



US00D989277S

(12) **United States Design Patent** (10) **Patent No.:** **US D989,277 S**  
**Gauss et al.** (45) **Date of Patent:** **\*\* Jun. 13, 2023**

(54) **FAN WHEEL**

(56) **References Cited**

(71) Applicant: **ZIEHL-ABEGG SE**, Künzelsau (DE)

U.S. PATENT DOCUMENTS

(72) Inventors: **Tobias Gauss**, Niedernhall (DE);  
**Daniel Seifried**, Schwäbisch Hall (DE);  
**Thomas Bitz**, Künzelsau (DE); **Sven Lönne**, Obersulm-Willsbach (DE);  
**Frieder Lörcher**, Braunsbach (DE);  
**Georg Hofmann**, Tauberbischofsheim (DE)

D594,104 S *	6/2009	Sturm	.....	D23/377
D594,105 S *	6/2009	Sturm	.....	D23/377
D594,106 S *	6/2009	Sturm	.....	D23/377
D594,108 S *	6/2009	Sturm	.....	D23/377
D594,109 S *	6/2009	Sturm	.....	D23/377
D595,401 S *	6/2009	Sturm	.....	D23/377
D606,647 S *	12/2009	Sturm	.....	D23/377
8,128,372 B2 *	3/2012	Best	.....	F04D 29/329 416/207
D728,090 S *	4/2015	Haaf	.....	D23/370
D733,861 S *	7/2015	Haaf	.....	D23/370
D779,048 S *	2/2017	Hoss	.....	D23/370
D804,647 S *	12/2017	Chang	.....	D23/413
D810,911 S *	2/2018	Hoss	.....	D23/370
10,527,058 B2 *	1/2020	Kim	.....	F04D 29/384
10,605,269 B2 *	3/2020	Stadler	.....	F04D 29/164

(73) Assignee: **ZIEHL-ABEGG SE**, Künzelsau (DE)

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

(21) Appl. No.: **29/813,281**

(22) Filed: **Oct. 27, 2021**

*Primary Examiner* — Sharon S Oum

(74) *Attorney, Agent, or Firm* — Venable LLP; Keith G. Haddaway

**Related U.S. Application Data**

(62) Division of application No. 29/704,806, filed on Sep. 6, 2019.

(57) **CLAIM**

The ornamental design for a fan wheel, as shown and described.

**Foreign Application Priority Data**

Mar. 7, 2019 (EM) ..... 006293130

(51) **LOC (14) Cl.** ..... **23-03**

(52) **U.S. Cl.**  
USPC ..... **D23/413; D23/370**

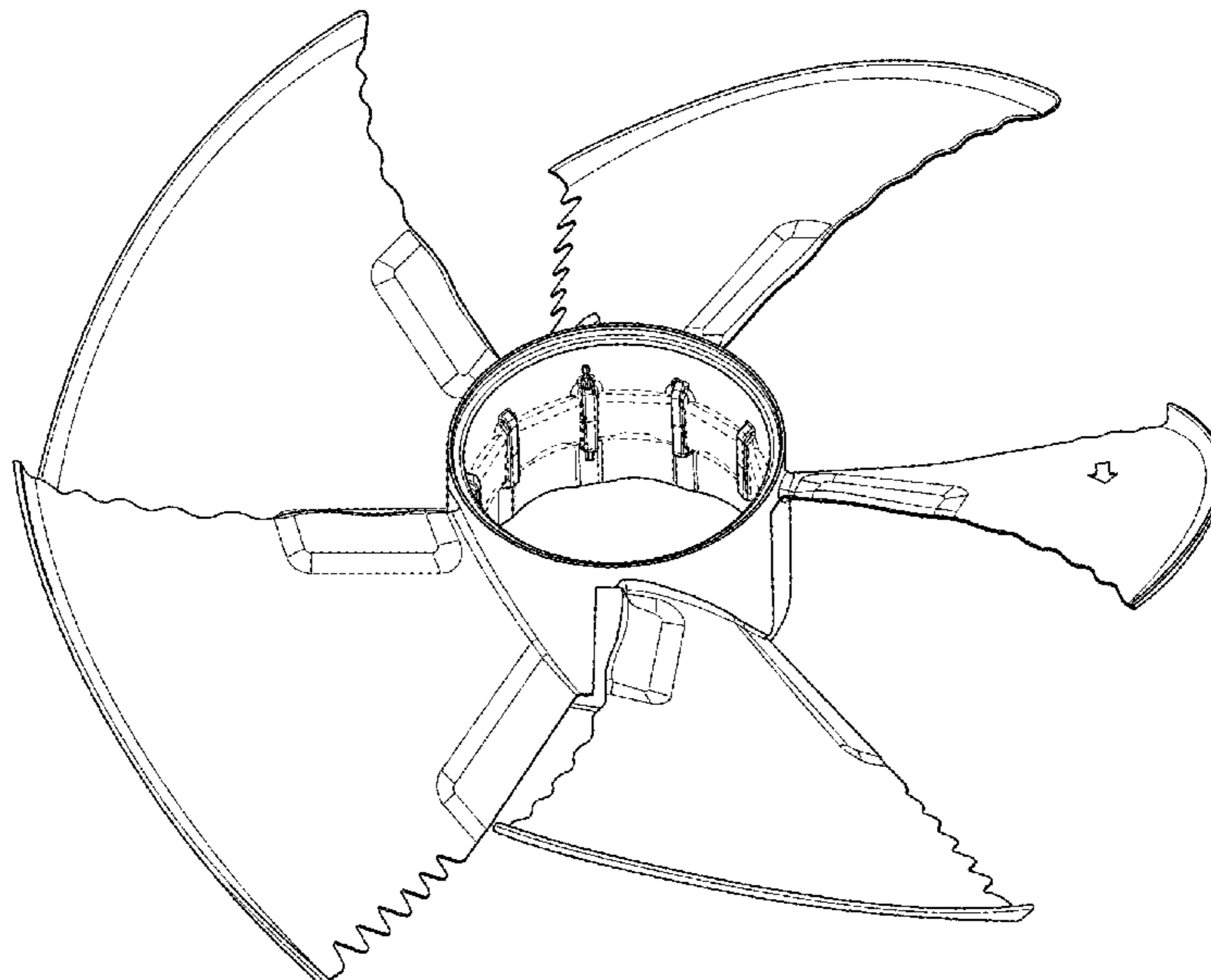
(58) **Field of Classification Search**  
USPC ..... D23/328, 332, 333, 335–337, 341, 351,  
D23/352, 354, 370–383, 385, 411–414  
CPC .. F04D 25/084; F04D 25/086; F04D 25/0673;  
F04D 29/646; F04D 25/08; F04D 29/32;  
F04D 29/52; F04D 29/324; F04D 29/38

See application file for complete search history.

**DESCRIPTION**

FIG. 1 is a front view of a fan wheel according to the present invention;  
FIG. 2 is a rear view of a fan wheel according to the present invention;  
FIG. 3 is a side view of a fan wheel according to the present invention;  
FIG. 4 is a front perspective view of a fan wheel according to the present invention; and,  
FIG. 5 is a rear perspective view of a fan wheel according to the present invention.  
The broken lines illustrate portions of the fan wheel that form no part of the claimed design.

**1 Claim, 5 Drawing Sheets**



(56)

## References Cited

## U.S. PATENT DOCUMENTS

D884,874 S \* 5/2020 Meng ..... F04D 29/667  
D23/413  
10,975,873 B2 \* 4/2021 Seifried ..... F04D 29/644  
11,035,233 B2 \* 6/2021 Gauss ..... F04D 29/281  
11,067,309 B2 \* 7/2021 Gauss ..... F24F 13/20  
11,204,039 B2 \* 12/2021 Gauss ..... F04D 29/329  
D971,398 S \* 11/2022 Haaf ..... D23/379  
D972,119 S \* 12/2022 Lucius ..... D23/379  
2010/0003140 A1 \* 1/2010 Best ..... F04D 29/34  
416/204 R  
2012/0171042 A1 \* 7/2012 Takeda ..... F04D 29/384  
416/223 R  
2013/0004349 A1 \* 1/2013 Haaf ..... F04D 29/703  
417/423.7  
2013/0022479 A1 \* 1/2013 Haaf ..... F04D 25/082  
417/369  
2017/0350402 A1 \* 12/2017 Seifried ..... F04D 19/002  
2017/0356673 A1 \* 12/2017 Gauss ..... F04D 25/08  
2018/0238343 A1 \* 8/2018 Nakashima ..... F04D 29/384  
2018/0274549 A1 \* 9/2018 Baer ..... F04D 29/388  
2018/0355885 A1 \* 12/2018 Kim ..... F04D 29/384  
2020/0284268 A1 \* 9/2020 Haaf ..... F04D 29/388  
2021/0340992 A1 \* 11/2021 Yuan ..... F04D 29/666

\* cited by examiner

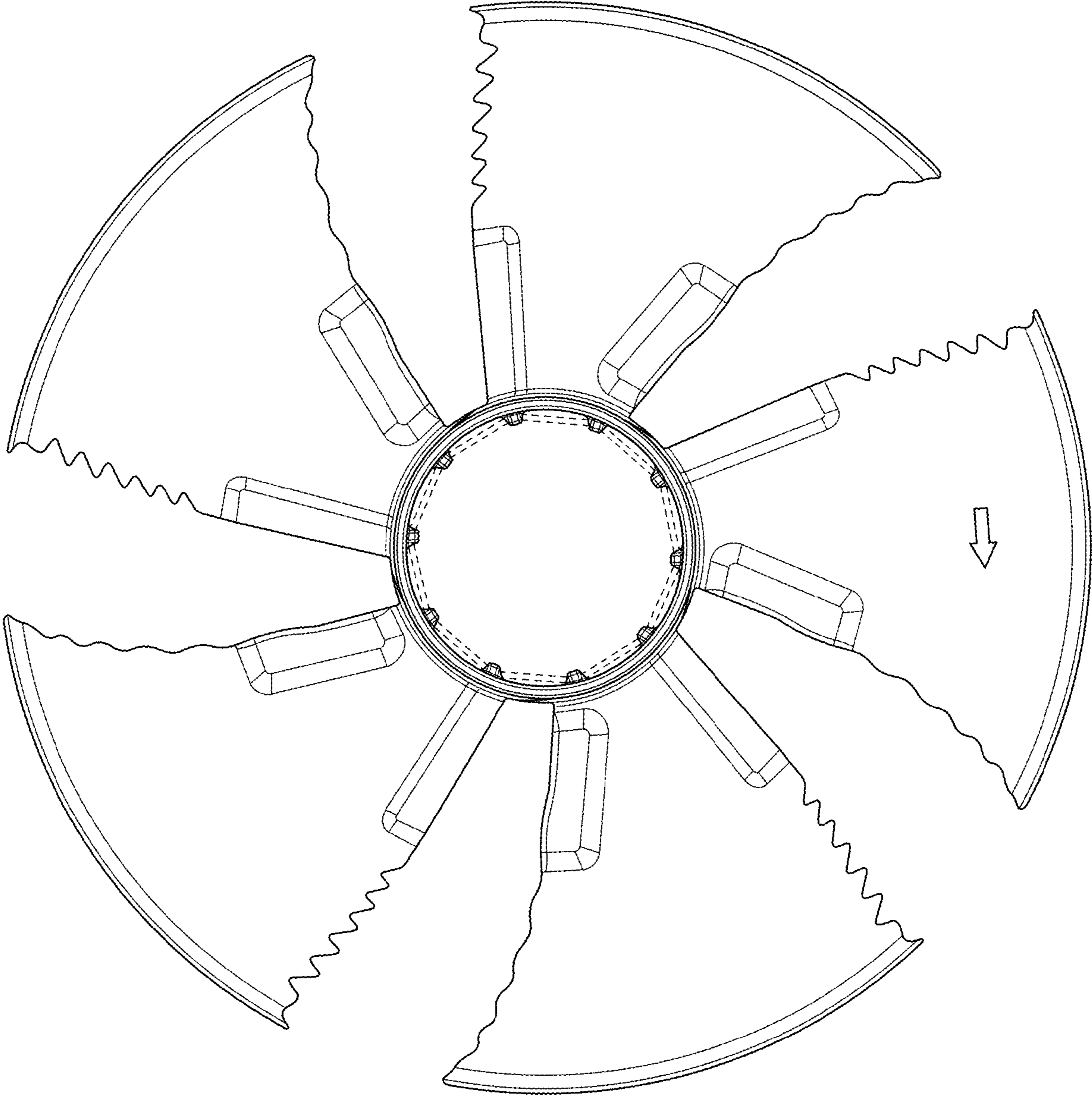


FIG. 1

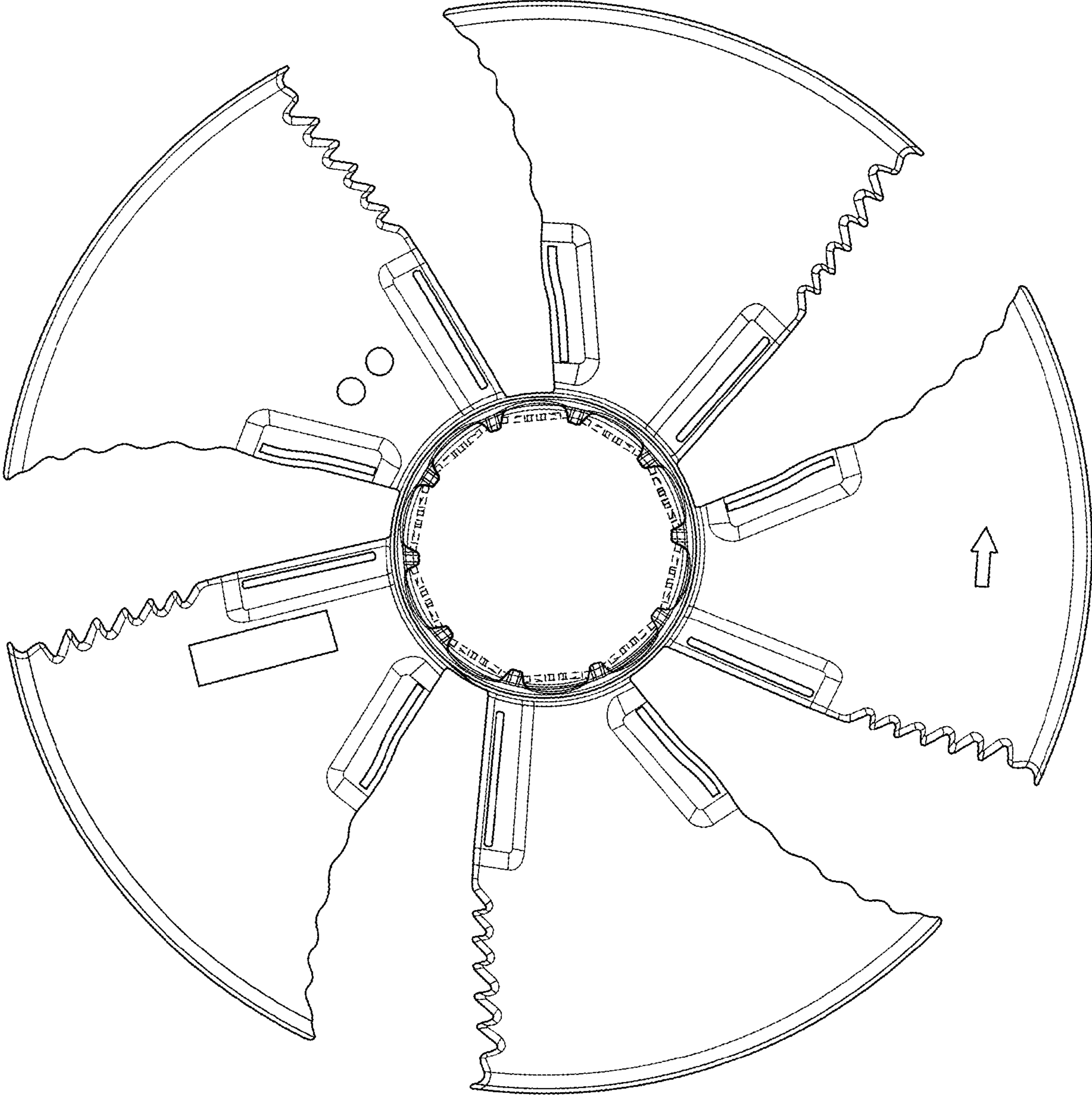


FIG. 2

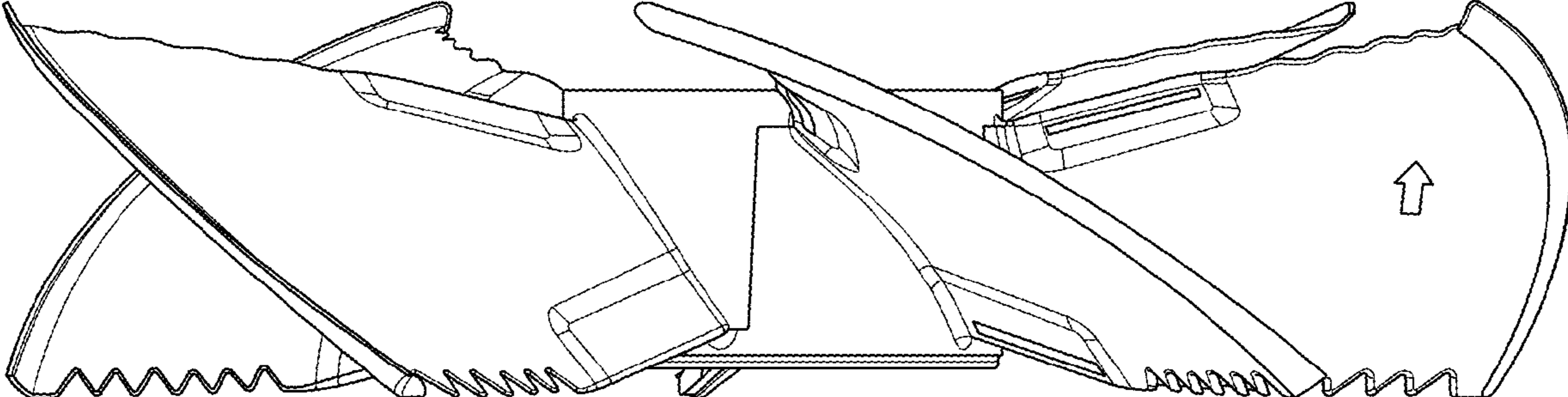


FIG. 3

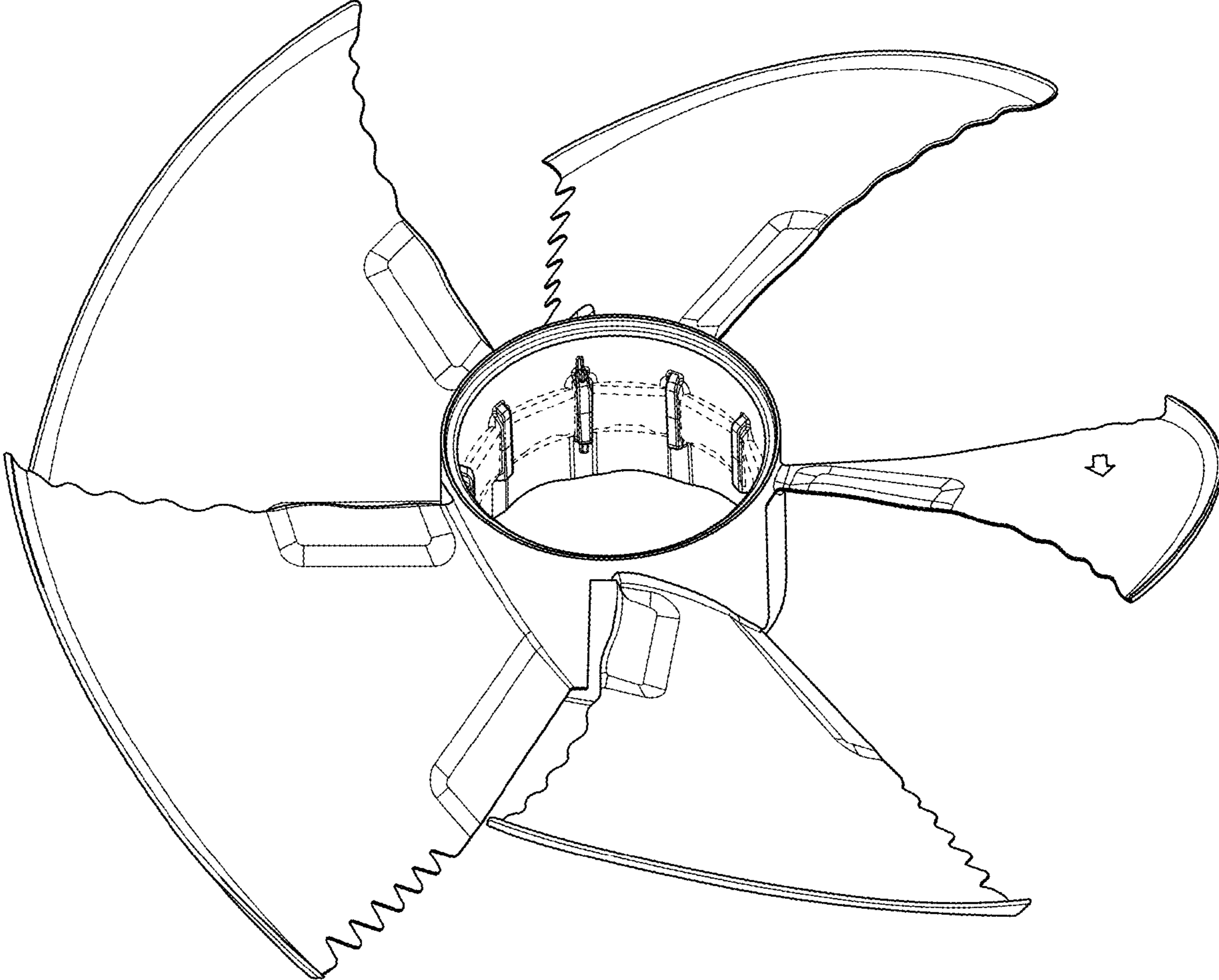


FIG. 4

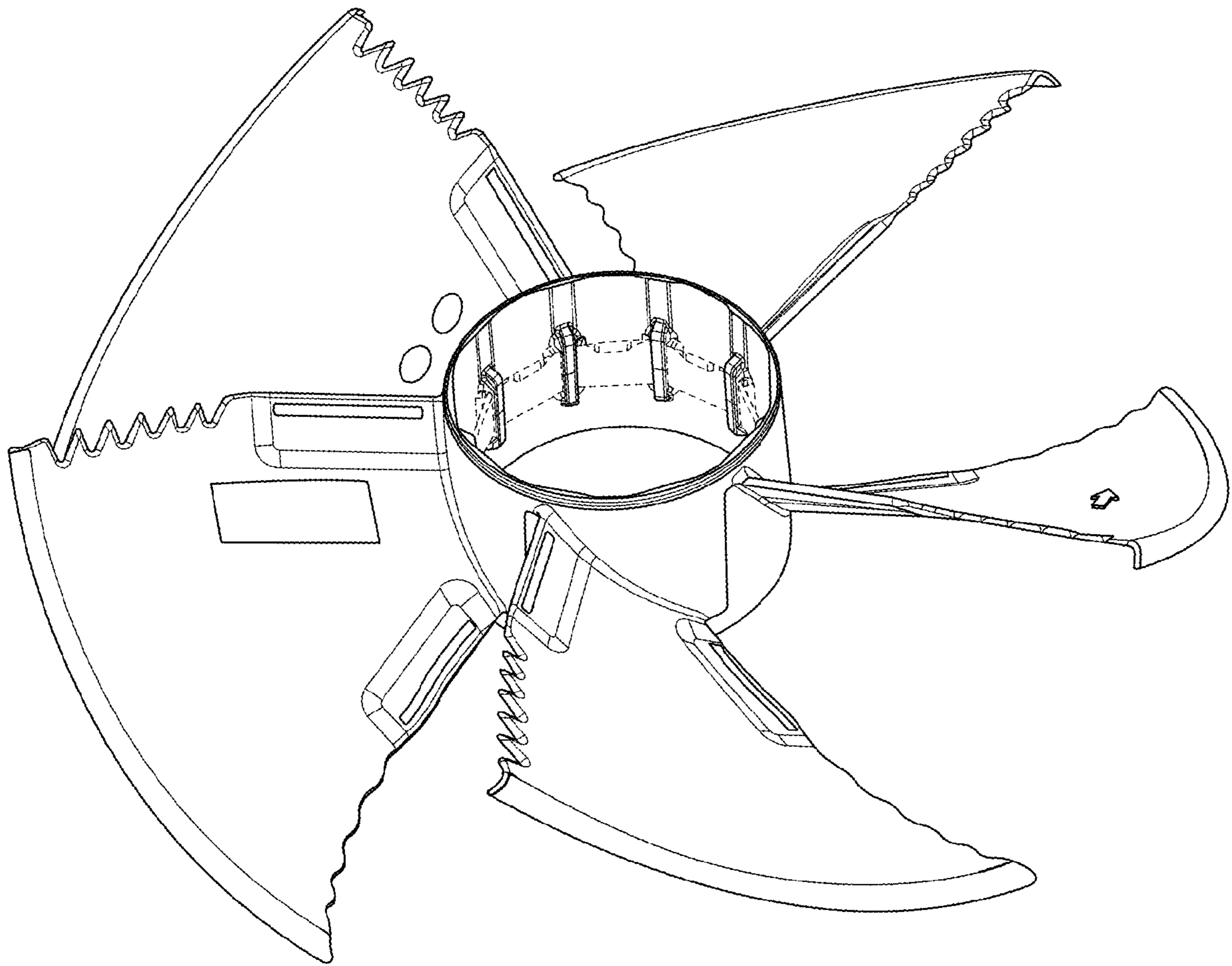


FIG. 5