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(12) United States Design Patent

Haas

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(54) **BROADHEAD HAVING BOTH PIVOTING AND FIXED BLADES**

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

(21) Appl. No.: **29/634,141**

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(51) **LOC (12) Cl.** **22-03**

(52) **U.S. Cl.**
USPC **D22/115**; D22/107

(58) **Field of Classification Search**
USPC D22/100, 101, 102, 103, 104, 105, 106, D22/107, 108, 109, 110, 111, 115, 116,
(Continued)

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Assistant Examiner — Mojtaba Tehrani

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(57) **CLAIM**

The ornamental design for a broadhead having both pivoting and fixed blades, as shown and described.

DESCRIPTION

FIG. **1** is a perspective view of an embodiment of a broadhead having both pivoting and fixed blades illustrated with the pivoting blades fully retracted;
FIG. **2** is a perspective view of the broadhead of FIG. **1** with the pivoting blades partially deployed;
FIG. **3** is an illustration of the broadhead of FIG. **1** in a dis-assembled state;
FIG. **4** is a plan view of the broadhead of FIG. **1**;
FIG. **5** is a plan view of the broadhead of FIG. **1** as viewed orthogonally from the plan view illustrated in FIG. **4**;
FIG. **6** is an illustration of the broadhead of FIG. **5** with the pivoting blades partially deployed;
FIG. **7** is an illustration of the broadhead of FIG. **5** with the pivoting blades partially deployed;
FIG. **8** is an illustration of the broadhead of FIG. **5** with the pivoting blades fully deployed;
FIG. **9** is an elevation view of the broadhead of FIG. **7** as viewed from the end opposite the tip of the broadhead;
FIG. **10** is an elevation view of the broadhead of FIG. **7** as viewed from the tip of the broadhead;
FIG. **11** shows the locations for the cross-sectional views illustrated in FIGS. **12-16** for the broadhead of FIG. **4** without the pivoting blades;
FIG. **12** is a cross-sectional view of the broadhead of FIG. **11** along the line **12-12**;
FIG. **13** is a cross-sectional view of the broadhead of FIG. **11** along the line **13-13**;
FIG. **14** is a cross-sectional view of the broadhead of FIG. **11** along the line **14-14**;
FIG. **15** is a cross-sectional view of the broadhead of FIG. **11** along the line **15-15**;
FIG. **16** is a cross-sectional view of the broadhead of FIG. **11** along the line **16-16**;

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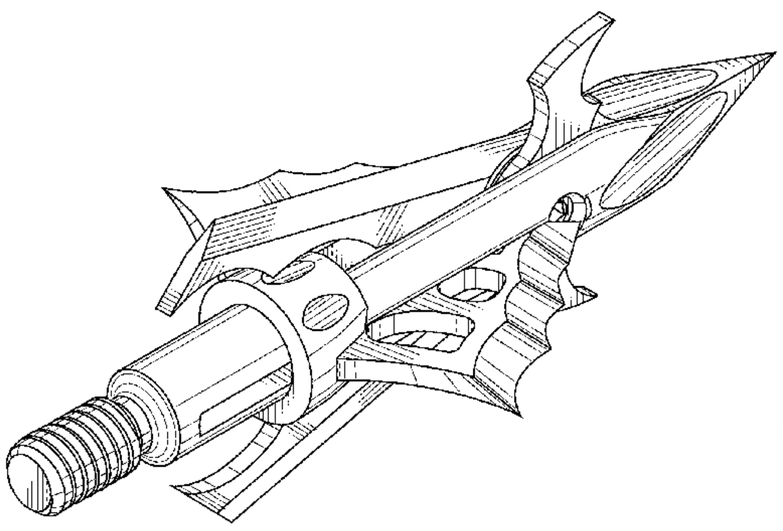

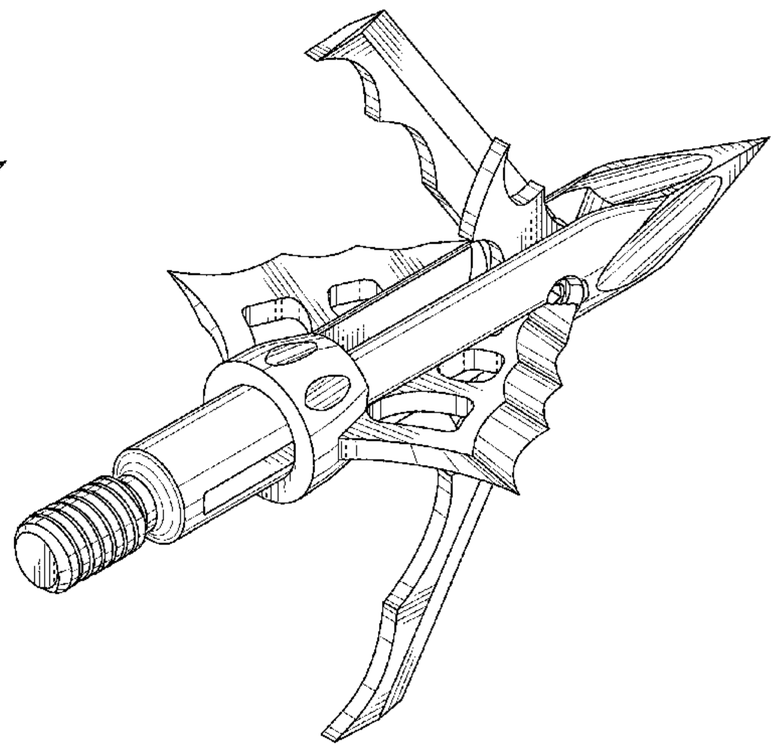

FIG. **17** is a perspective view of another embodiment of a broadhead having both pivoting and fixed blades, and a helical tip, illustrated with the pivoting blades fully retracted;
FIG. **18** is a perspective view of the broadhead of FIG. **17** with the pivoting blades partially deployed;
FIG. **19** is an illustration of the broadhead of FIG. **17** in a dis-assembled state;
FIG. **20** is a plan view of the broadhead of FIG. **17**;
FIG. **21** is a plan view of the broadhead of FIG. **17** as viewed orthogonally from the plan view illustrated in FIG. **20**;
FIG. **22** is an illustration of the broadhead of FIG. **21** with the pivoting blades partially deployed;
FIG. **23** is an illustration of the broadhead of FIG. **21** with the pivoting blades partially deployed;
FIG. **24** is an illustration of the broadhead of FIG. **21** with the pivoting blades fully deployed;
FIG. **25** is an elevation view of the broadhead of FIG. **23** as viewed from the end opposite the tip of the broadhead;
FIG. **26** is an elevation view of the broadhead of FIG. **23** as viewed from the tip of the broadhead;
FIG. **27** shows the locations for the cross-sectional views illustrated in FIGS. **28-32** for the broadhead of FIG. **20** without the pivoting blades;
FIG. **28** is a cross-sectional view of the broadhead of FIG. **27** along the line **28-28**;
FIG. **29** is a cross-sectional view of the broadhead of FIG. **27** along the line **29-29**;
FIG. **30** is a cross-sectional view of the broadhead of FIG. **27** along the line **30-30**;
FIG. **31** is a cross-sectional view of the broadhead of FIG. **27** along the line **31-31**; and,
FIG. **32** is a cross-sectional view of the broadhead of FIG. **27** along the line **32-32**.

1 Claim, 24 Drawing Sheets

(58) **Field of Classification Search**
USPC D22/199; D21/300, 301, 302, 306, 334, D21/335, 443, 571, 573–575, 746
CPC F41C 23/14; F41C 23/20; F41C 23/04; F41C 23/00; F41C 23/10; F41C 27/00; F41C 7/00; F41C 23/06; F41C 3/00; F41B 5/10; F41B 5/14; F41B 5/0094; F41B 5/1469; F41B 5/00
See application file for complete search history.

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FIG. 1

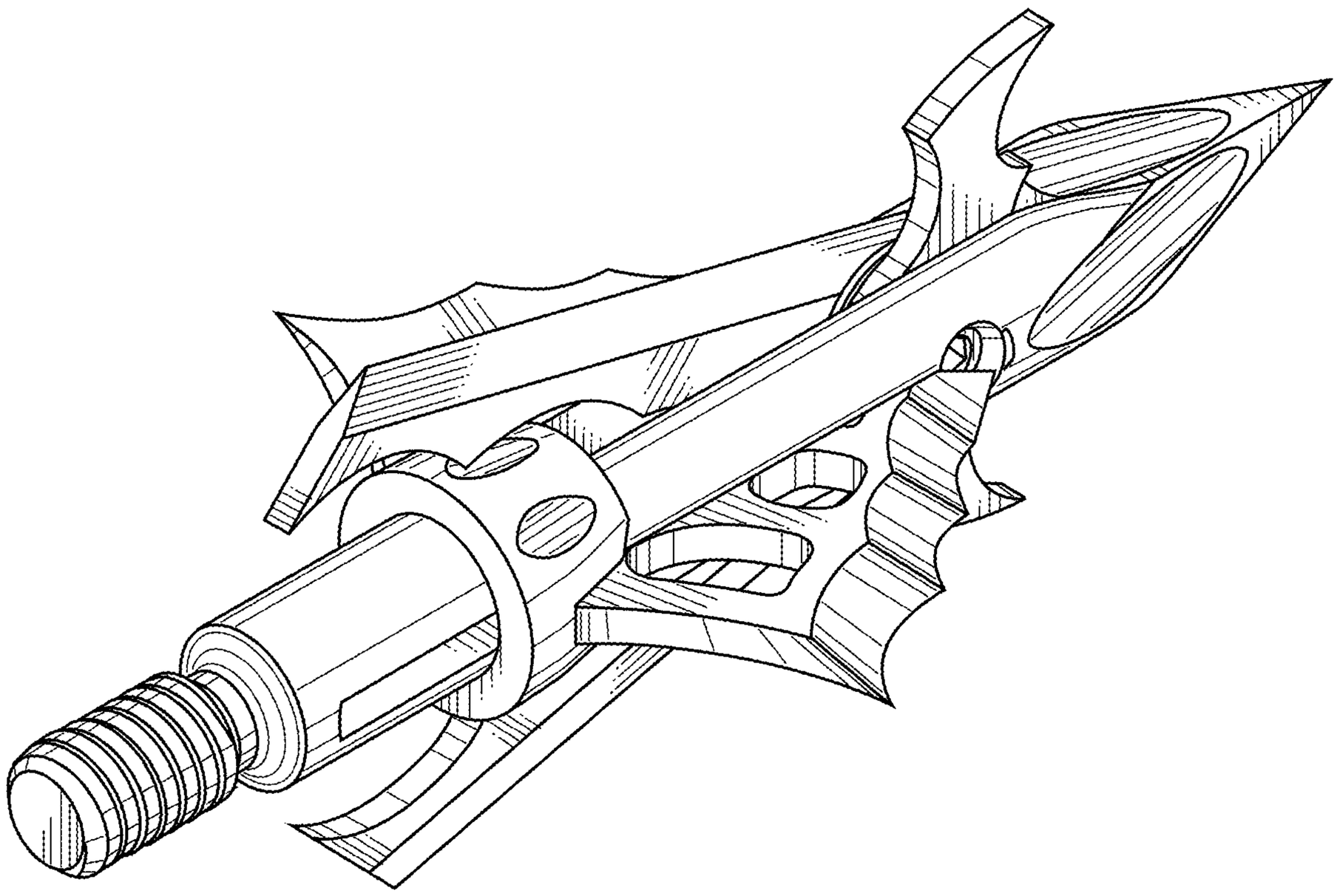


FIG. 2

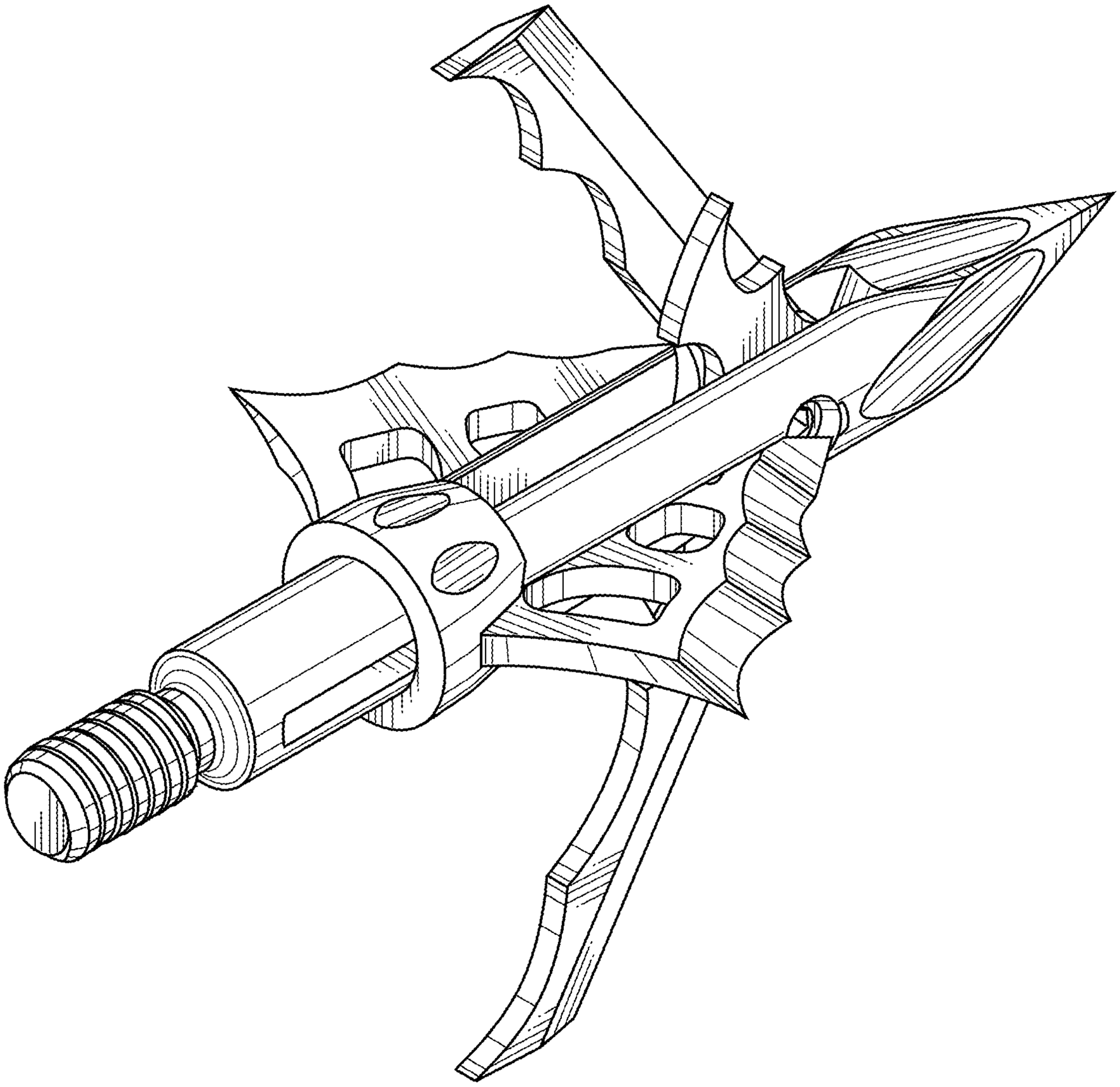


FIG. 3

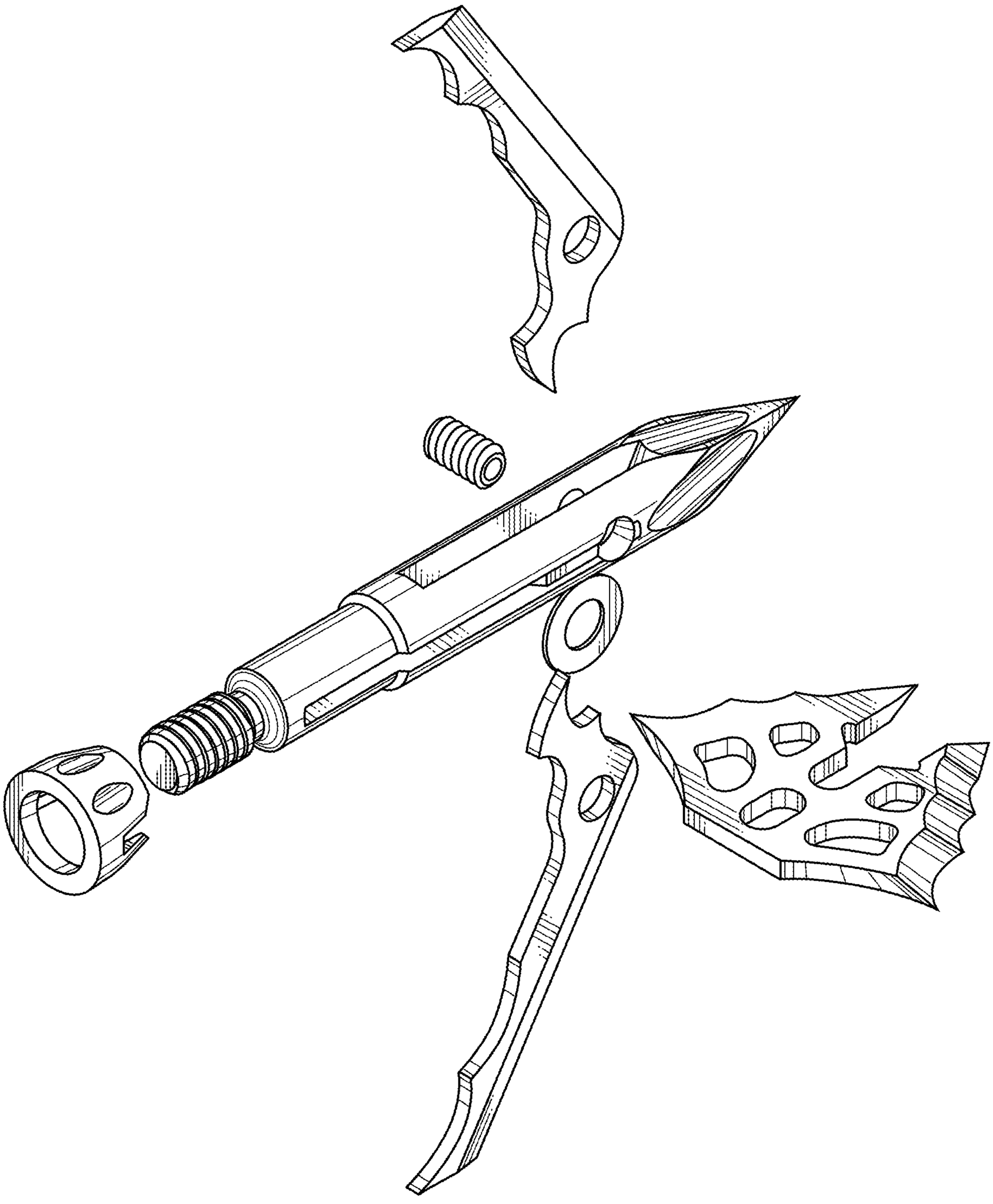


FIG. 4

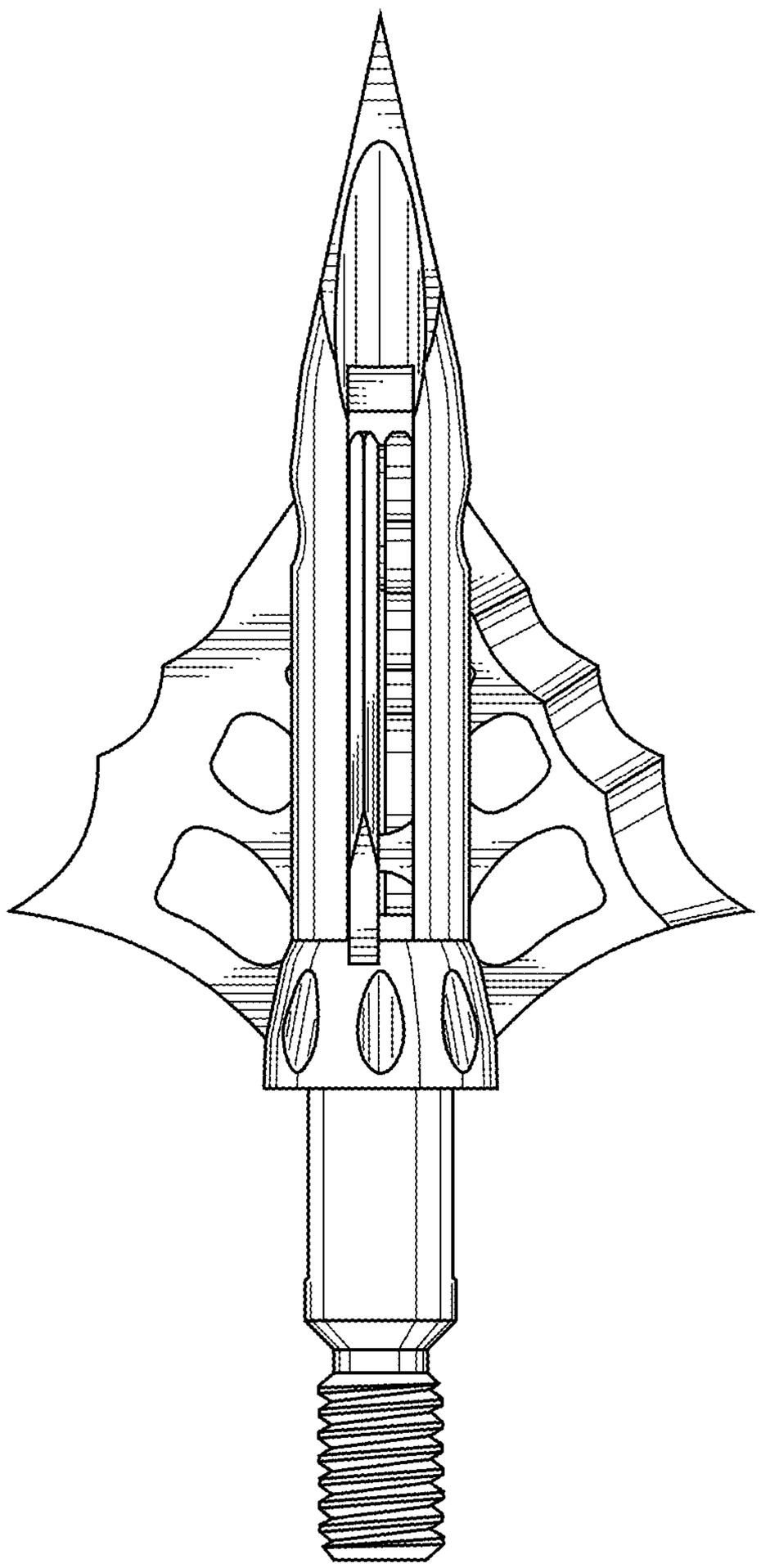


FIG. 5

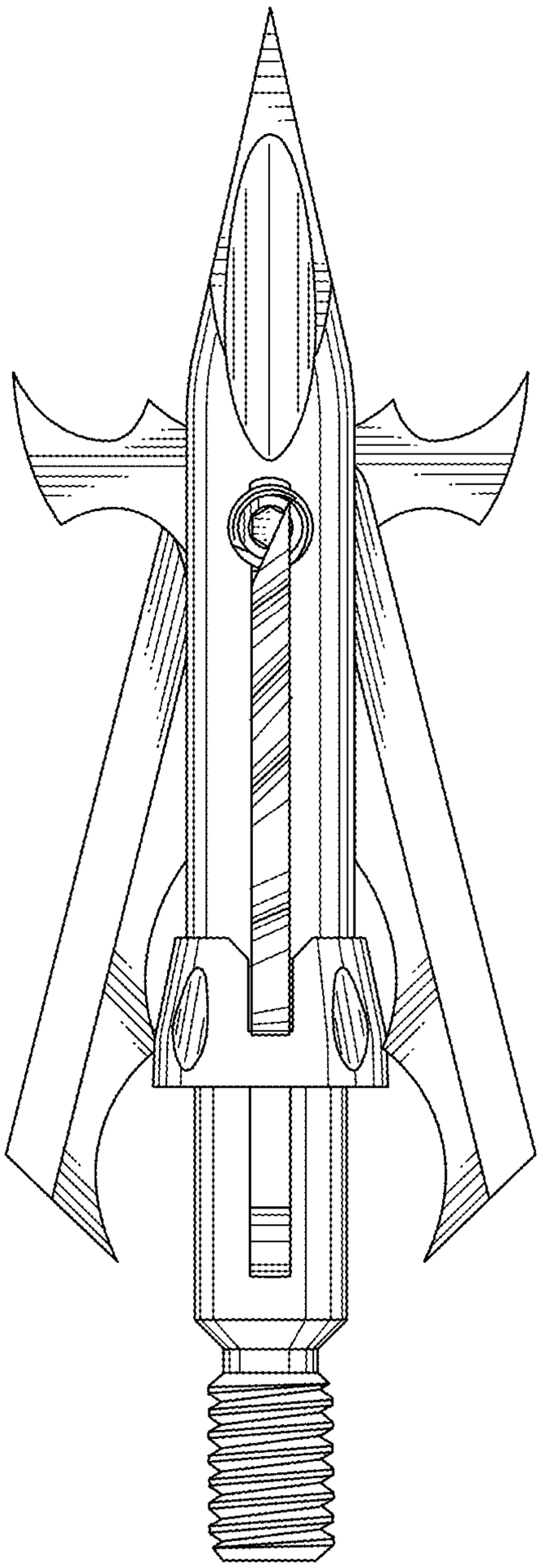


FIG. 6

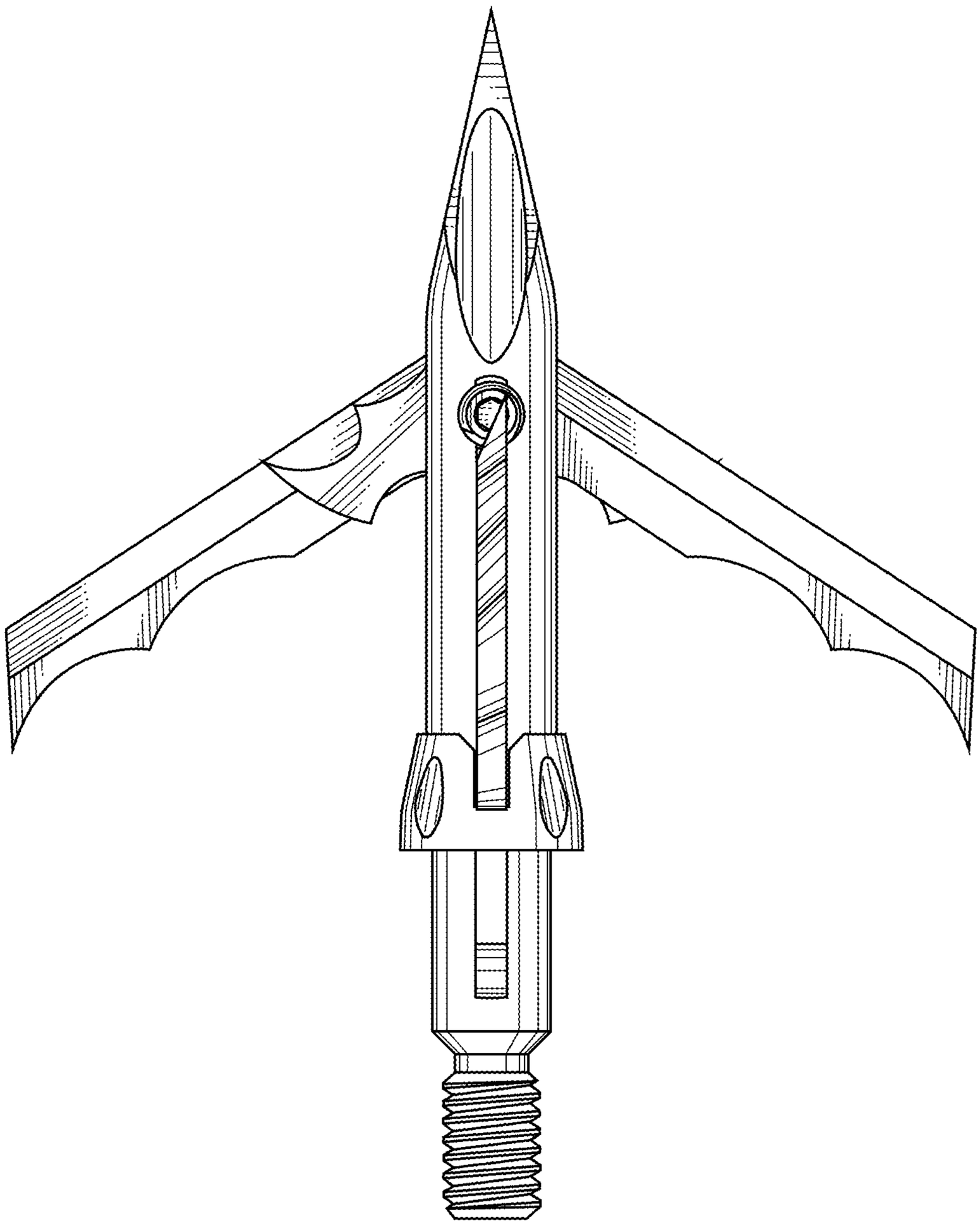


FIG. 7

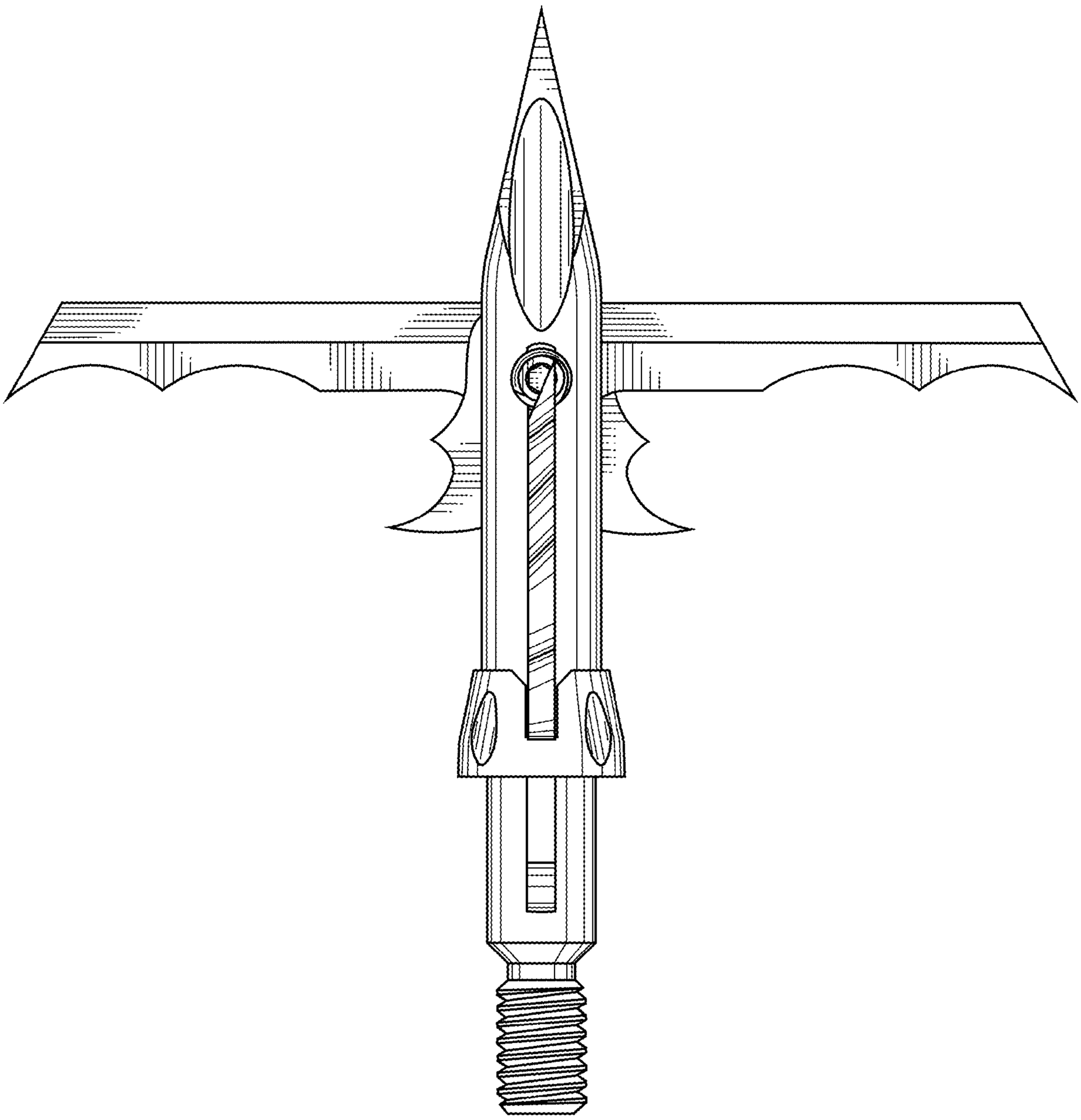


FIG. 8

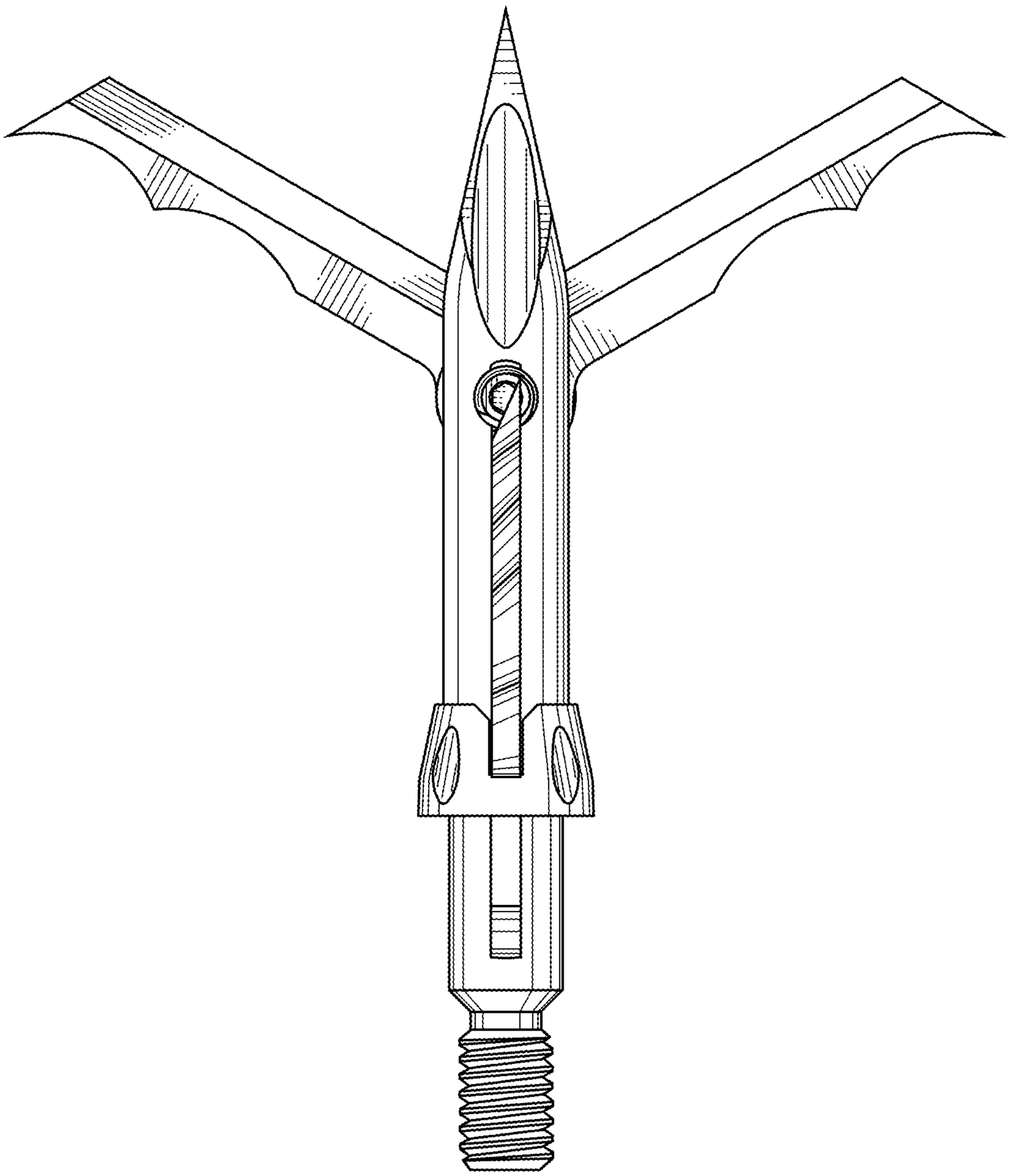


FIG. 9

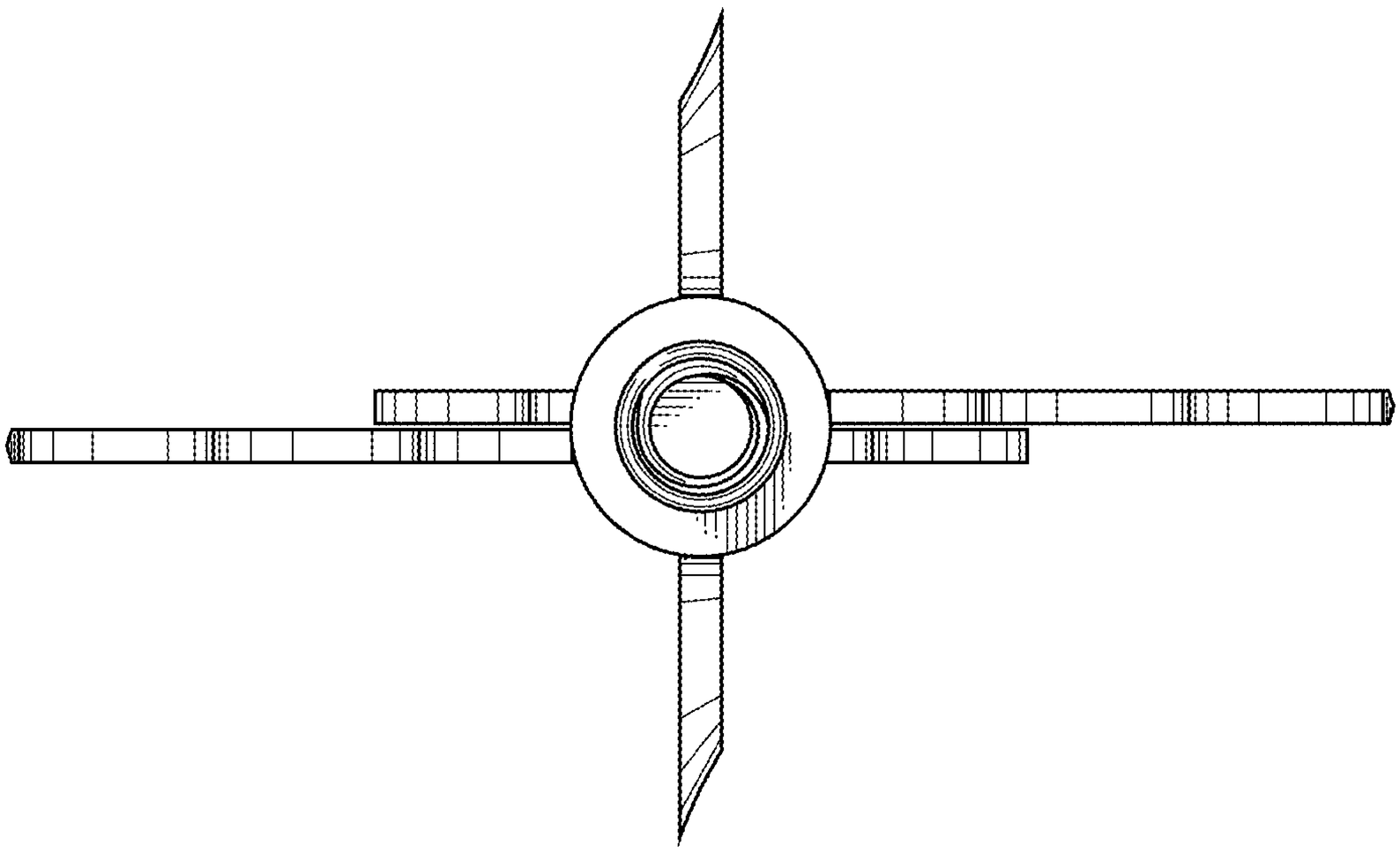


FIG. 10

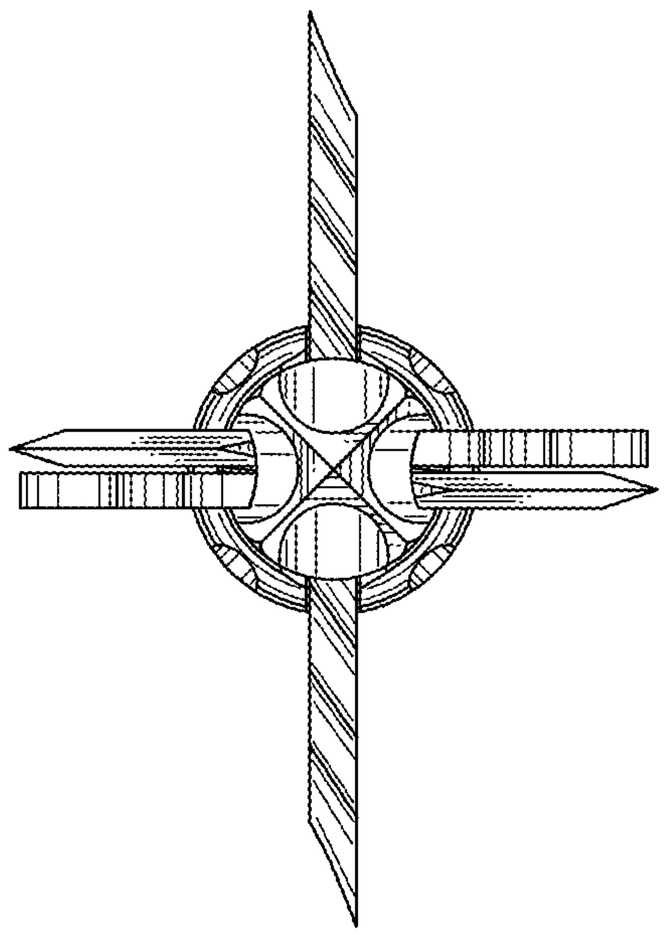
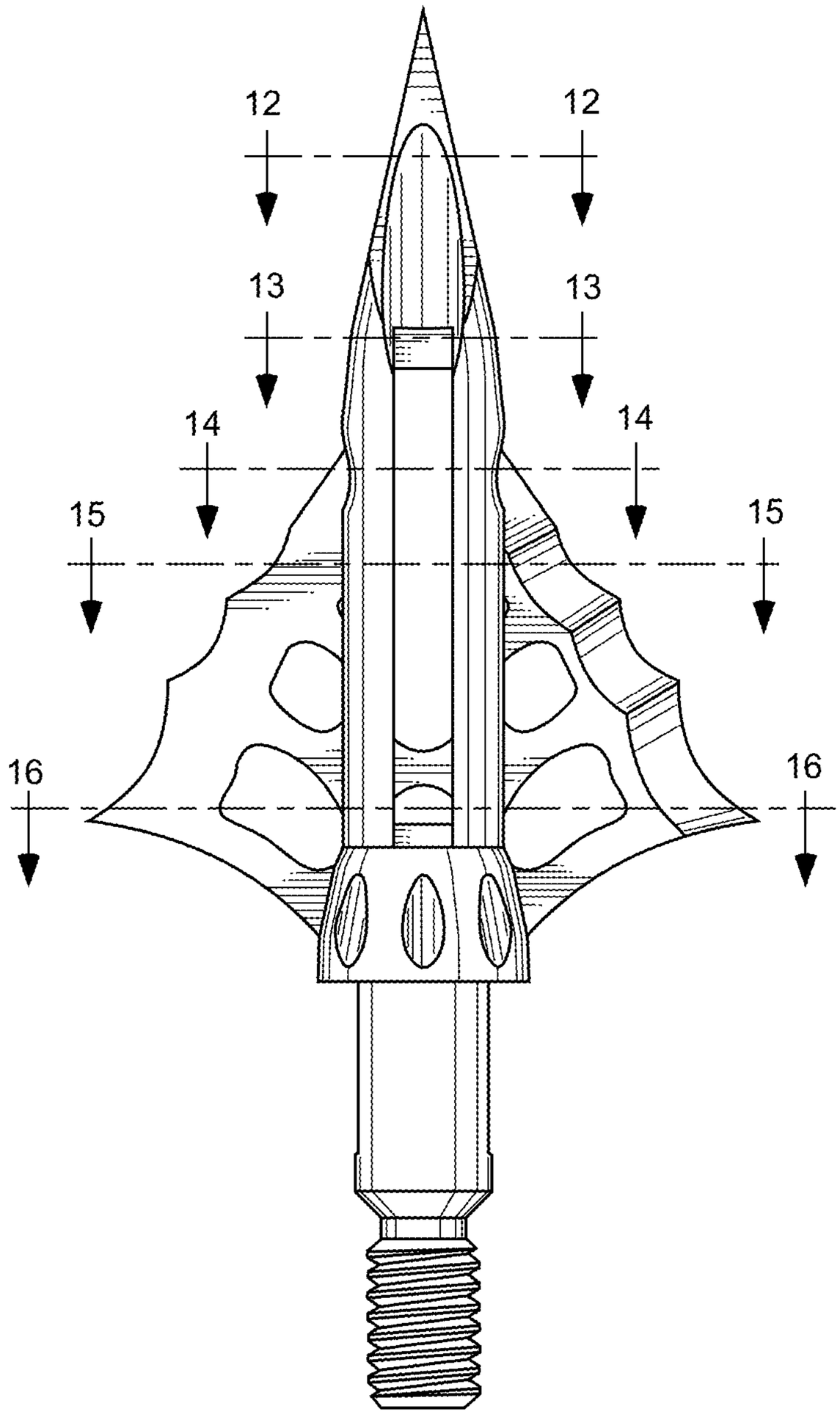


FIG. 11



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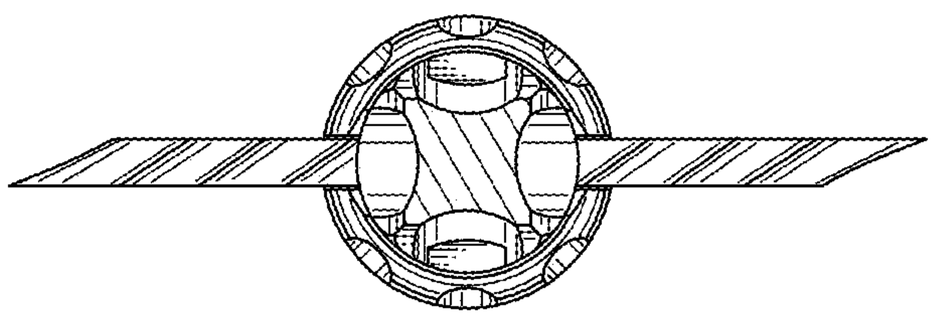


FIG. 13

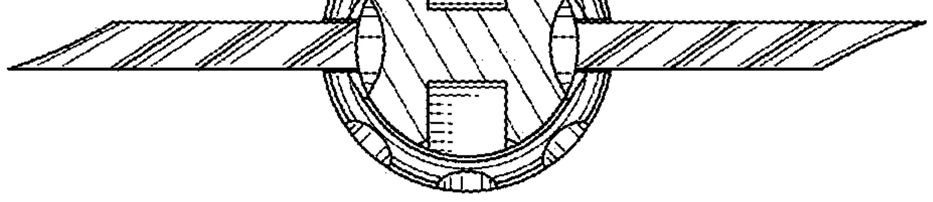


FIG. 14

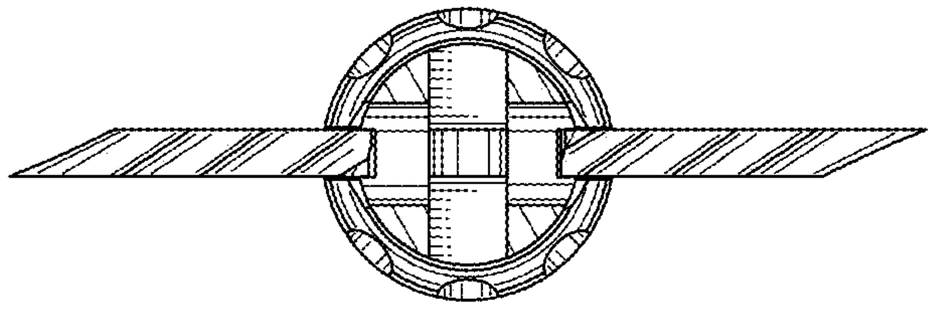


FIG. 15

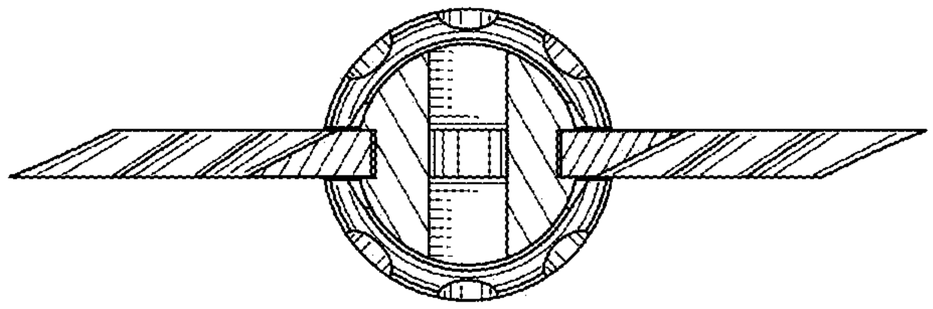


FIG. 16

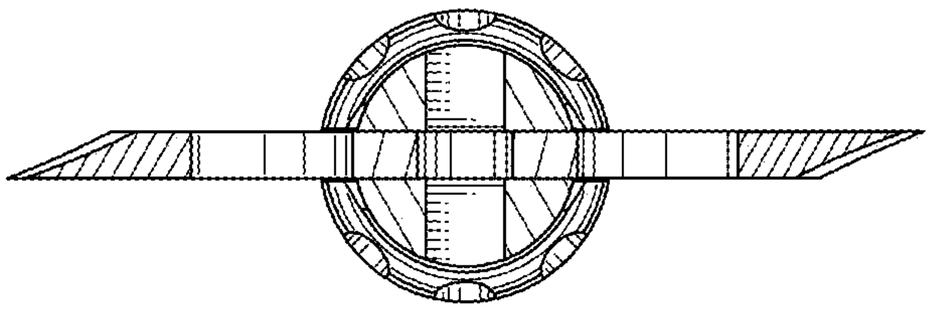


FIG. 17

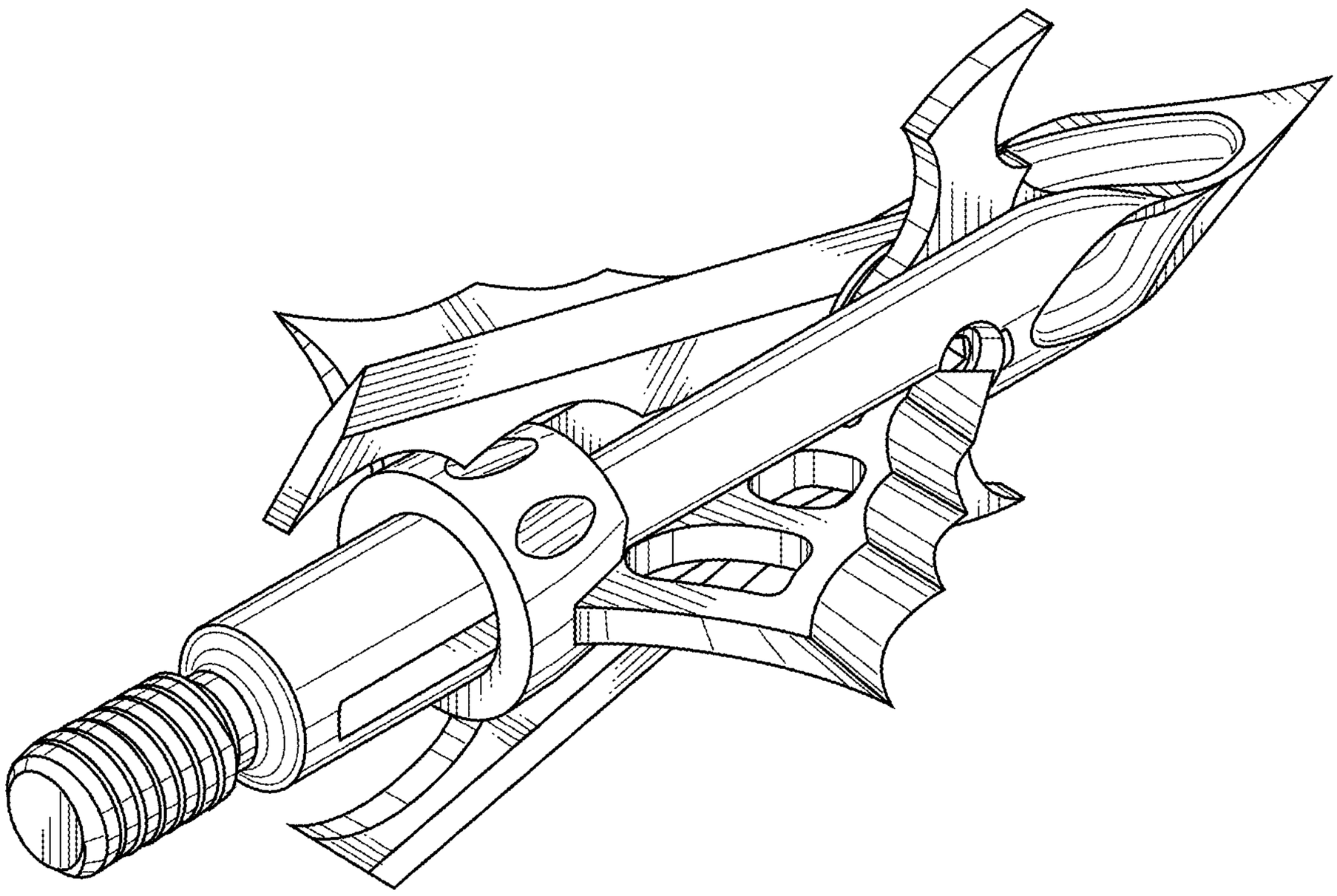


FIG. 18

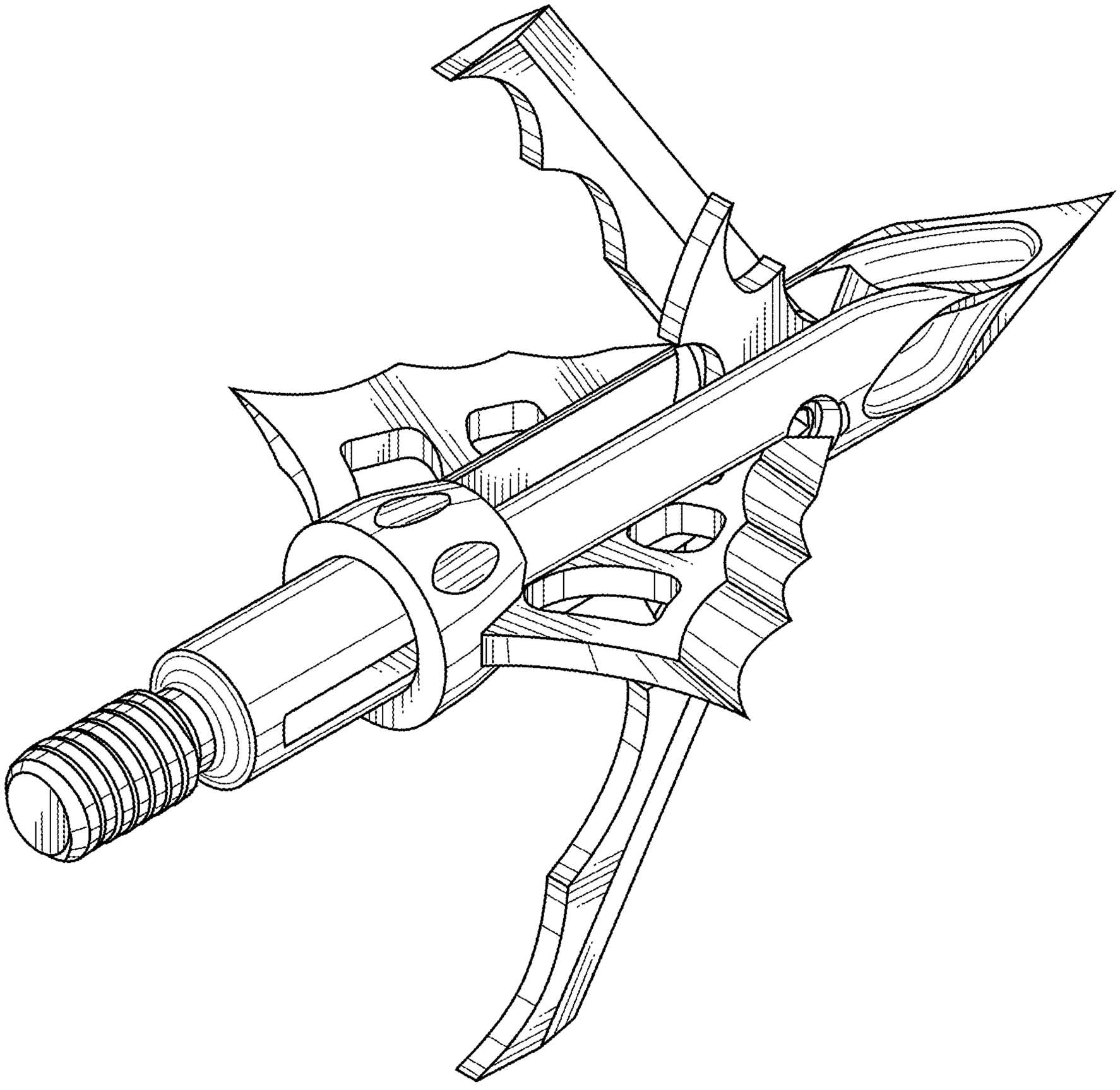


FIG. 19

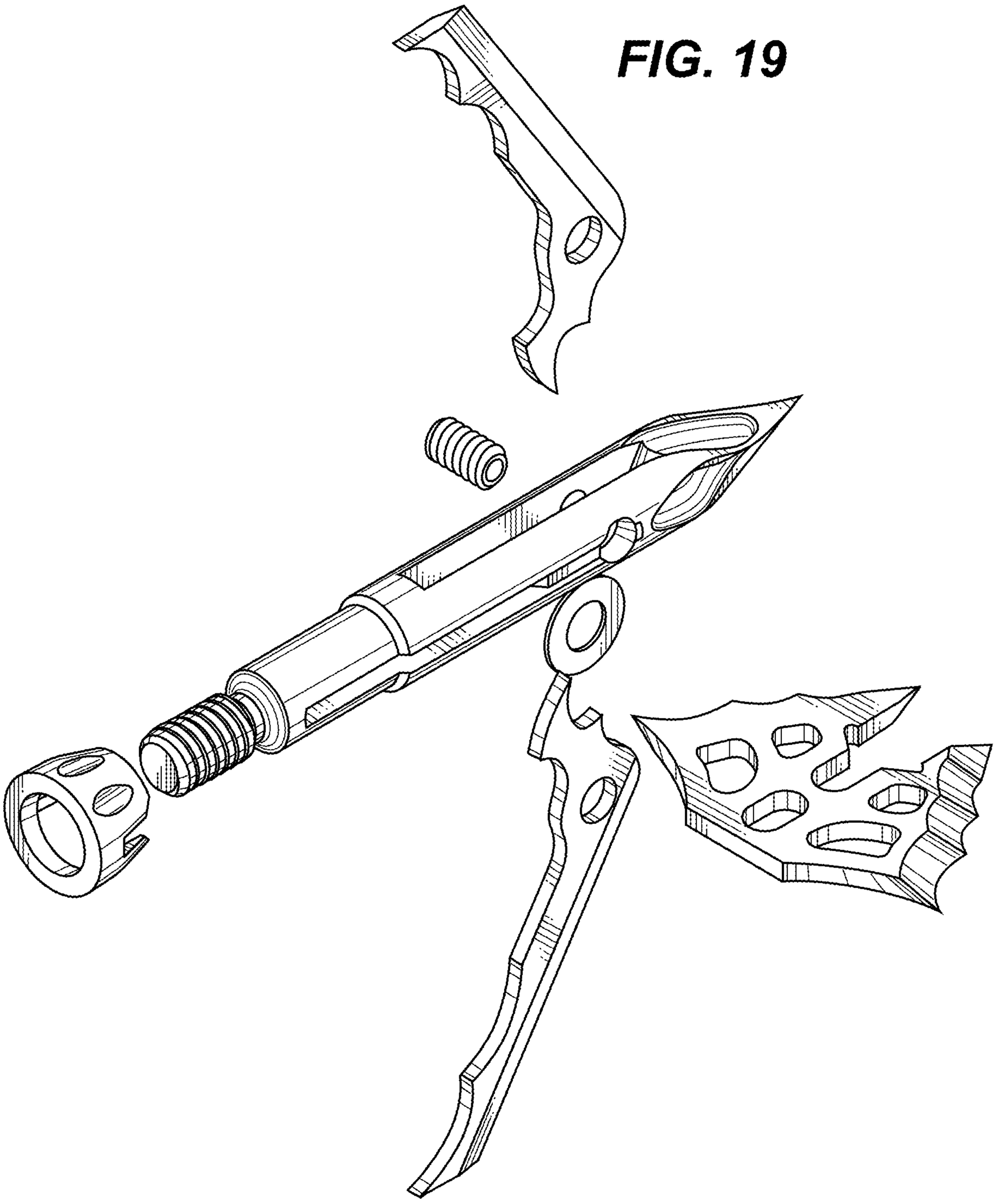


FIG. 20

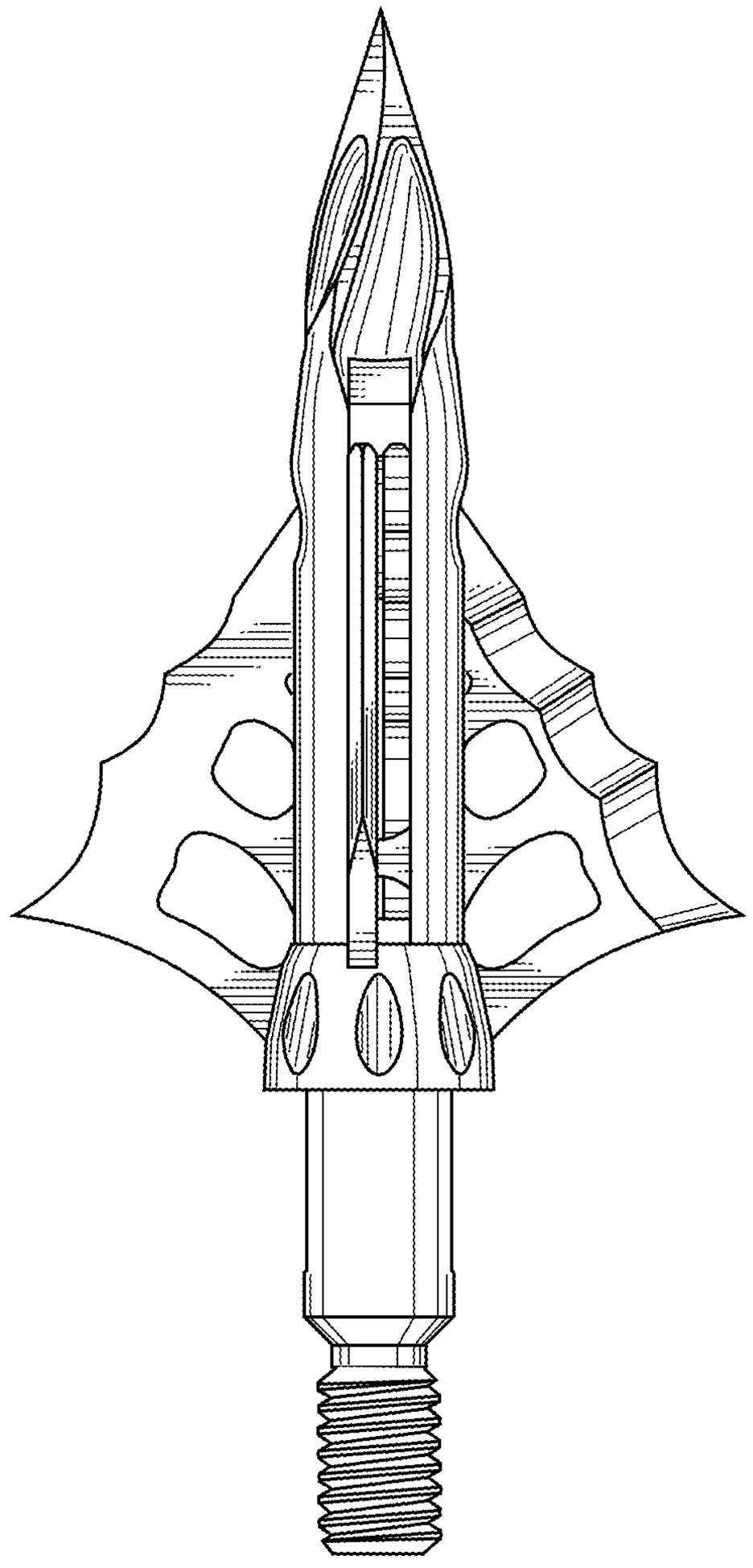


FIG. 21

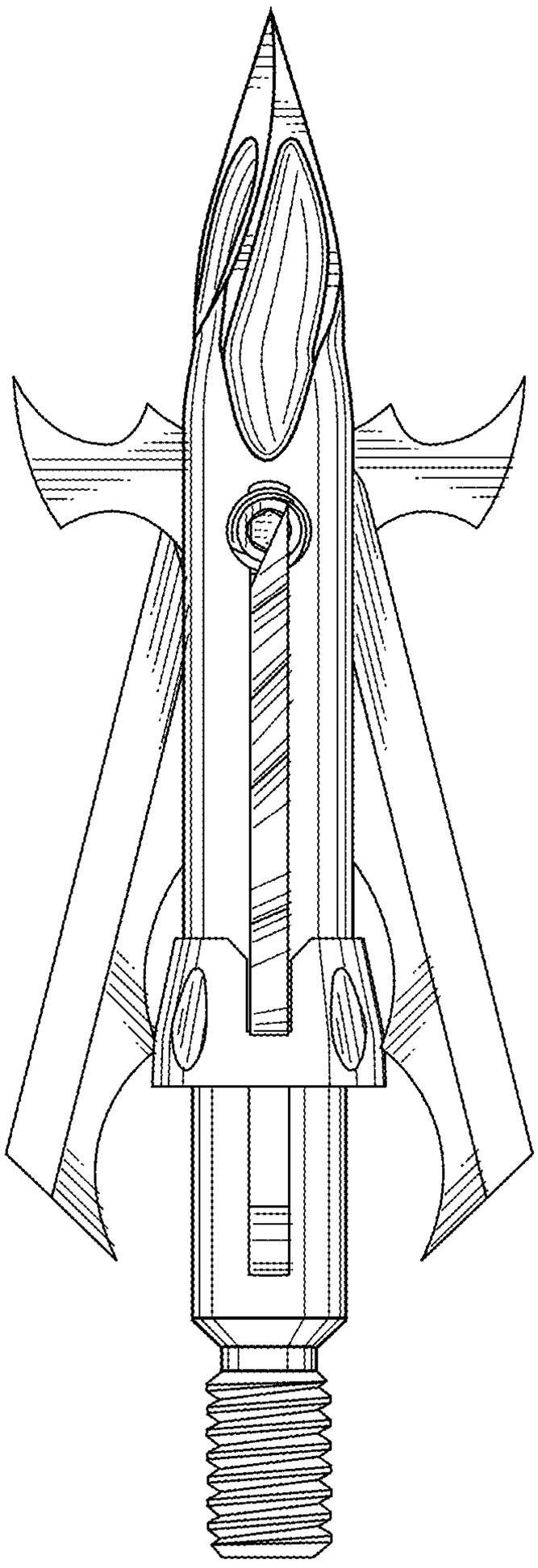


FIG. 22

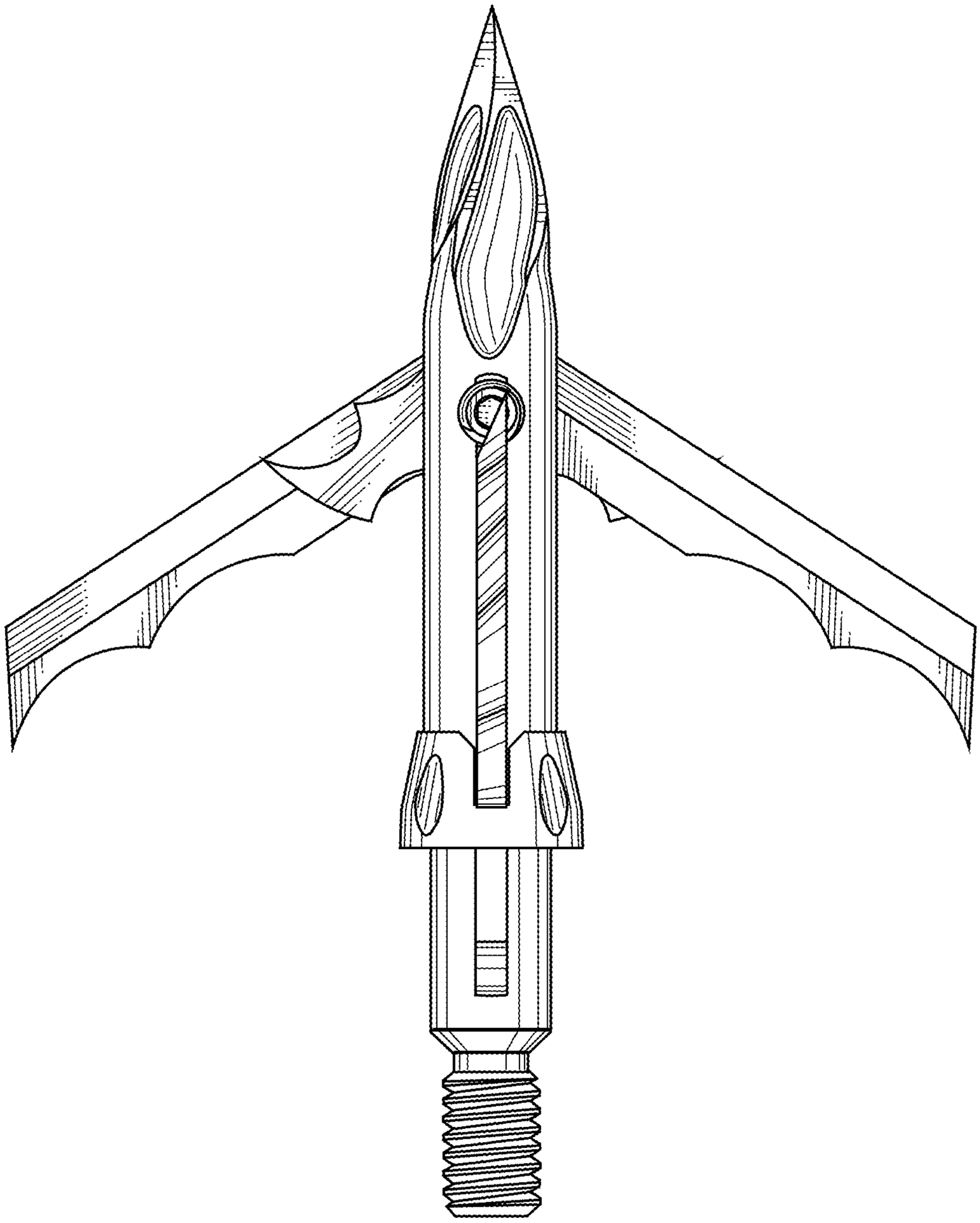


FIG. 23

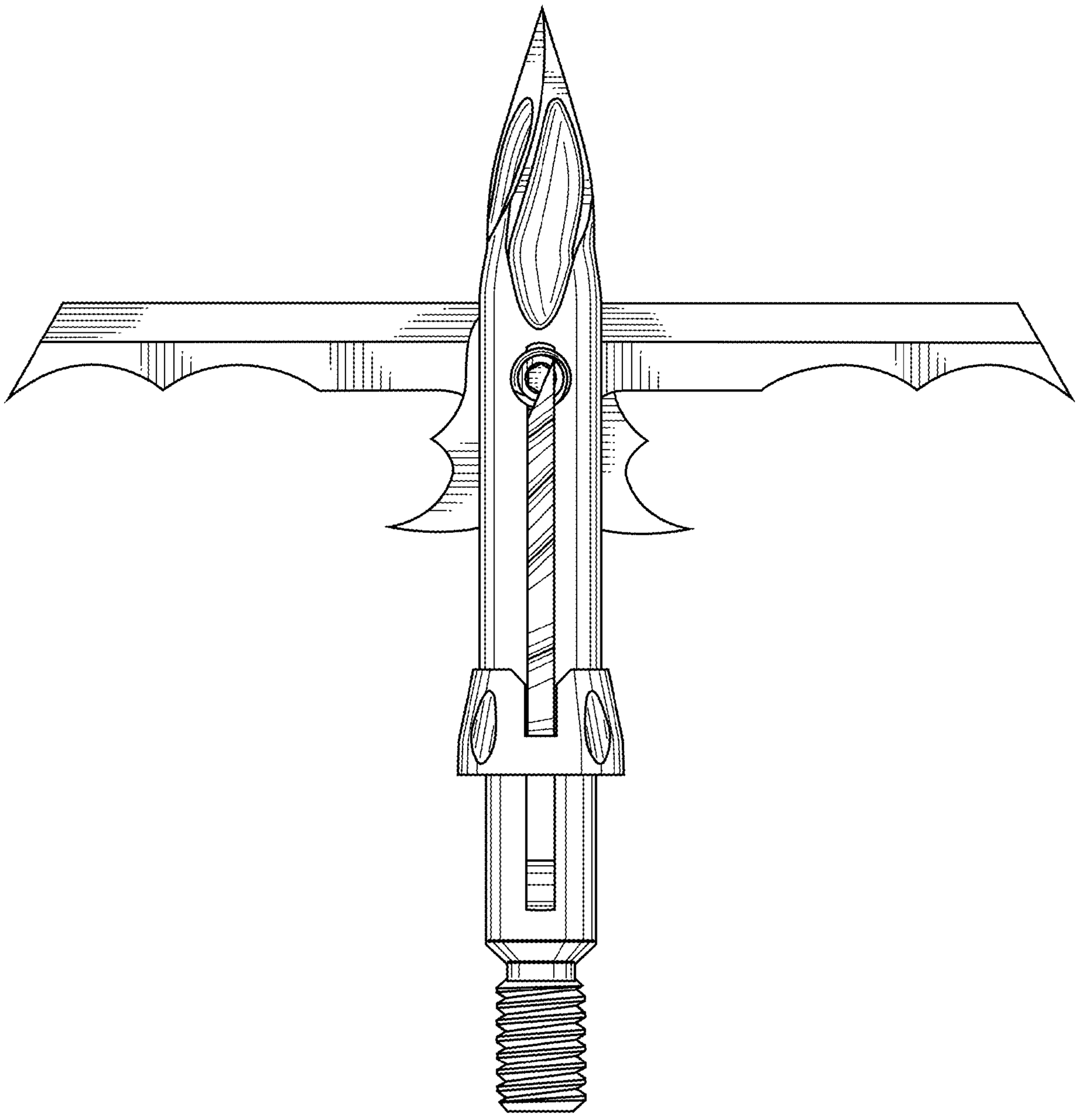


FIG. 24

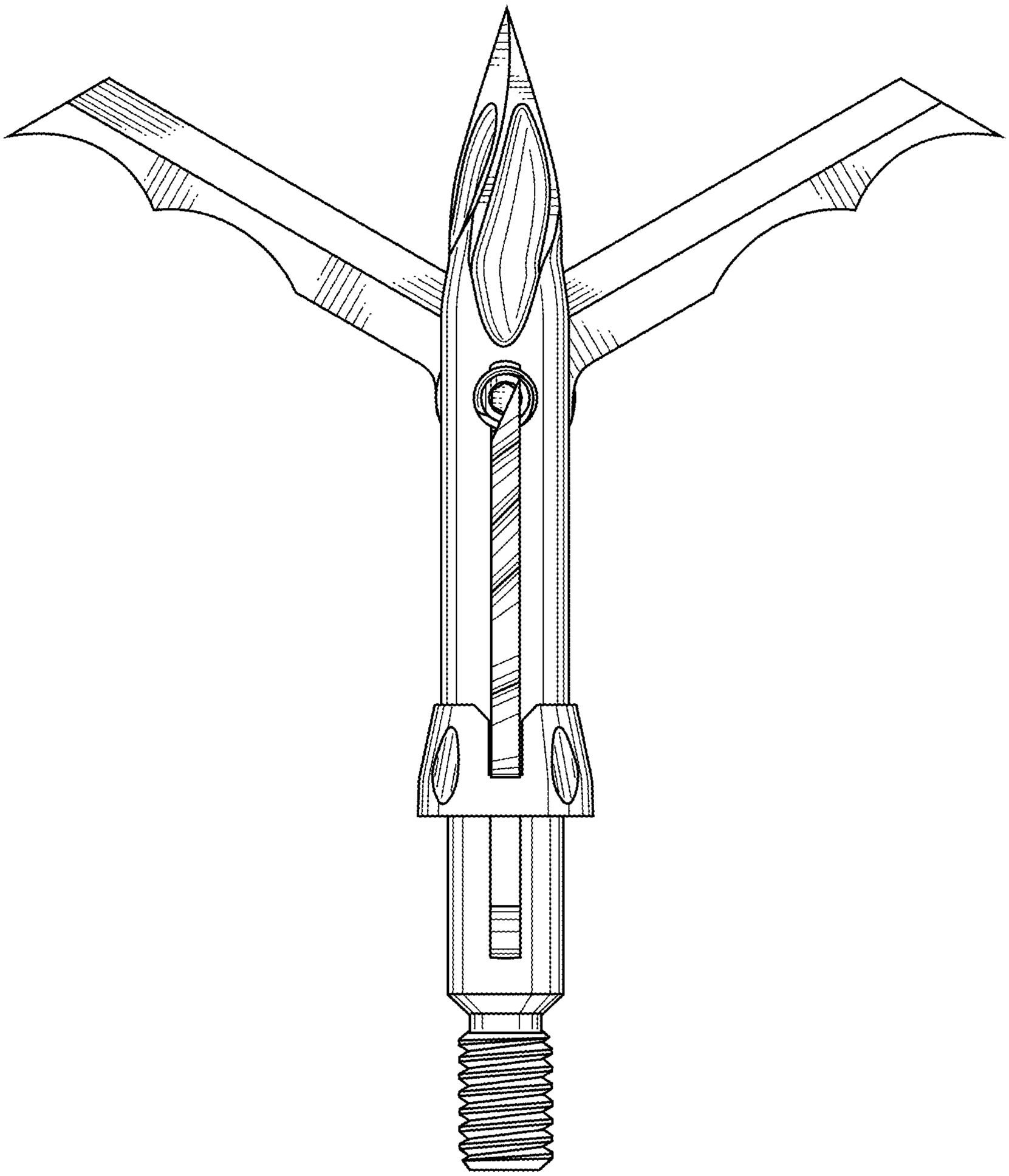
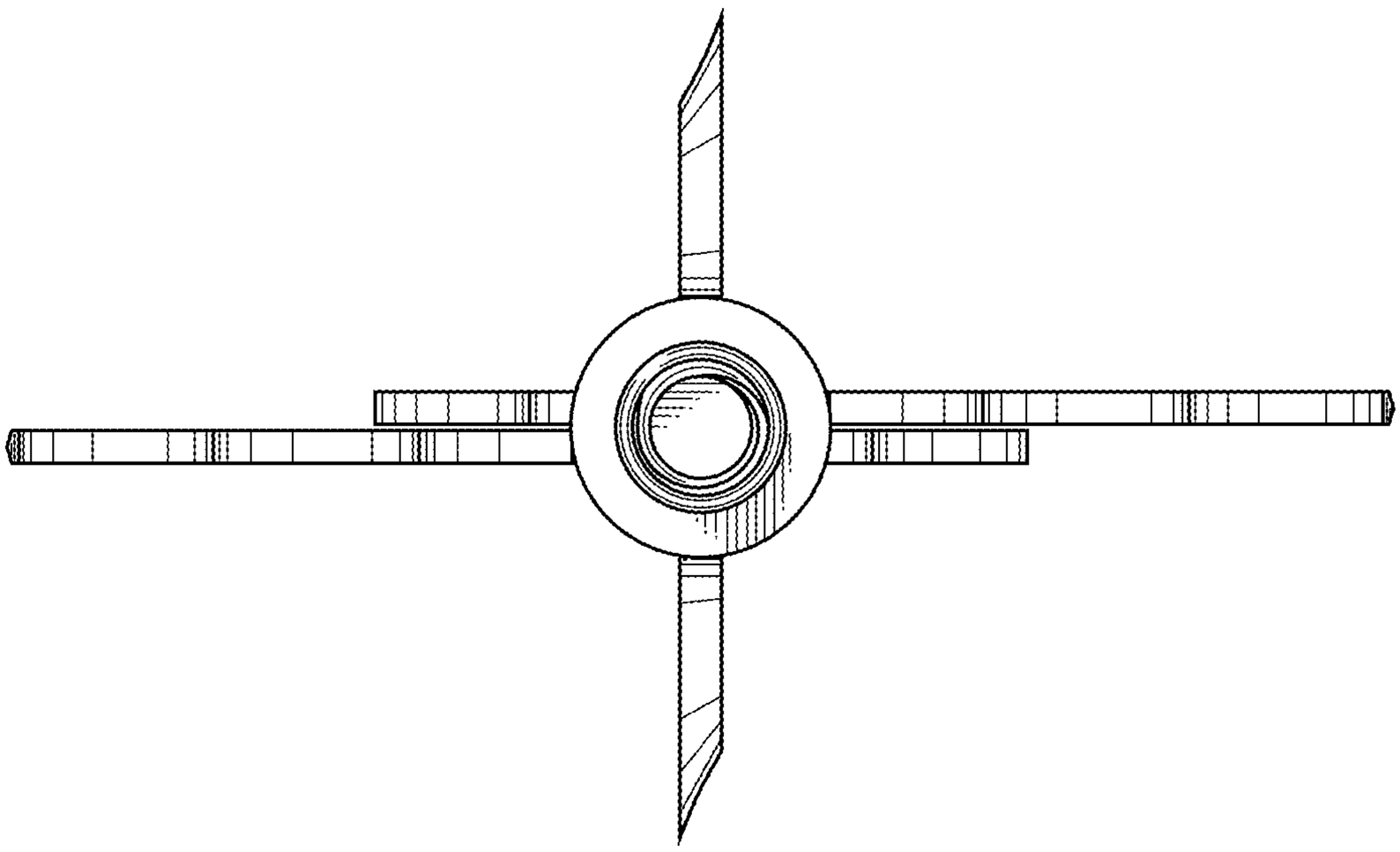


FIG. 25



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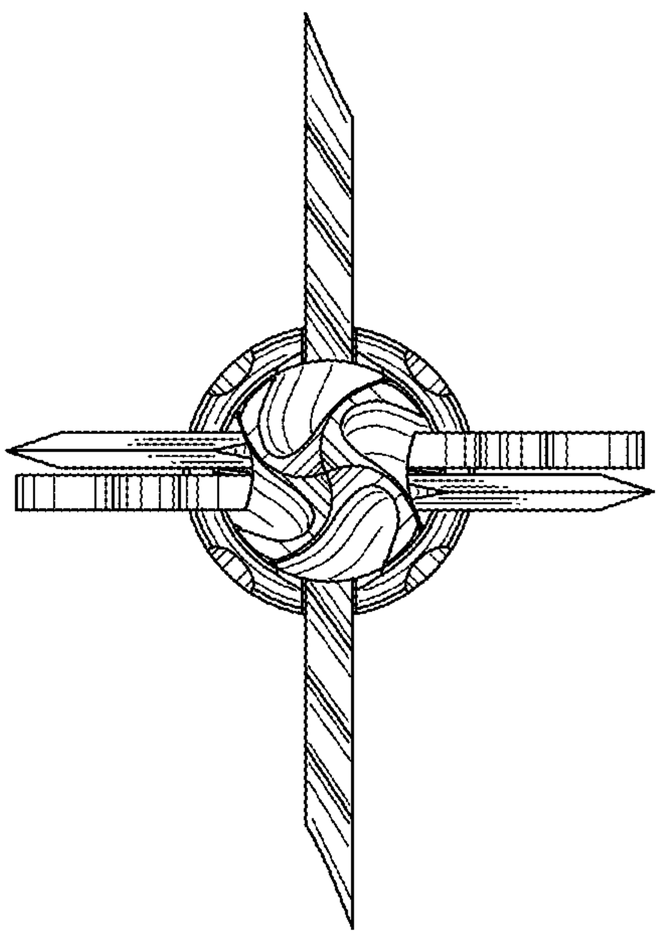
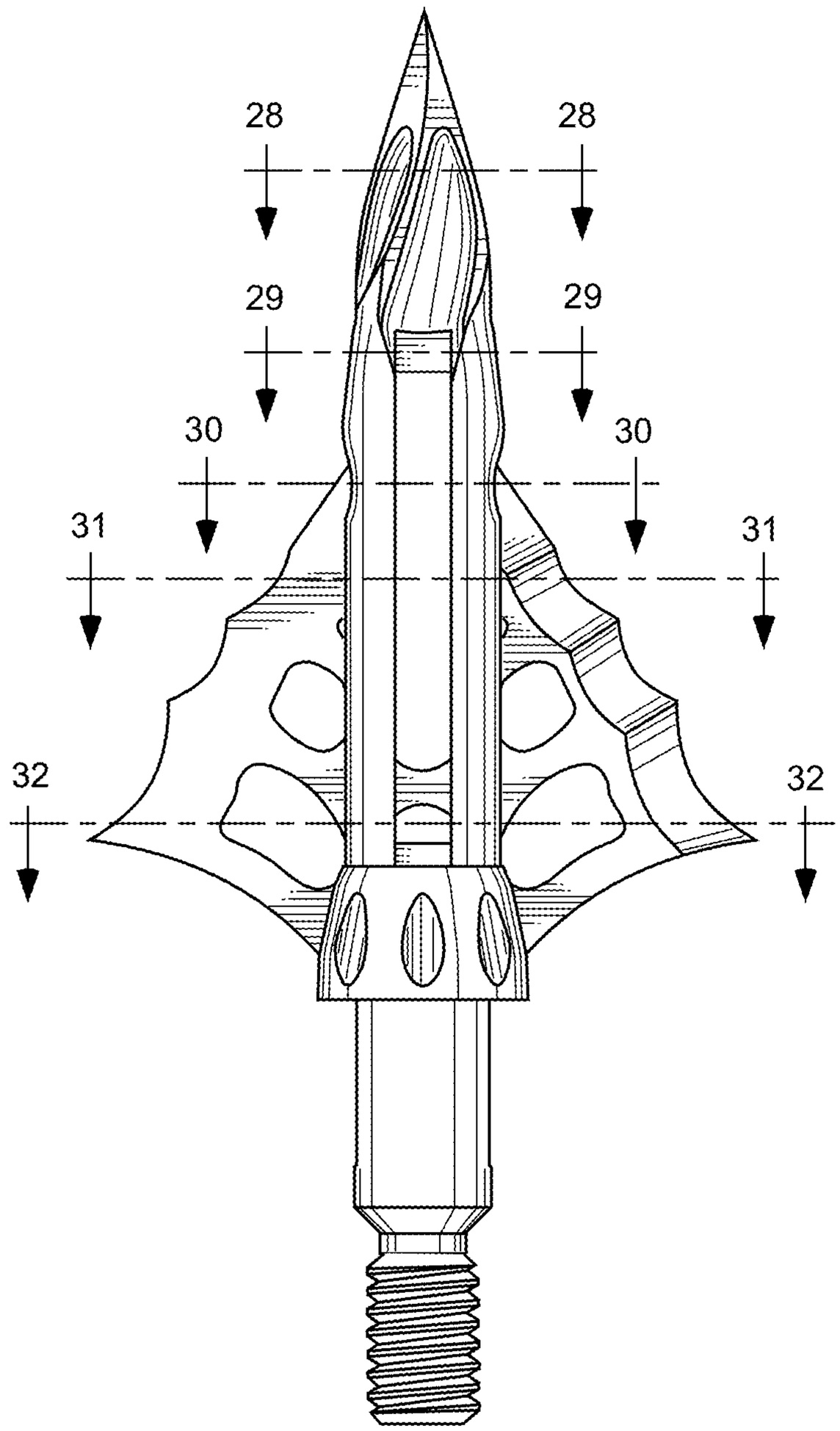


FIG. 27



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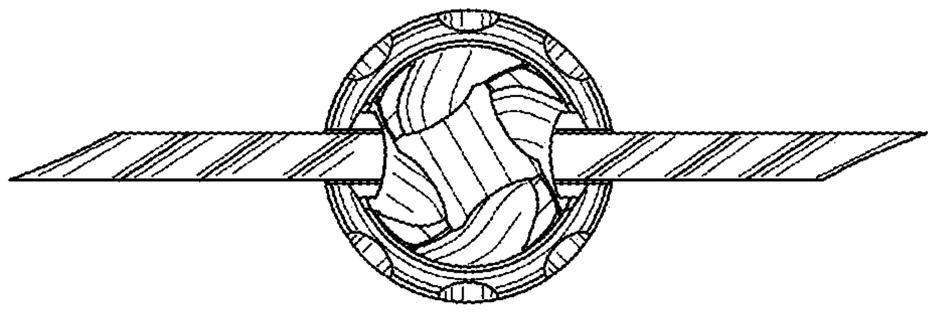

FIG. 29

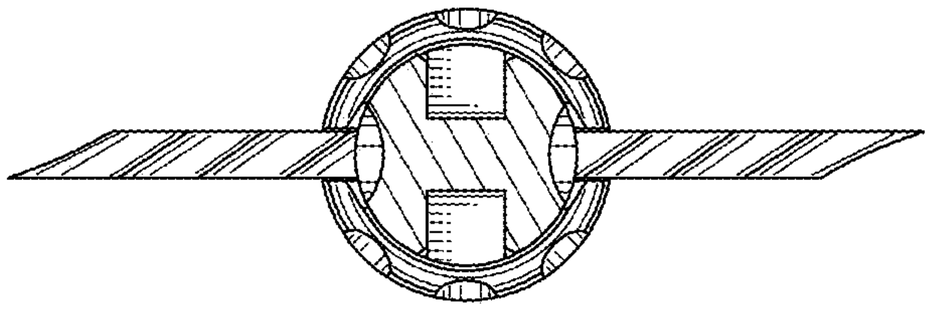

FIG. 30

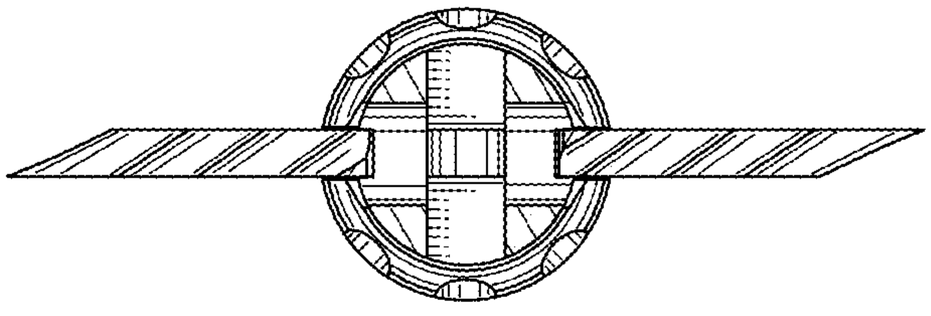

FIG. 31

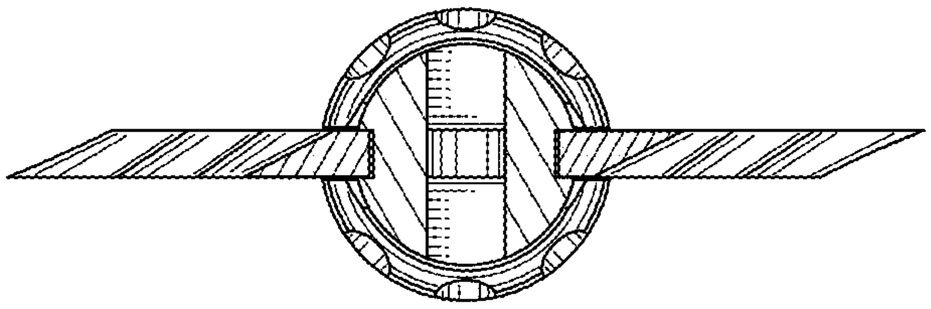

FIG. 32