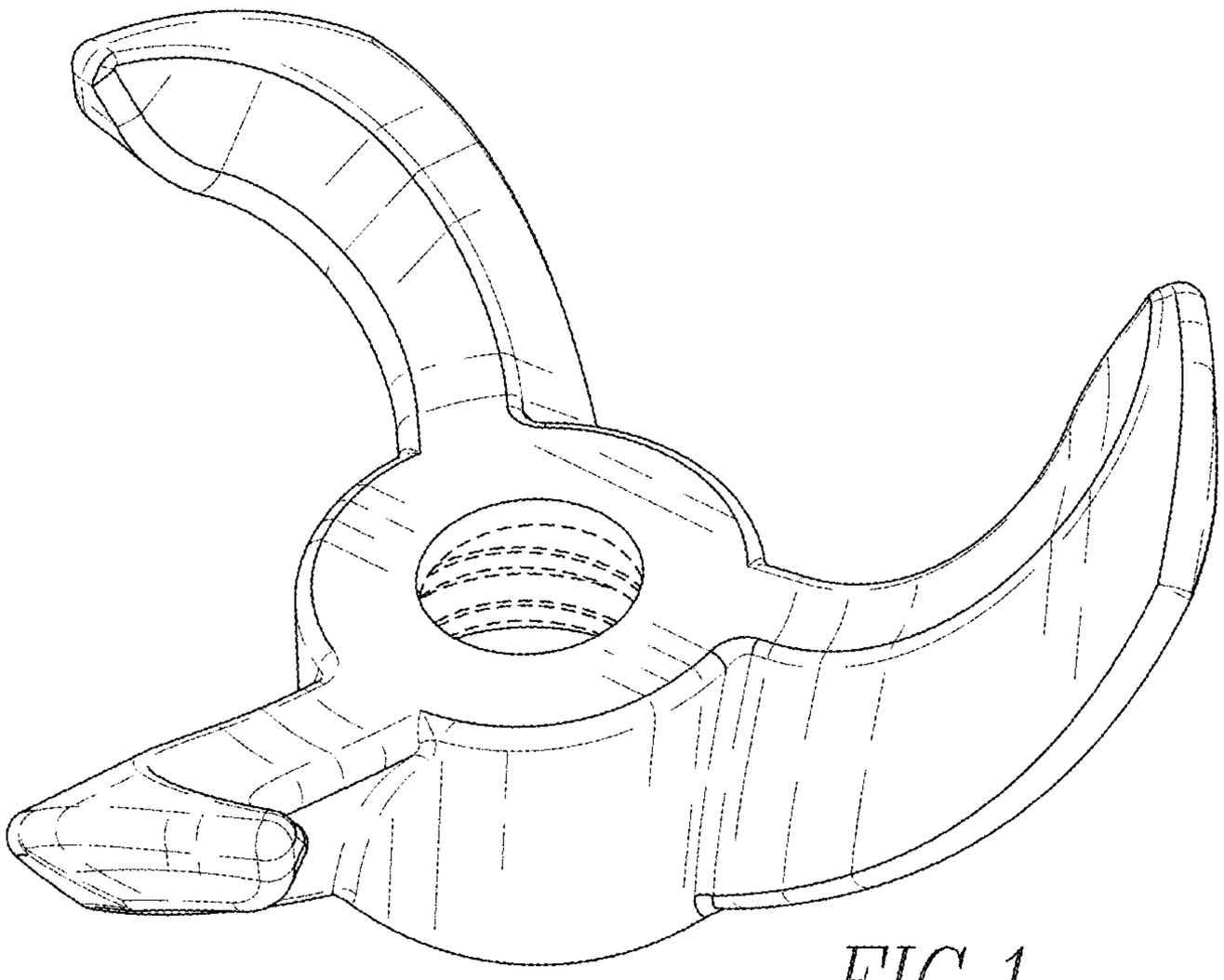


FIG.1

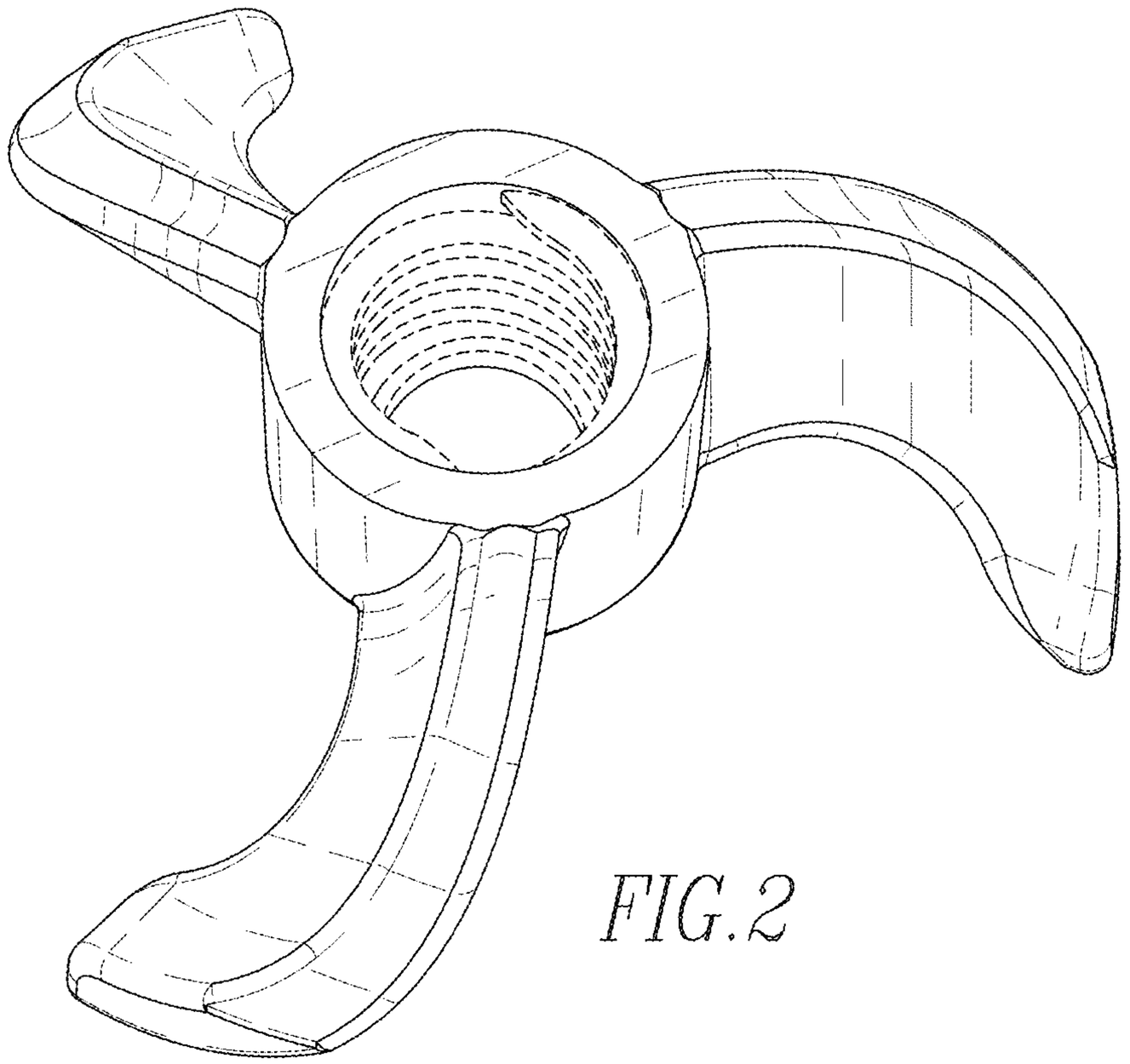


FIG.2

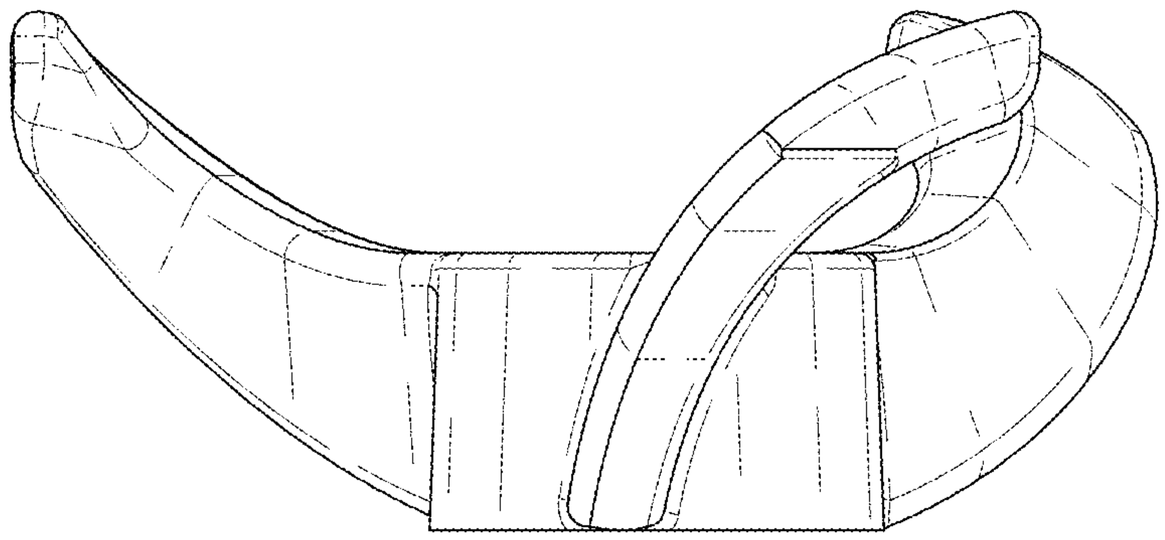


FIG. 3

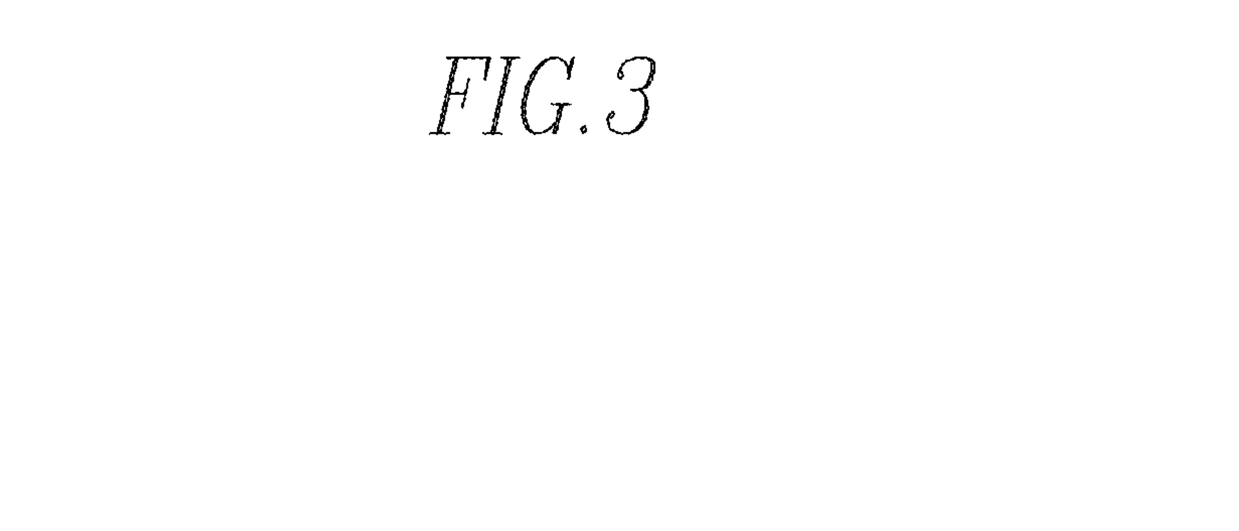


FIG. 4

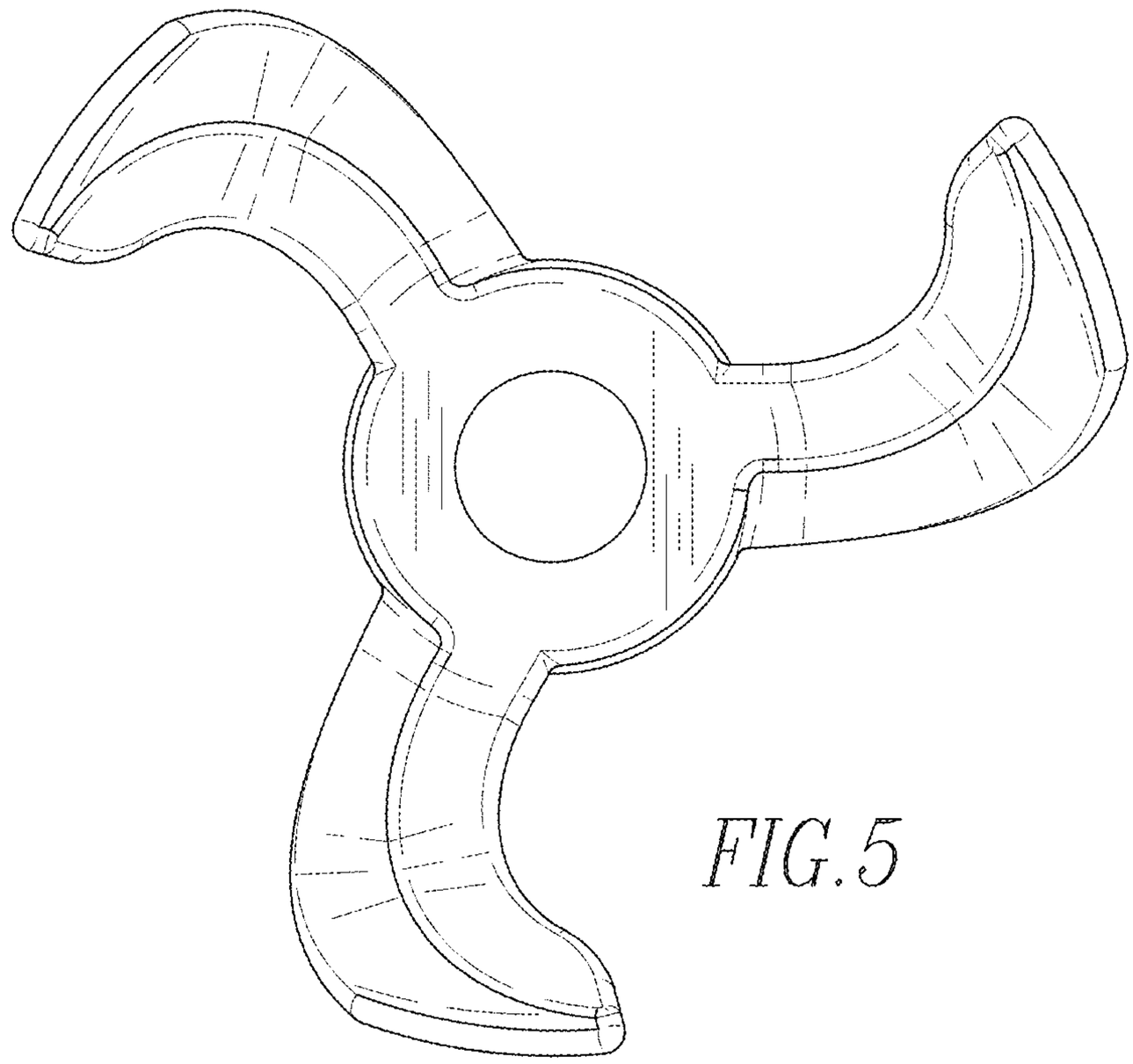


FIG.5

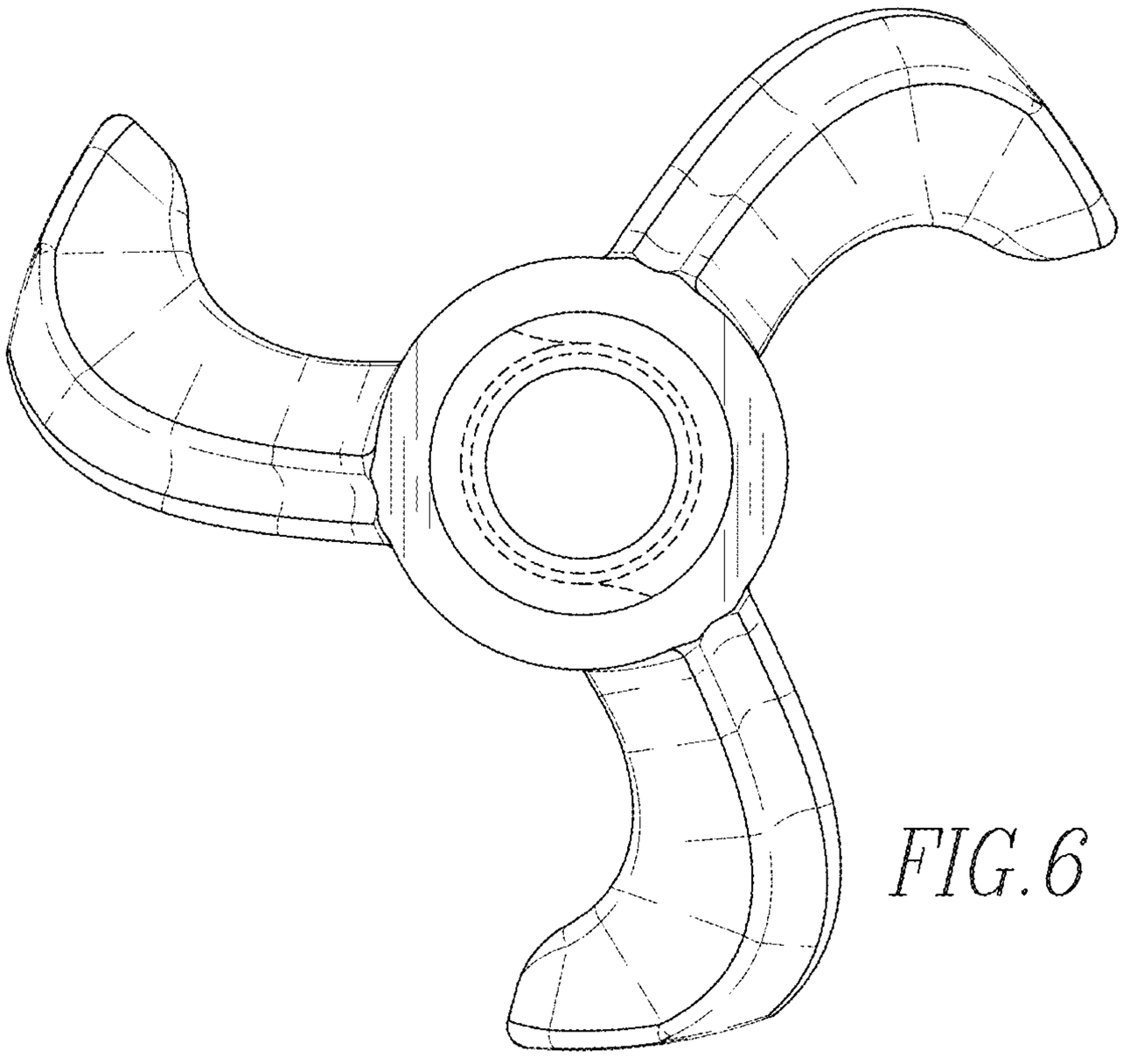


FIG.6

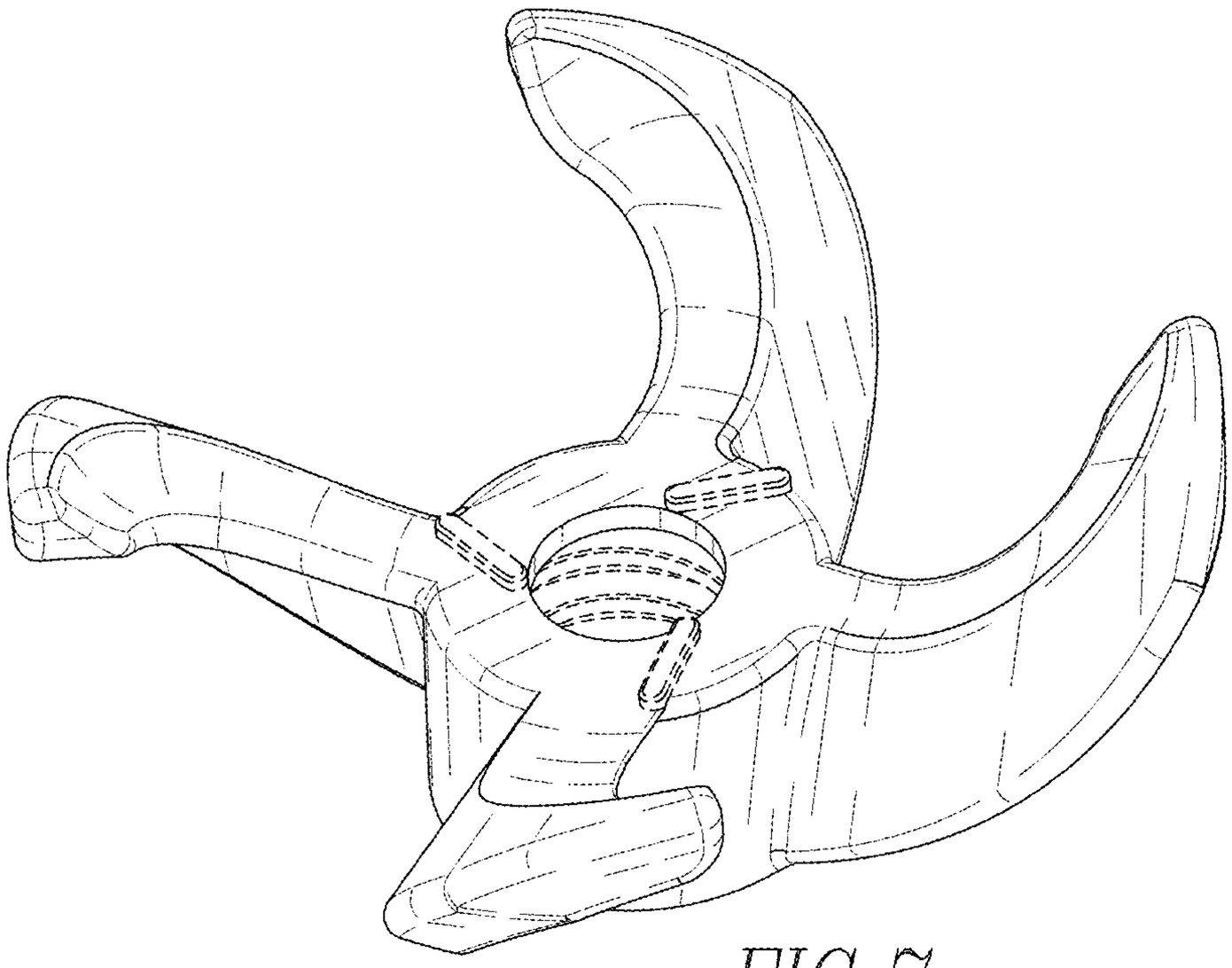


FIG. 7

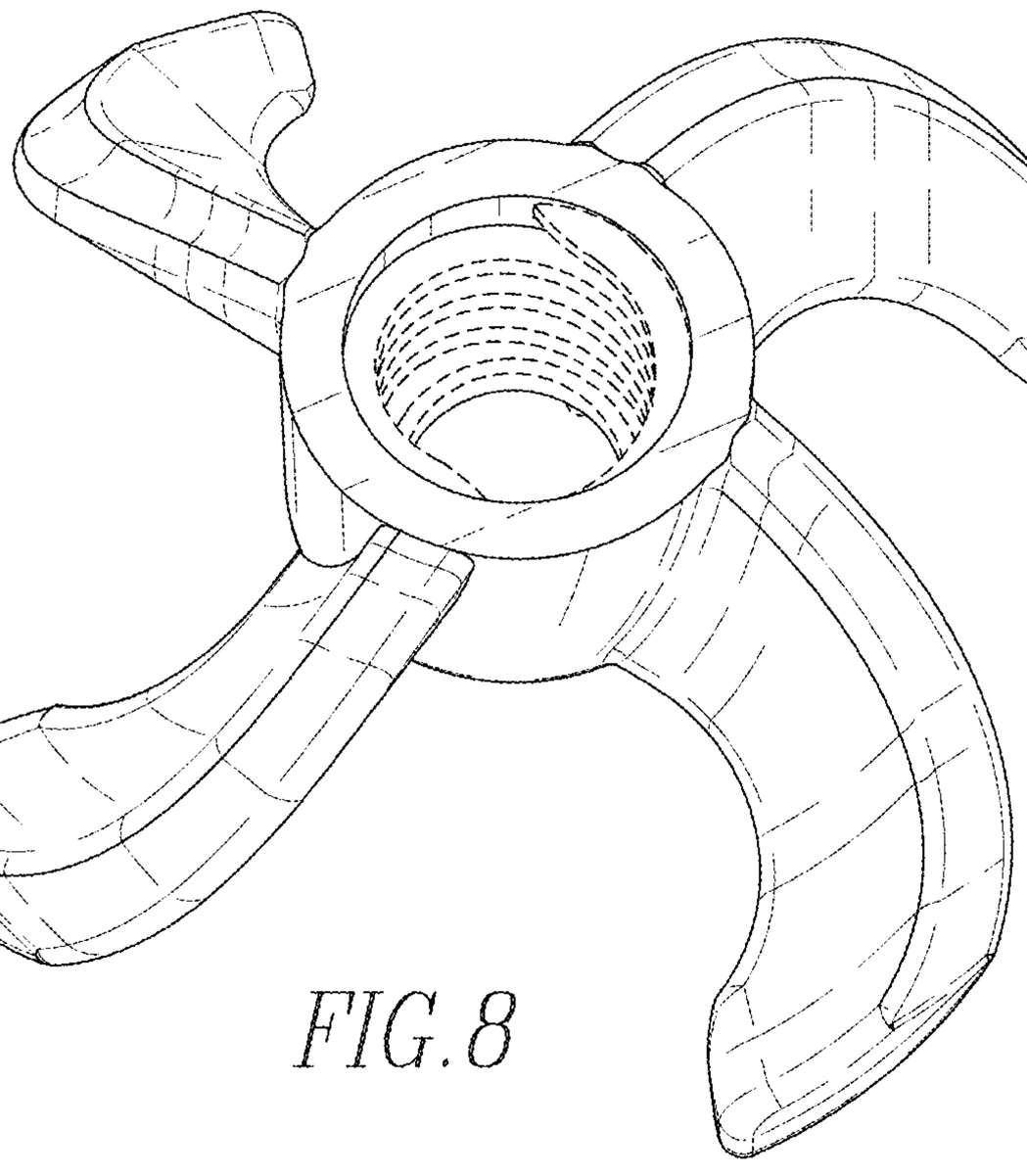


FIG. 8

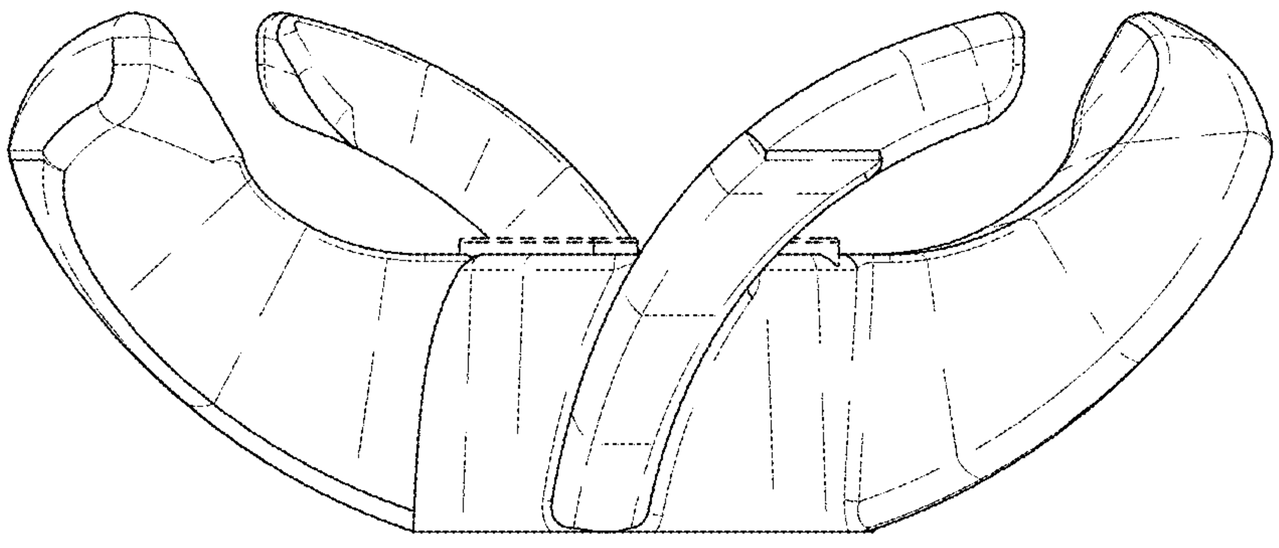


FIG. 9

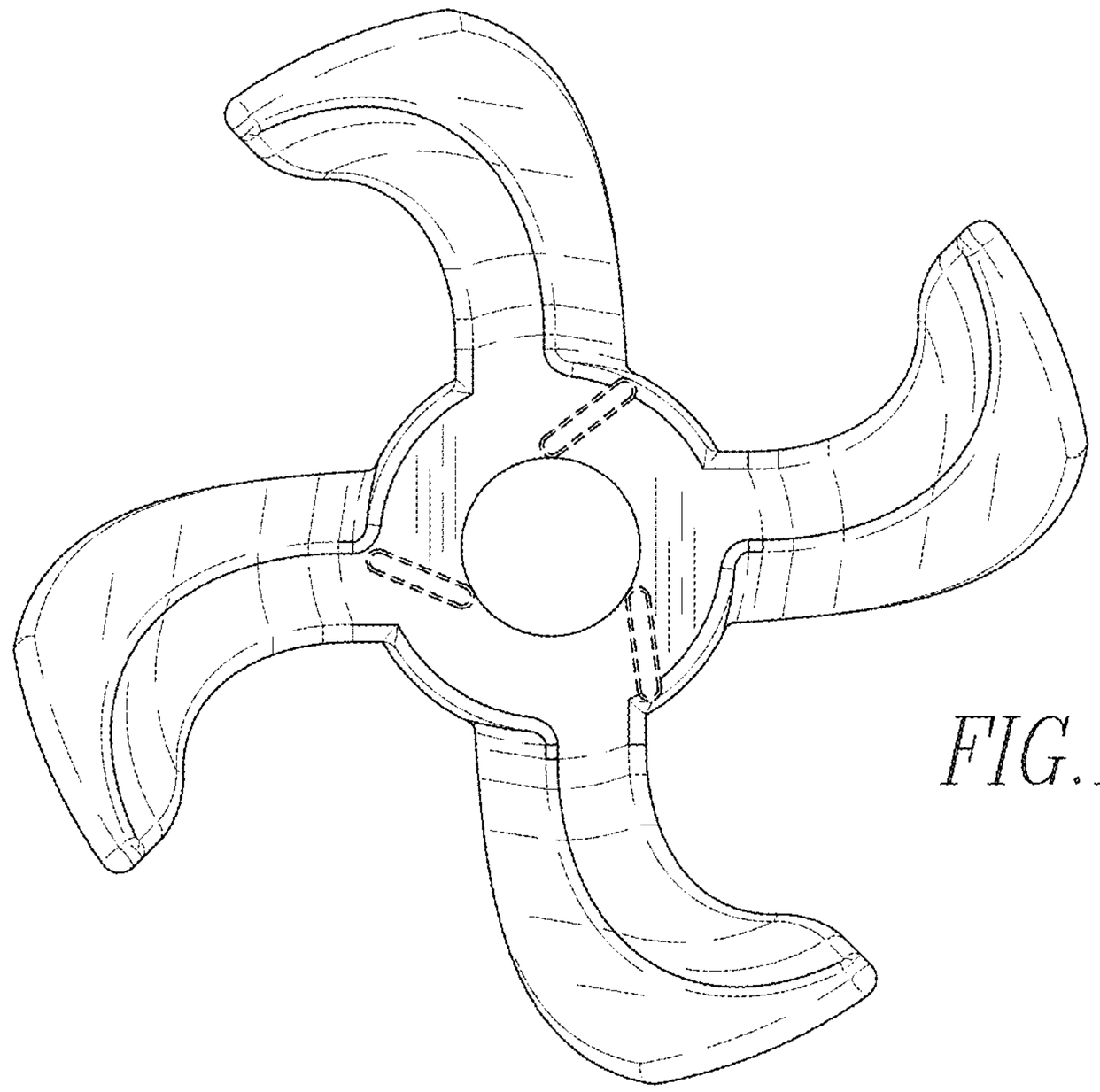


FIG.10

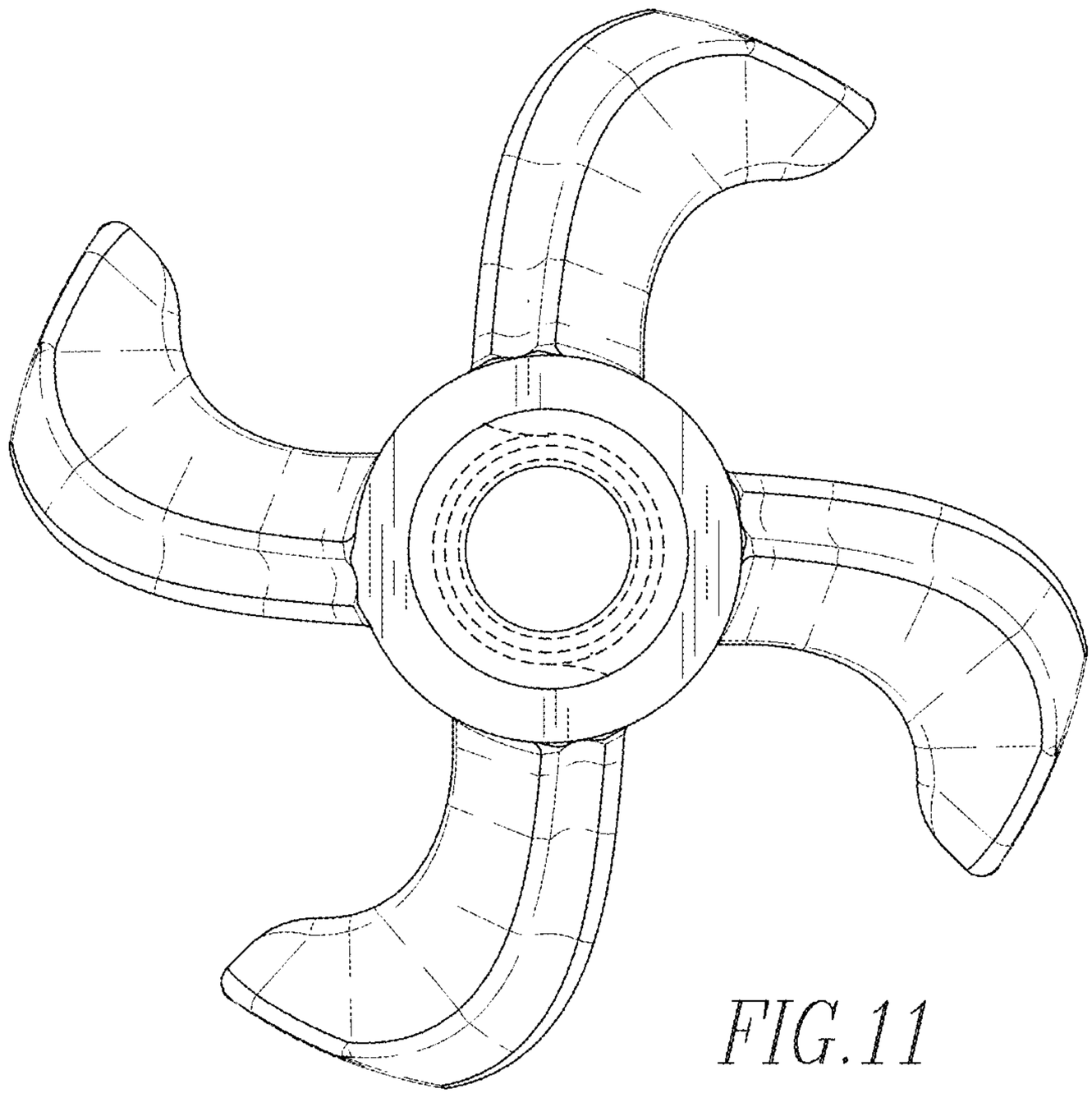


FIG.11