



US00D524335S

(12) **United States Design Patent** (10) **Patent No.:** **US D524,335 S**
Klinke et al. (45) **Date of Patent:** **** Jul. 4, 2006**

(54) **LINEAR ACTUATOR**

(75) Inventors: **Norbert Klinke**, Augustenborg (DK);
Christian Platz, Haderslev (DK)

(73) Assignee: **LINAK A/S**, Nordborg (DK)

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

(21) Appl. No.: **29/224,339**

(22) Filed: **Mar. 2, 2005**

Related U.S. Application Data

(62) Division of application No. 29/193,196, filed on Nov. 6, 2003, now Pat. No. Des. 509,520.

(30) **Foreign Application Priority Data**

May 6, 2003 (DK) DA 2003 00253

(51) **LOC (8) Cl.** **15-09**

(52) **U.S. Cl.** **D15/143**

(58) **Field of Classification Search** D15/143,
D15/148-149, 199; 74/89.15, 490.09; 310/20,
310/80; 414/560-569; 297/14, 325-327
See application file for complete search history.

(56) **References Cited**

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D412,918 S * 8/1999 Nagai et al. D15/149
D458,284 S * 6/2002 Landerholm et al. D15/143
D467,950 S * 12/2002 Christensen et al. D15/199
6,756,707 B1 * 6/2004 Hochhalter et al. 310/20

* cited by examiner

Primary Examiner—Antoine D. Davis

(74) *Attorney, Agent, or Firm*—Dykema Gossett PLLC

(57) **CLAIM**

The ornamental design for a linear actuator, as shown and described.

DESCRIPTION

FIG. 1 is a top perspective view of a first embodiment of linear actuator according to the present invention when in a retracted state,

FIG. 2 is a bottom perspective view thereof,

FIG. 3 is an elevational right side view thereof,

FIG. 4 is an elevational front view thereof,

FIG. 5 is an elevational left side view thereof,

FIG. 6 is an elevational rear view thereof,

FIG. 7 is a top plan view thereof,

FIG. 8 is a bottom plan view thereof,

FIGS. 9-16 are views that correspond to FIGS. 1-8 when the linear actuator is in an extended state,

FIG. 17 is a top perspective view of a second embodiment of linear actuator according to the present invention when in a retracted state,

FIG. 18 is a bottom perspective view thereof,

FIG. 19 is an elevational right side view thereof,

FIG. 20 is an elevational front view thereof,

FIG. 21 is an elevational left side view thereof,

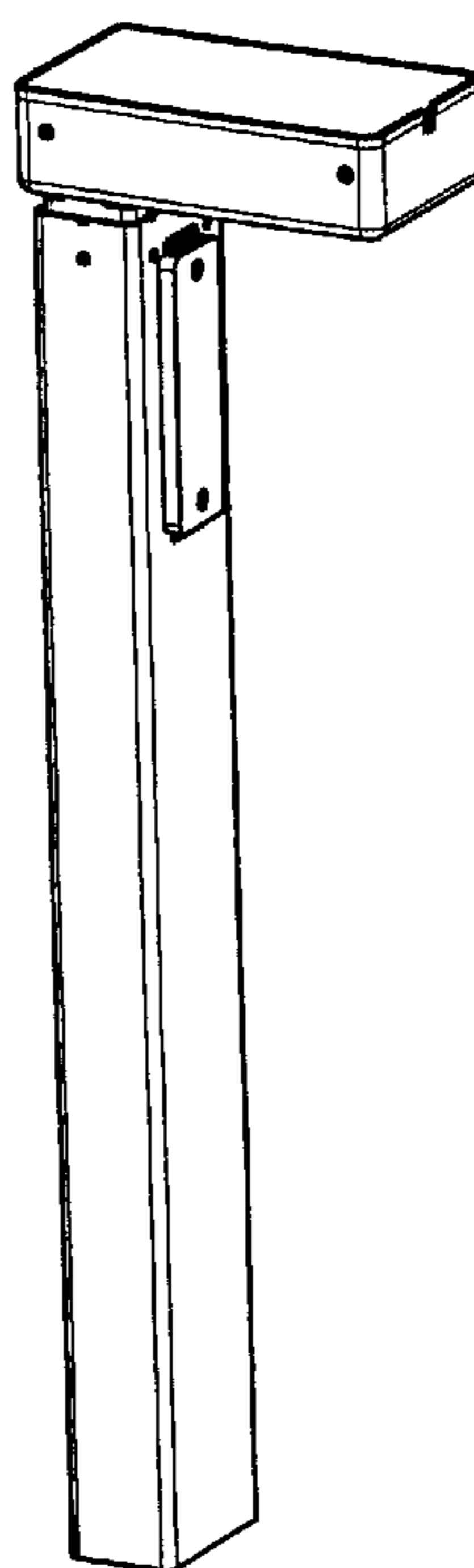
FIG. 22 is an elevational rear view thereof,

FIG. 23 is a top plan view thereof,

FIG. 24 is a bottom plan view thereof; and,

FIGS. 25-32 are views that correspond to FIGS. 17-24 when the linear actuator is in an extended state.

1 Claim, 8 Drawing Sheets



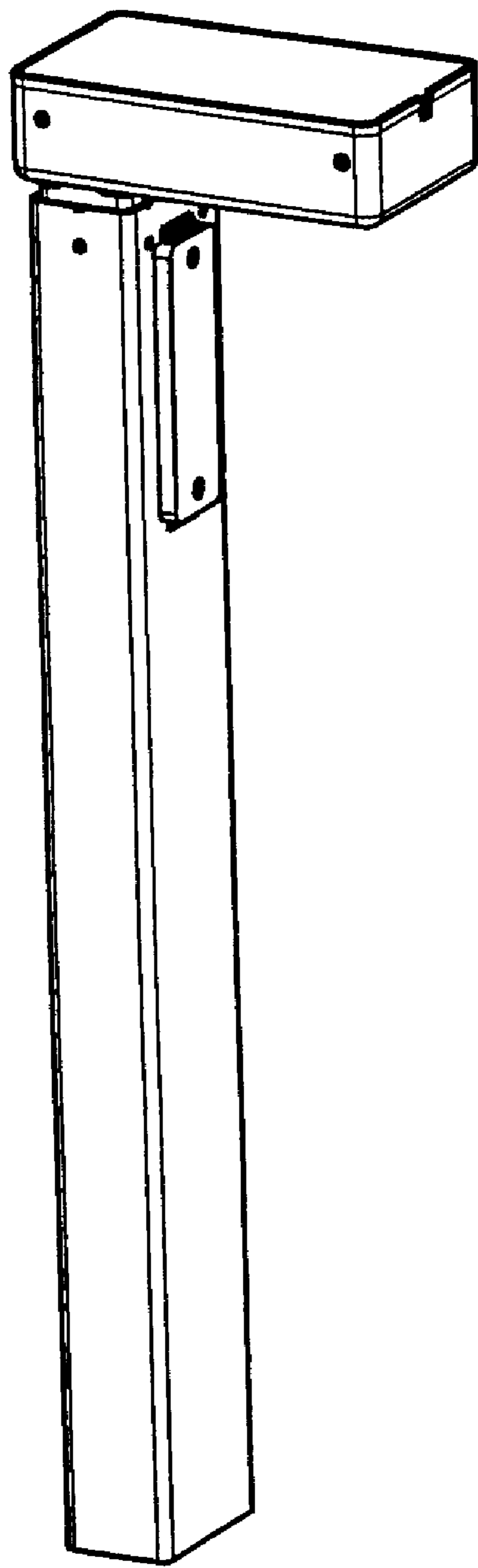


FIG. 1

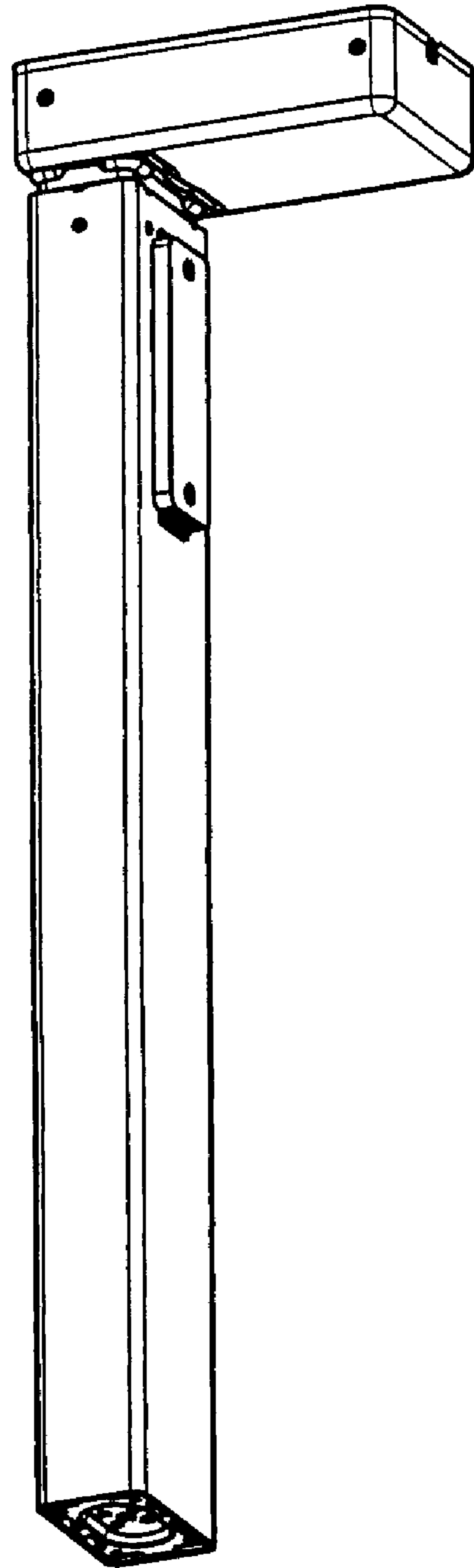


FIG. 2

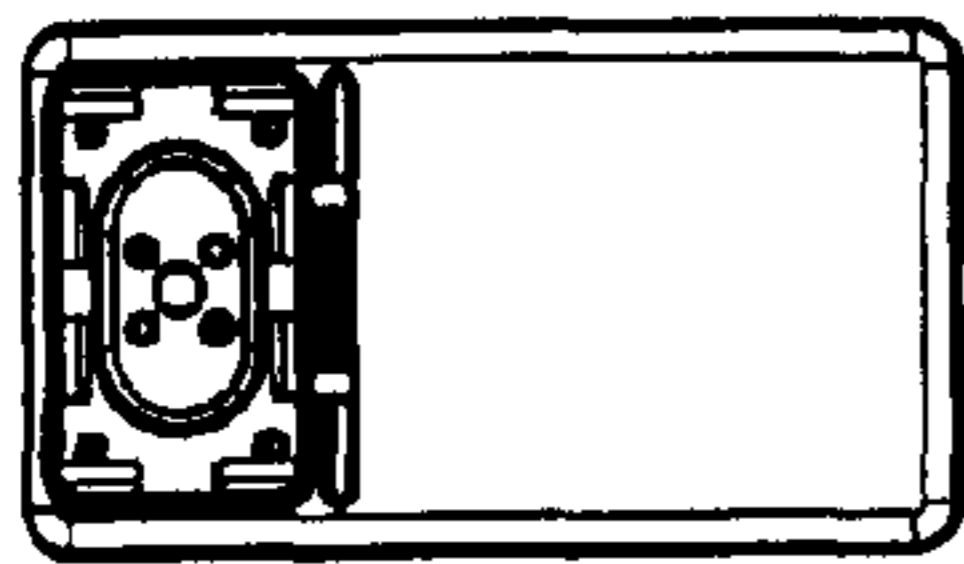


FIG. 8

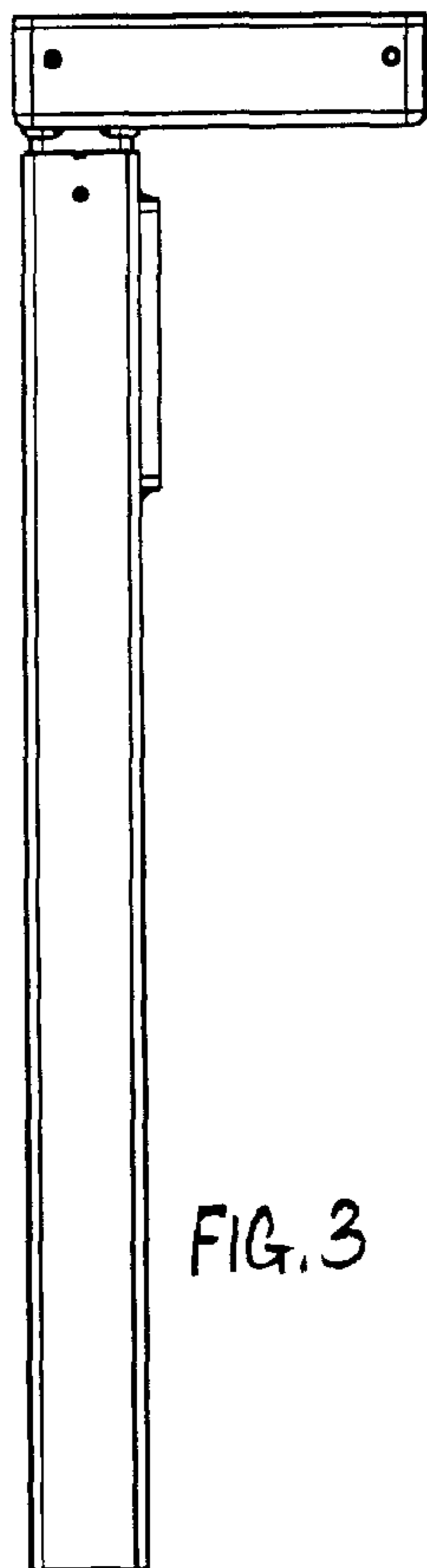


FIG. 3

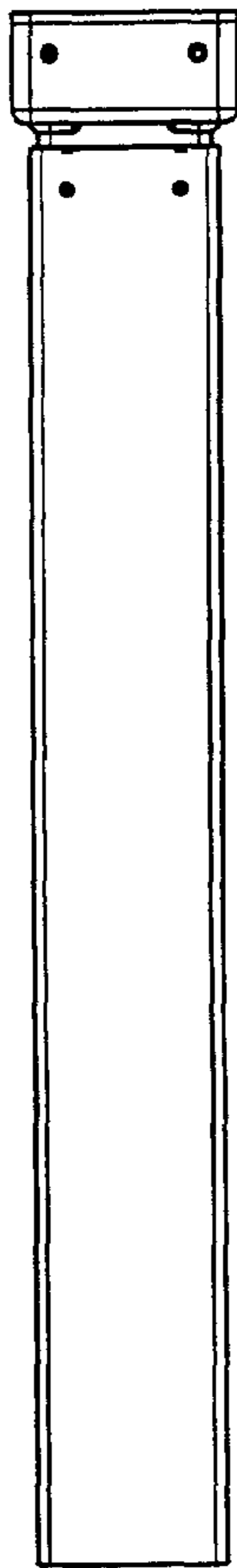


FIG. 4

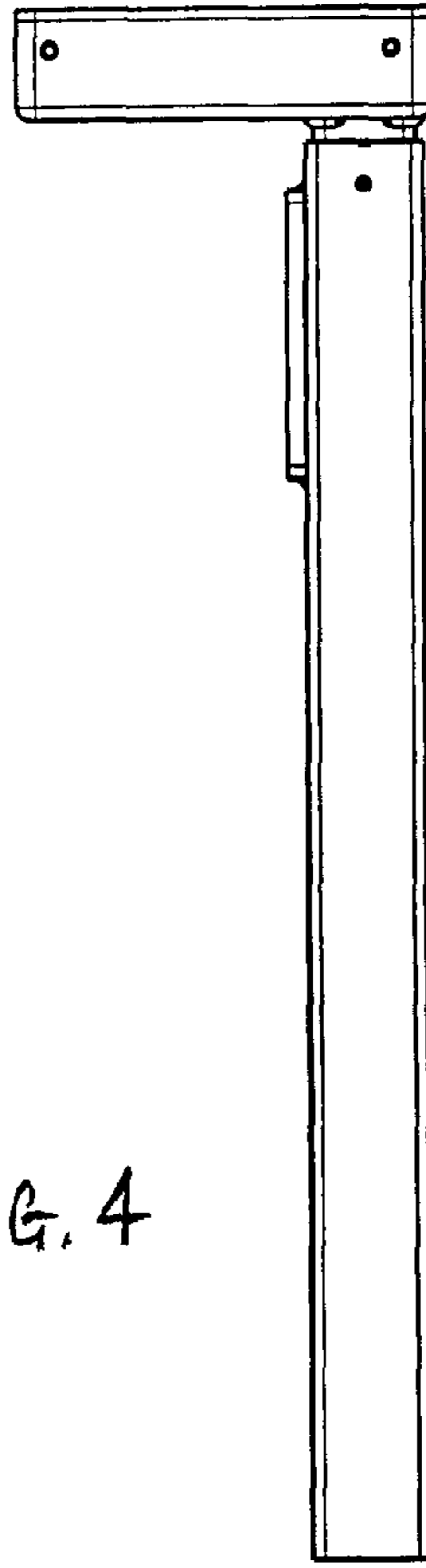


FIG. 5

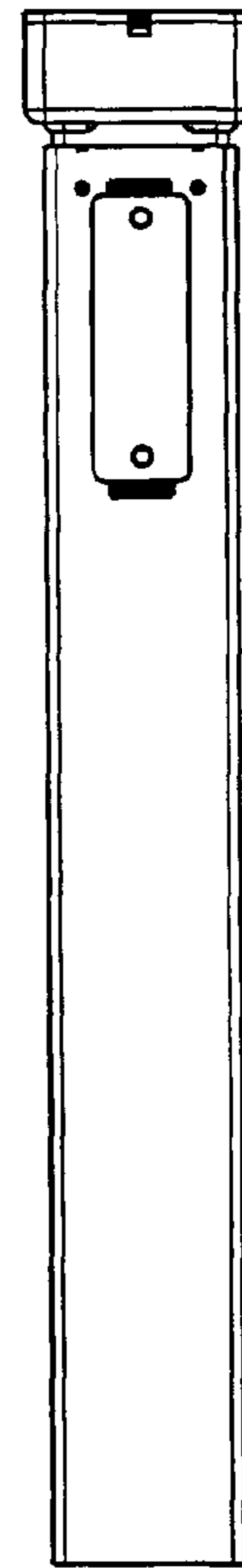


FIG. 6



FIG. 7

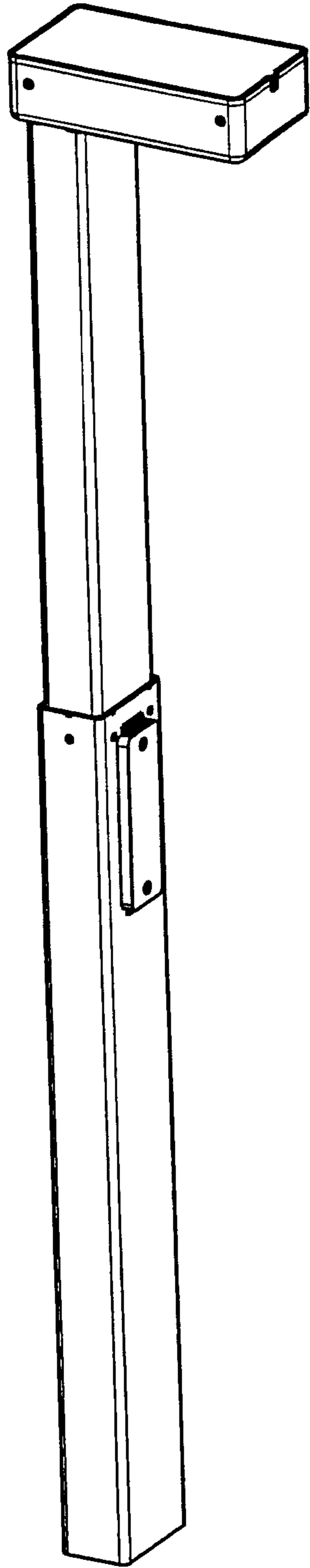


FIG. 9

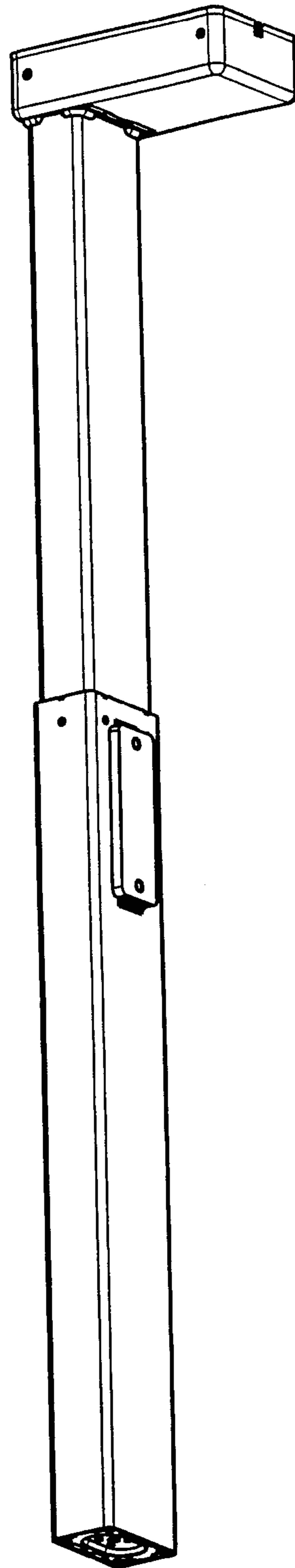


FIG. 10

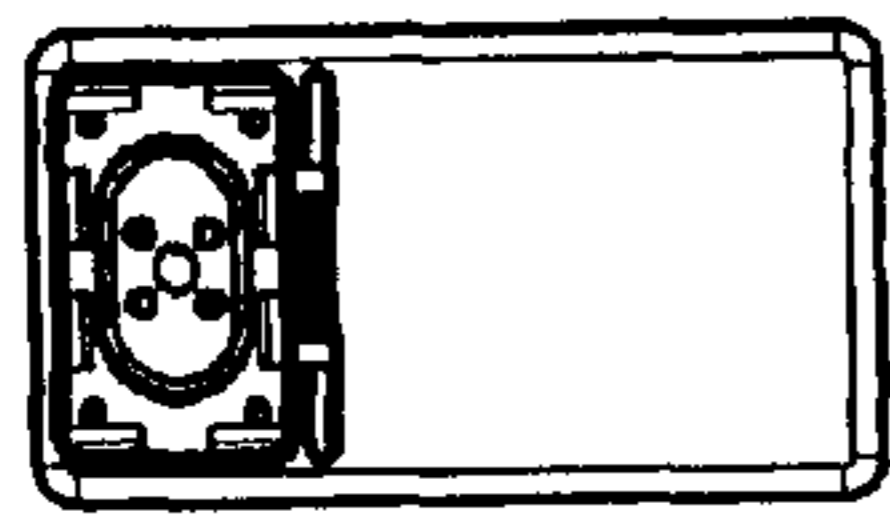


FIG. 16

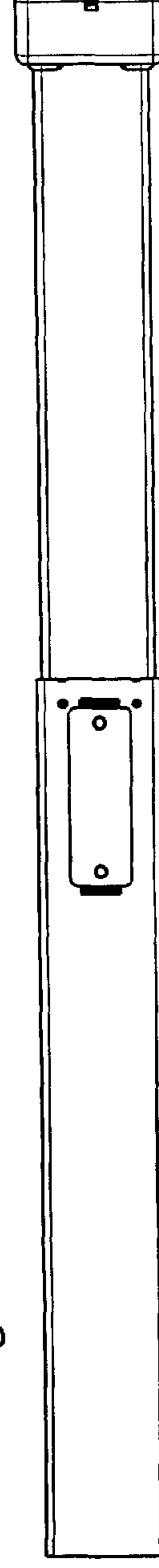
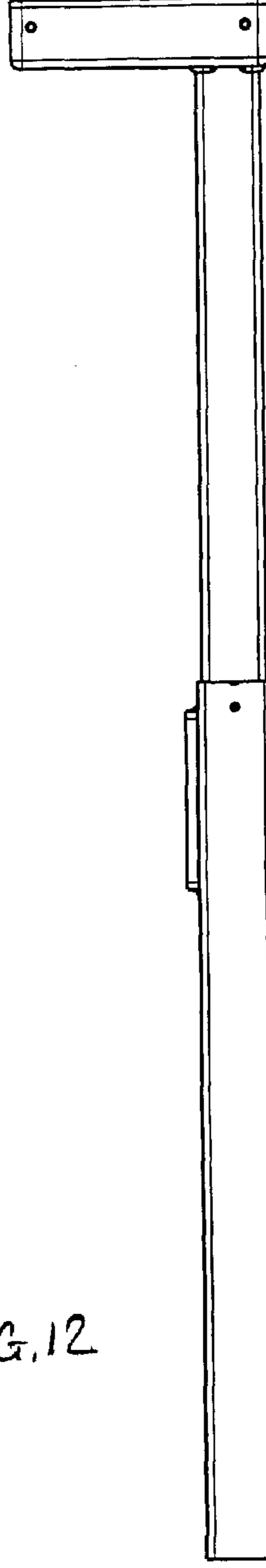
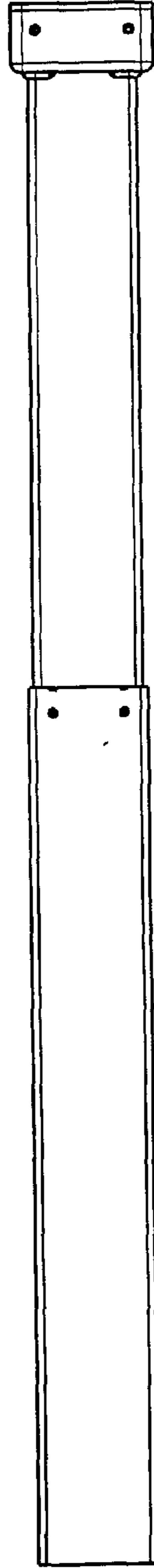
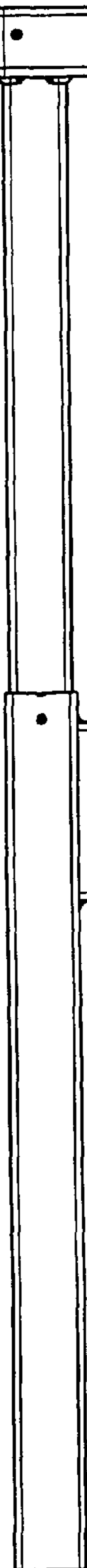
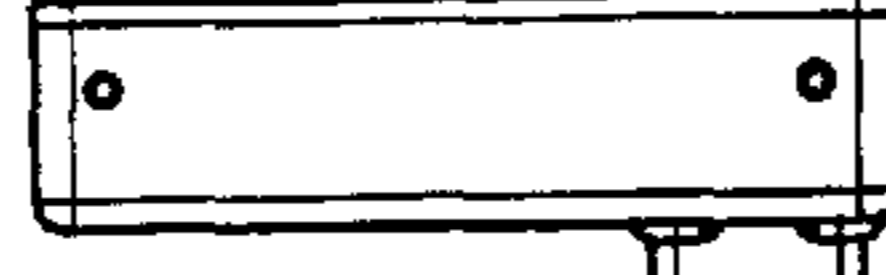
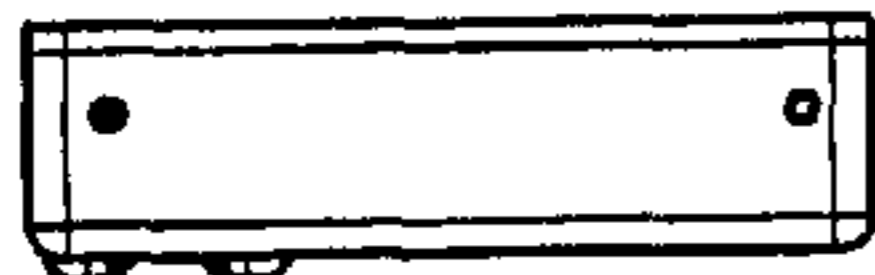


FIG. 11

FIG. 12

FIG. 13

FIG. 14



FIG. 15

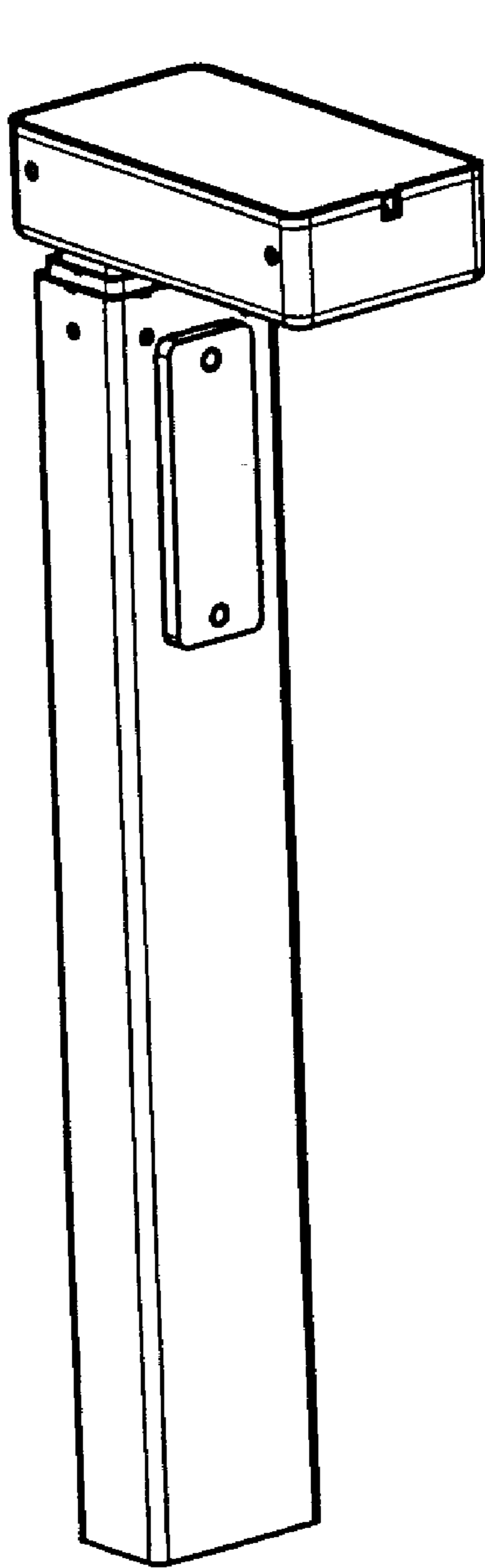


FIG. 17

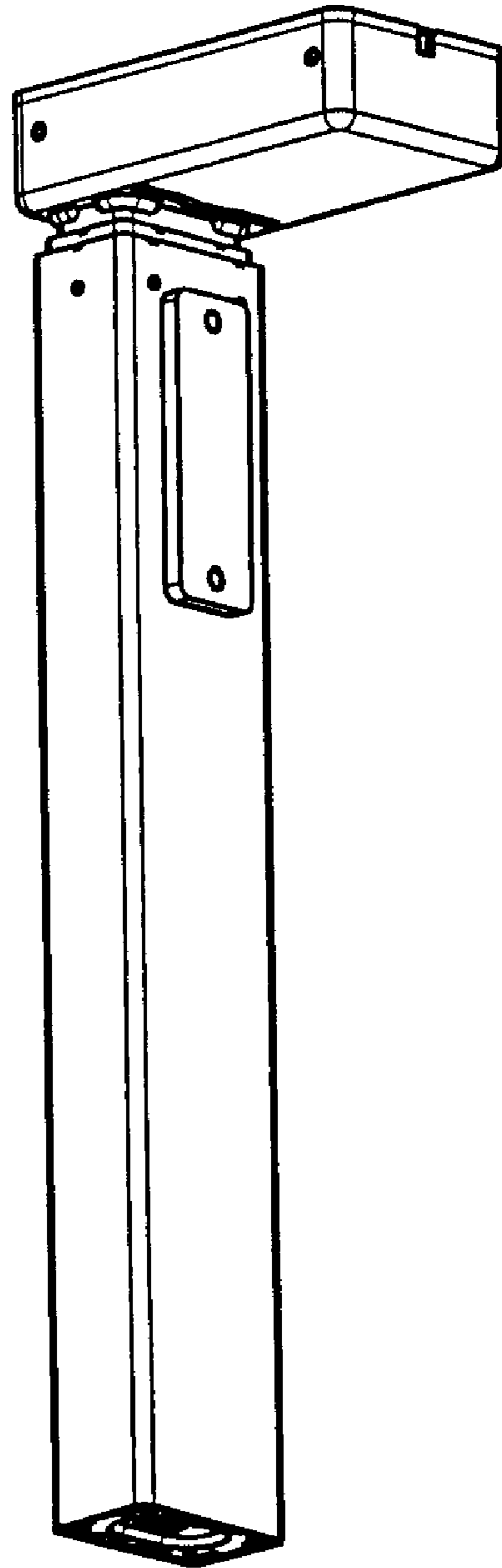


FIG. 18

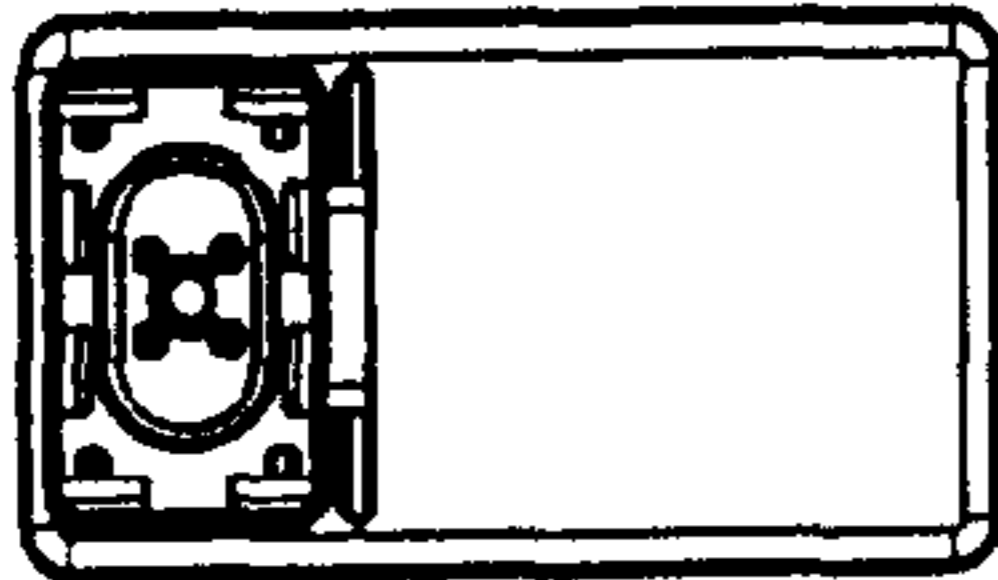


FIG. 24

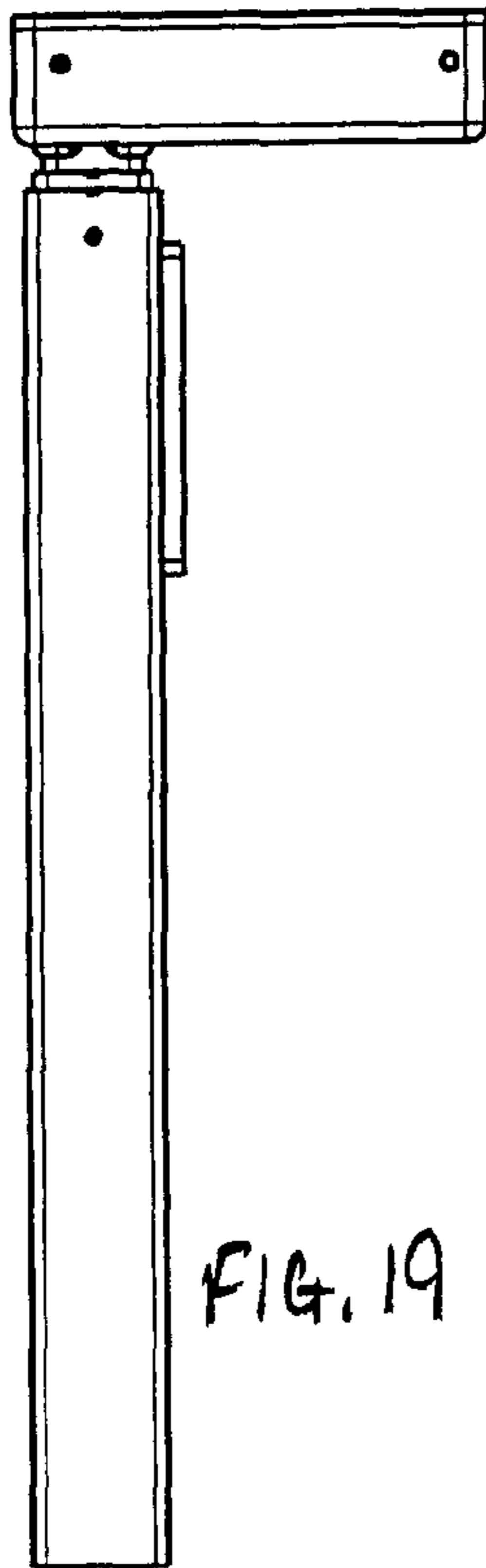


FIG. 19

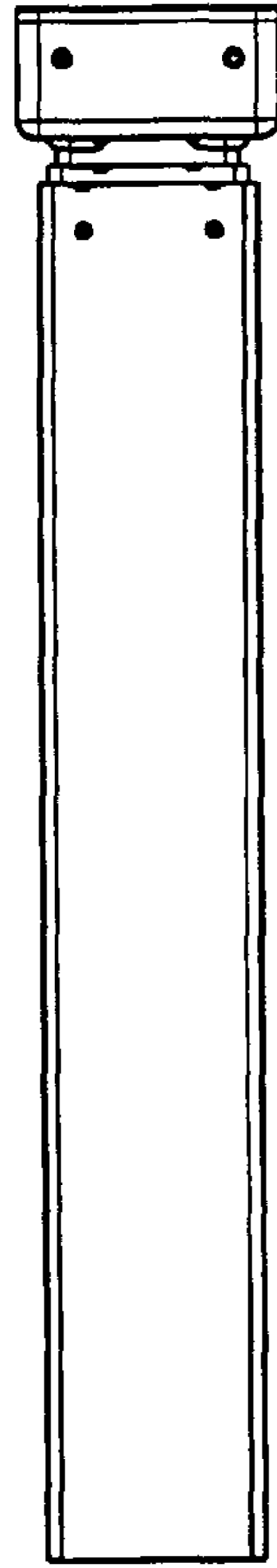


FIG. 20

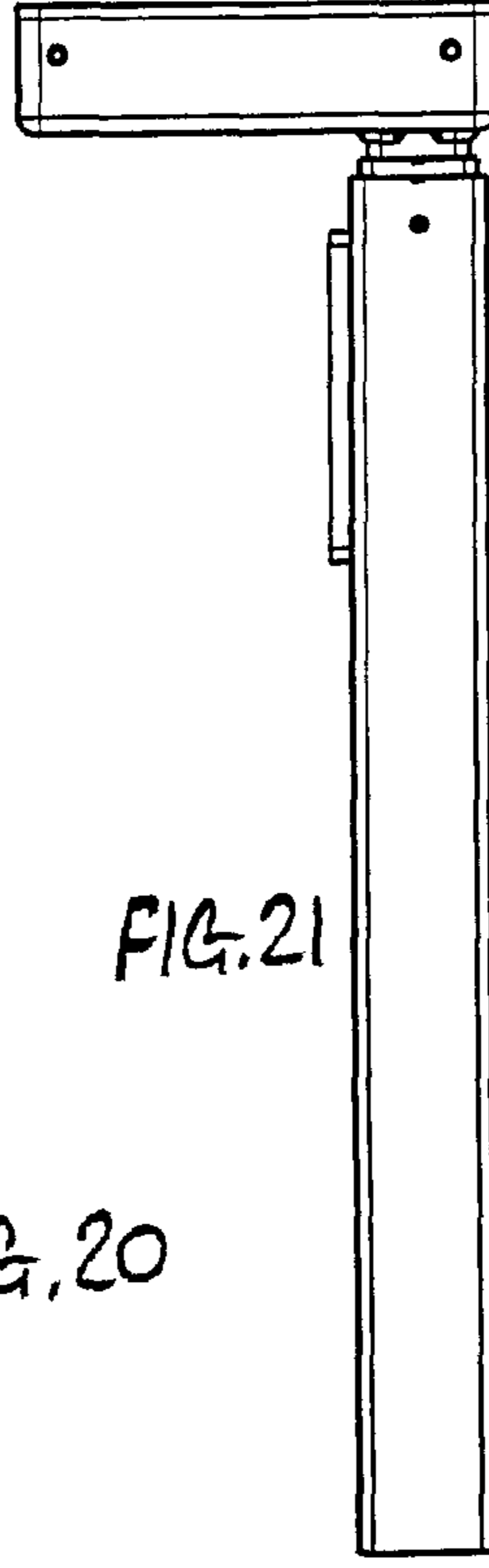


FIG. 21

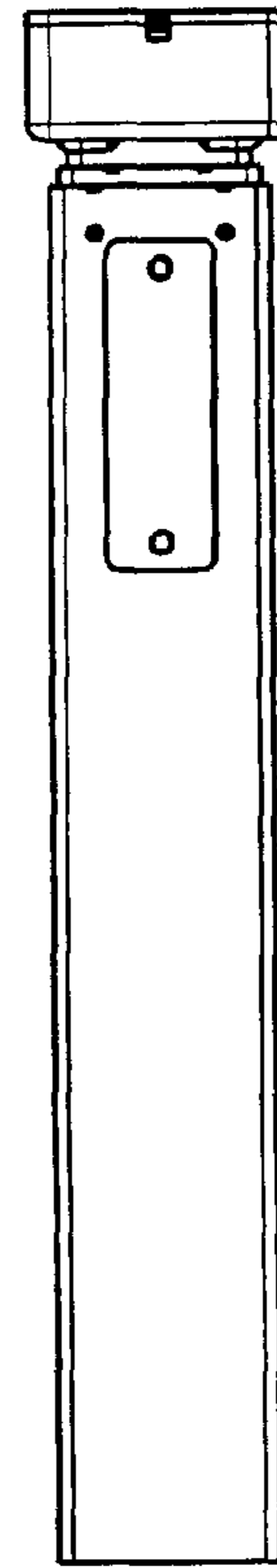


FIG. 22



FIG. 23

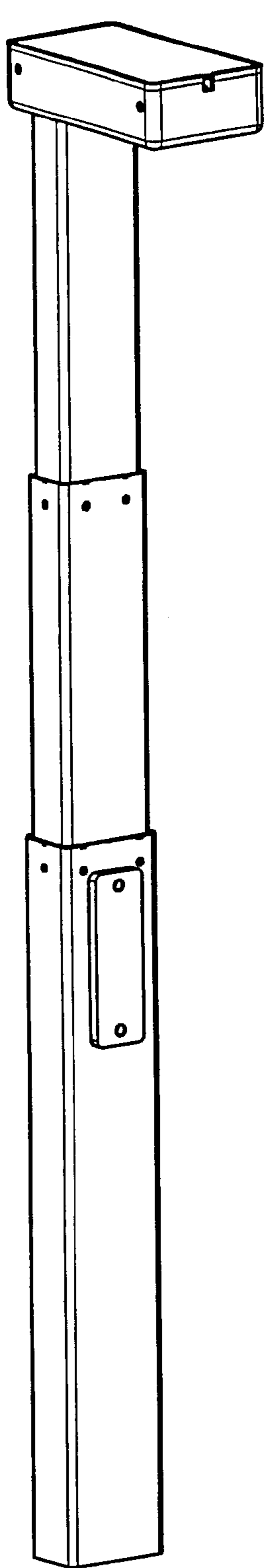


FIG. 25

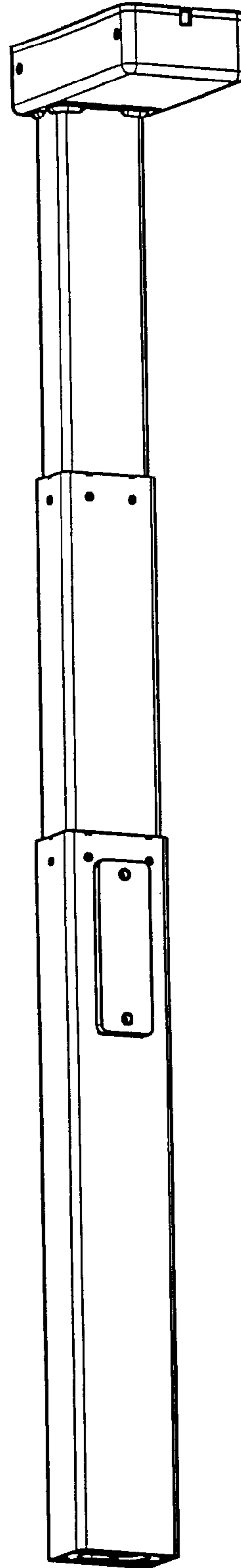


FIG. 26

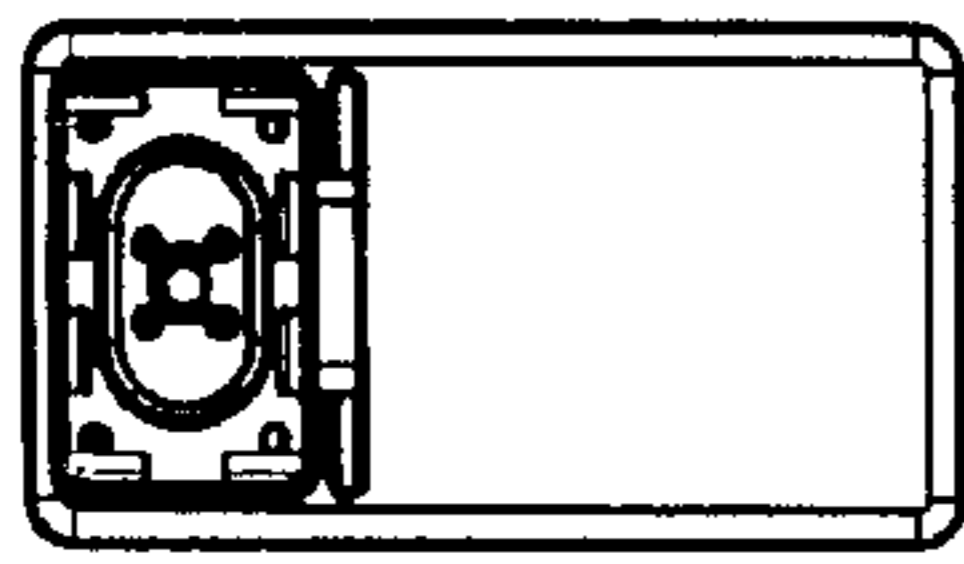


FIG. 32

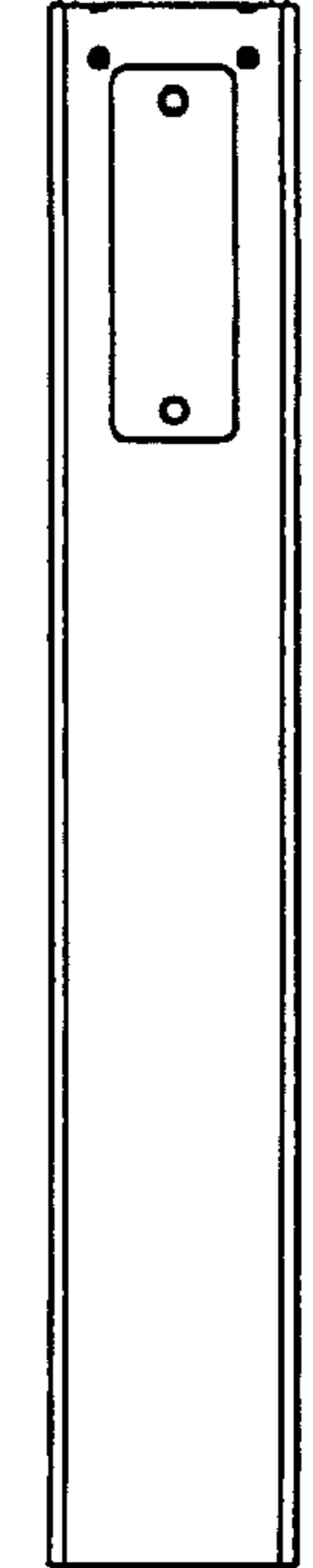
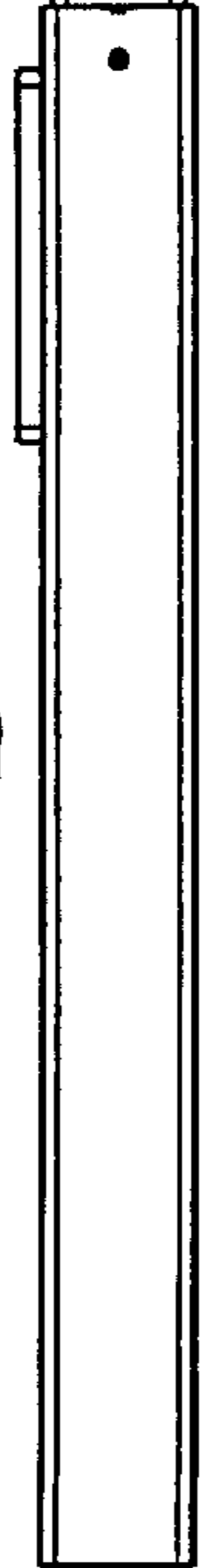
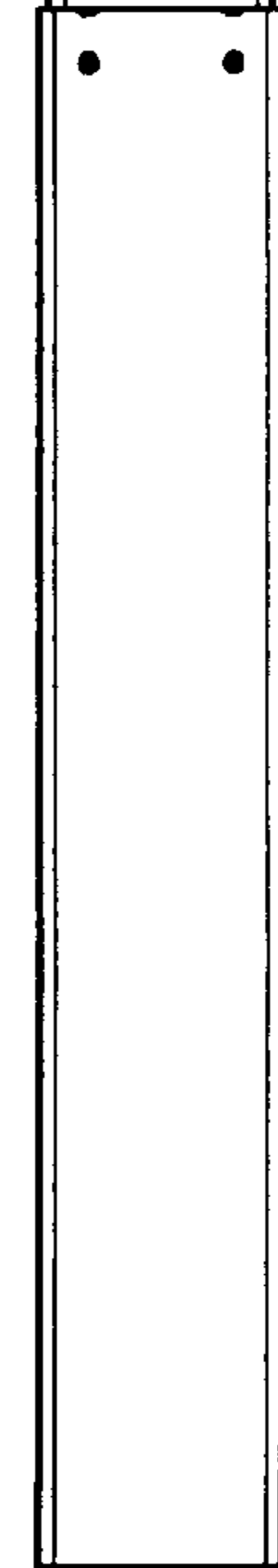
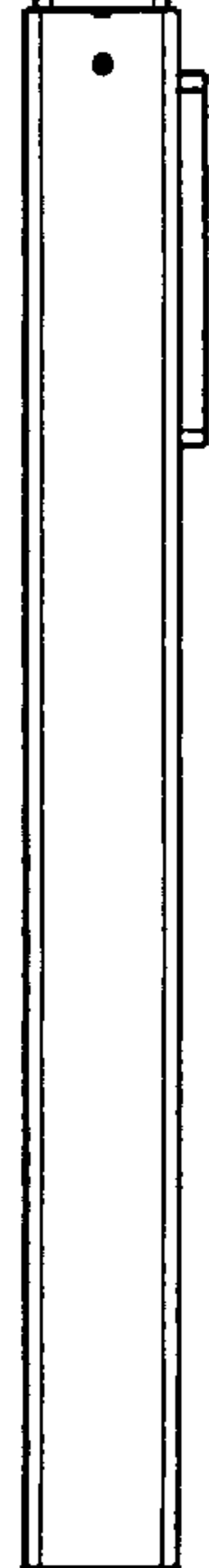
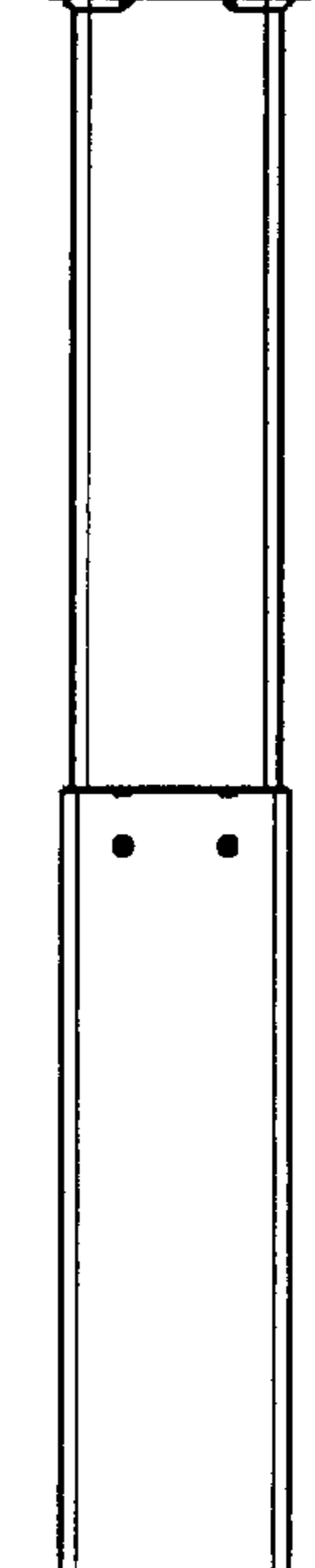
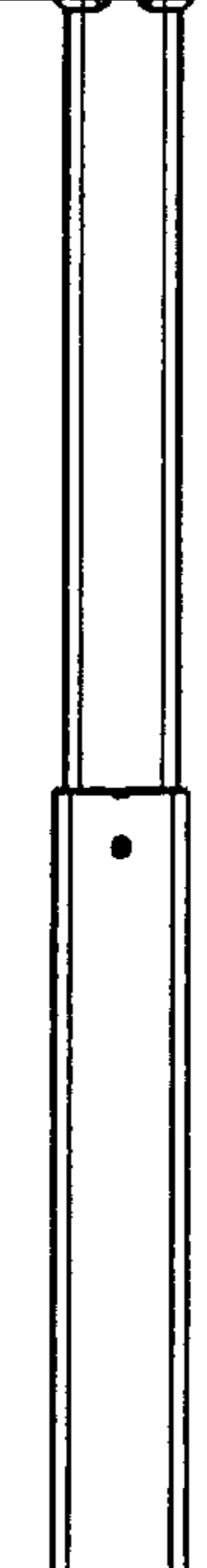
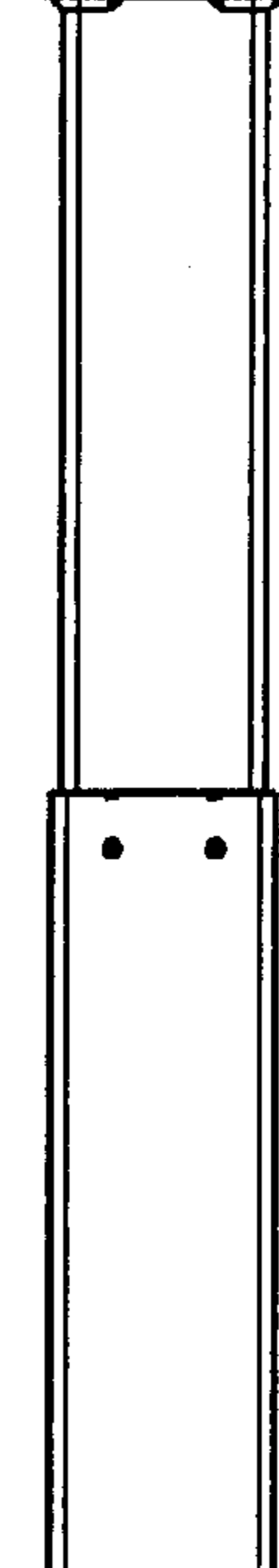
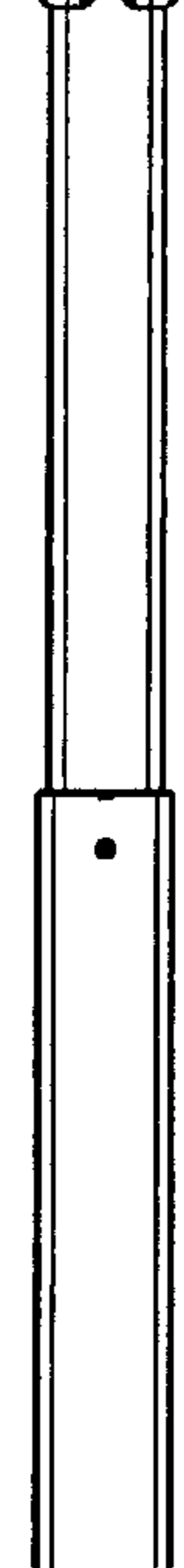
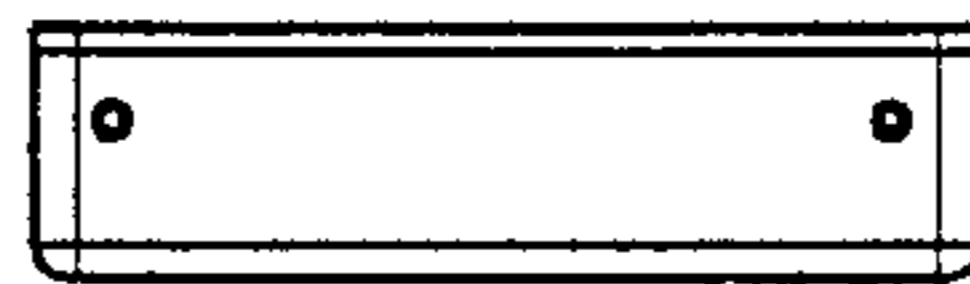


FIG. 27

FIG. 28

FIG. 29

FIG. 30



FIG. 31

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : Des. 524,335 S
APPLICATION NO. : 29/224339
DATED : July 4, 2006
INVENTOR(S) : Norbert Klinke et al.

Page 1 of 10

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

The title page showing the illustrative figure should be deleted to be replaced with the attached title page.

Delete drawing sheets 1-8 and substitute therefor the Drawing Sheets, consisting of Figs. 1-32, as shown on the attached pages.

Signed and Sealed this

Second Day of January, 2007

A handwritten signature in black ink on a dotted background. The signature reads "Jon W. Dudas" in a cursive style.

JON W. DUDAS

Director of the United States Patent and Trademark Office

(12) **United States Design Patent** (10) Patent No.: **US D524,335 S**
Klinke et al. (45) Date of Patent: **Jul. 4, 2006**

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(75) Inventors. **Norbert Klinke, Augustenborg (DK);
 Christian Platz, Haderslev (DK)**

(73) Assignee: **LINAK A/S, Nordborg (DK)**

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(58) Field of Classification Search D15/143,
 D15/148-149, 199; 74/89.15, 490.09; 310/20,
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(56) **References Cited**

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 6,756,707 B1 * 6/2004 Hochhalter et al. 310/20

* cited by examiner

Primary Examiner—Antoine D. Davis

(74) *Attorney, Agent, or Firm—Dykema Gossett PLLC*

(57) **CLAIM**

The ornamental design for a linear actuator, as shown and described.

DESCRIPTION

FIG. 1 is a top perspective view of a first embodiment of linear actuator according to the present invention when in a retracted state,

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FIG. 3 is an elevational right side view thereof,

FIG. 4 is an elevational front view thereof,

FIG. 5 is an elevational left side view thereof,

FIG. 6 is an elevational rear view thereof,

FIG. 7 is a top plan view thereof,

FIG. 8 is a bottom plan view thereof,

FIGS. 9-16 are views that correspond to FIGS. 1-8 when the linear actuator is in an extended state,

FIG. 17 is a top perspective view of a second embodiment of linear actuator according to the present invention when in a retracted state,

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FIG. 20 is an elevational front view thereof,

FIG. 21 is an elevational left side view thereof,

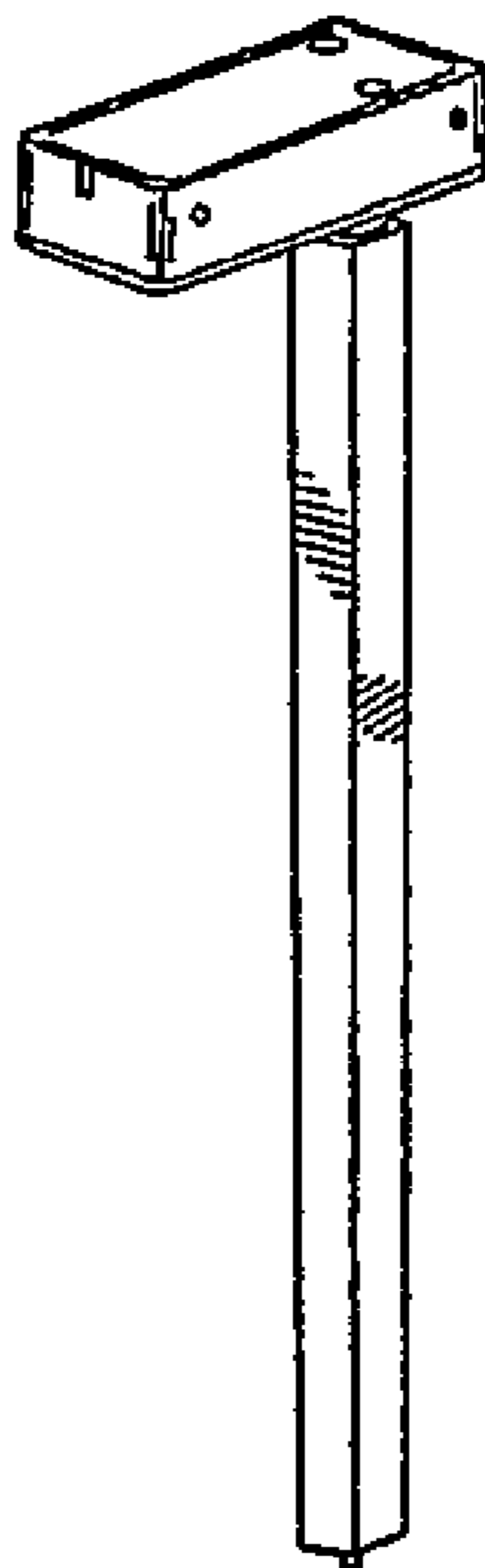
FIG. 22 is an elevational rear view thereof,

FIG. 23 is a top plan view thereof,

FIG. 24 is a bottom plan view thereof; and,

FIGS. 25-32 are views that correspond to FIGS. 17-24 when the linear actuator is in an extended state.

1 Claim, 8 Drawing Sheets



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Sheet 1 of 8

D524,335 S

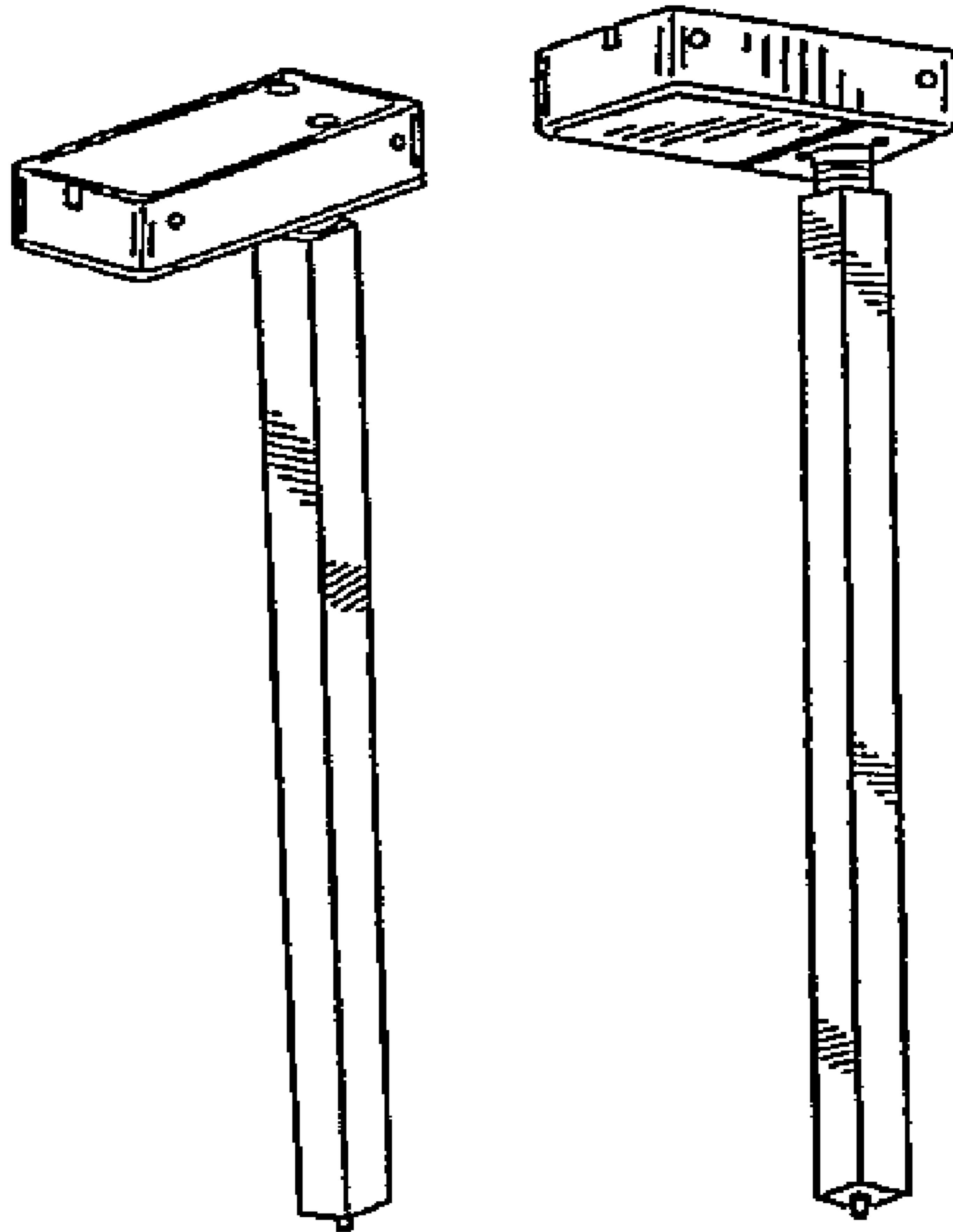


FIG. 1

FIG. 2



FIG. 8

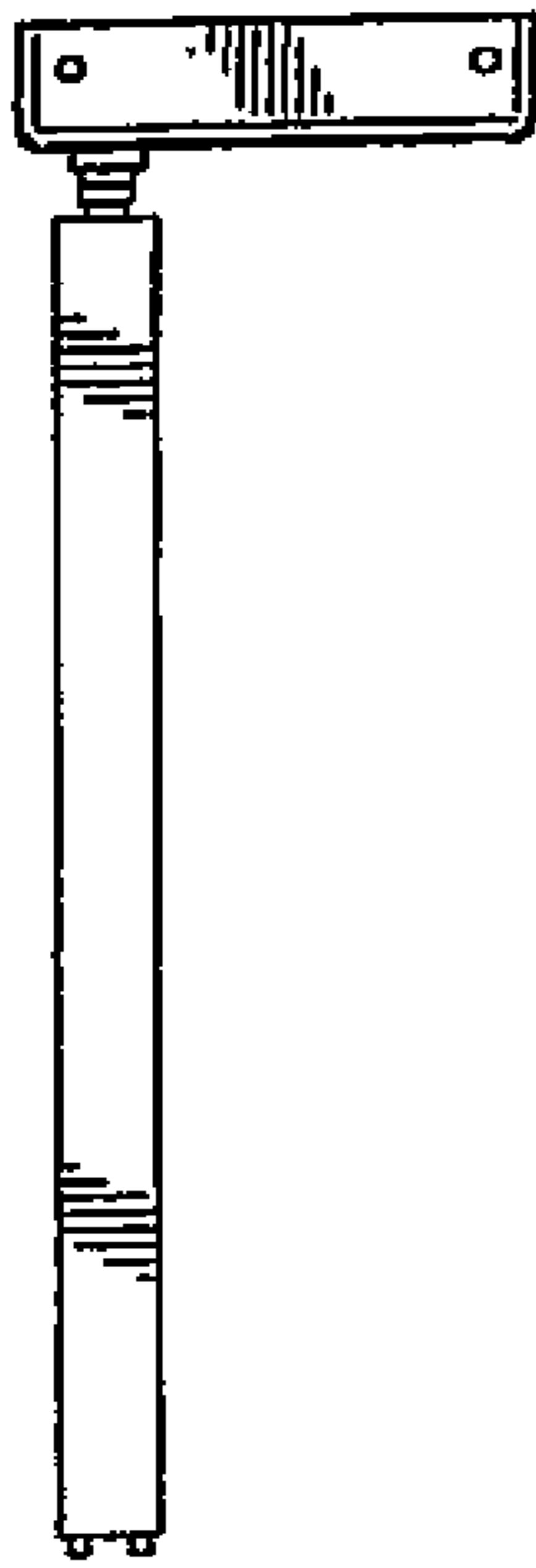


FIG. 3

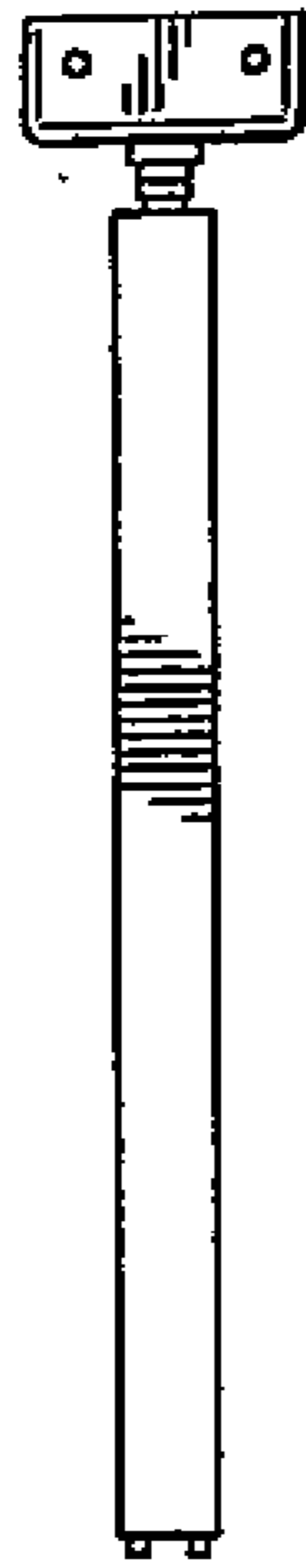


FIG. 4

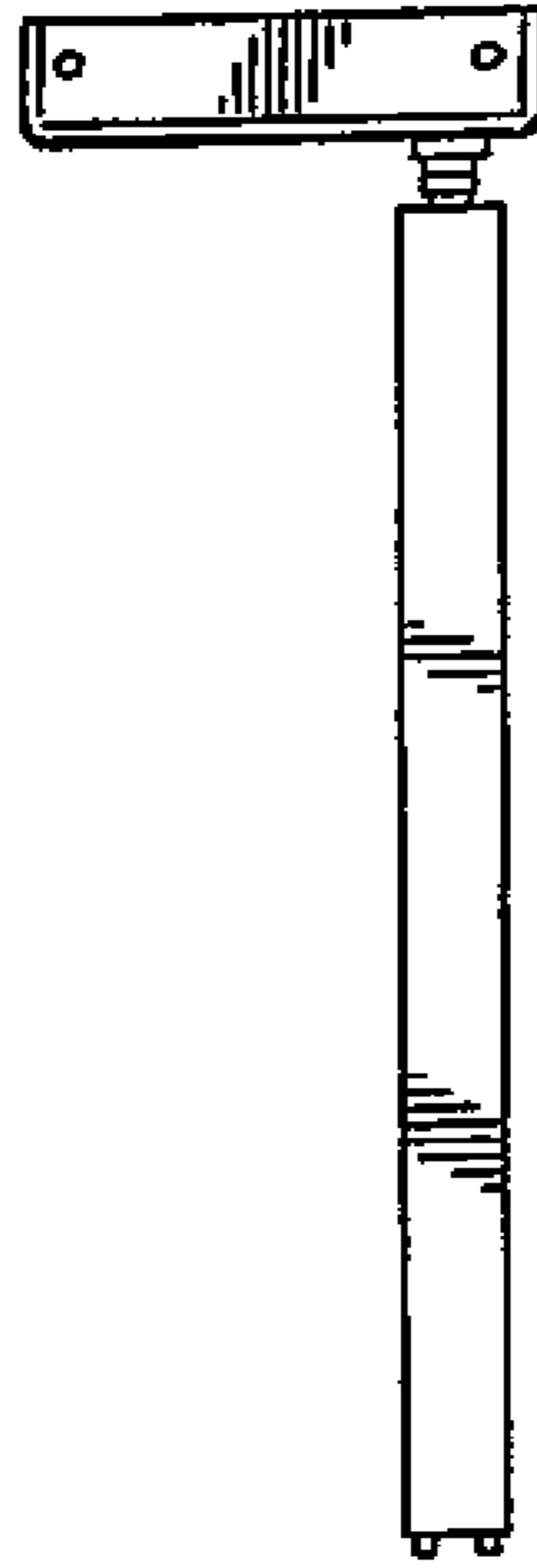


FIG. 5



FIG. 6



FIG. 7

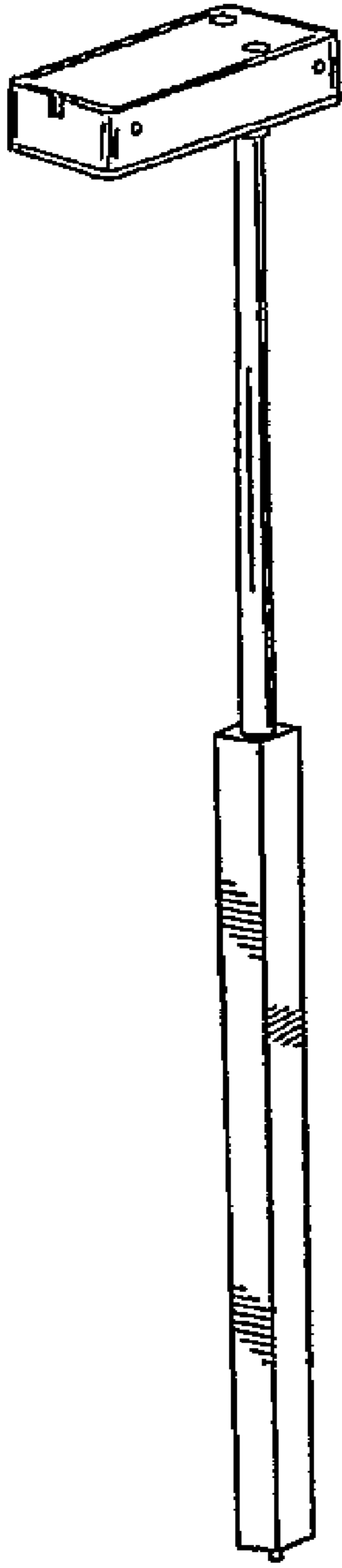


FIG 9

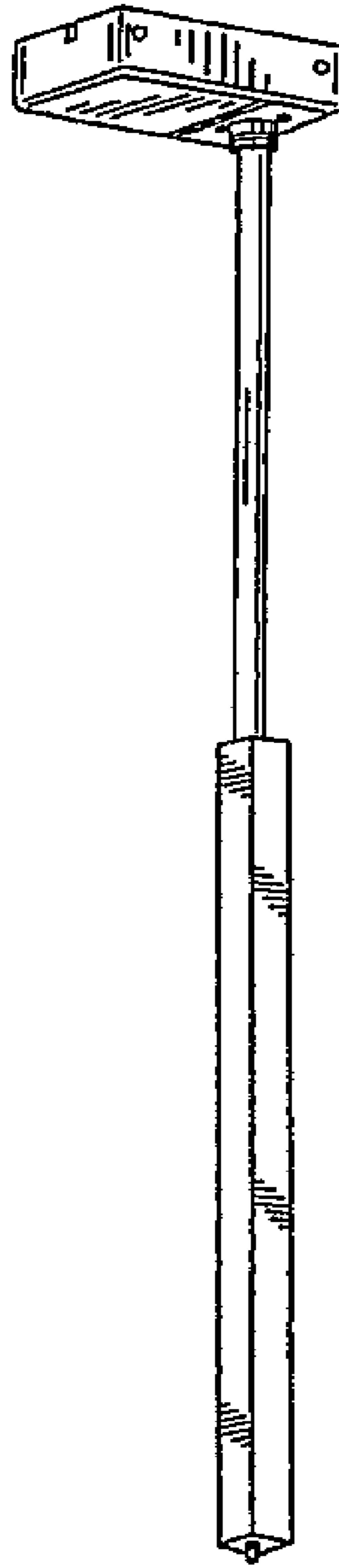


FIG. 10



FIG. 16



FIG. 11



FIG. 12



FIG. 13



FIG. 14



FIG. 15

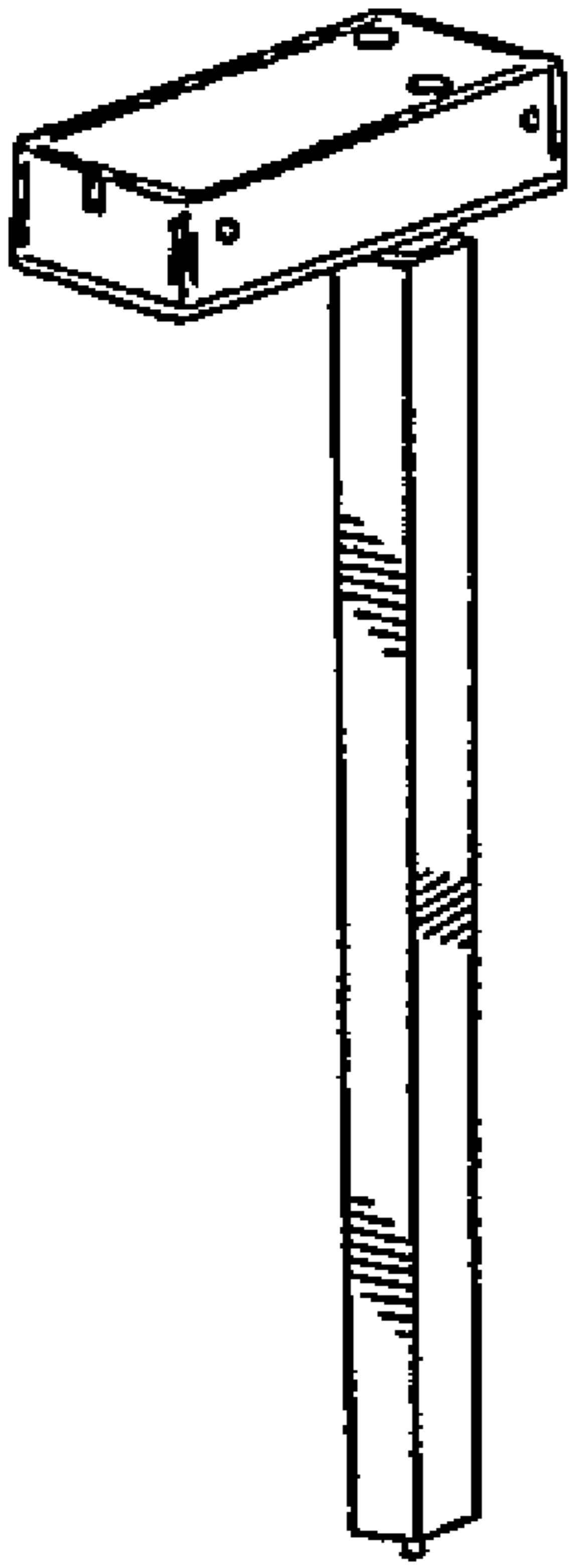


FIG. 17

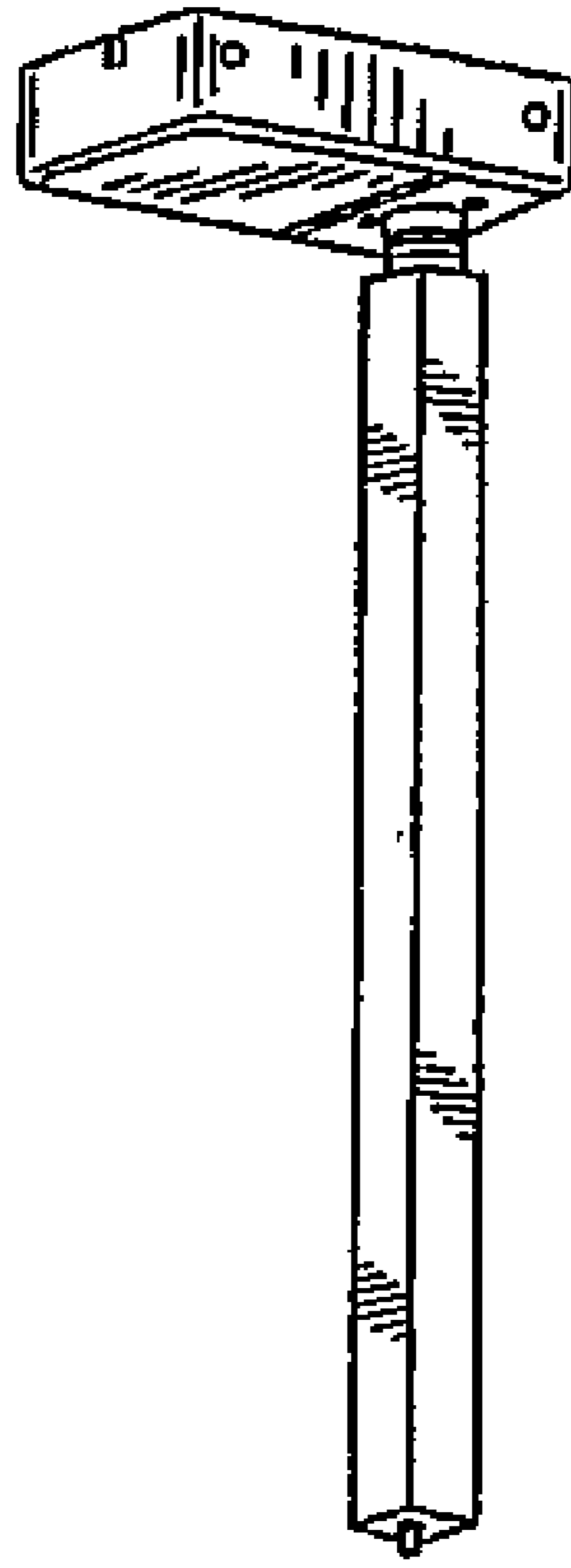


FIG. 18



FIG. 24

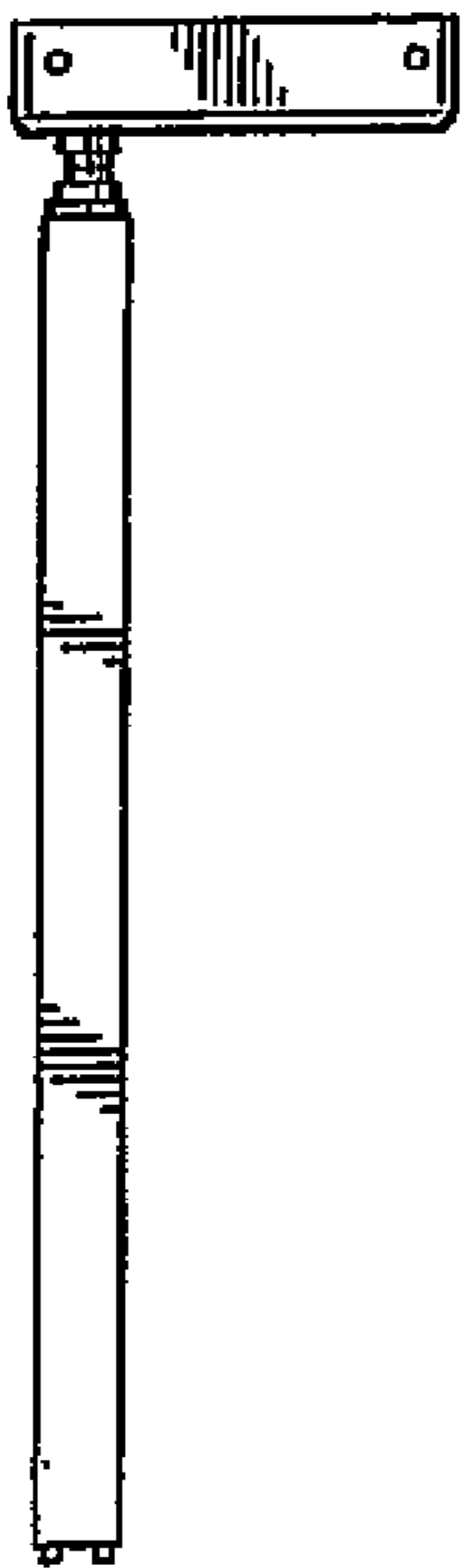


FIG. 19

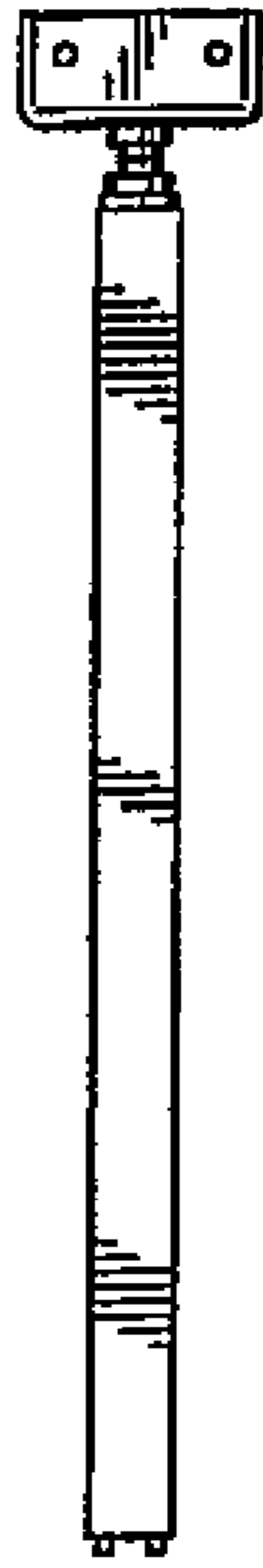


FIG. 20

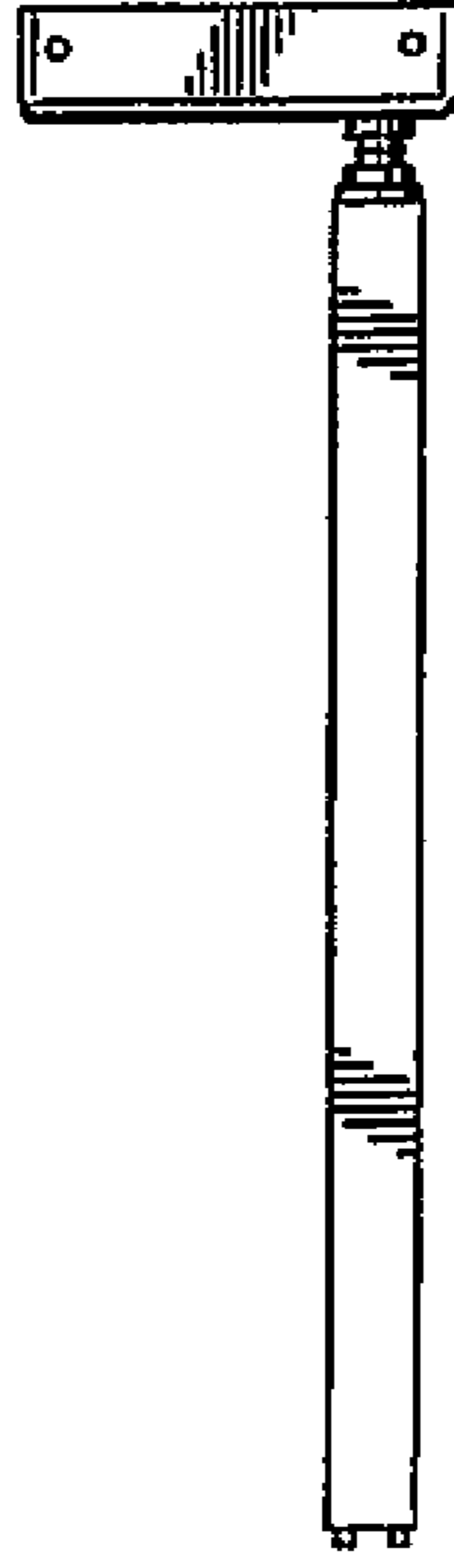


FIG. 21



FIG. 22



FIG. 23

U.S. Patent

July 4, 2006

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D524,335 S

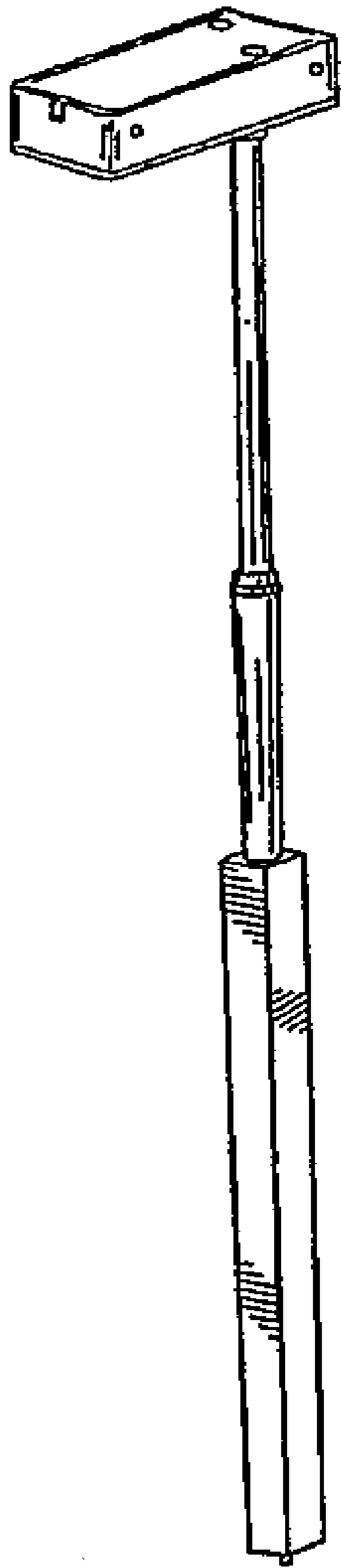


FIG. 25

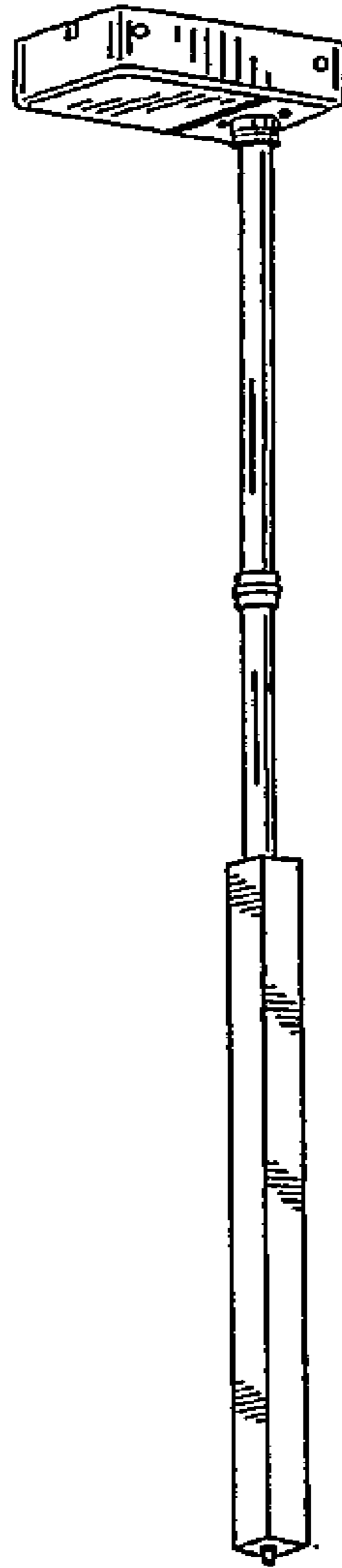


FIG. 26



FIG. 32



FIG. 27



FIG. 31



FIG. 28



FIG. 29



FIG. 30