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(12) **United States Design Patent**
Masui

(10) **Patent No.:** **US D446,169 S**

(45) **Date of Patent:** **** Aug. 7, 2001**

(54) **FRONT CHAIN WHEEL**

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(73) Assignee: **Shimano Inc.**, Osaka (JP)

(**) Term: **14 Years**

(21) Appl. No.: **29/128,973**

(22) Filed: **Sep. 7, 2000**

(51) **LOC (7) Cl.** **12-11**

(52) **U.S. Cl.** **D12/123**

(58) **Field of Search** D12/123, 111;
474/152, 155-158, 160-162, 164; 74/594.1-594.4

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,904,072 * 5/1999 Yamanaka 74/594.2

OTHER PUBLICATIONS

Bike Nashbar, Holiday 1998, cranksets on p. 62.*

* cited by examiner

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(57) **CLAIM**

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

DESCRIPTION

FIG. 1 is a front side perspective view of a front chain wheel in accordance with my new design;

FIG. 2 is a front side elevational view of the front chain wheel illustrated in FIG. 1;

FIG. 3 is a top plan view of the front chain wheel illustrated in FIGS. 1 and 2;

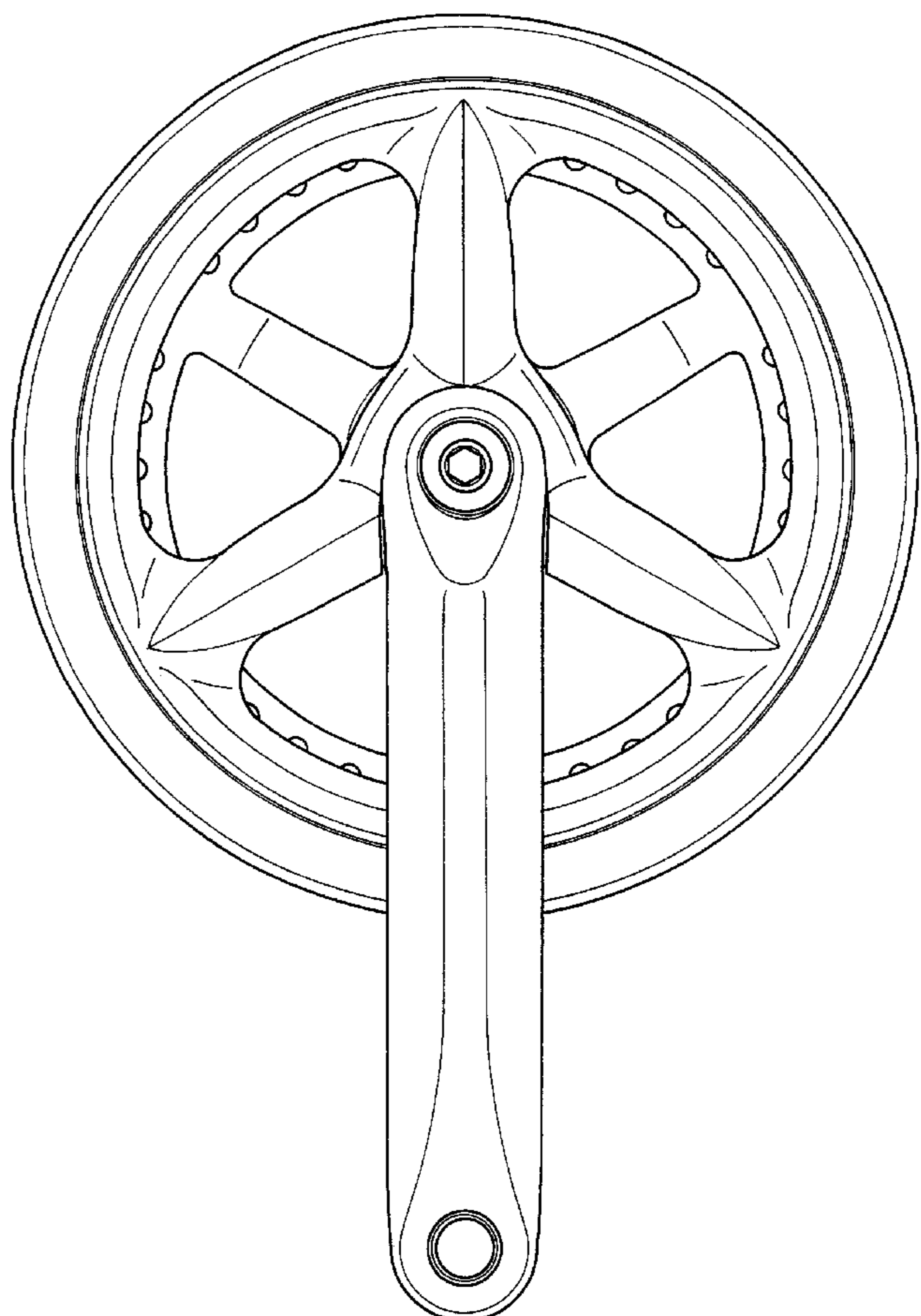
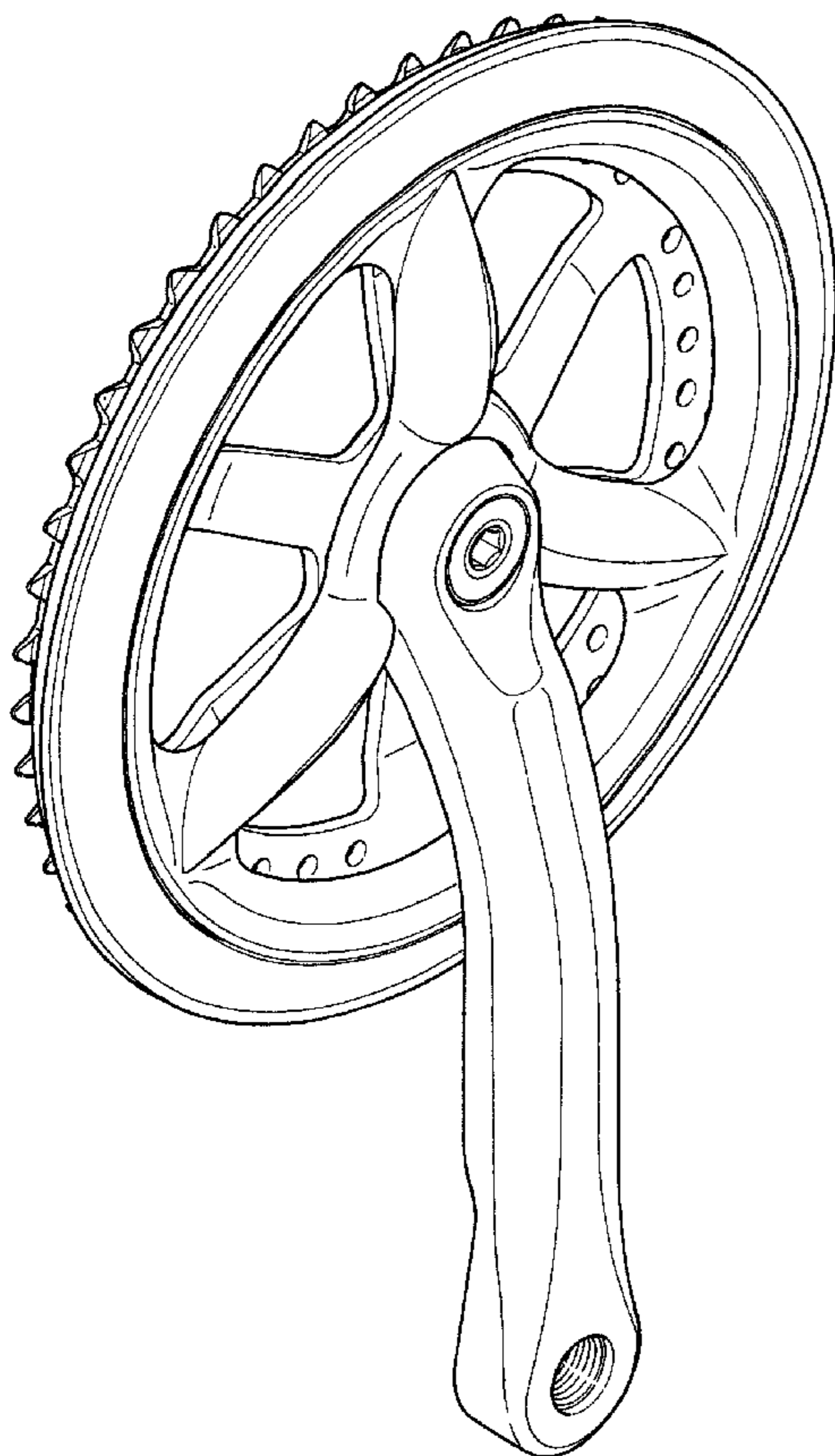
FIG. 4 is a rear elevational view of the front chain wheel illustrated in FIGS. 1-3;

FIG. 5 is a bottom plan view of the front chain wheel illustrated in FIGS. 1-4;

FIG. 6 is a left side end elevational view of the front chain wheel illustrated in FIGS. 1-5; and,

FIG. 7 is a right side end elevational view of the front chain wheel illustrated in FIGS. 1-6.

1 Claim, 7 Drawing Sheets



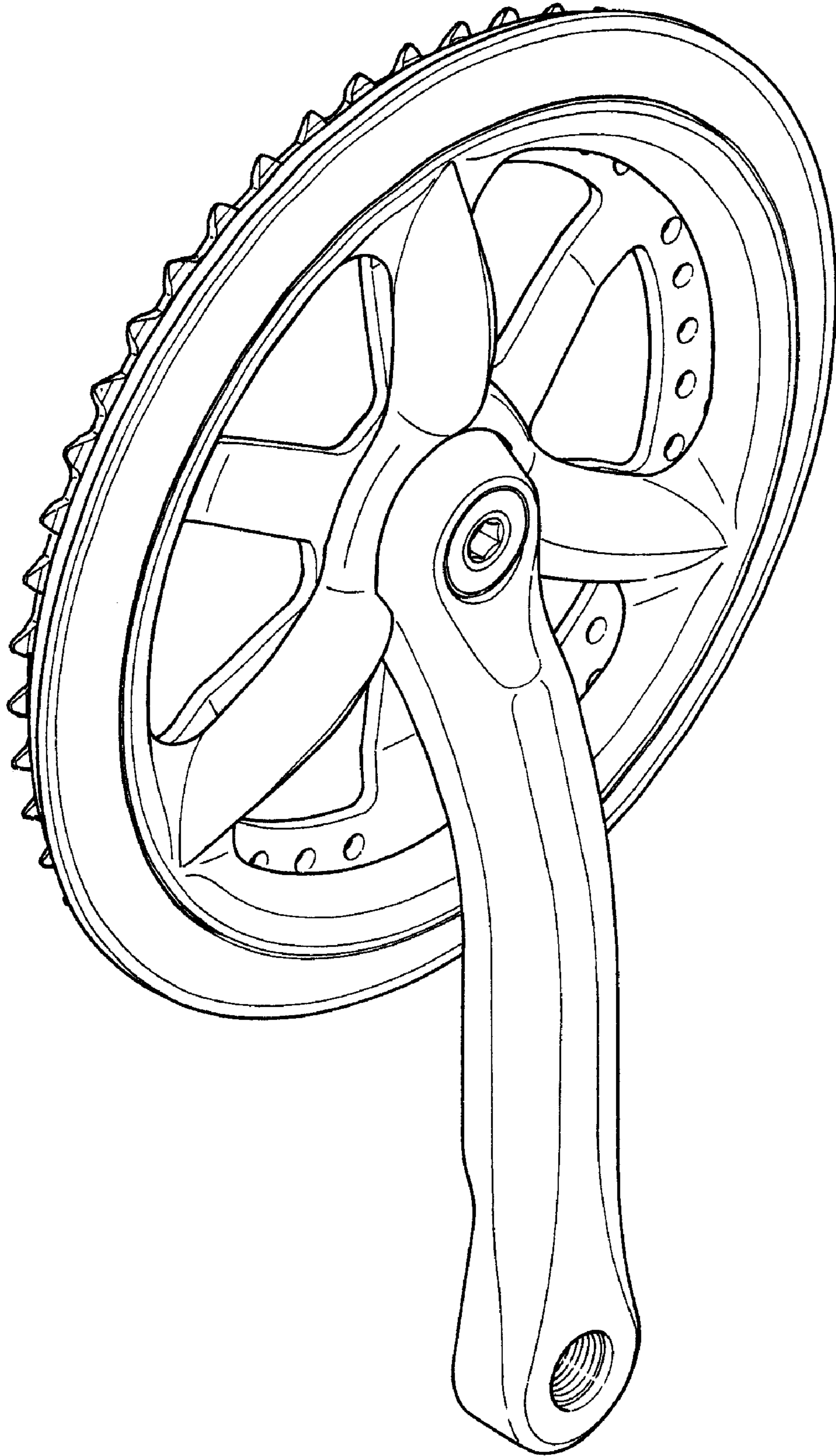


FIG. 1

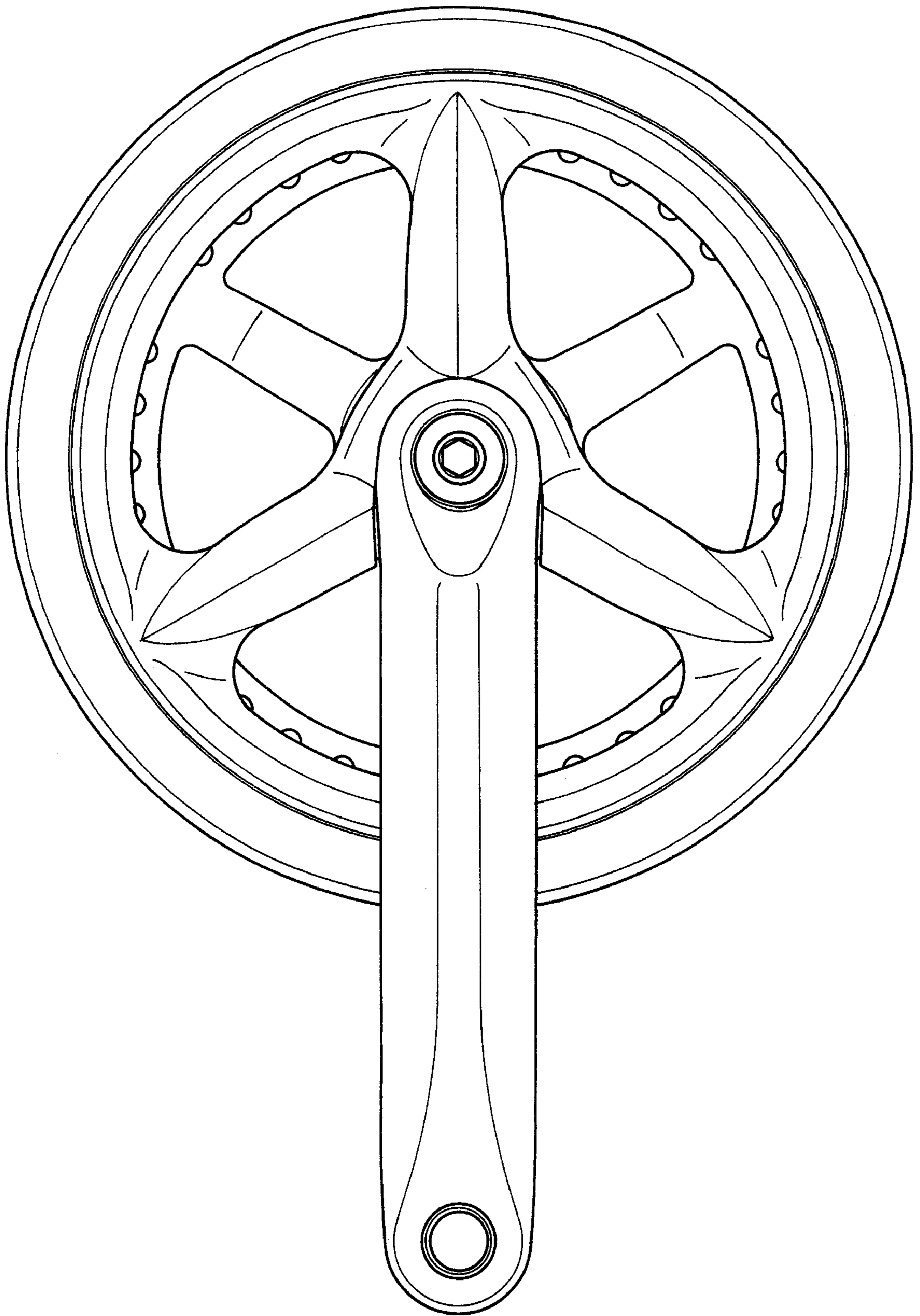


FIG. 2

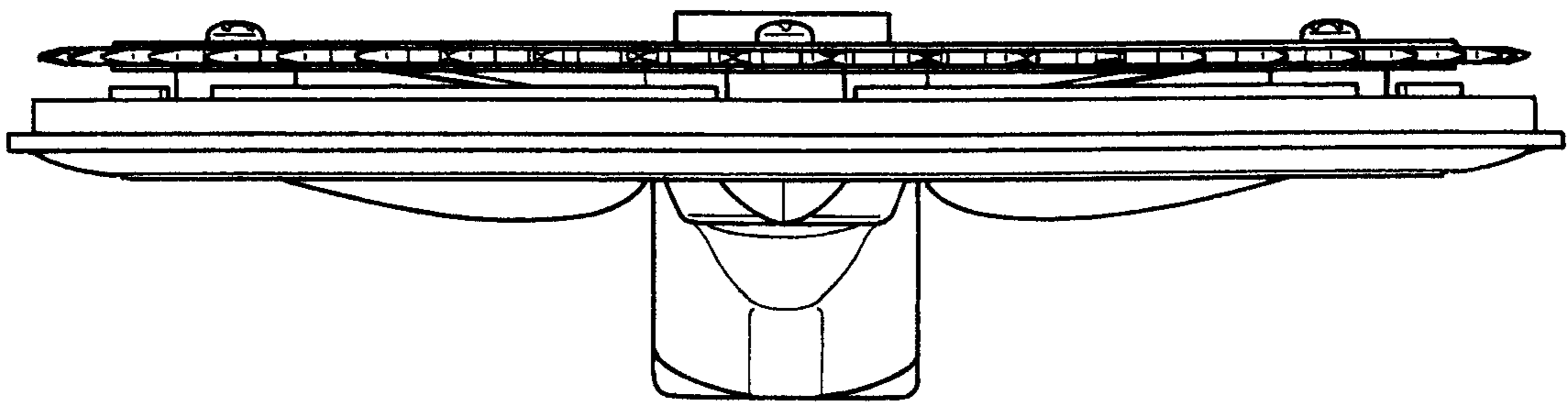


FIG. 3

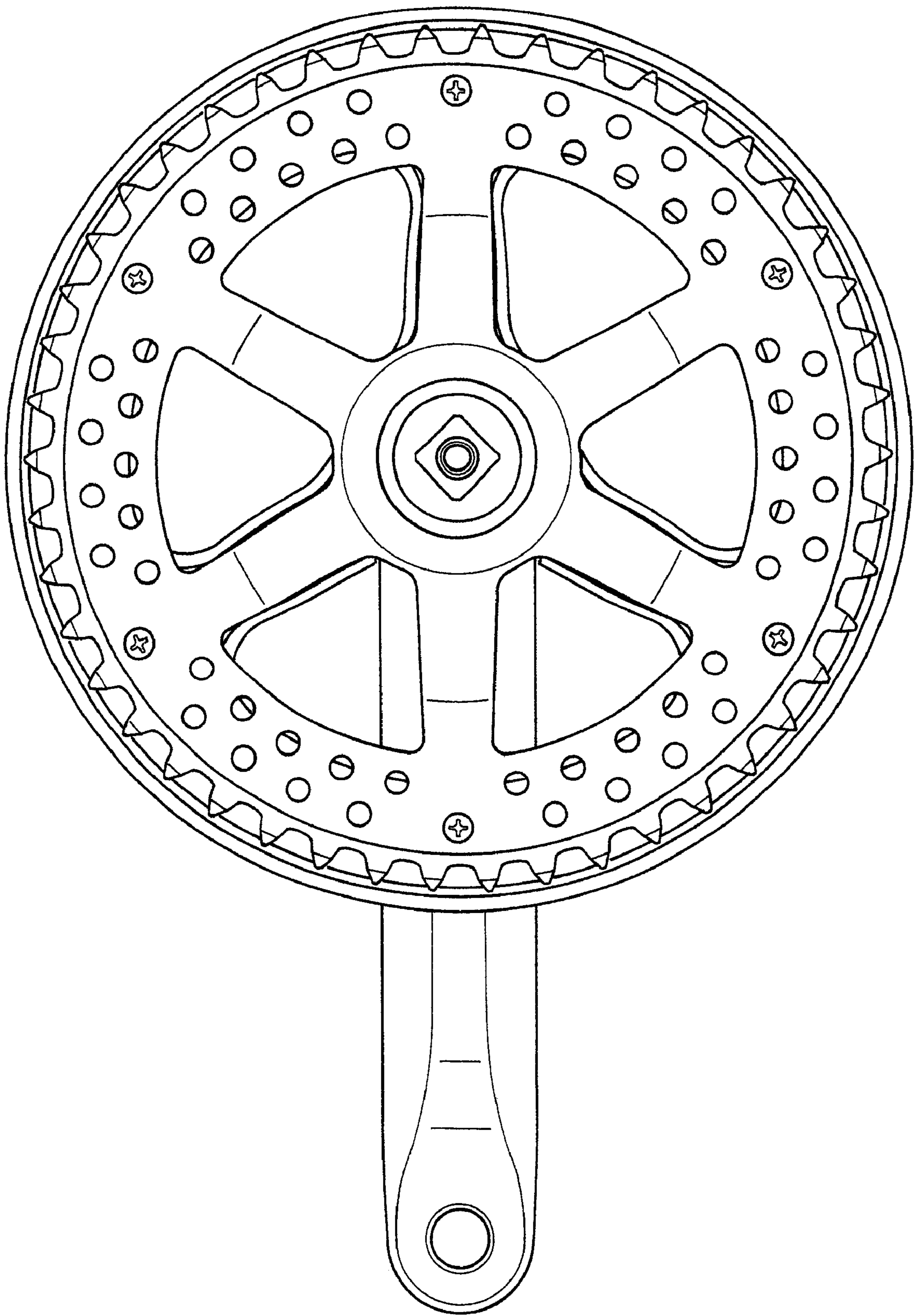


FIG. 4

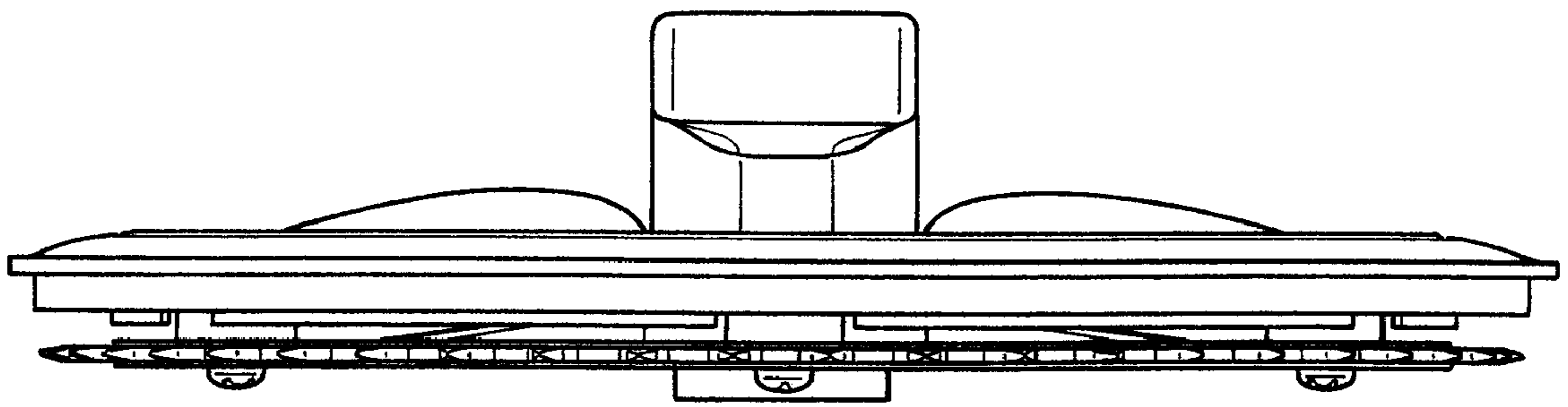


FIG. 5

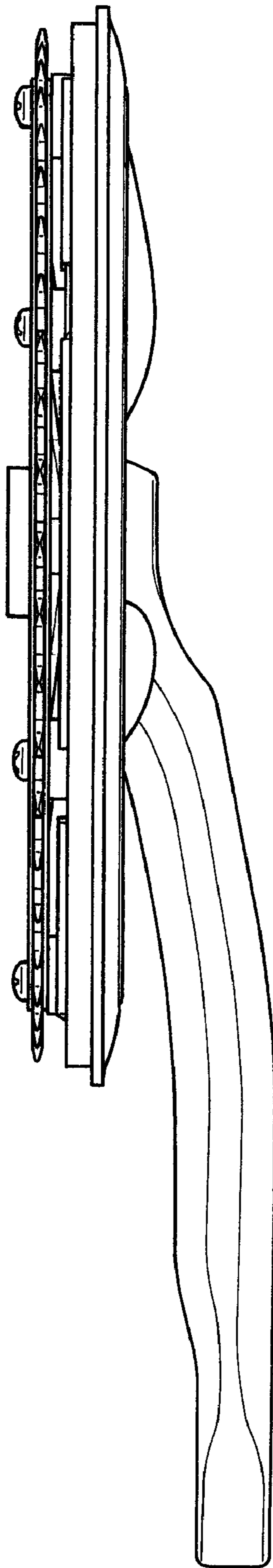


FIG. 6

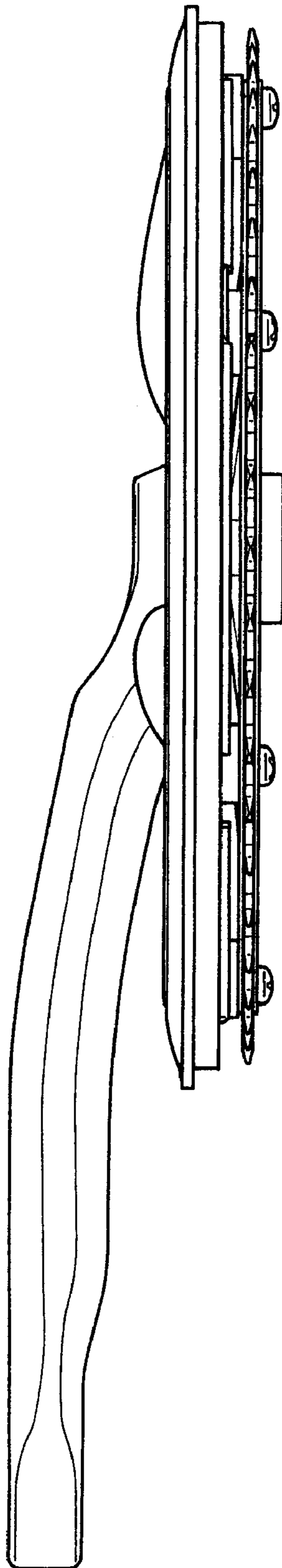


FIG. 7