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

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(54) **MANIPULATOR FOR ROBOT**

(57) **CLAIM**

(71) Applicant: **MITSUBISHI ELECTRIC CORPORATION**, Tokyo (JP)

The ornamental design for a manipulator for robot, as shown and described.

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DESCRIPTION

(73) Assignee: **Mitsubishi Electric Corporation**, Tokyo (JP)

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

(21) Appl. No.: **29/633,331**

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(30) **Foreign Application Priority Data**

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Sep. 22, 2017 (JP) 2017-020744

(51) **LOC (11) Cl.** **15-99**

(52) **U.S. Cl.**
USPC **D15/199**

(58) **Field of Classification Search**
USPC D15/199; D21/369, 578-583, 621, 622
(Continued)

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Primary Examiner — Patricia A Palasik

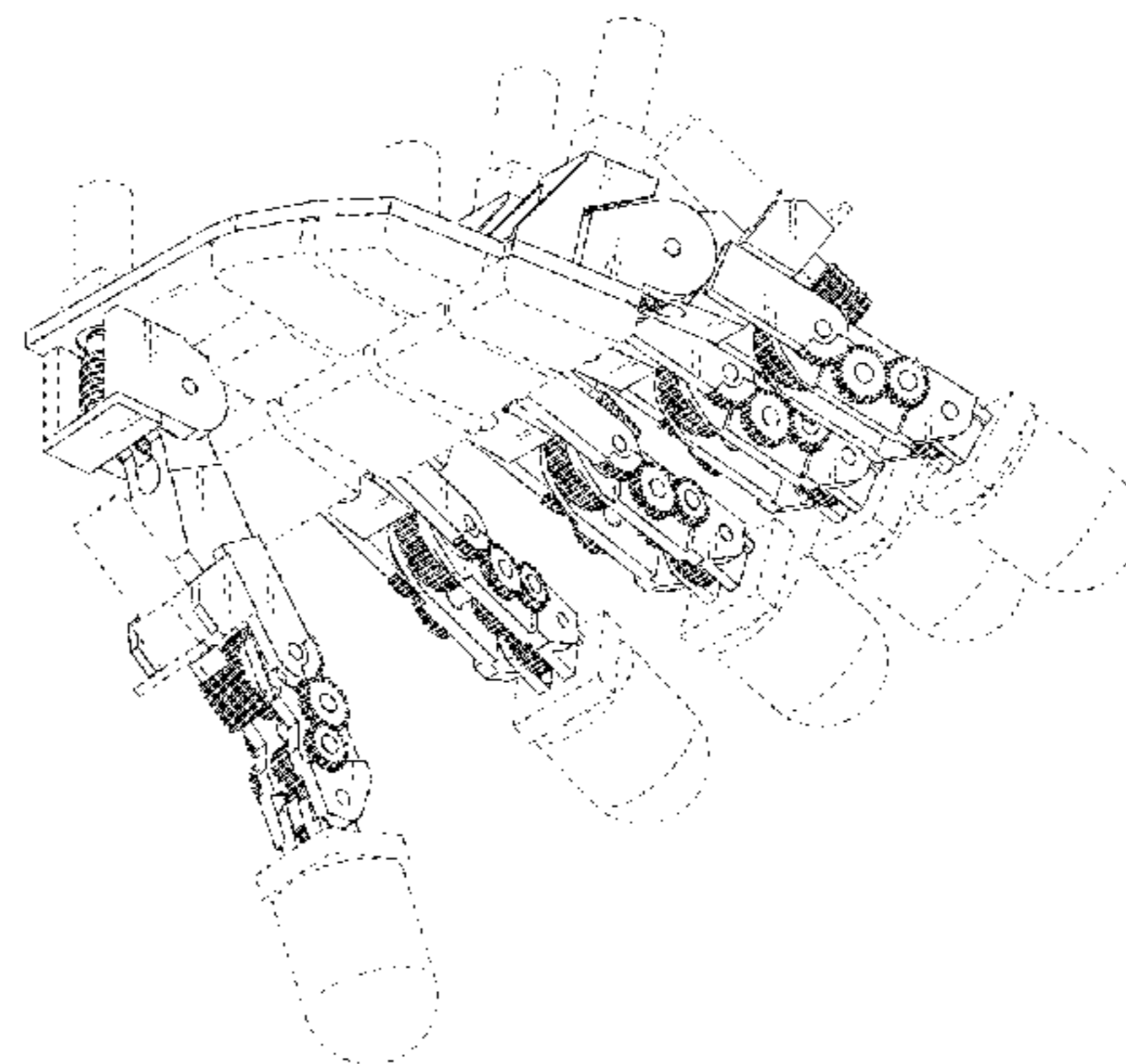
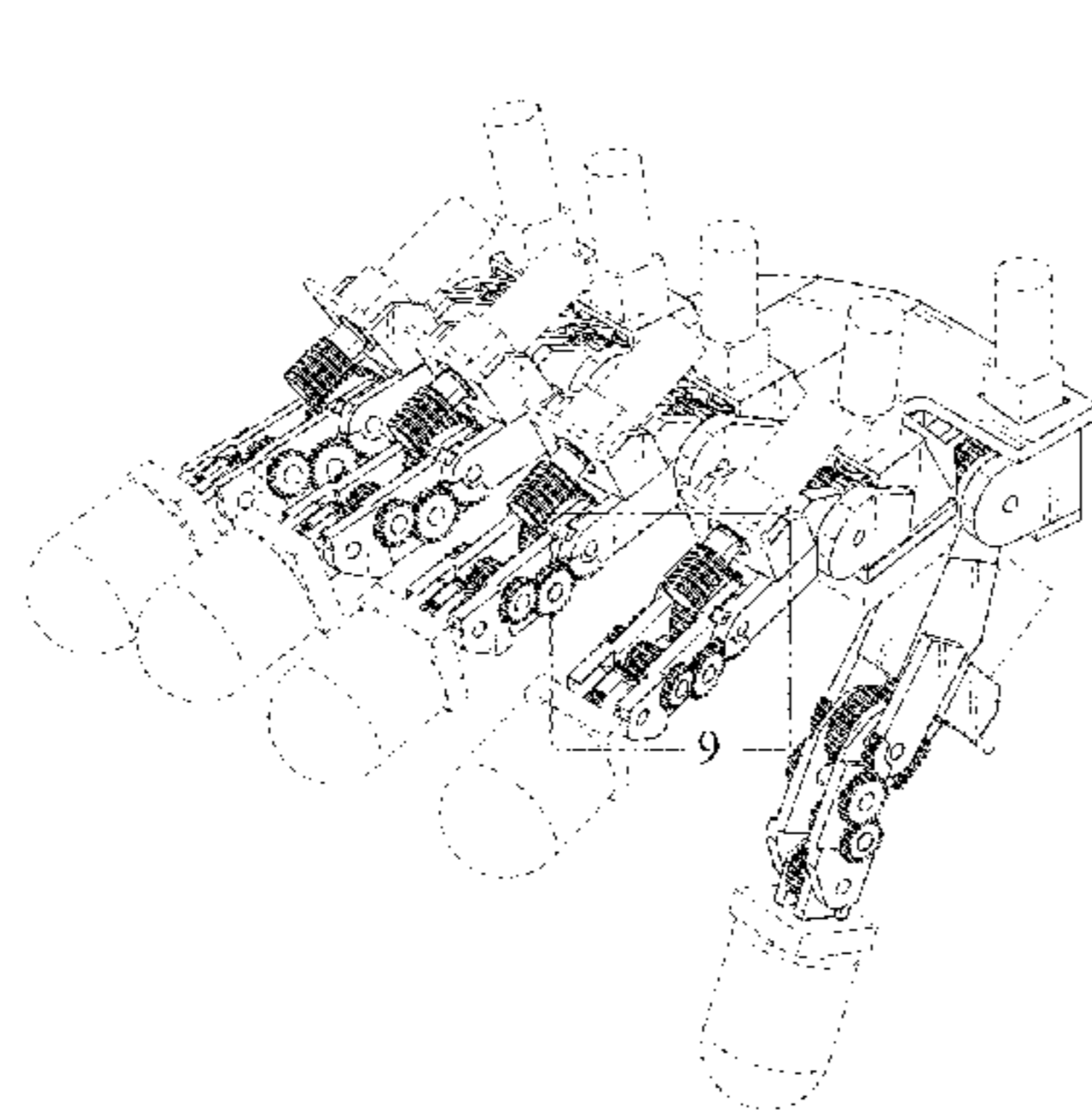
(74) *Attorney, Agent, or Firm* — Studebaker & Brackett PC

FIG. 1 is a front perspective view of the front, left, and top sides of a manipulator for robot showing a first embodiment of our new design;
FIG. 2 is a rear perspective view of the rear, right, and bottom sides thereof;
FIG. 3 is a front view thereof;
FIG. 4 is a rear view thereof;
FIG. 5 is a left side view thereof;
FIG. 6 is a right side view thereof;
FIG. 7 is a top plan view thereof;
FIG. 8 is a bottom plan view thereof;
FIG. 9 is an enlarged view of a part 9 of FIG. 1;
FIG. 10 is a front view showing a first state where a hinge angle is changed;
FIG. 11 is a front view showing a second state where a hinge angle is changed;
FIG. 12 is a front perspective view of the front, left, and top sides of a manipulator for robot showing a second embodiment of our new design;
FIG. 13 is a rear perspective view of the rear, right, and bottom sides thereof;
FIG. 14 is a front view thereof;
FIG. 15 is a rear view thereof;
FIG. 16 is a left side view thereof;
FIG. 17 is a right side view thereof;
FIG. 18 is a top plan view thereof;
FIG. 19 is a bottom plan view thereof;
FIG. 20 is an enlarged view of a part 20 of FIG. 12; and,
FIG. 21 is a front view showing a state where a hinge angle is changed.

The broken lines shown represent unclaimed subject matter of the manipulator for robot or environments and form no part of the claimed design.

The dash-dot lines represent the boundary between the claimed design and unclaimed design and form no part of the claimed design.

(Continued)



The dash-dot-dot lines represent the locations and borders of an enlarged view showing details and form no part of the claimed design.

1 Claim, 21 Drawing Sheets

(58) Field of Classification Search

CPC B25J 15/10; B25J 15/086; B25J 15/0009;
Y10S 901/38; Y10S 901/39
See application file for complete search history.

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Fig. 1

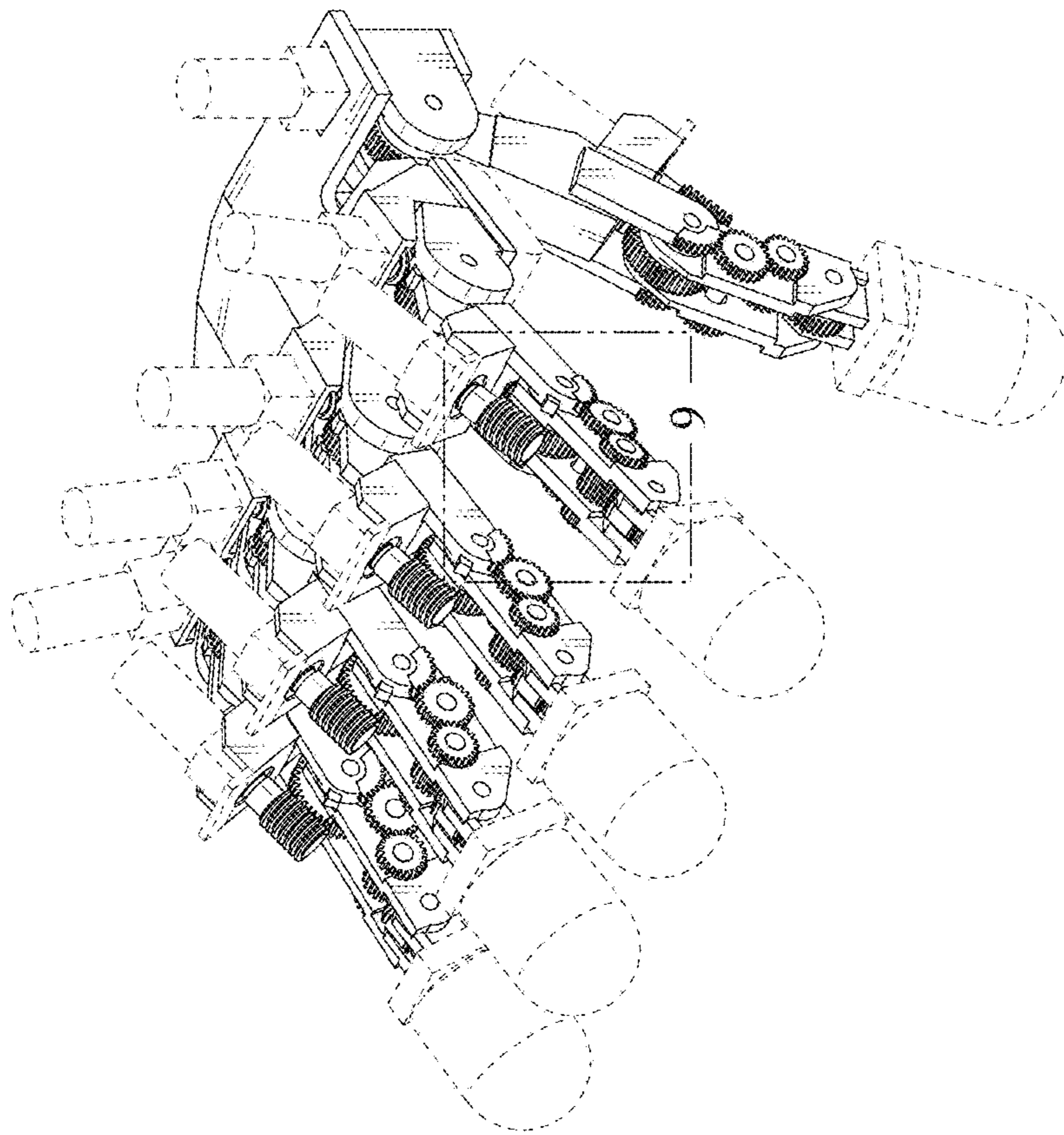
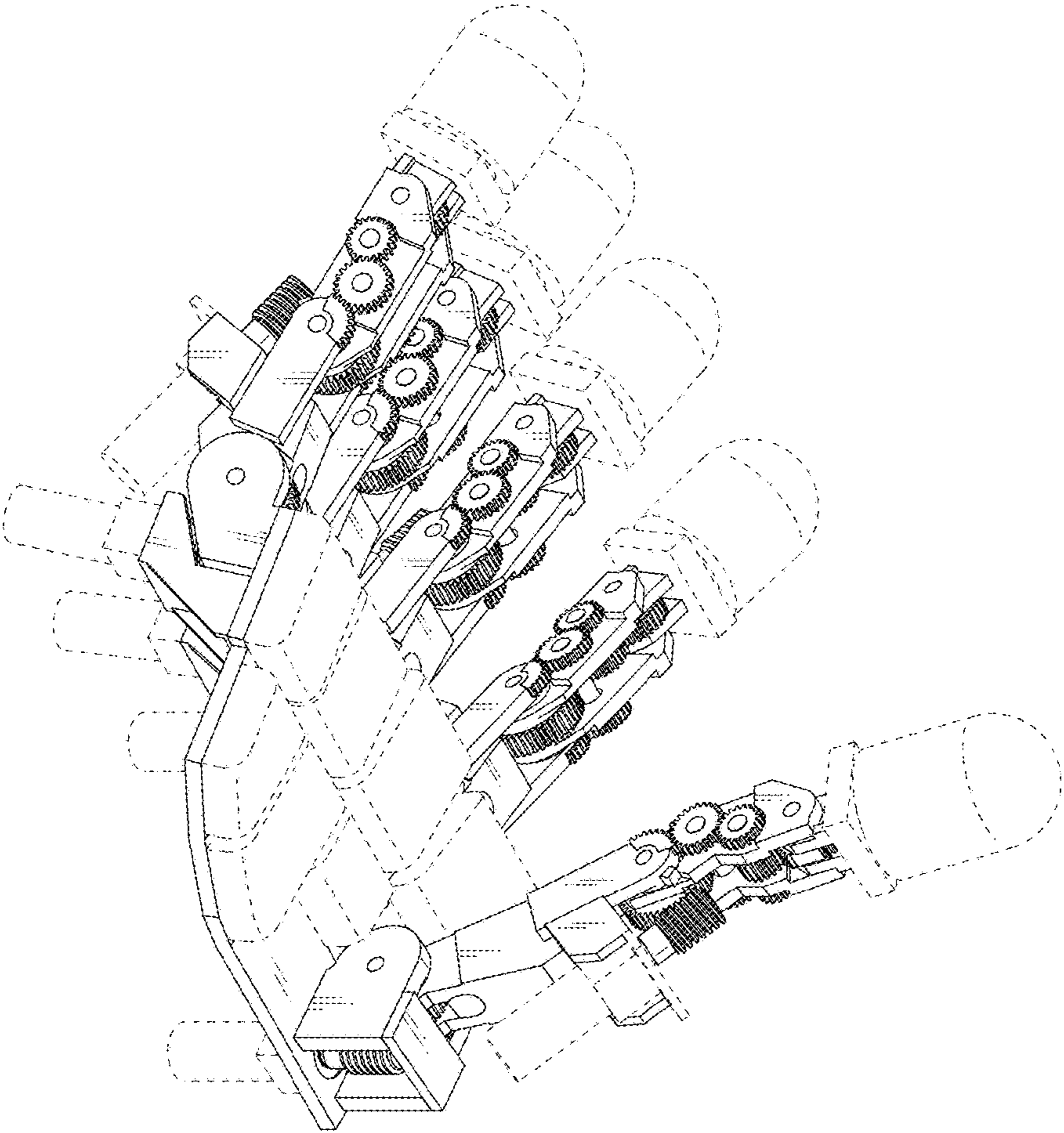


Fig. 2



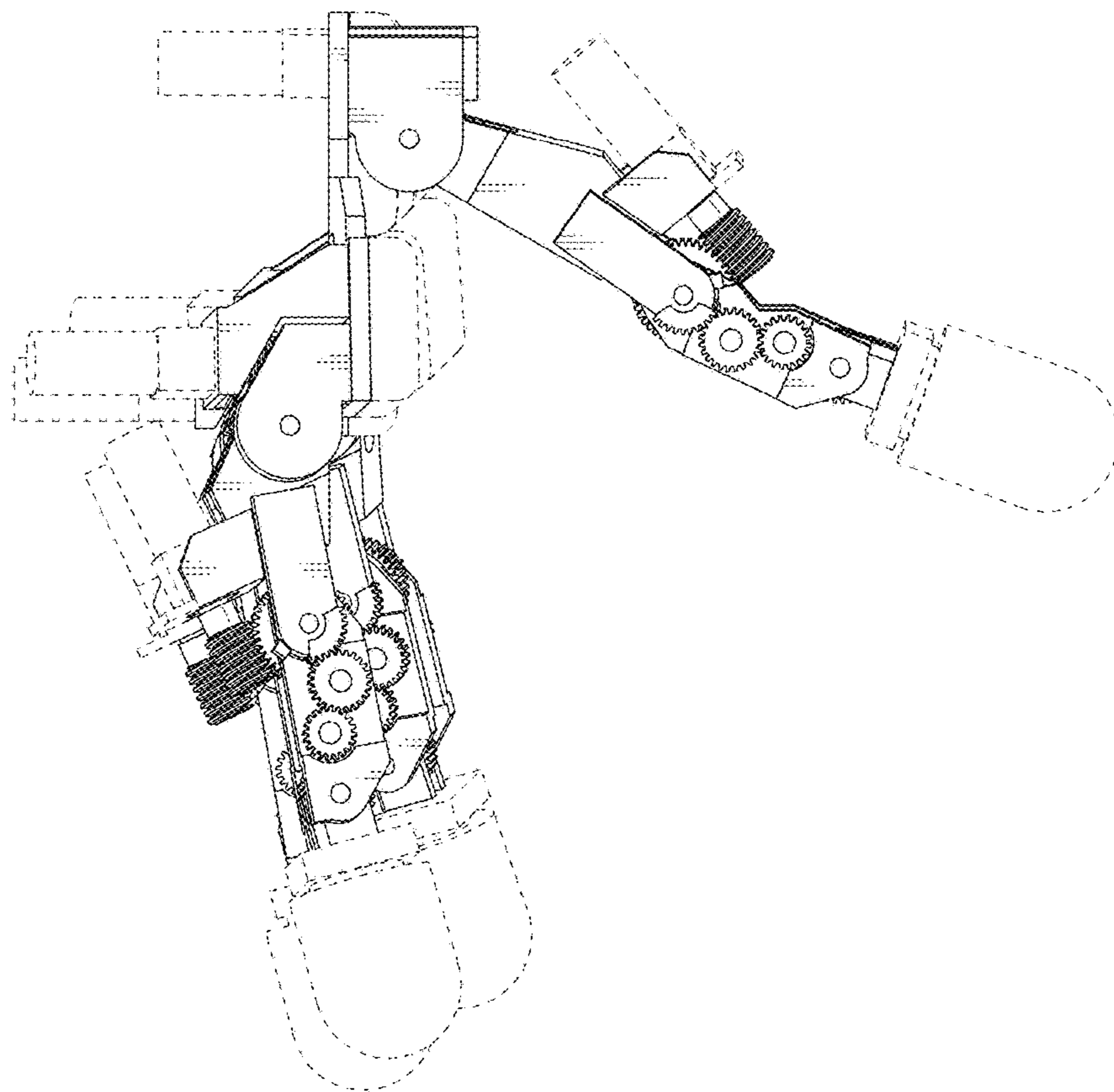


Fig. 3

Fig. 4

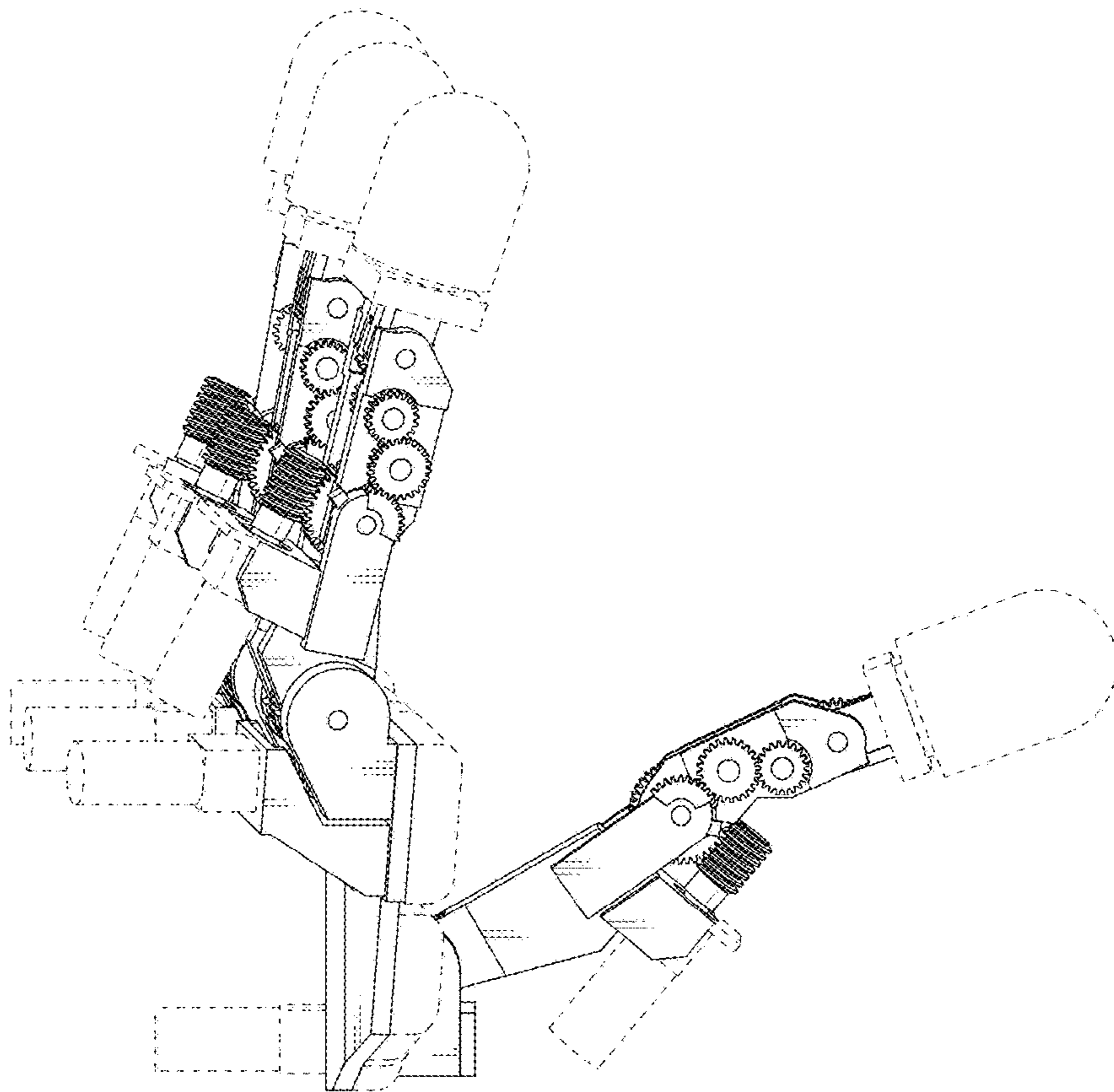


Fig. 5

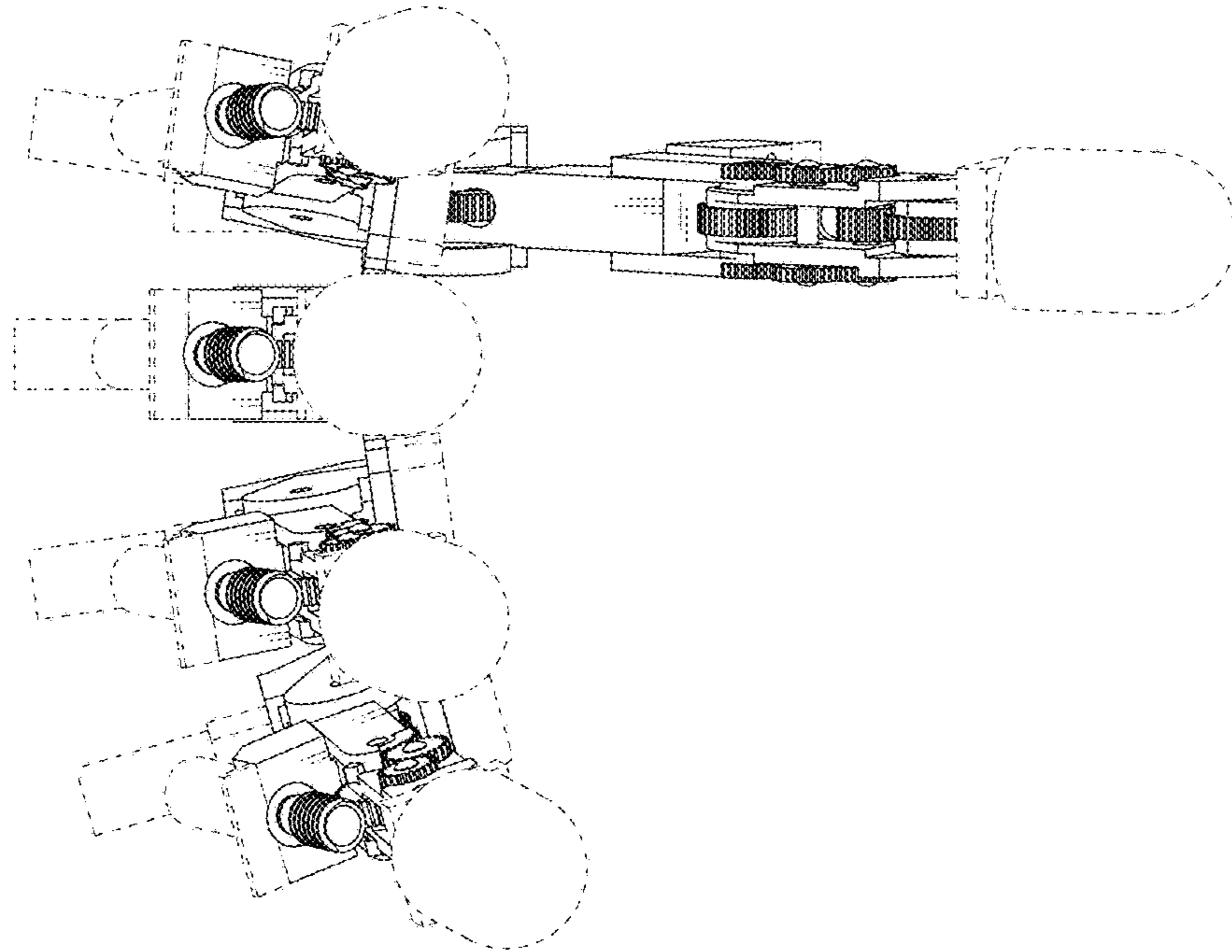


Fig. 6

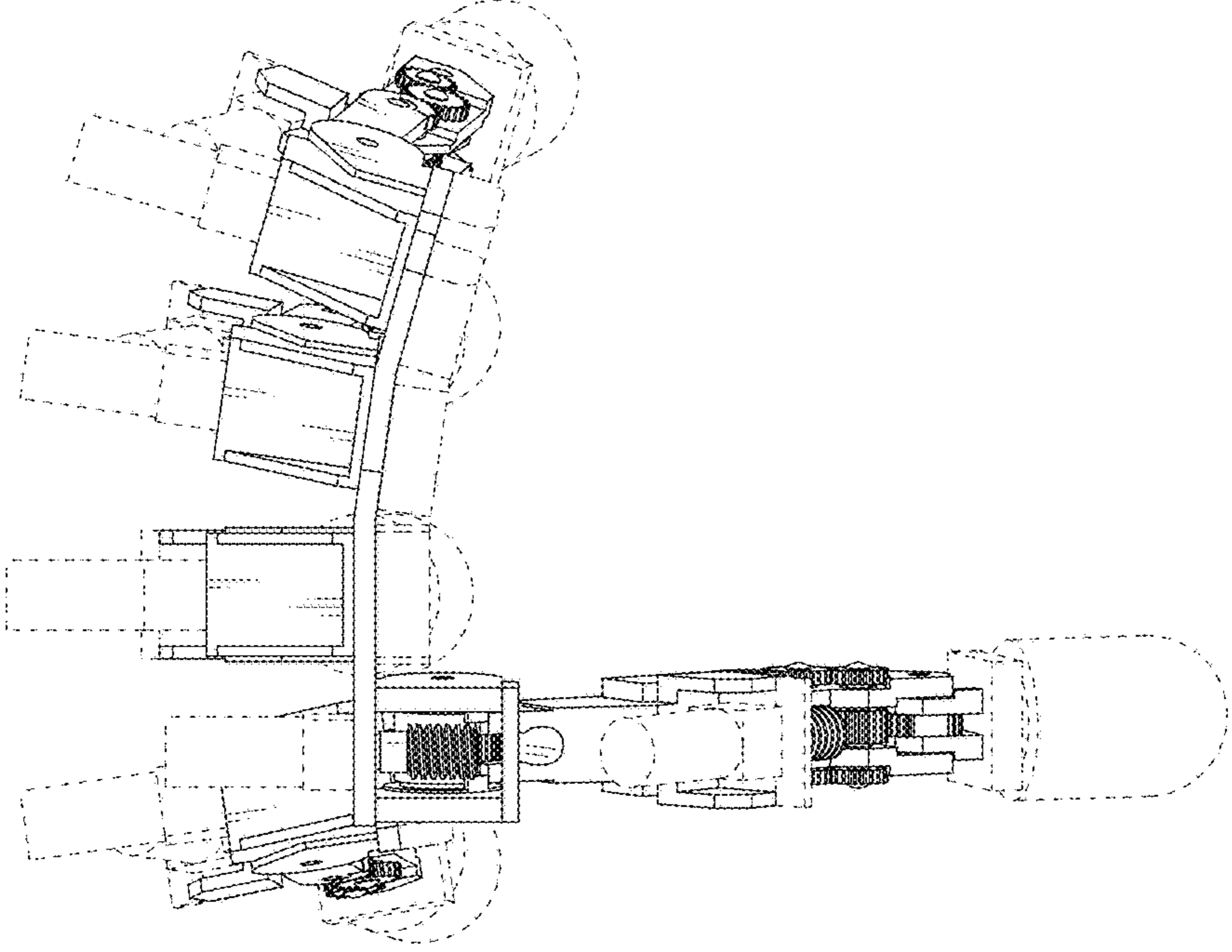


Fig. 7

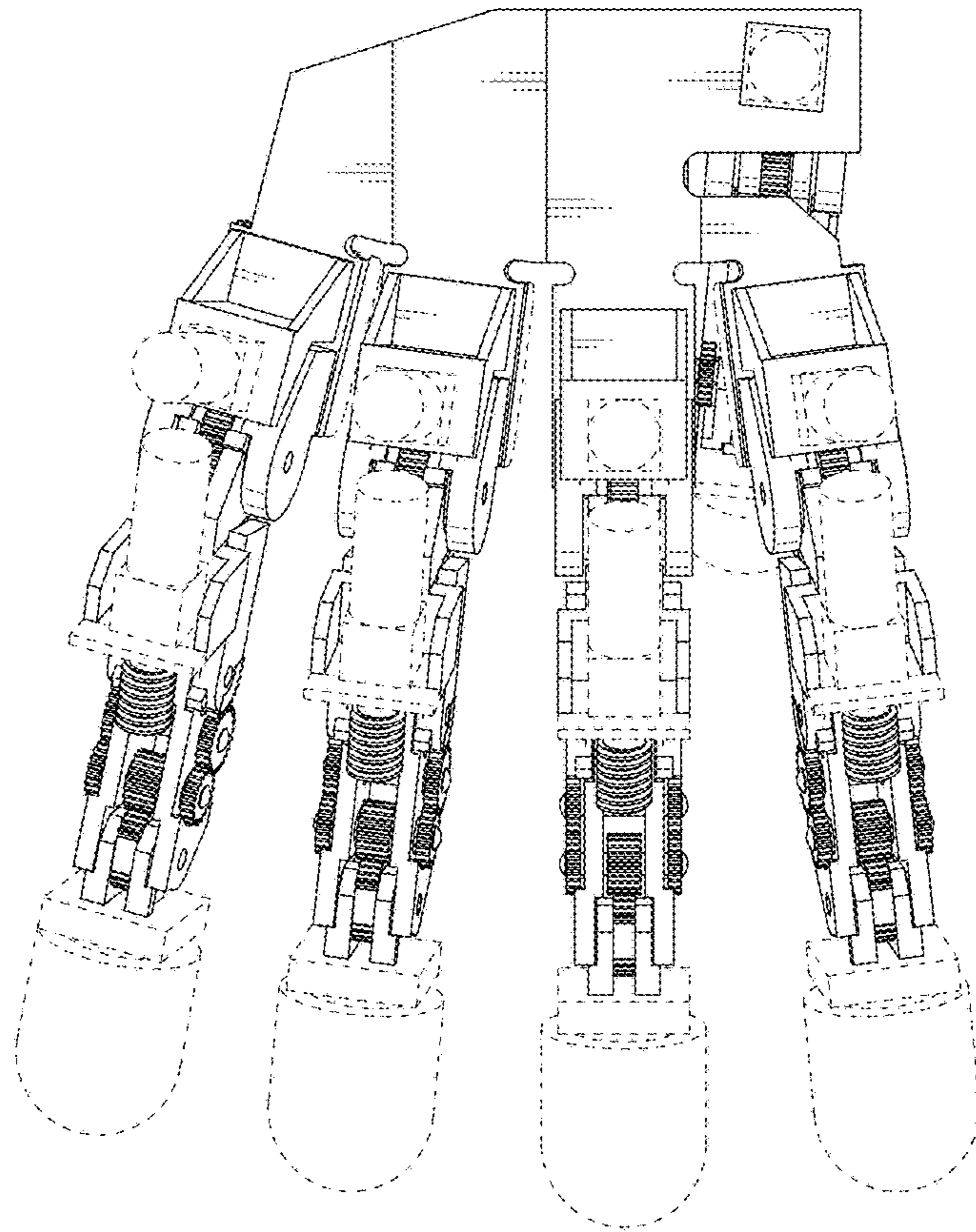


Fig. 8

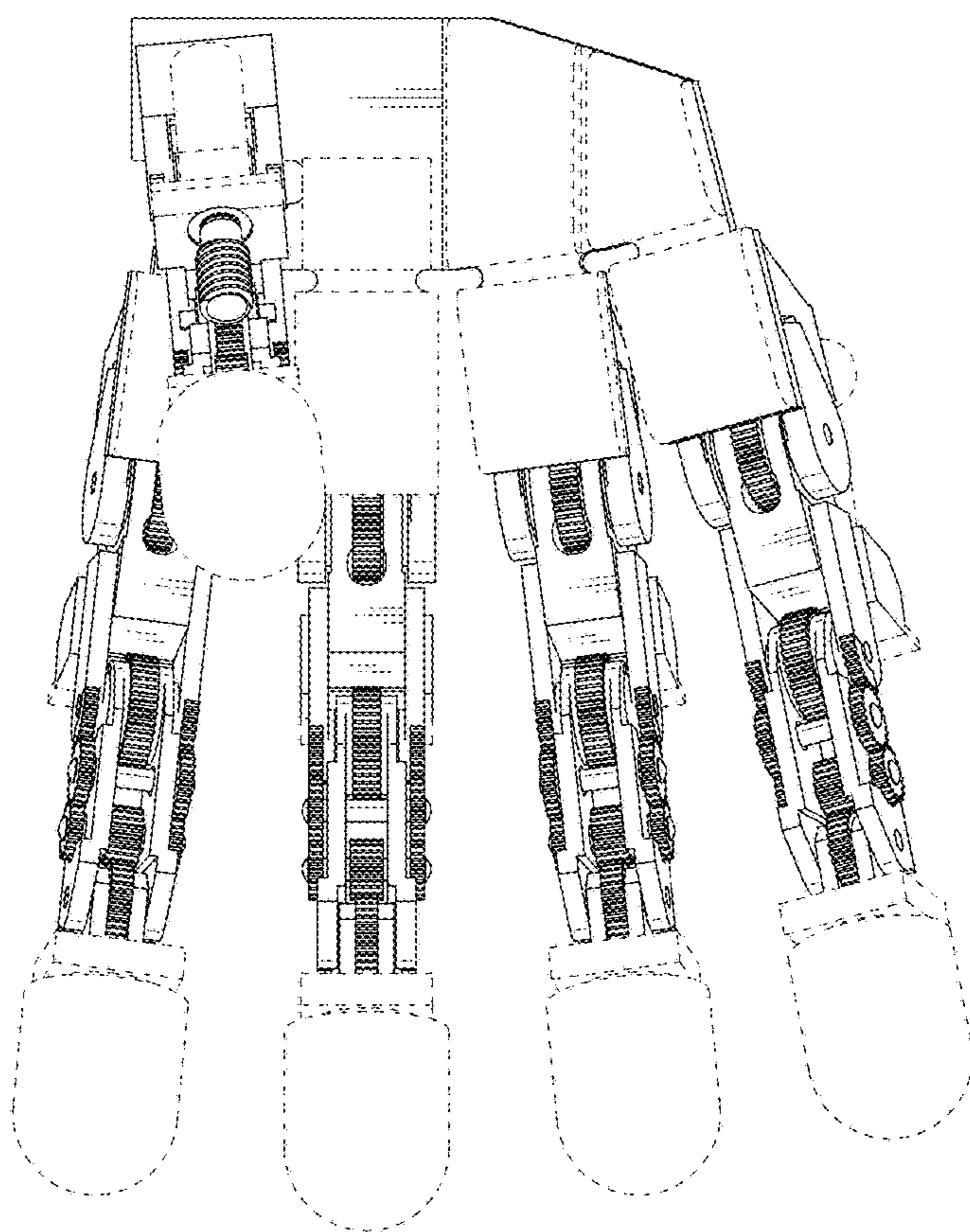


Fig. 9

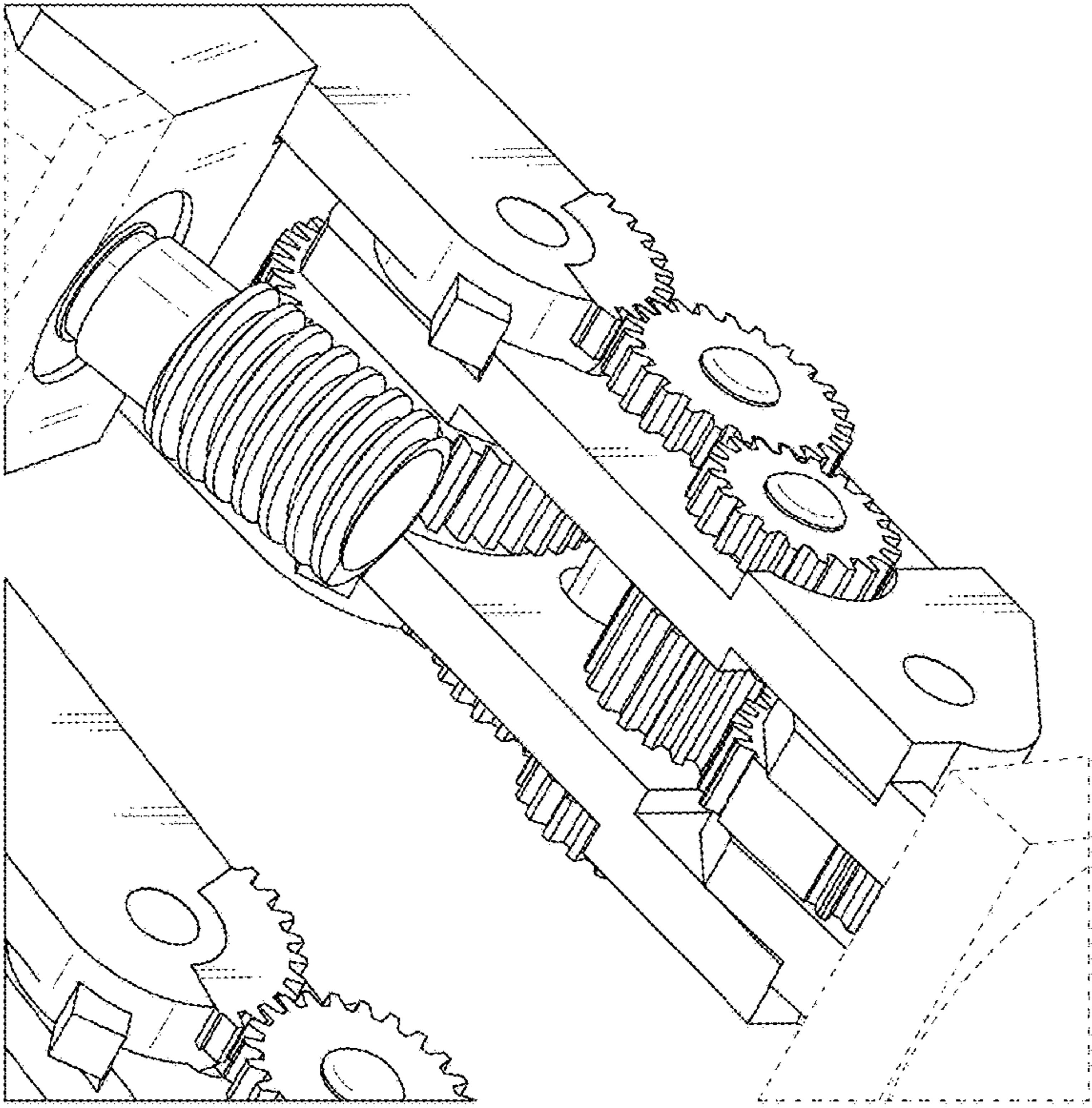


Fig. 10

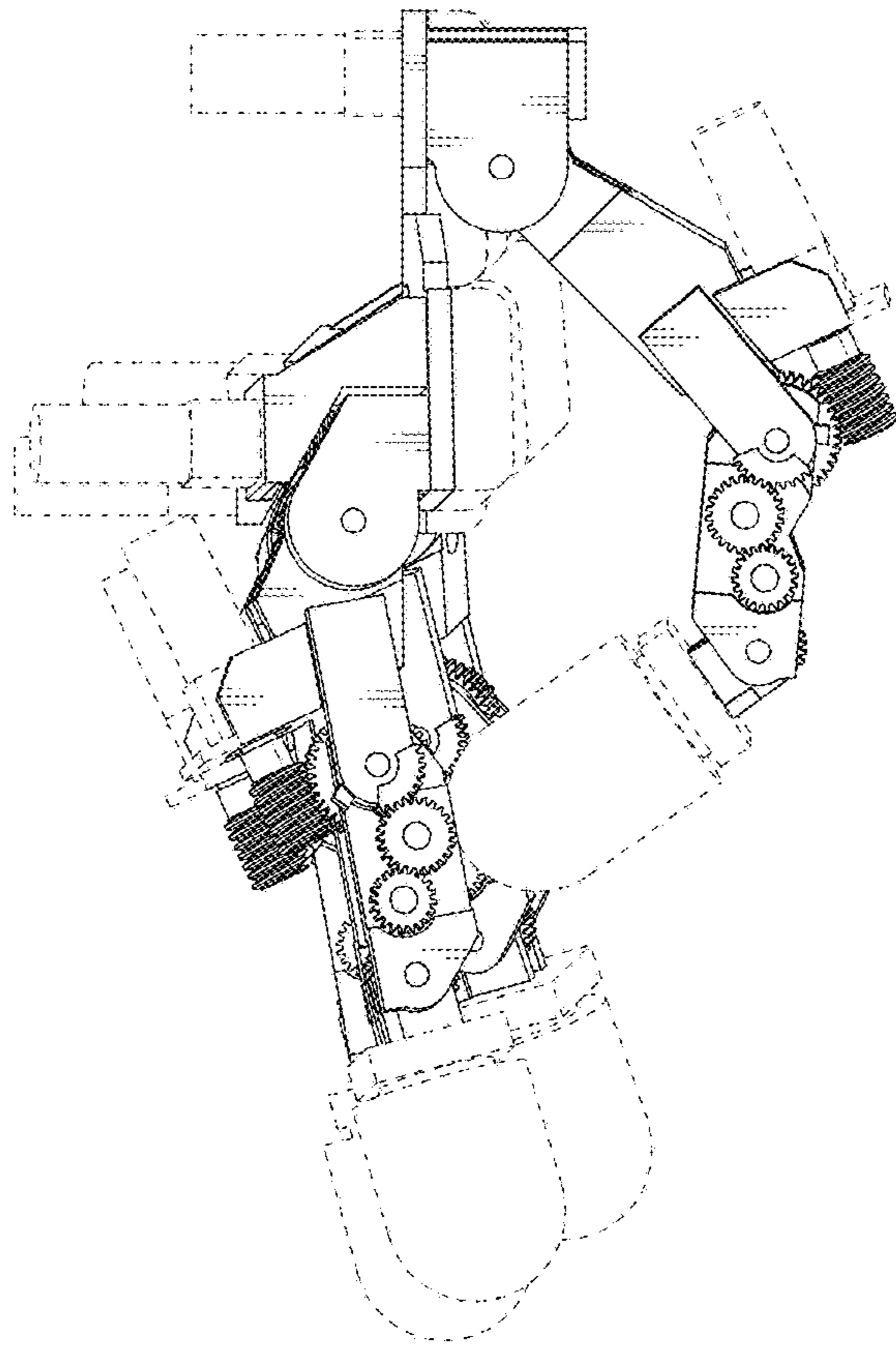


Fig. 11

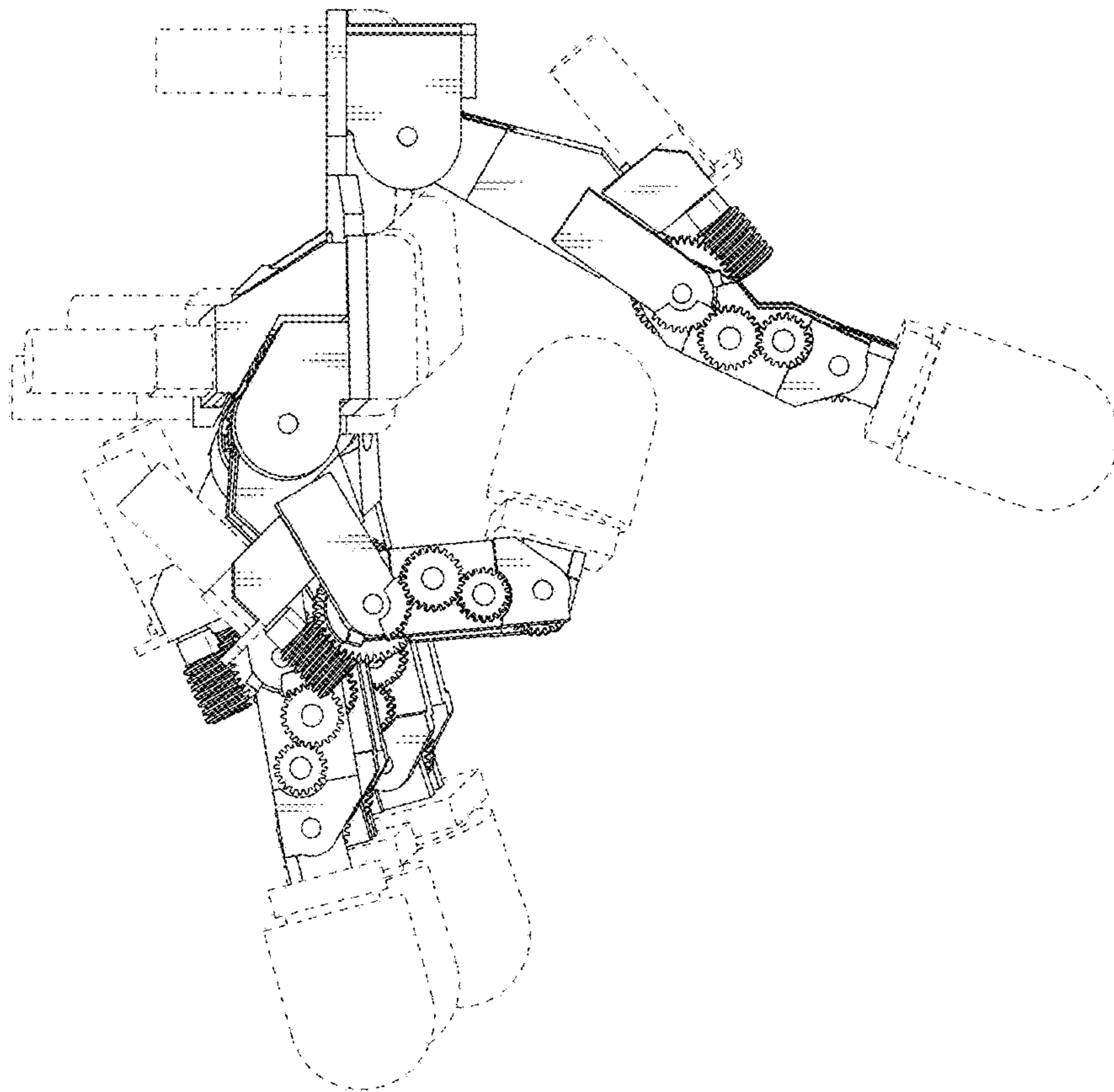


Fig. 12

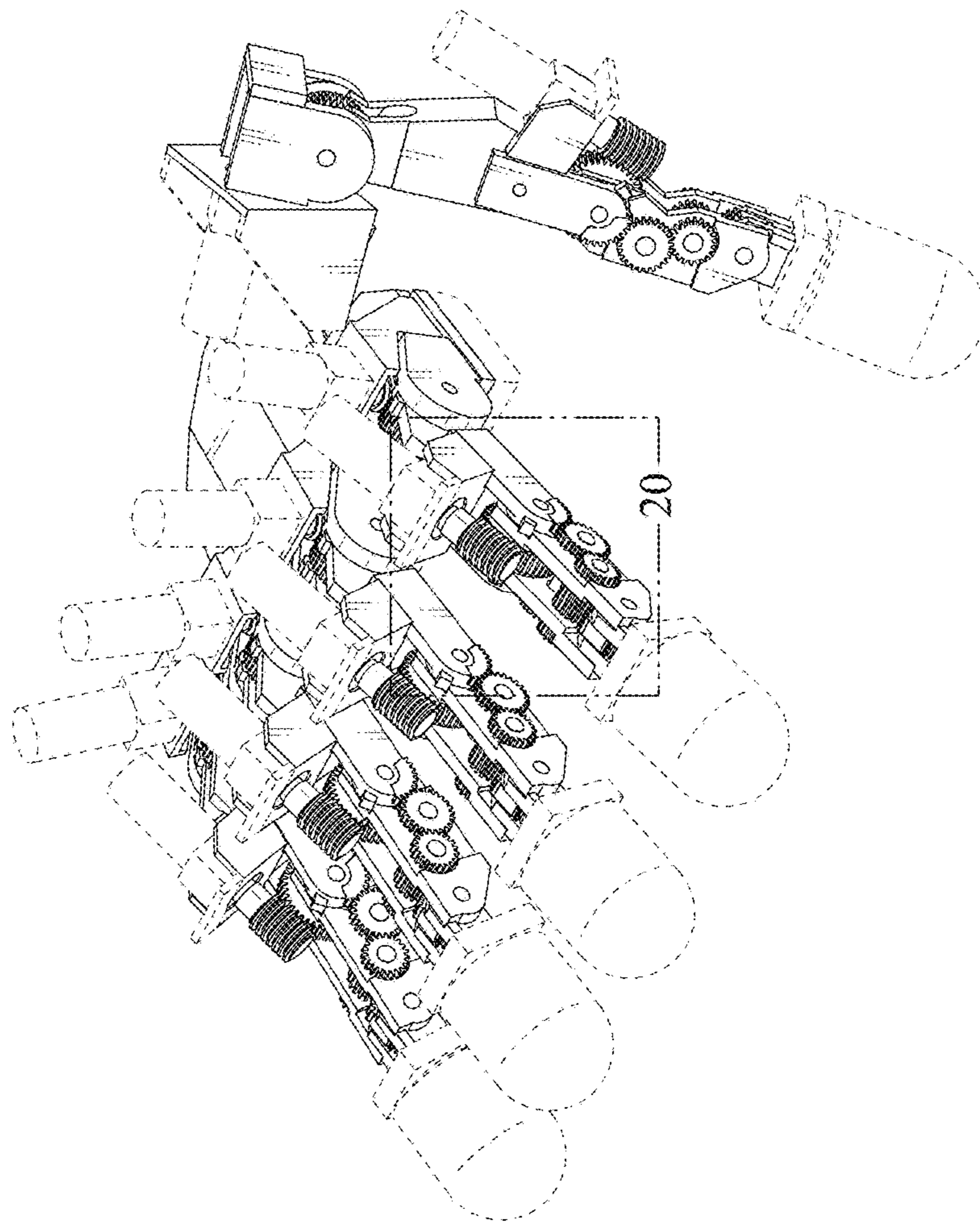


Fig. 13

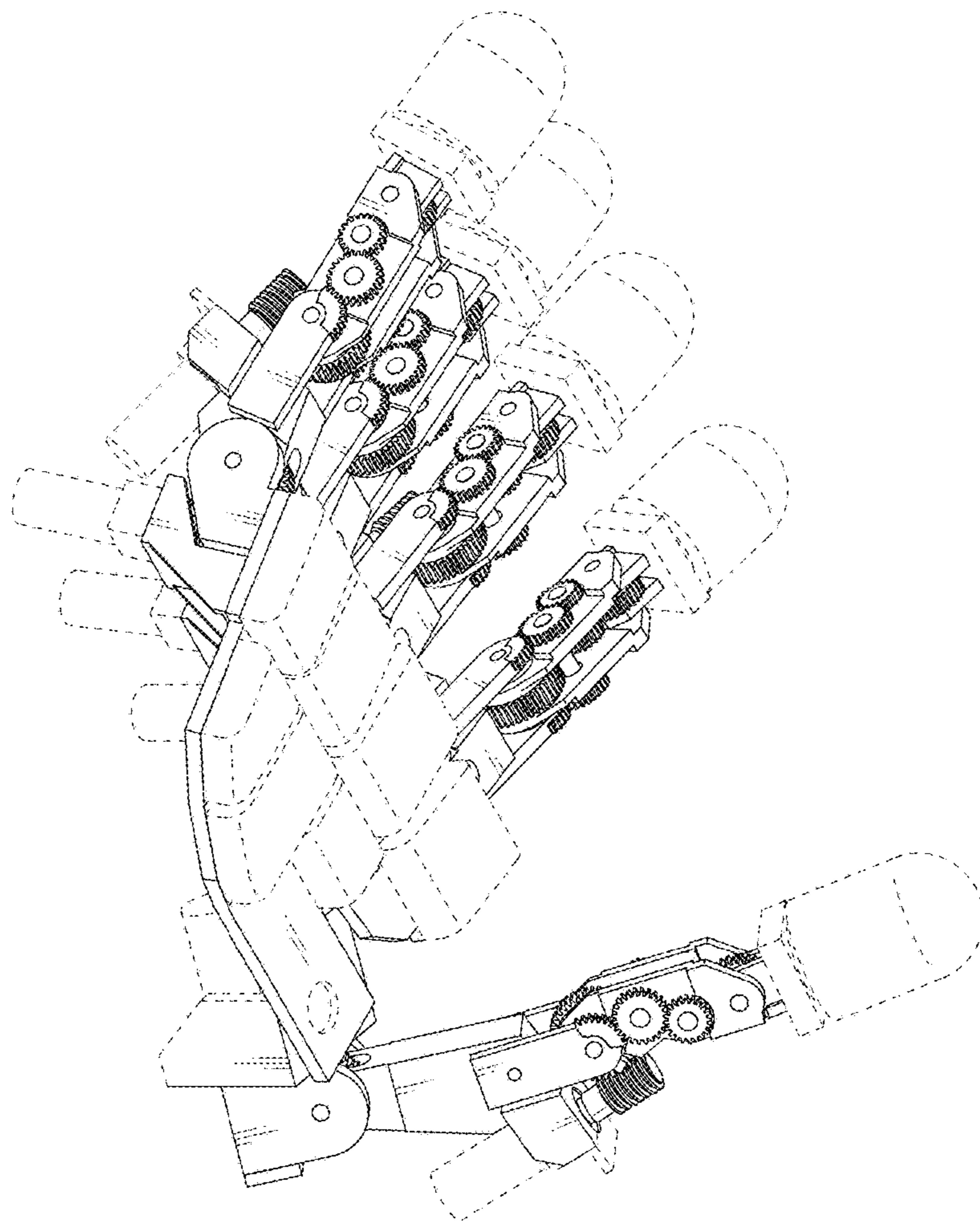


Fig. 14

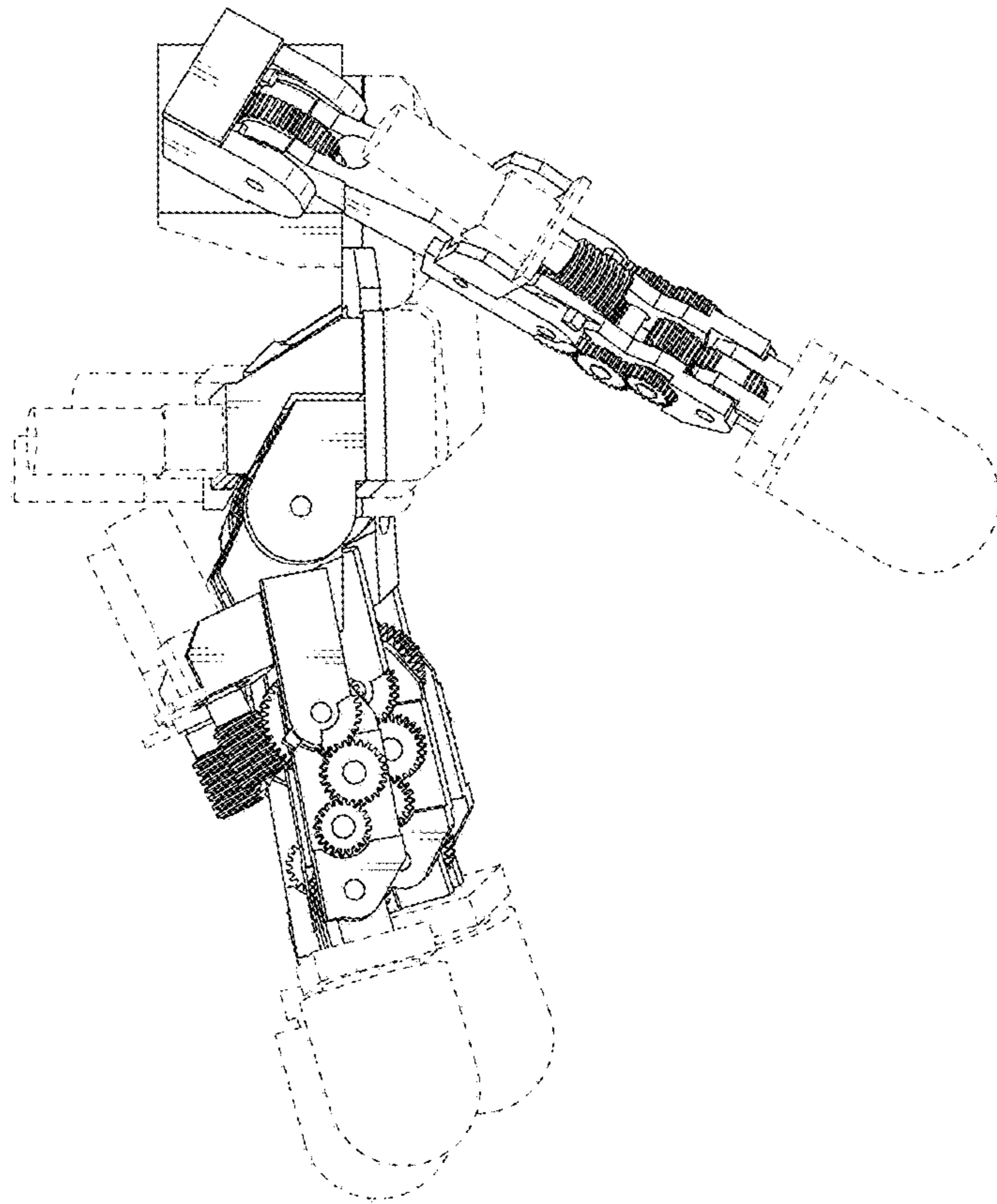


Fig.15

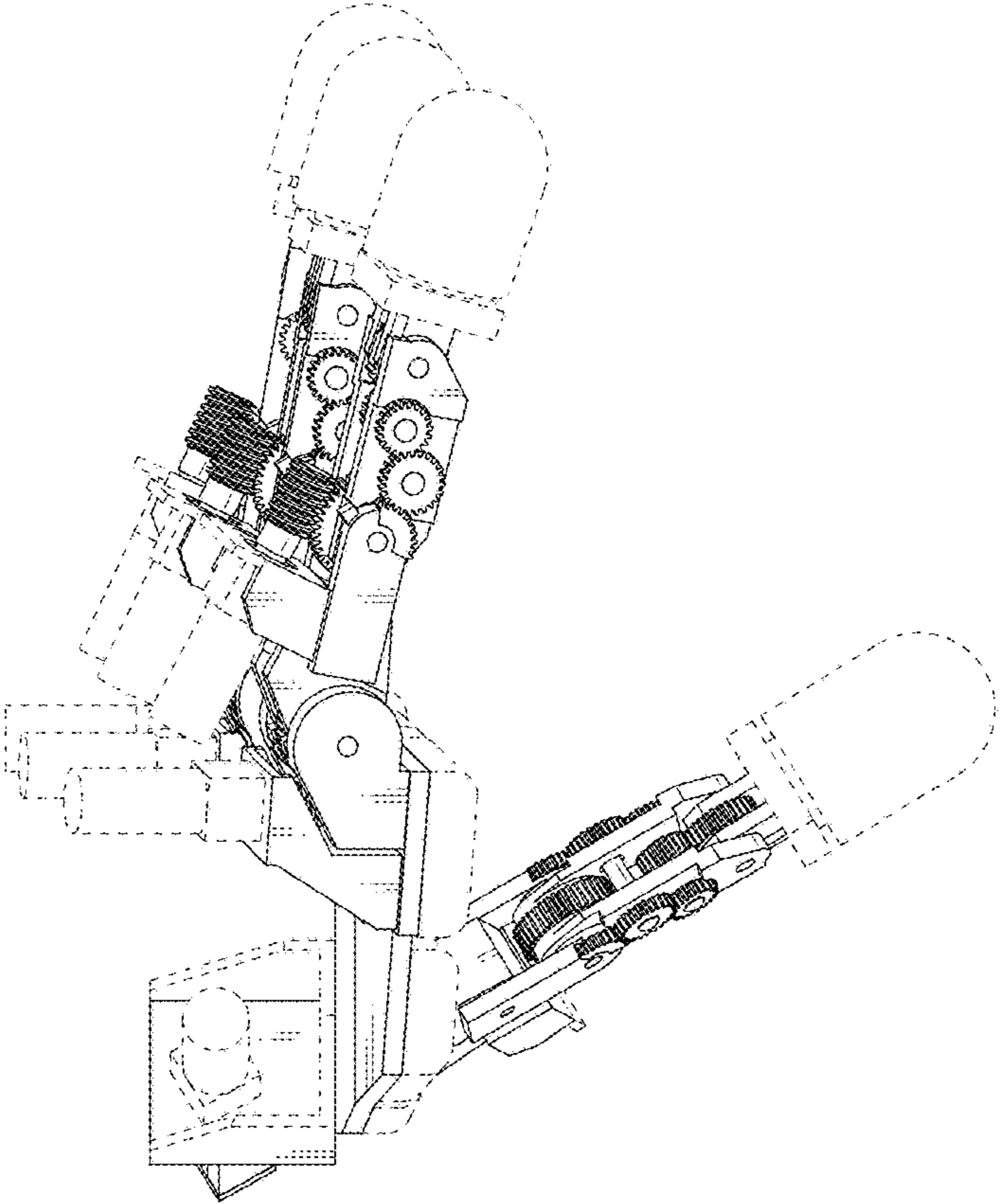


Fig. 16

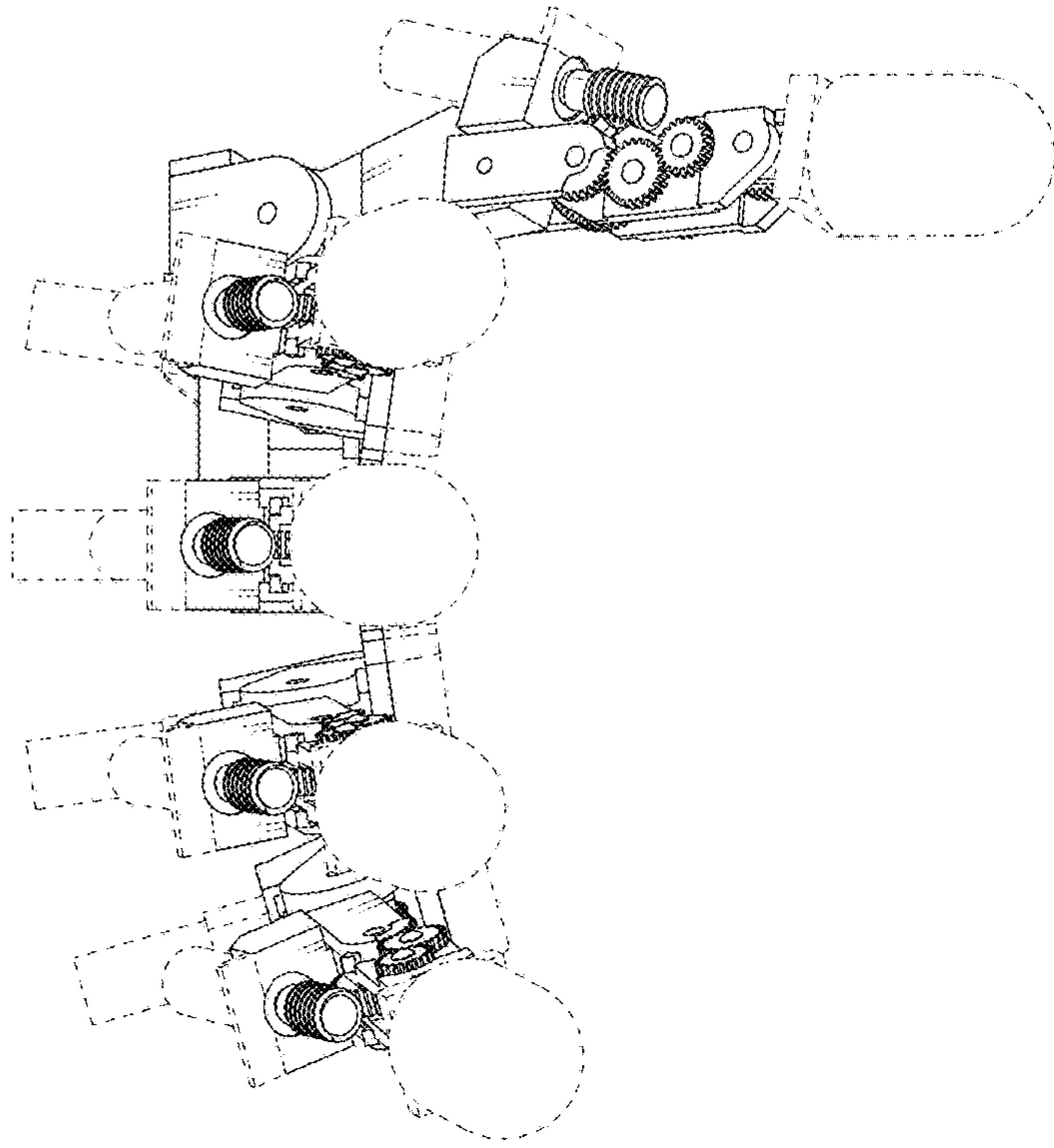


Fig. 17

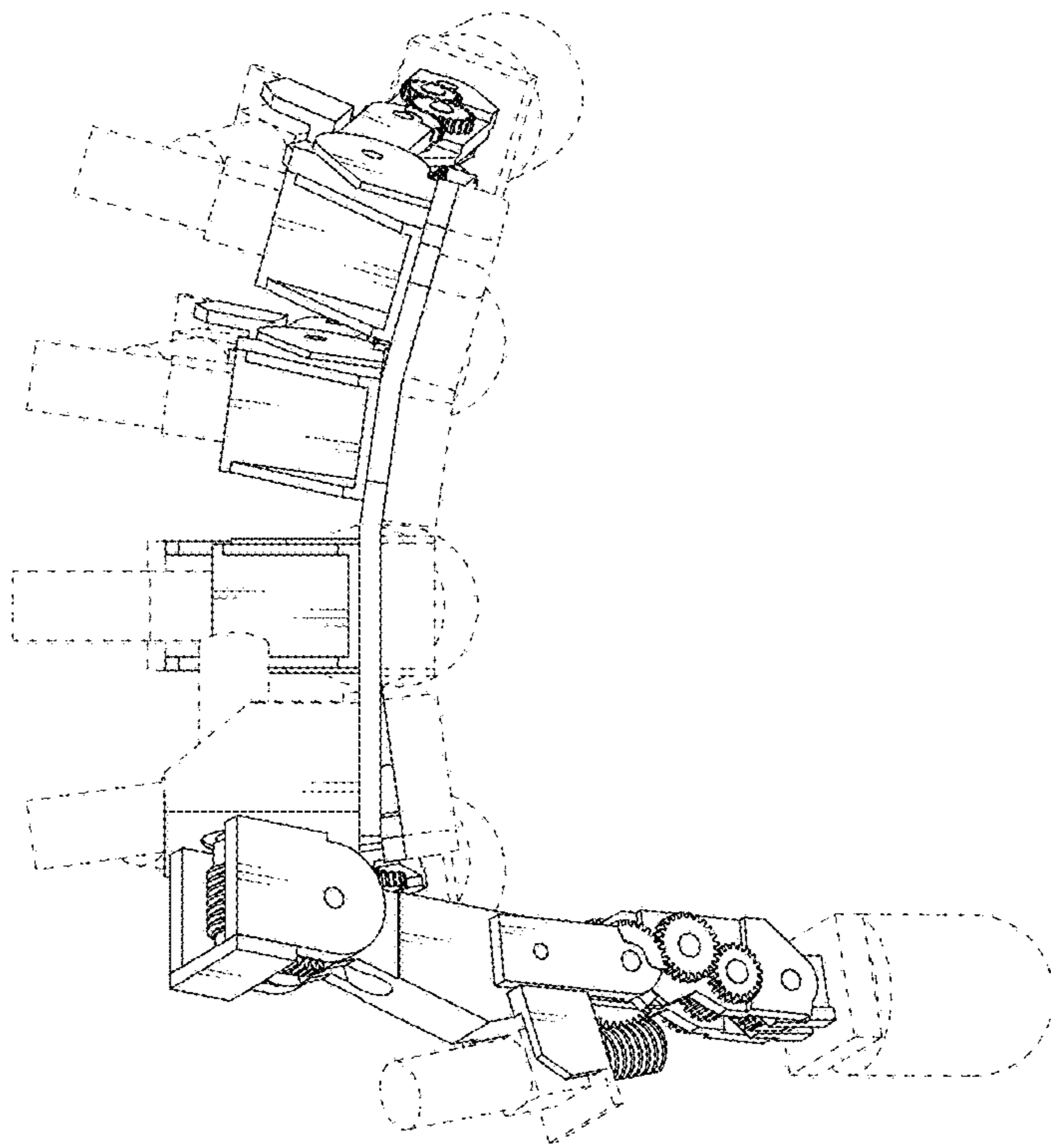


Fig. 18

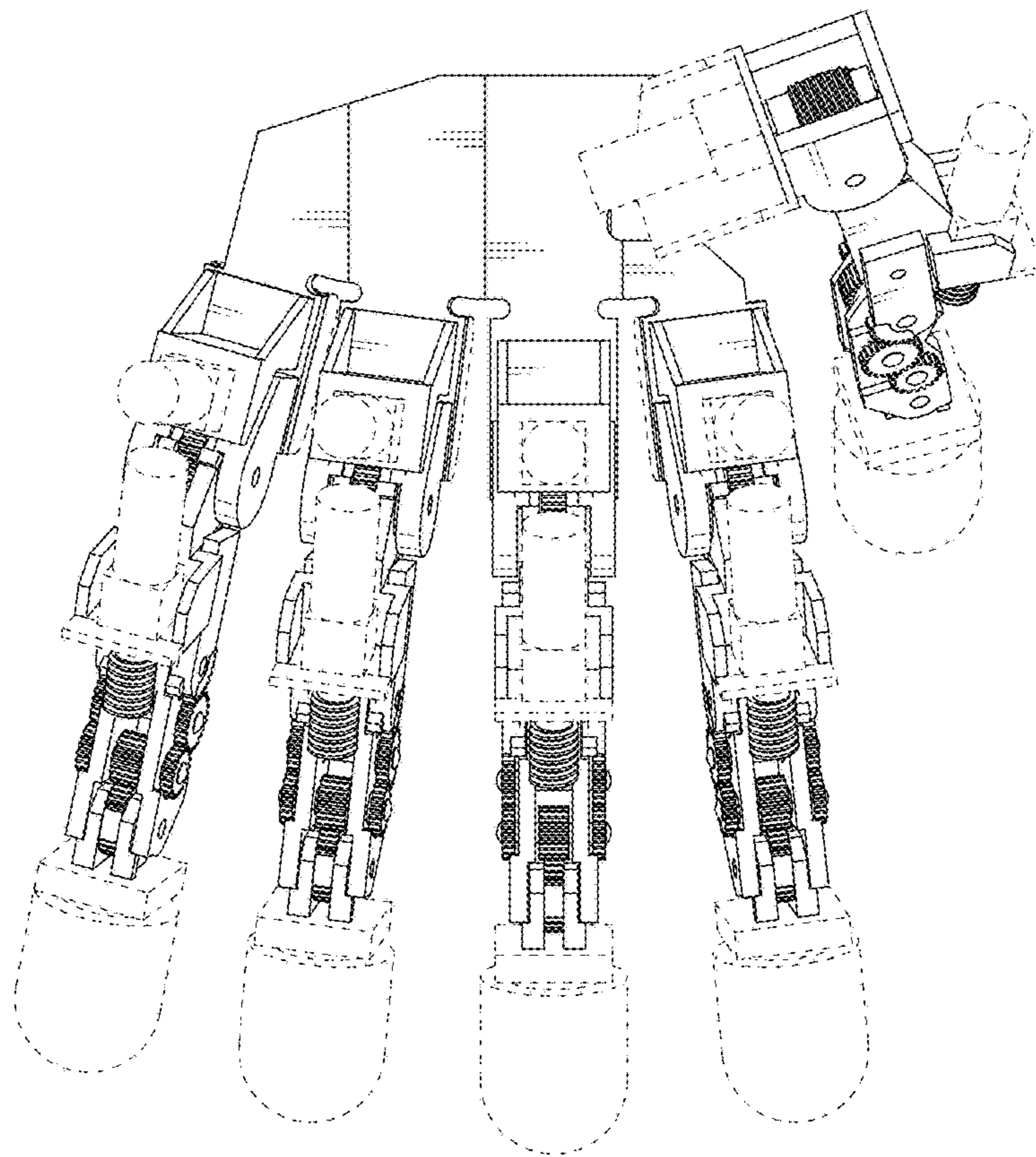


Fig. 19

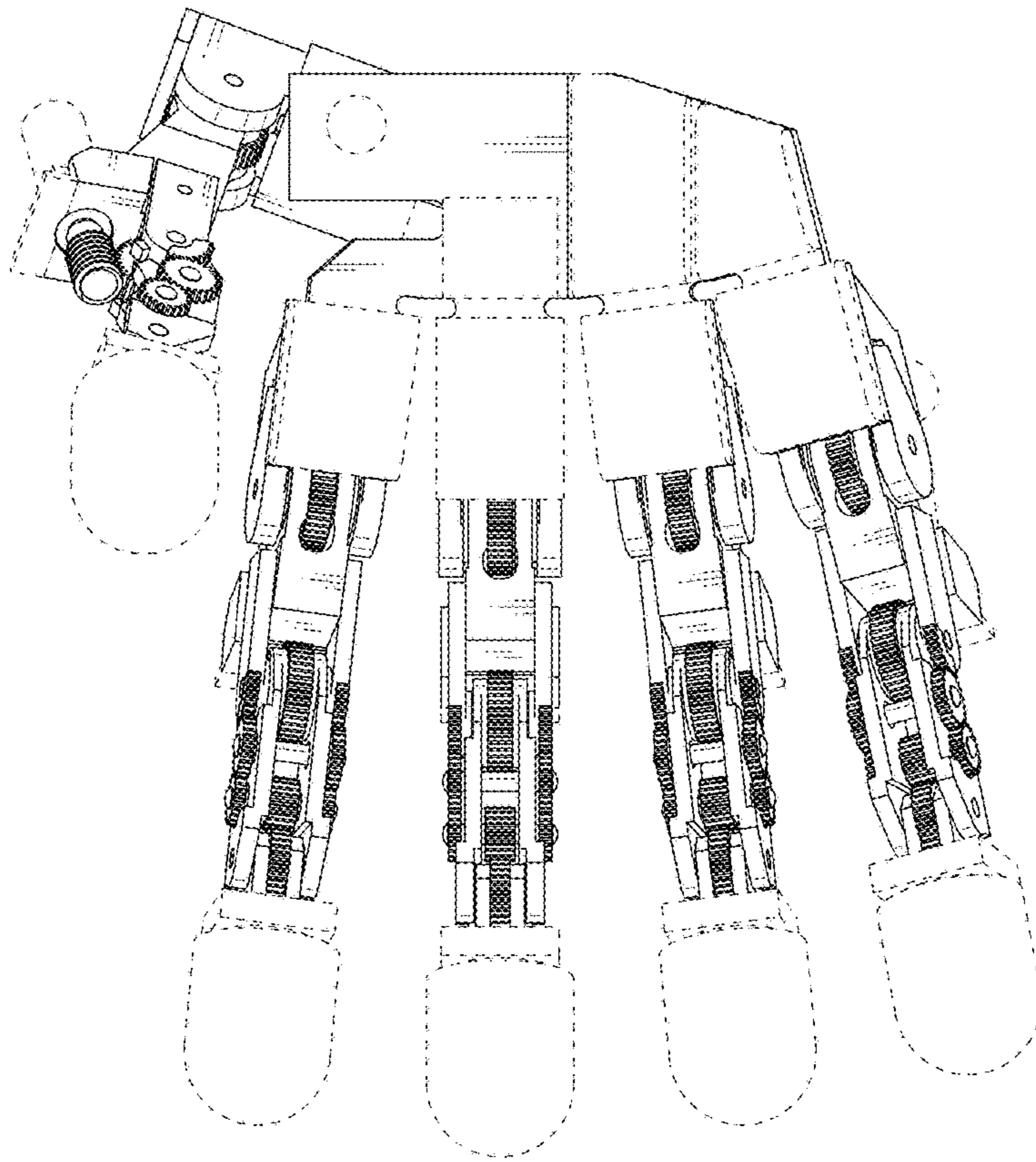


Fig. 20

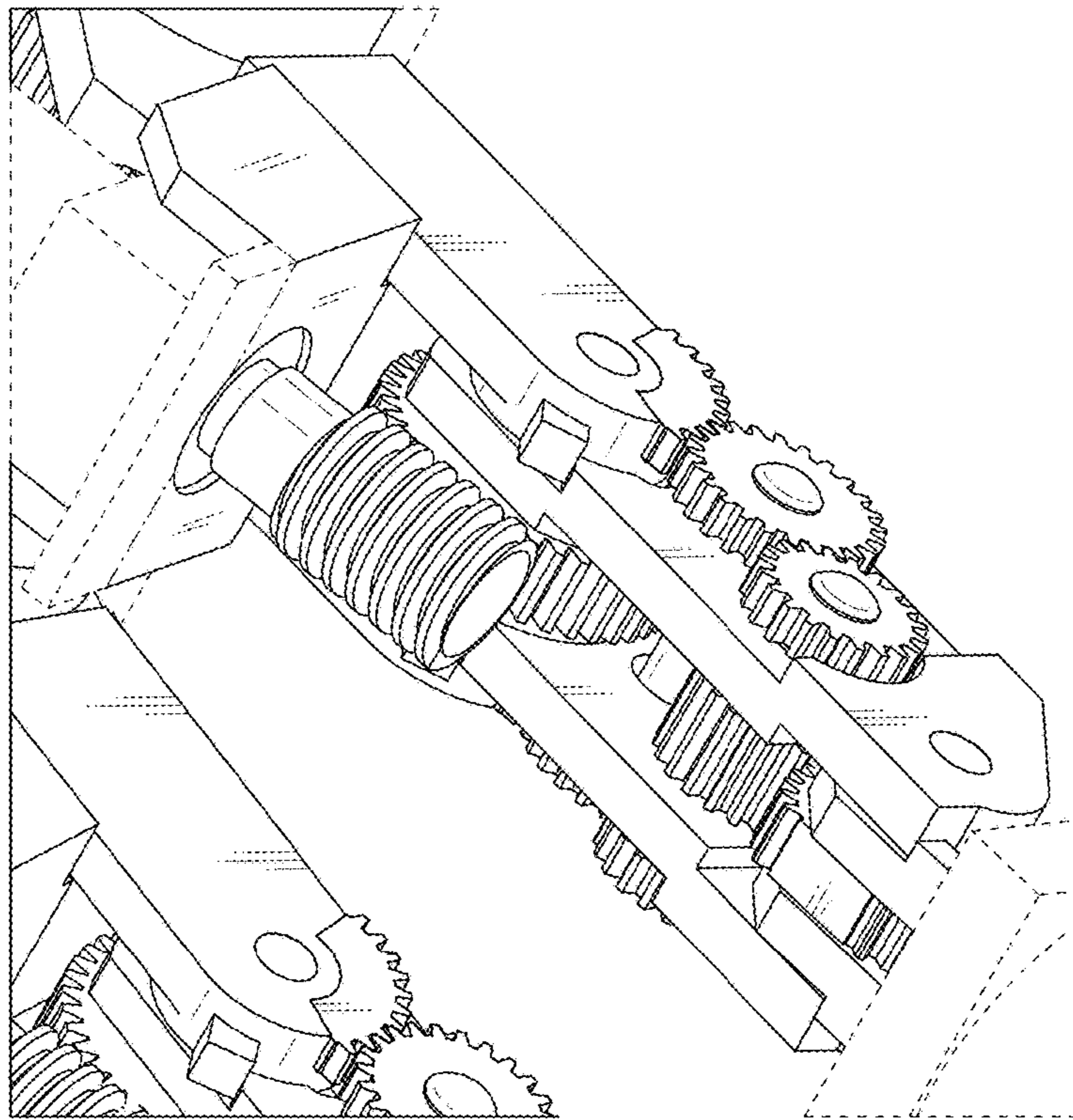


Fig. 21

