



US00D939321S

(12) **United States Design Patent** (10) **Patent No.:** **US D939,321 S**  
**Leimkuehler et al.** (45) **Date of Patent:** **\*\* Dec. 28, 2021**

(54) **HINGE**

OTHER PUBLICATIONS

(71) Applicant: **Meso Scale Technologies, LLC.**,  
Rockville, MD (US)

Israeli Office Action dated Jan. 13, 2021 received in Israeli Appli-  
cation No. 64291, together with an English-language translation.  
(Continued)

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Stuart, FL (US); **Jacob N. Wohlstadter**,  
Potomac, MD (US)

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Presser, P.C.

(73) Assignee: **Meso Scale Technologies, LLC.**,  
Rockville, MD (US)

(57) **CLAIM**

The ornamental design for a hinge, as shown and described.

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

**DESCRIPTION**

(21) Appl. No.: **29/767,504**

(22) Filed: **Jan. 22, 2021**

The patent file contains at least one drawing executed in  
color. Copies of this patent with a color drawing will be  
provided by the Office upon request and payment of the  
necessary fee.

**Related U.S. Application Data**

(60) Division of application No. 29/707,949, filed on Oct.  
2, 2019, now Pat. No. Des. 925,330, which is a  
(Continued)

(51) **LOC (13) Cl.** ..... **08-06**

(52) **U.S. Cl.**  
USPC ..... **D8/323**

(58) **Field of Classification Search**  
USPC ..... D8/323, 327, 328, 329; 16/250, 251  
(Continued)

FIG. 1 is a front perspective view of a hinge showing our  
new design;

FIG. 2 is a back perspective view of thereof;

FIG. 3 is a front view thereof;

FIG. 4 is a back view thereof;

FIG. 5 is a side view thereof;

FIG. 6 is an alternate side view thereof;

FIG. 7 is a top view thereof;

FIG. 8 is a bottom view thereof;

FIG. 9 is a front perspective view of the hinge shown in FIG.  
1 in an alternate position;

FIG. 10 is a back perspective view of thereof;

FIG. 11 is a front view thereof;

FIG. 12 is a back view thereof;

FIG. 13 is a side view thereof;

FIG. 14 is an alternate side view thereof;

FIG. 15 is a top view thereof;

FIG. 16 is a bottom view thereof;

FIG. 17 is a front perspective view of the hinge shown in  
FIG. 1 in an alternate position;

FIG. 18 is a back perspective view of thereof;

FIG. 19 is a front view thereof;

FIG. 20 is a back view thereof;

FIG. 21 is a side view thereof;

(Continued)

(56) **References Cited**

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(Continued)

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FIG. 22 is an alternate side view thereof;  
FIG. 23 is a top view thereof;  
FIG. 24 is a bottom view thereof;  
FIG. 25 is a front perspective view of the hinge shown in FIG. 1 in an alternate position;  
FIG. 26 is a back perspective view of thereof;  
FIG. 27 is a front view thereof;  
FIG. 28 is a back view thereof;  
FIG. 29 is a side view thereof;  
FIG. 30 is an alternate side view thereof;  
FIG. 31 is a top view thereof;  
FIG. 32 is a bottom view thereof;  
FIG. 33 is a front perspective view of the hinge shown in FIG. 1 in an alternate position;  
FIG. 34 is a back perspective view of thereof;  
FIG. 35 is a front view thereof;  
FIG. 36 is a back view thereof;  
FIG. 37 is a side view thereof;  
FIG. 38 is an alternate side view thereof;  
FIG. 39 is a top view thereof;  
FIG. 40 is a bottom view thereof;  
FIG. 41 is a front perspective view of the hinge shown in FIG. 1 in an alternate position;  
FIG. 42 is a back perspective view of thereof;  
FIG. 43 is a front view thereof;  
FIG. 44 is a back view thereof;  
FIG. 45 is a side view thereof;  
FIG. 46 is an alternate side view thereof;  
FIG. 47 is a top view thereof;  
FIG. 48 is a bottom view thereof;  
FIG. 49 is a perspective view of the hinge shown in FIG. 1 attached to a portion of an automated assay system;  
FIG. 50 is an alternate perspective view of the hinge shown in FIG. 1 attached to a portion of an automated assay system shown in an alternate position;  
FIG. 51 is an alternate perspective view of the hinge shown in FIG. 1 attached to a portion of an automated assay system shown in an alternate position;  
FIG. 52 is an alternate perspective view of the hinge shown in FIG. 1 attached to a portion of an automated assay system shown in an alternate position;  
FIG. 53 is an alternate perspective view of the hinge shown in FIG. 1 attached to a portion of an automated assay system shown in an alternate position;  
FIG. 54 is an alternate perspective view of the hinge shown in FIG. 1 attached to a portion of an automated assay system shown in an alternate position;  
FIG. 55 is an alternate perspective view of the hinge shown in FIG. 1 attached to a portion of an automated assay system shown in an alternate position;  
FIG. 56 is an alternate perspective view of the hinge shown in FIG. 1 attached to a portion of an automated assay system shown in an alternate position;  
FIG. 57 is an alternate perspective view of the hinge shown in FIG. 1 attached to a portion of an automated assay system shown in an alternate position;  
FIG. 58 is an alternate perspective view of the hinge shown in FIG. 1 attached to a portion of an automated assay system shown in an alternate position;  
FIG. 59 is an alternate perspective view of the hinge shown in FIG. 1 attached to a portion of an automated assay system shown in an alternate position;  
FIG. 60 is an alternate perspective view of the hinge shown in FIG. 1 attached to a portion of an automated assay system shown in an alternate position;  
FIG. 61 is a front perspective view of a hinge showing a second embodiment of our new design;  
FIG. 62 is a back perspective view of thereof;  
FIG. 63 is a front view thereof;  
FIG. 64 is a back view thereof;  
FIG. 65 is a side view thereof;  
FIG. 66 is an alternate side view thereof;  
FIG. 67 is a top view thereof;  
FIG. 68 is a bottom view thereof;  
FIG. 69 is a front perspective view of the hinge showing a second embodiment shown in FIG. 61 in an alternate position;  
FIG. 70 is a back perspective view thereof;  
FIG. 71 is a front view thereof;  
FIG. 72 is a back view thereof;  
FIG. 73 is a side view thereof;  
FIG. 74 is an alternate side view thereof;  
FIG. 75 is a top view thereof;  
FIG. 76 is a bottom view thereof;  
FIG. 77 is a front perspective view of the hinge showing a second embodiment shown in FIG. 61 in an alternate position;  
FIG. 78 is a back perspective view of thereof;  
FIG. 79 is a front view thereof;  
FIG. 80 is a back view thereof;  
FIG. 81 is a side view thereof;  
FIG. 82 is an alternate side view thereof;  
FIG. 83 is a top view thereof;  
FIG. 84 is a bottom view thereof;  
FIG. 85 is a front perspective view of the hinge showing a second embodiment shown in FIG. 61 in an alternate position;  
FIG. 86 is a back perspective view of thereof;  
FIG. 87 is a front view thereof;  
FIG. 88 is a back view thereof;  
FIG. 89 is a side view thereof;  
FIG. 90 is an alternate side view thereof;  
FIG. 91 is a top view thereof;  
FIG. 92 is a bottom view thereof;  
FIG. 93 is a front perspective view of the hinge showing a second embodiment shown in FIG. 61 in an alternate position;  
FIG. 94 is a back perspective view of thereof;  
FIG. 95 is a front view thereof;  
FIG. 96 is a back view thereof;  
FIG. 97 is a side view thereof;  
FIG. 98 is an alternate side view thereof;  
FIG. 99 is a top view thereof;  
FIG. 100 is a bottom view thereof;  
FIG. 101 is a front perspective view of the hinge showing a second embodiment shown in FIG. 61 in an alternate position;  
FIG. 102 is a back perspective view of thereof;  
FIG. 103 is a front view thereof;  
FIG. 104 is a back view thereof;  
FIG. 105 is a side view thereof;  
FIG. 106 is an alternate side view thereof;  
FIG. 107 is a top view thereof;  
FIG. 108 is a bottom view thereof;  
FIG. 109 is a front perspective view of the hinge showing a second embodiment shown in FIG. 61 in an alternate position;  
FIG. 110 is a back perspective view of thereof;  
FIG. 111 is a front view thereof;

FIG. 112 is a back view thereof;  
 FIG. 113 is a side view thereof;  
 FIG. 114 is an alternate side view thereof;  
 FIG. 115 is a top view thereof;  
 FIG. 116 is a bottom view thereof;  
 FIG. 117 is a perspective view of the hinge shown in FIG. 61 attached to a portion of an automated assay system;  
 FIG. 118 is an alternate perspective view of the hinge shown in FIG. 61 attached to a portion of an automated assay system shown in an alternate position;  
 FIG. 119 is an alternate perspective view of the hinge shown in FIG. 61 attached to a portion of an automated assay system shown in an alternate position;  
 FIG. 120 is an alternate perspective view of the hinge shown in FIG. 61 attached to a portion of an automated assay system shown in an alternate position;  
 FIG. 121 is an alternate perspective view of the hinge shown in FIG. 61 attached to a portion of an automated assay system shown in an alternate position;  
 FIG. 122 is an alternate perspective view of the hinge shown in FIG. 61 attached to a portion of an automated assay system shown in an alternate position;  
 FIG. 123 is an alternate perspective view of the hinge shown in FIG. 61 attached to a portion of an automated assay system shown in an alternate position;  
 FIG. 124 is an alternate perspective view of the hinge shown in FIG. 61 attached to a portion of an automated assay system shown in an alternate position;  
 FIG. 125 is an alternate perspective view of the hinge shown in FIG. 61 attached to a portion of an automated assay system shown in an alternate position;  
 FIG. 126 is an alternate perspective view of the hinge shown in FIG. 61 attached to a portion of an automated assay system shown in an alternate position;  
 FIG. 127 is an alternate perspective view of the hinge shown in FIG. 61 attached to a portion of an automated assay system shown in an alternate position; and,  
 FIG. 128 is an alternate perspective view of the hinge shown in FIG. 61 attached to a portion of an automated assay system shown in an alternate position.  
 The broken lines shown in the figures represent environment of use and form no part of the claim.

**1 Claim, 76 Drawing Sheets  
 (40 of 76 Drawing Sheet(s) Filed in Color)**

**Related U.S. Application Data**

continuation-in-part of application No. 29/688,495, filed on Apr. 22, 2019, now Pat. No. Des. 879,994, which is a continuation-in-part of application No. 29/661,728, filed on Aug. 30, 2018, now abandoned, and a continuation-in-part of application No. 29/661,732, filed on Aug. 30, 2018, now abandoned, which is a continuation-in-part of application No. 29/577,664, filed on Sep. 14, 2016, now Pat. No. Des. 829,336, which is a continuation-in-part of application No. 29/577,664, filed on Sep. 14, 2016, now Pat. No. Des. 829,336, which is a continuation-in-part of application No. 29/571,993, filed on Jul. 22, 2016,

now abandoned, which is a continuation-in-part of application No. 29/558,583, filed on Mar. 18, 2016, now abandoned, which is a continuation-in-part of application No. 29/533,960, filed on Jul. 23, 2015, now abandoned.

(58) **Field of Classification Search**

CPC .. E05D 1/00; E05D 11/06; E05D 5/11; E05D 3/02; A47K 13/12

See application file for complete search history.

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 Japanese Office Action dated May 18, 2021 received in Japanese Application No. 2020-006946, together with an English-language translation.

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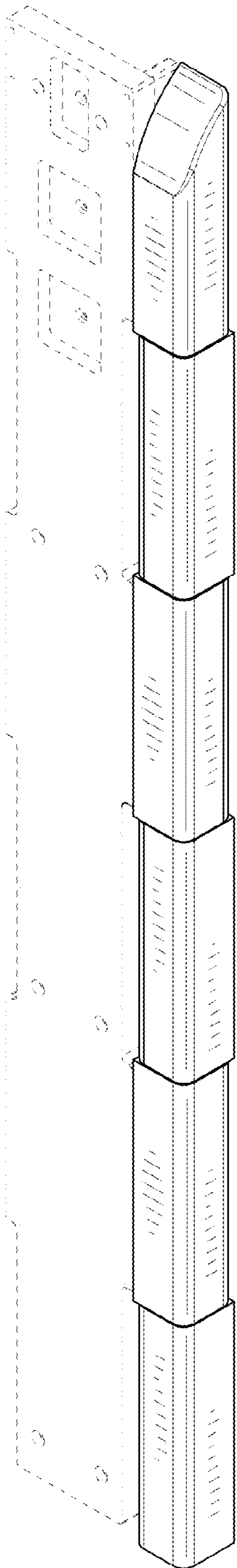


FIG. 1

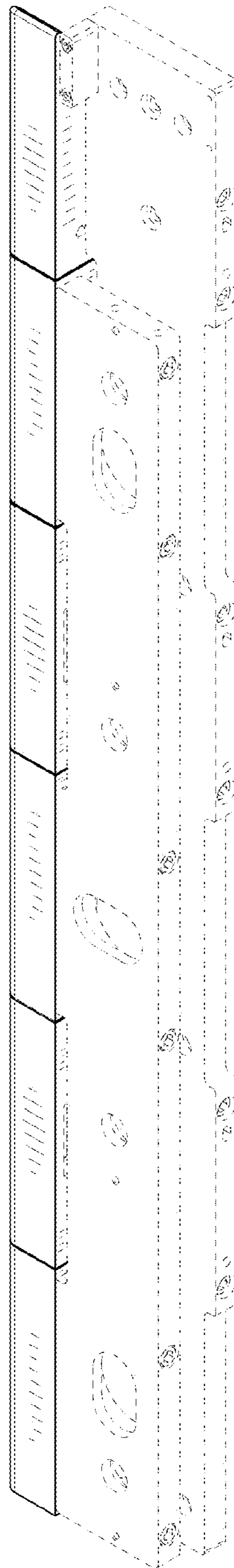


FIG. 2

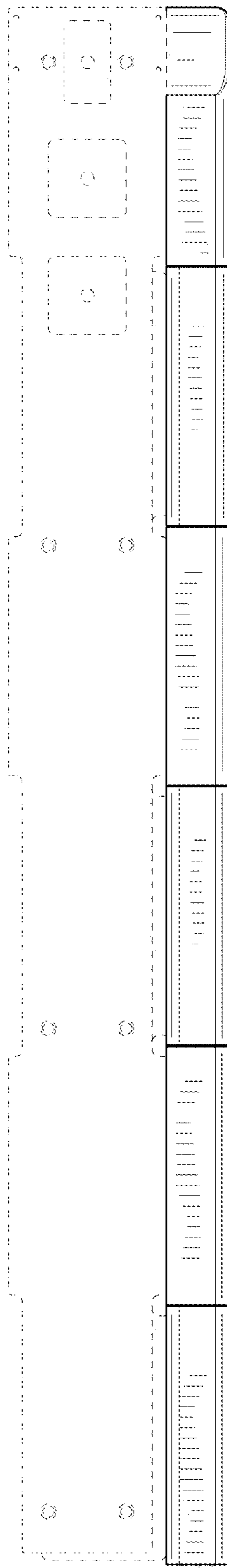


FIG. 3

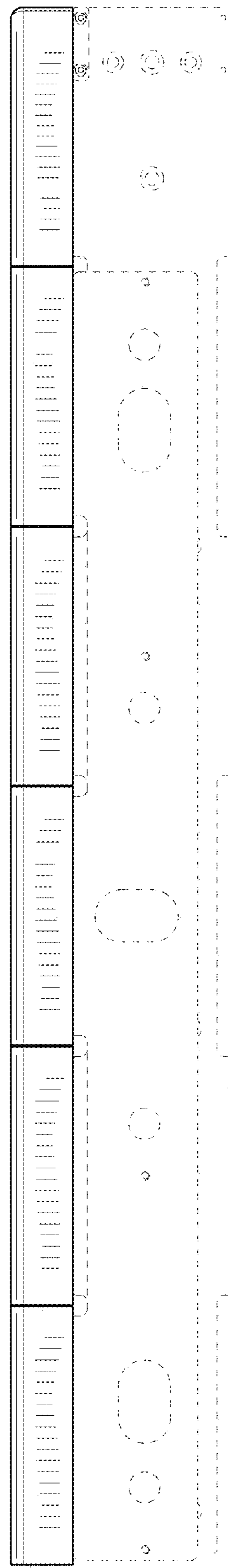


FIG. 4



FIG. 5

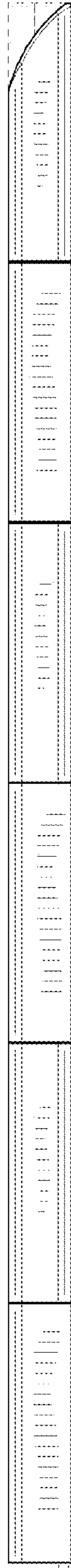


FIG. 6



FIG. 7



FIG. 8

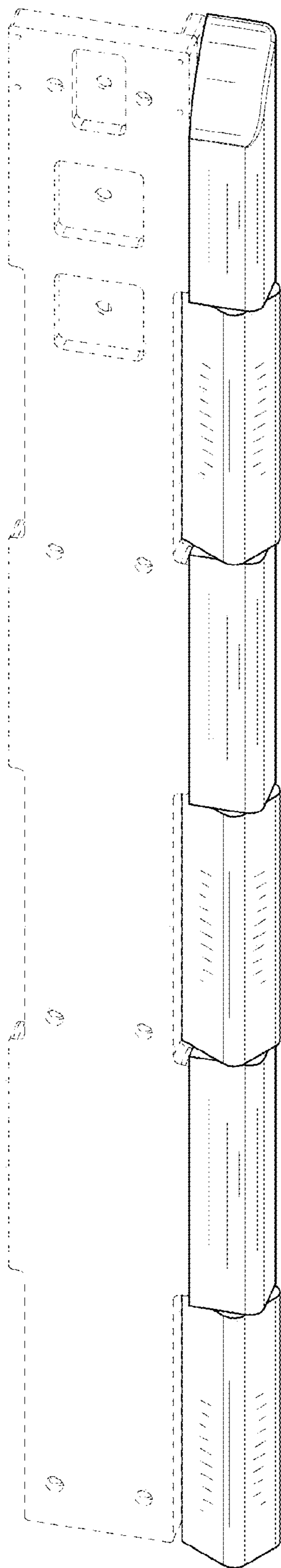


FIG. 9

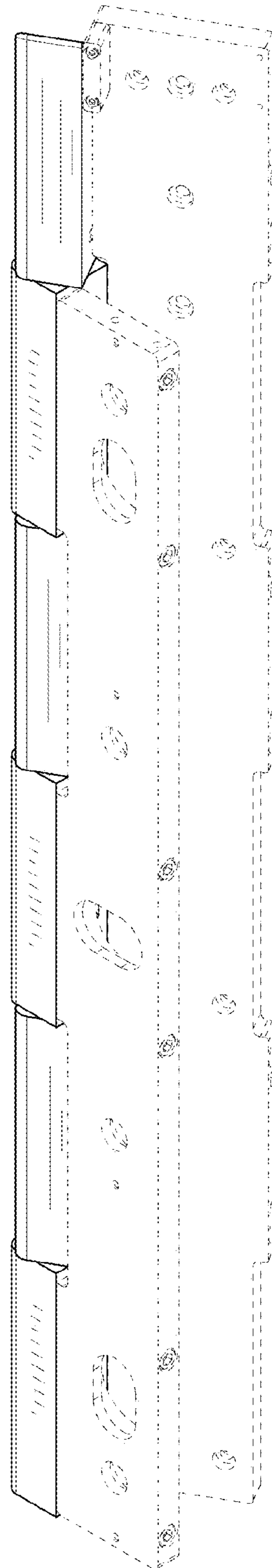


FIG. 10



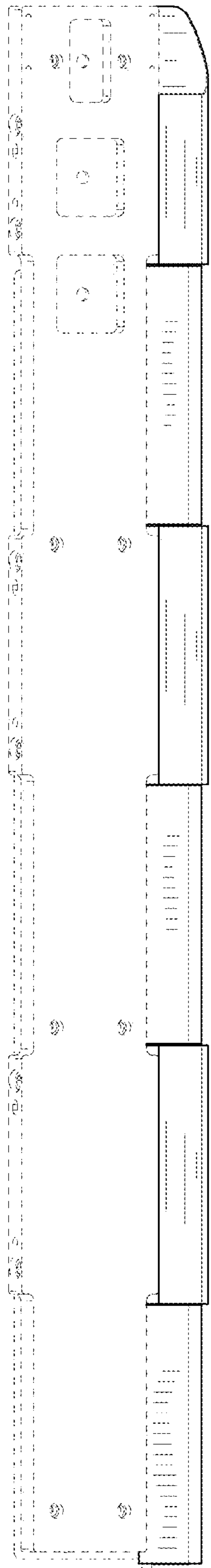


FIG. 11

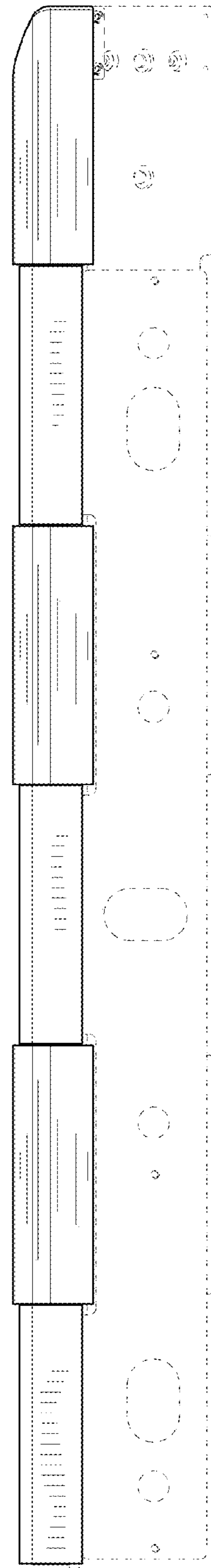


FIG. 12

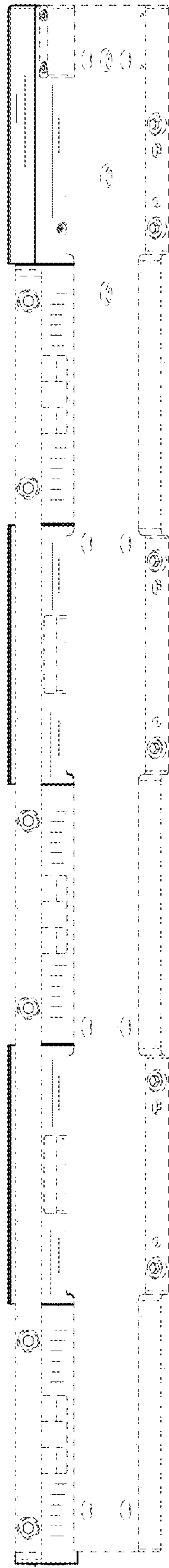


FIG. 13

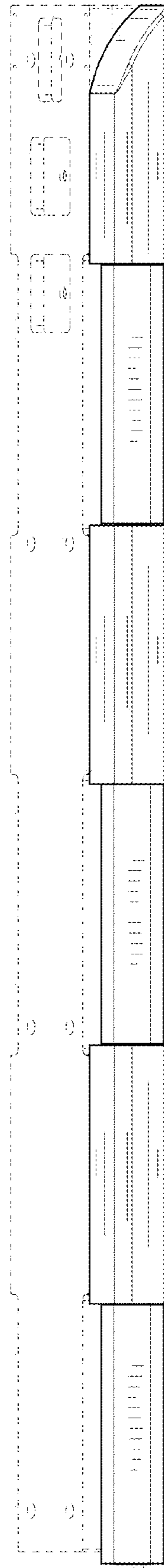


FIG. 14

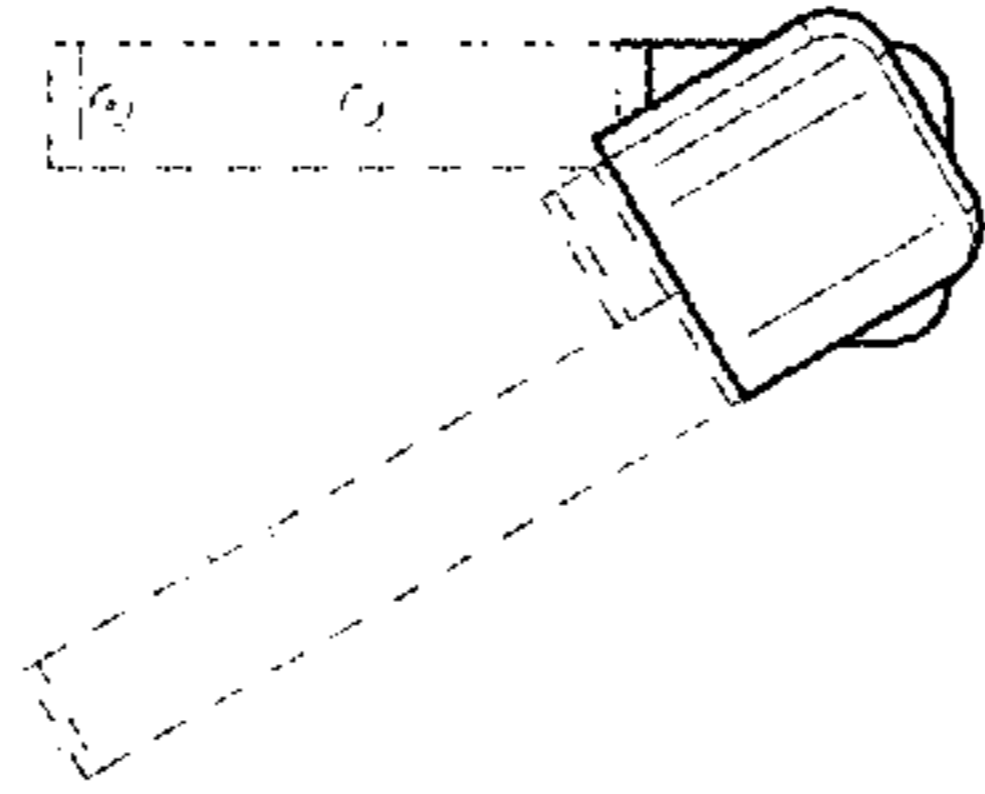


FIG. 15

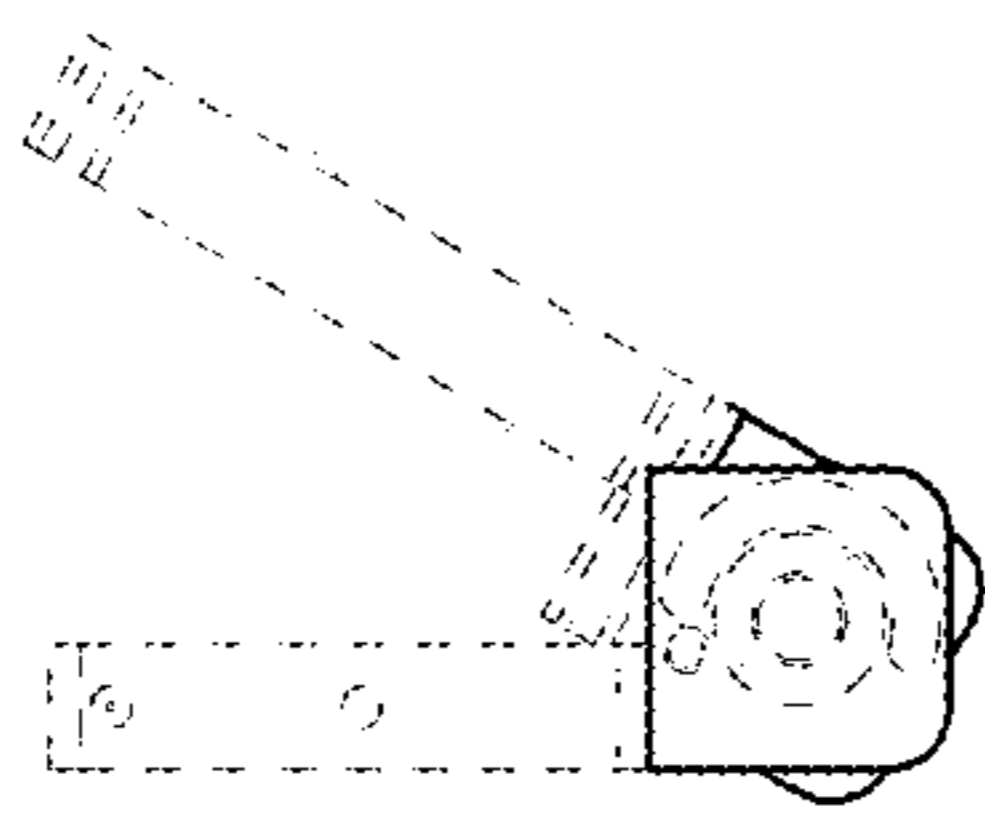


FIG. 16

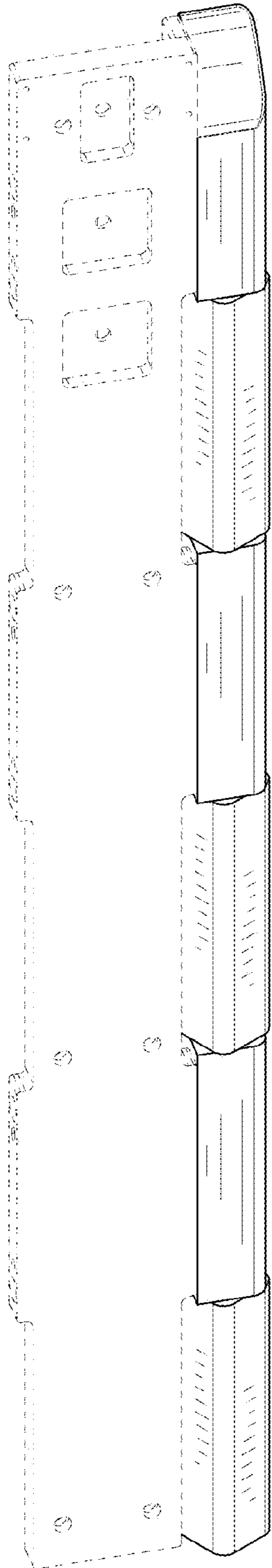


FIG. 17

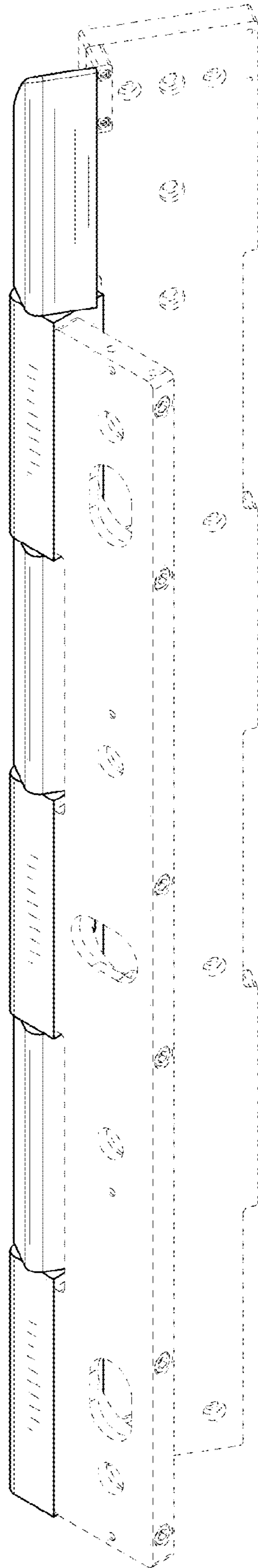


FIG. 18

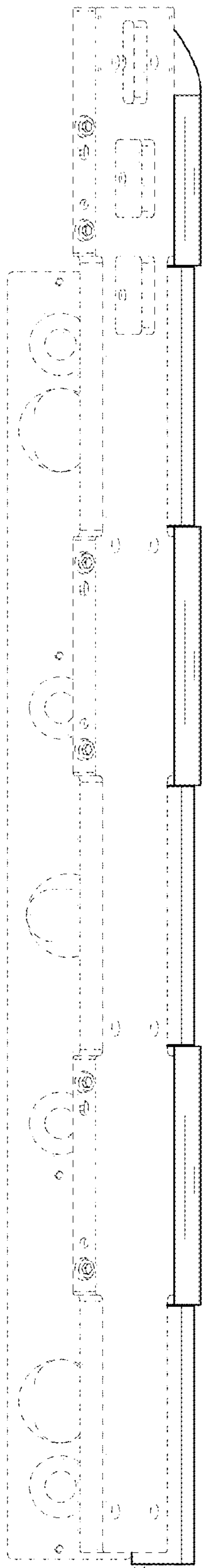


FIG. 19

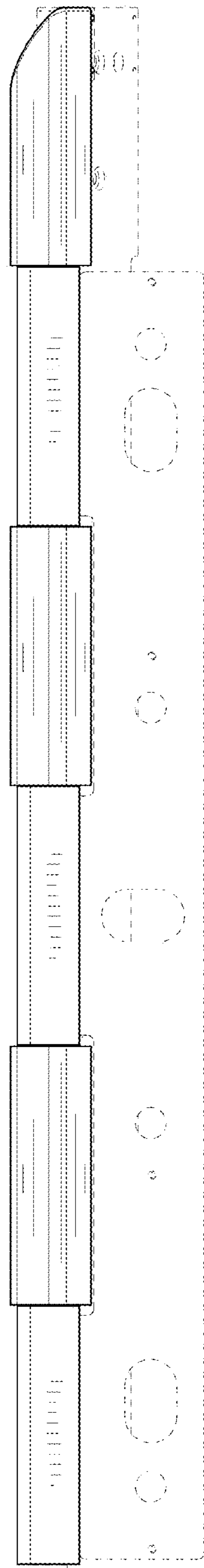


FIG. 20

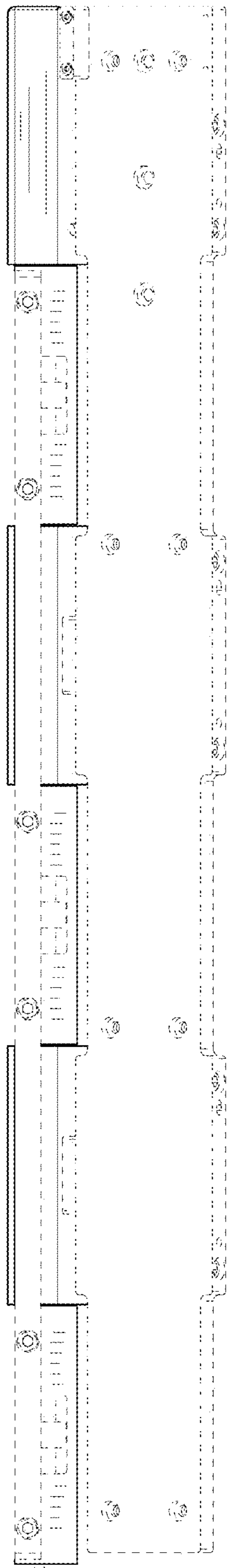


FIG. 21

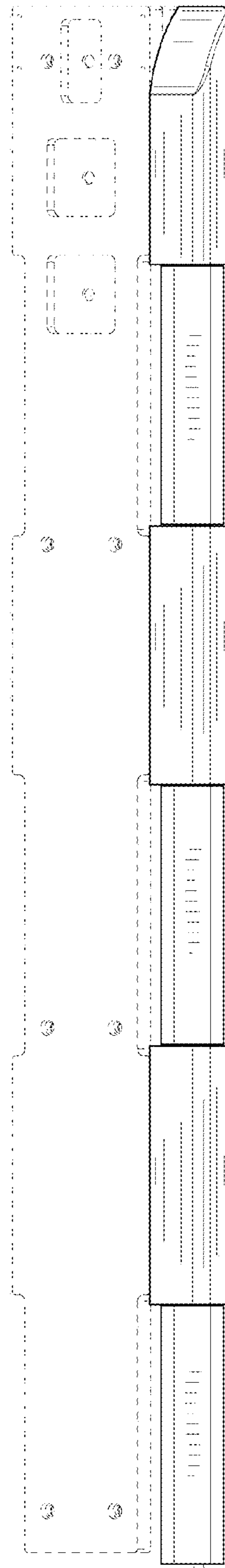


FIG. 22

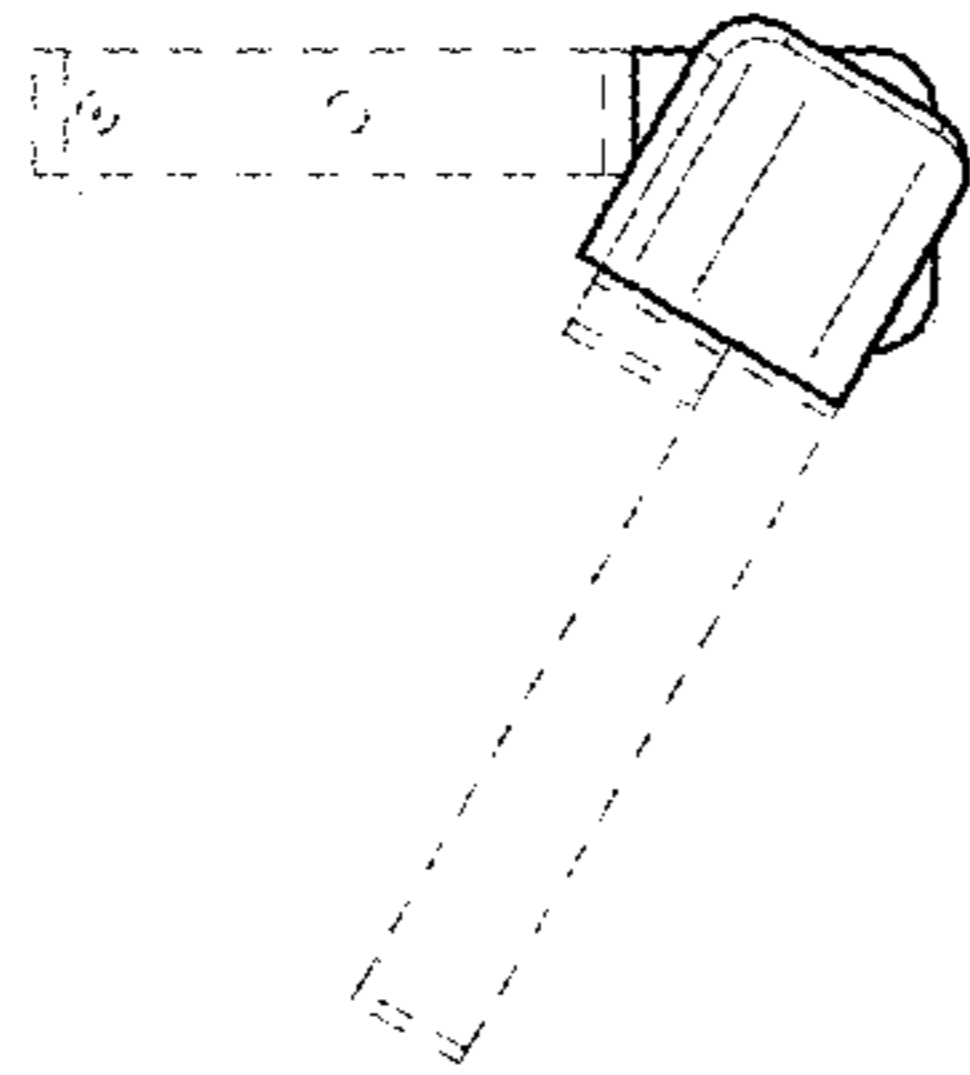


FIG. 23

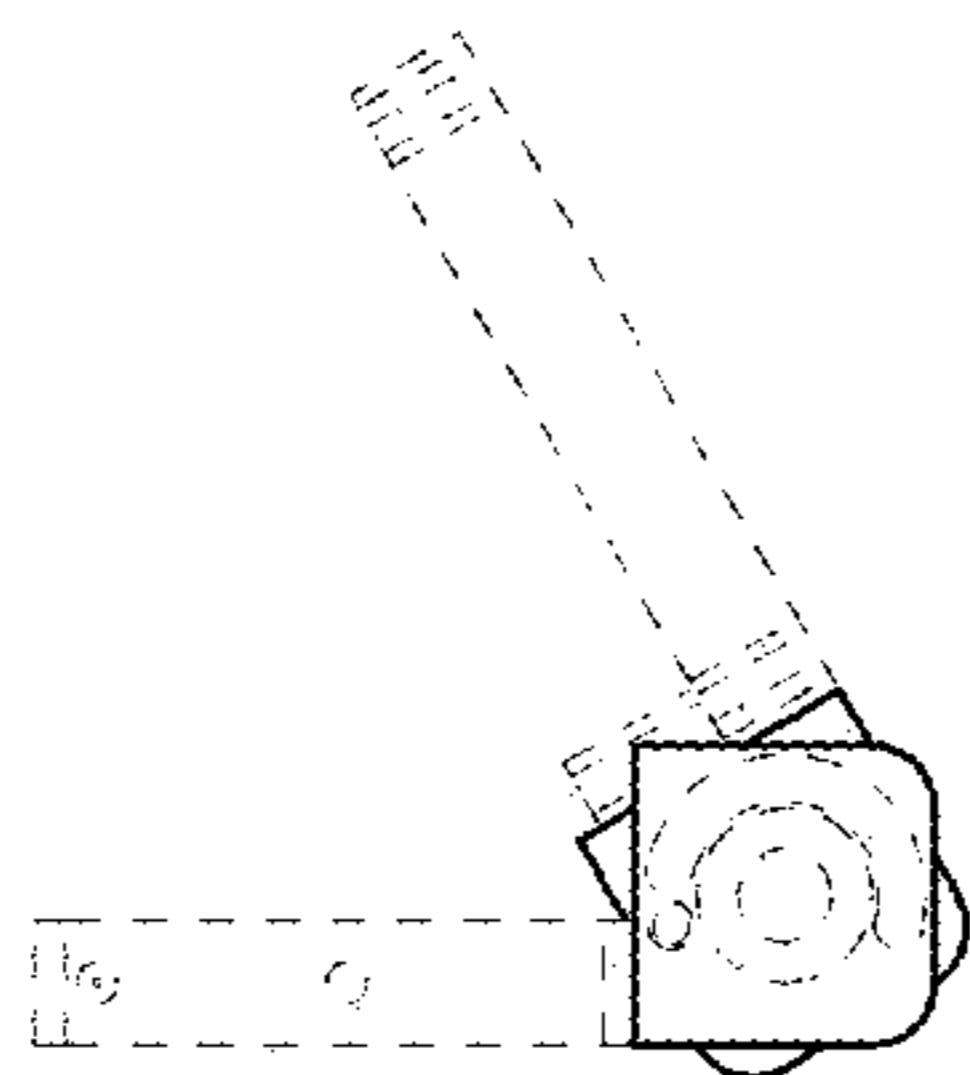


FIG. 24

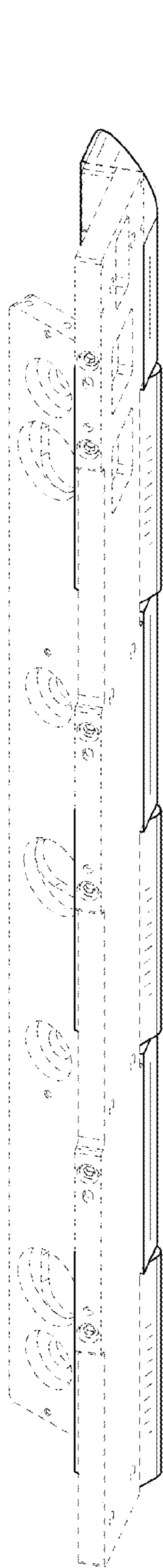


FIG. 25

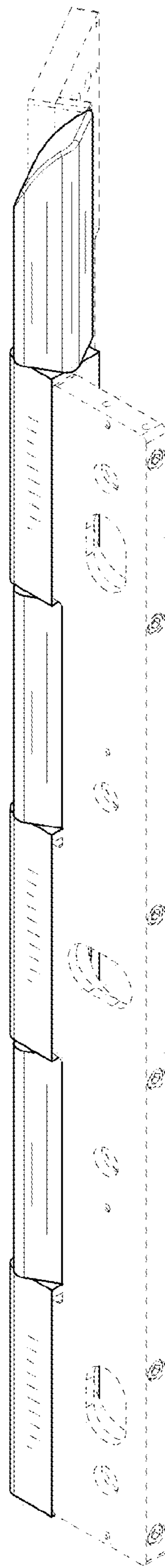


FIG. 26



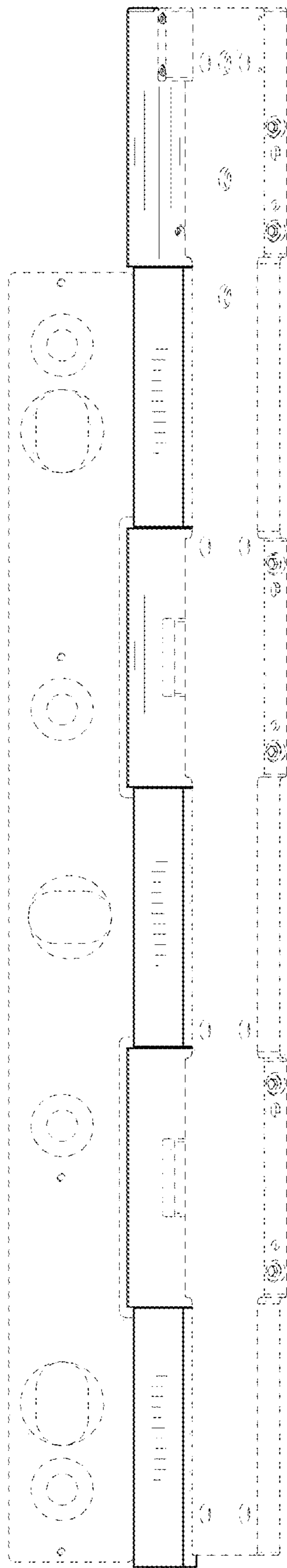


FIG. 27

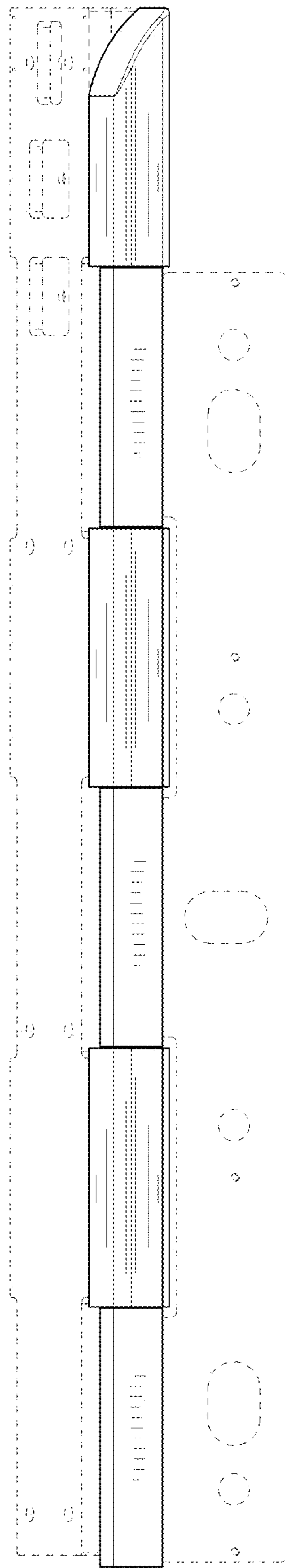


FIG. 28

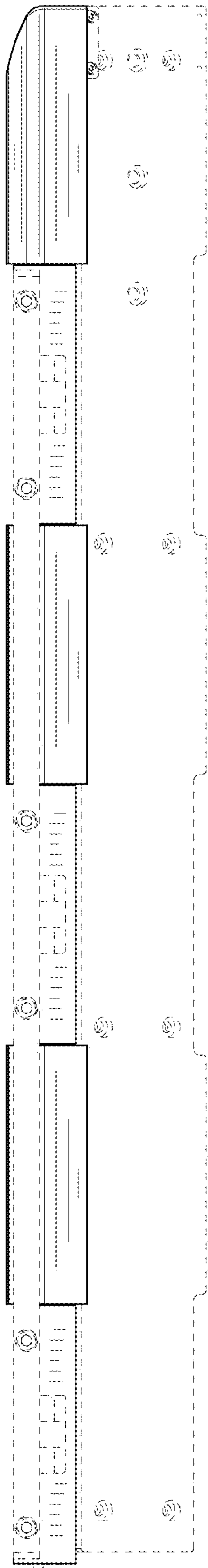


FIG. 29

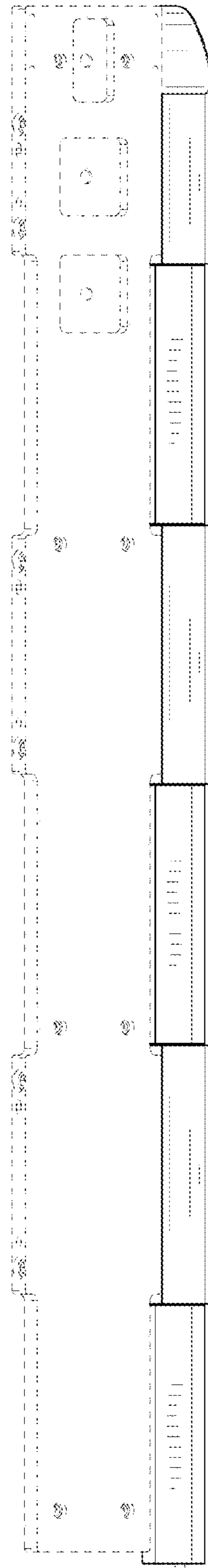


FIG. 30

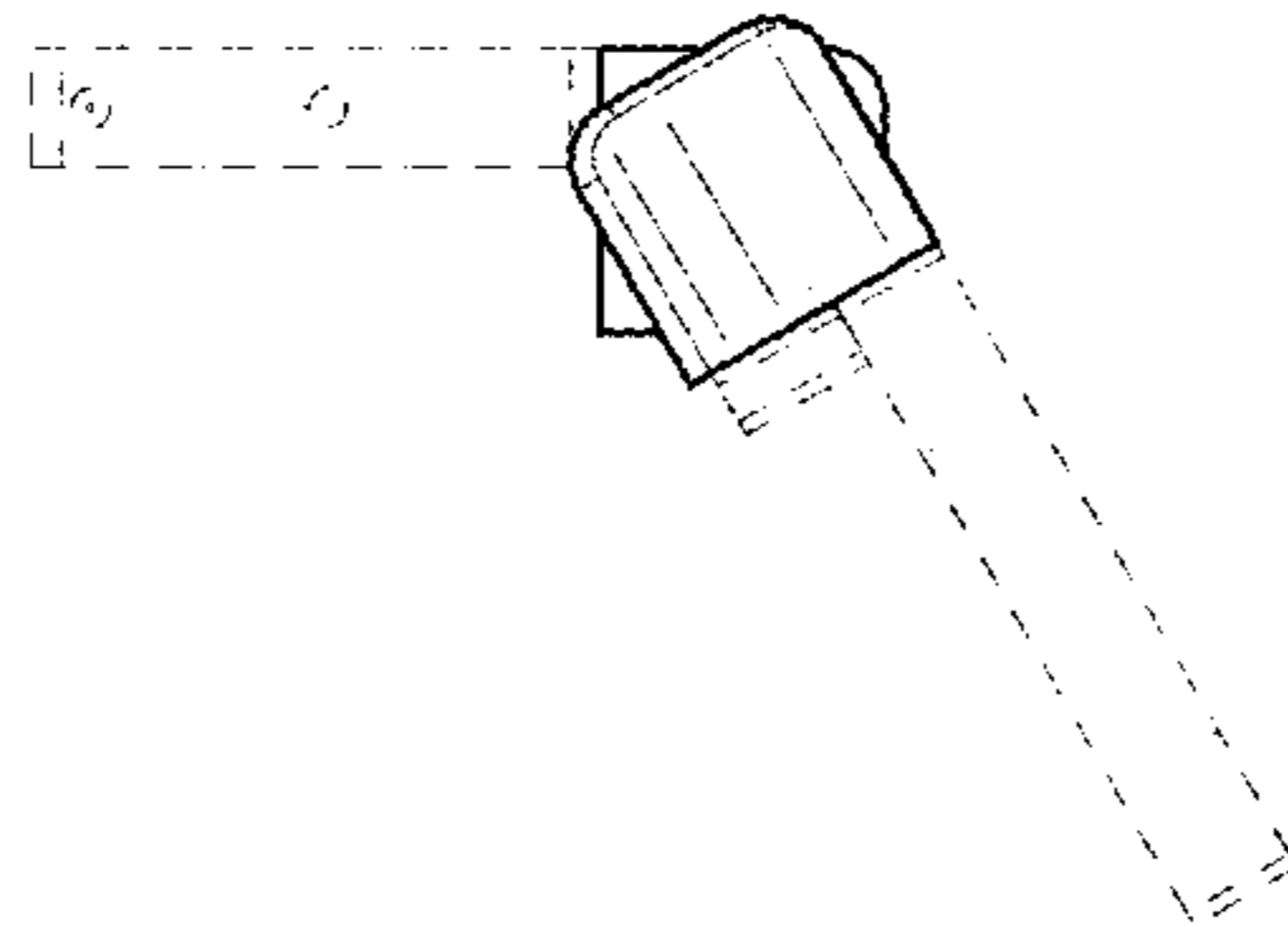


FIG. 31

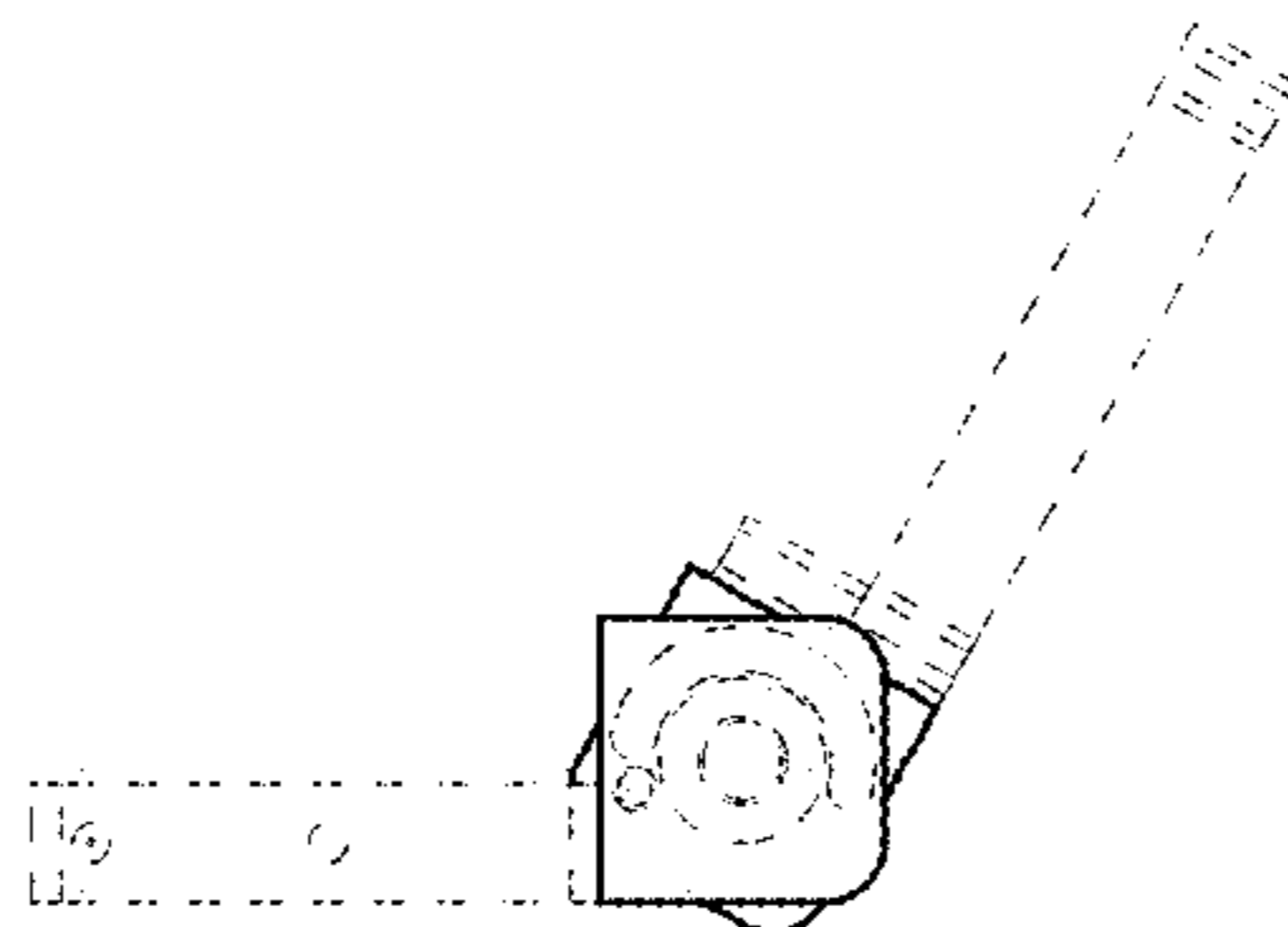


FIG. 32

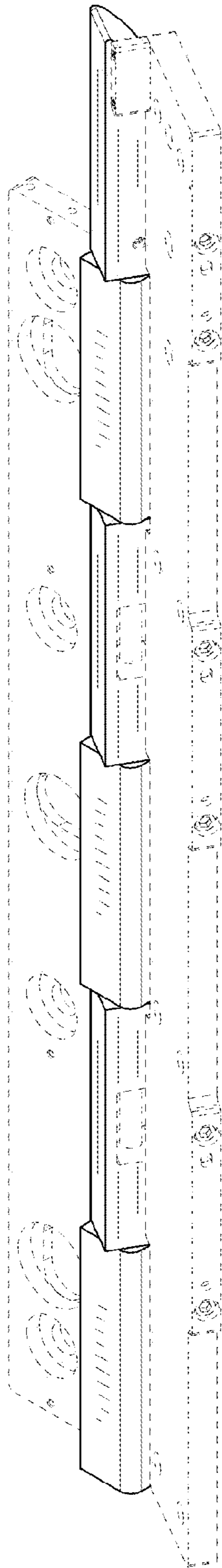


FIG. 33

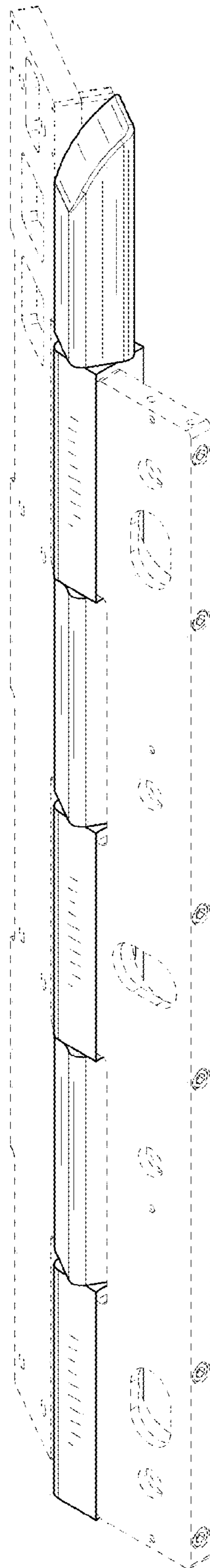


FIG. 34

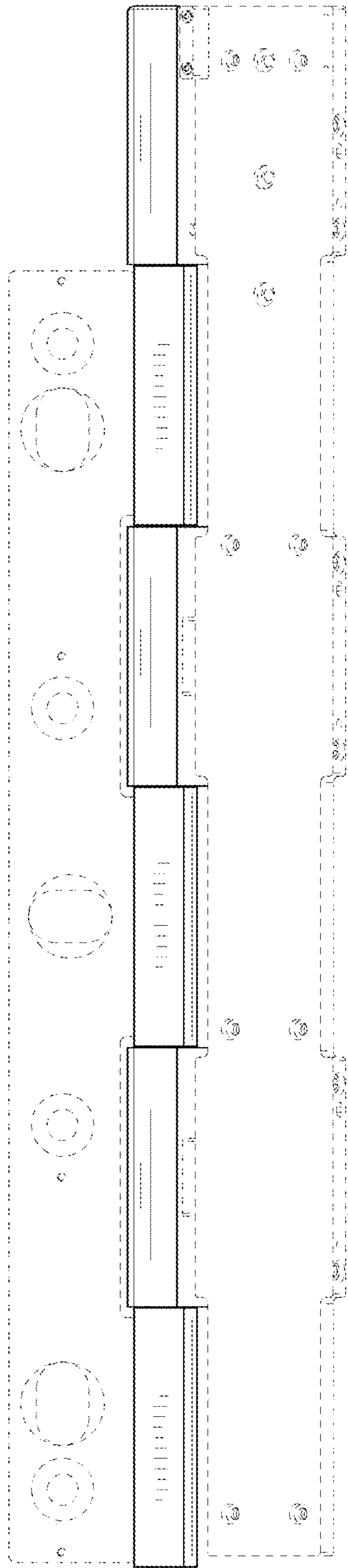


FIG. 35

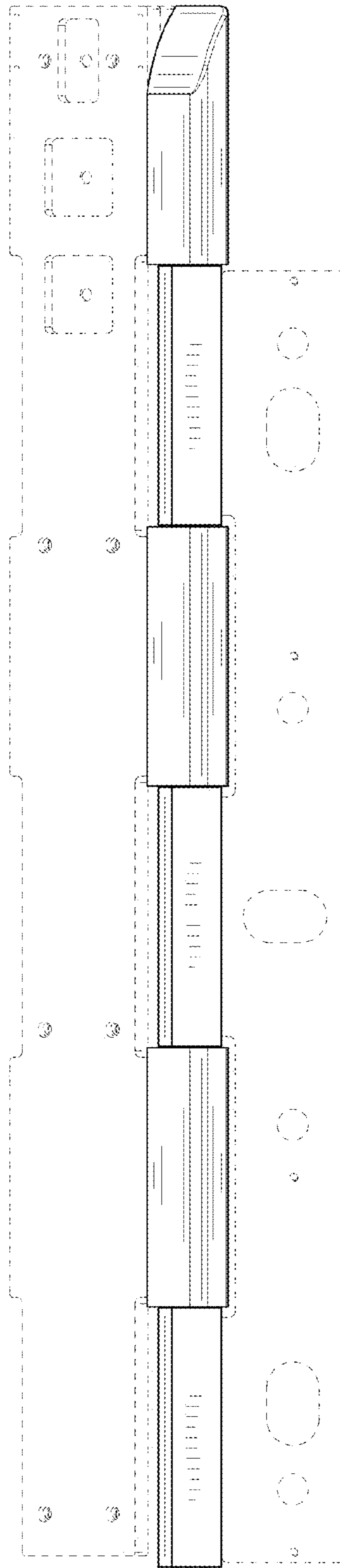


FIG. 36

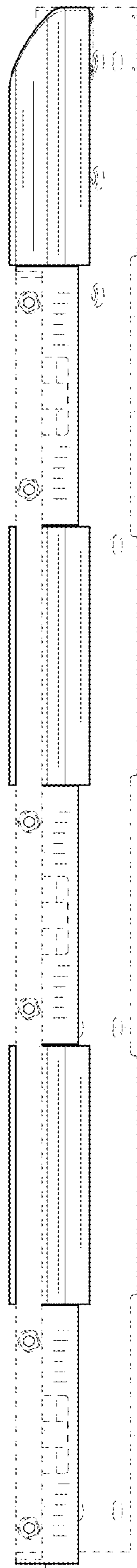


FIG. 37

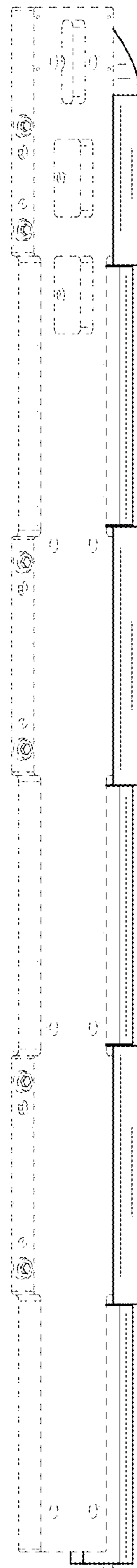


FIG. 38

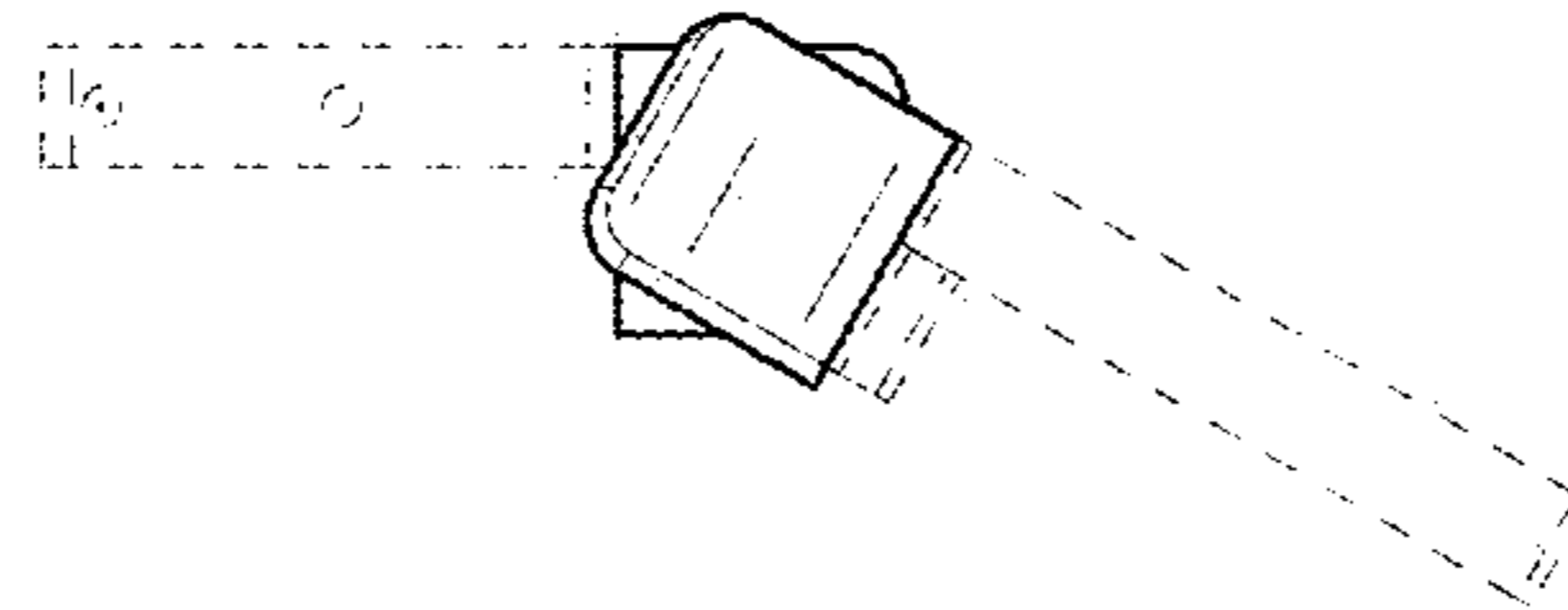


FIG. 39

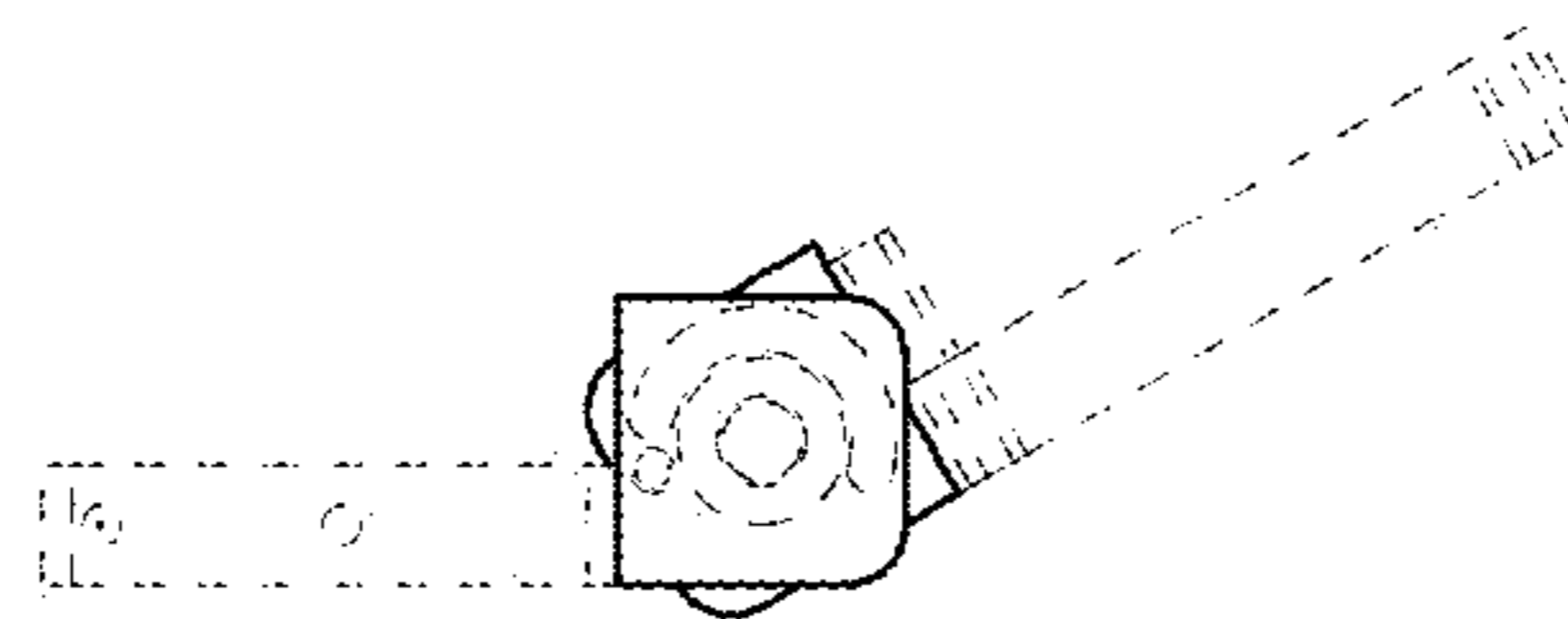


FIG. 40

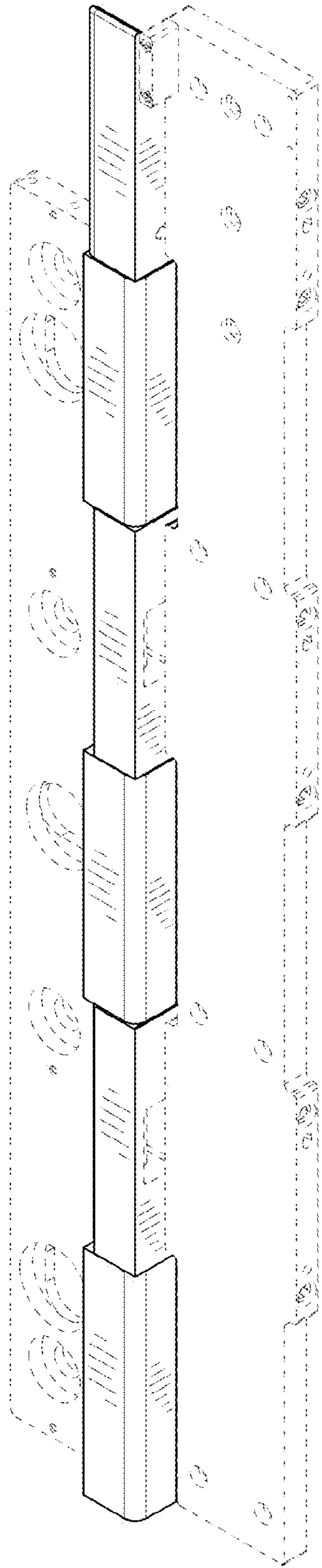


FIG. 41

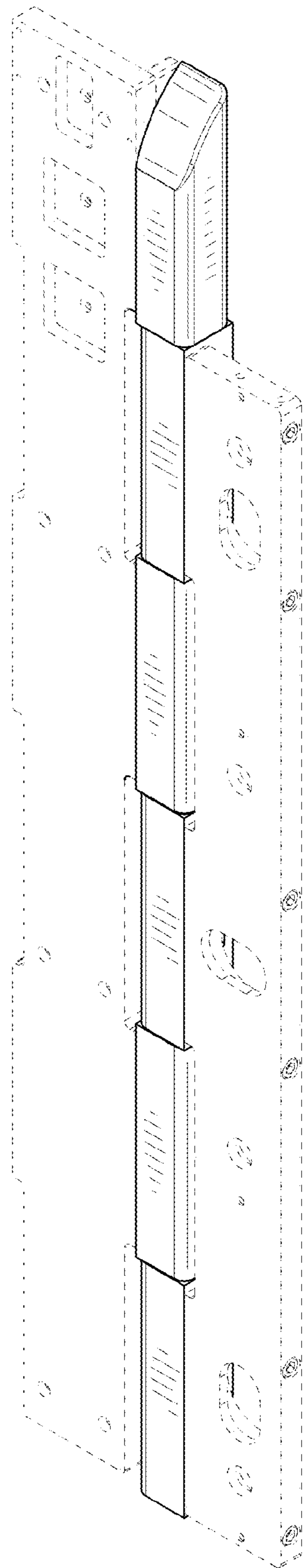


FIG. 42



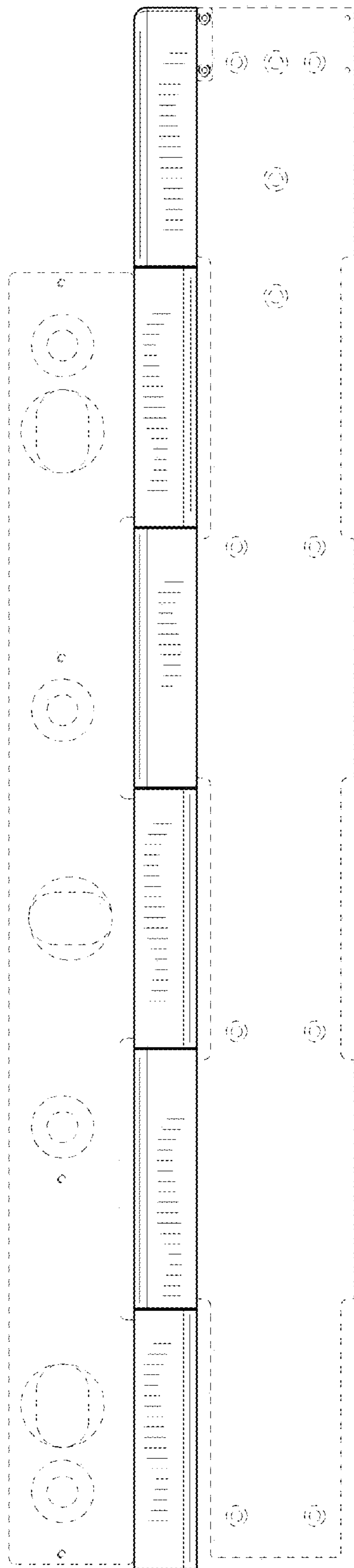


FIG. 43

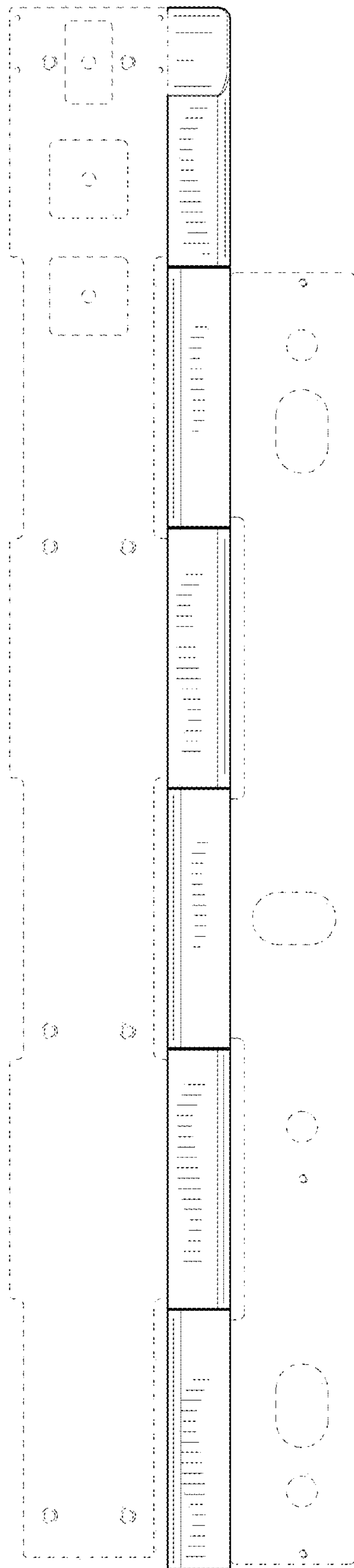


FIG. 44



FIG. 45



FIG. 46

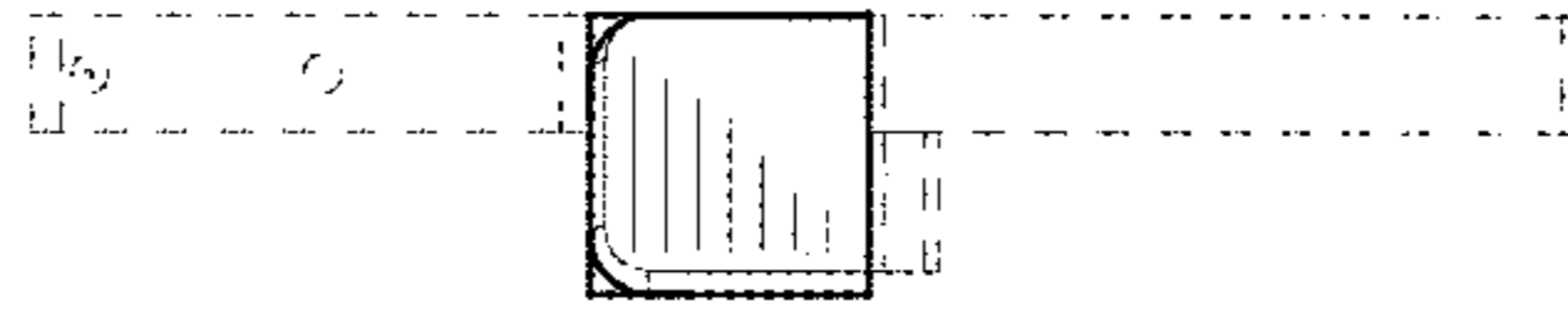


FIG. 47



FIG. 48

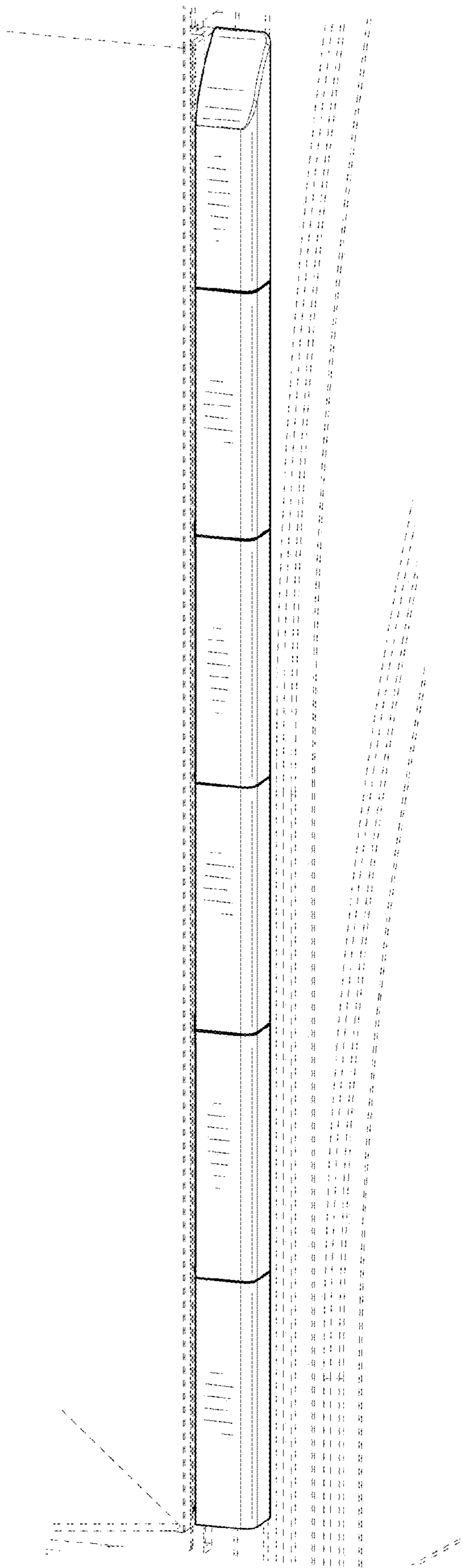


FIG. 49

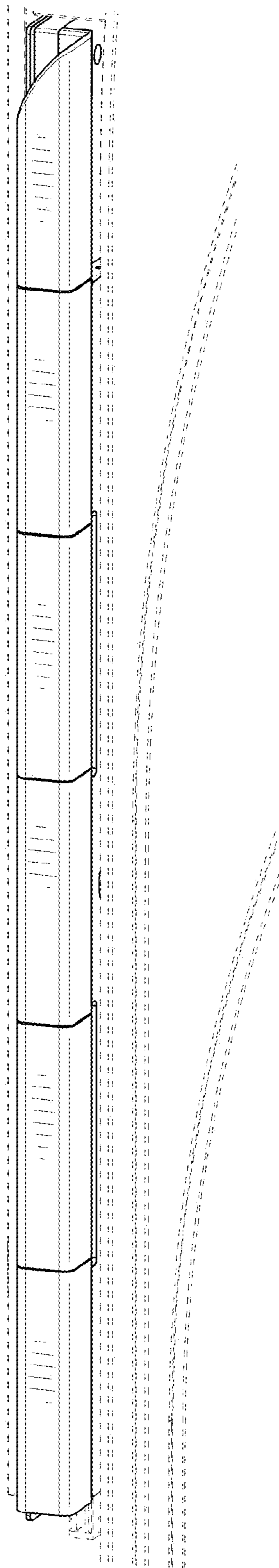


FIG. 50

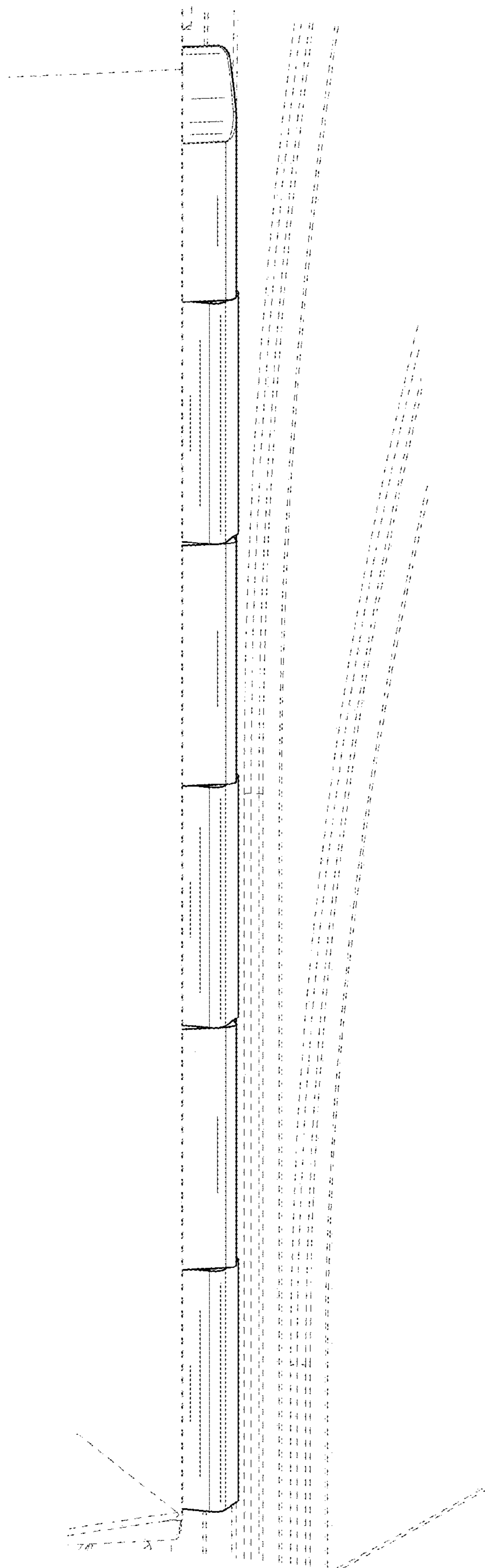


FIG. 51

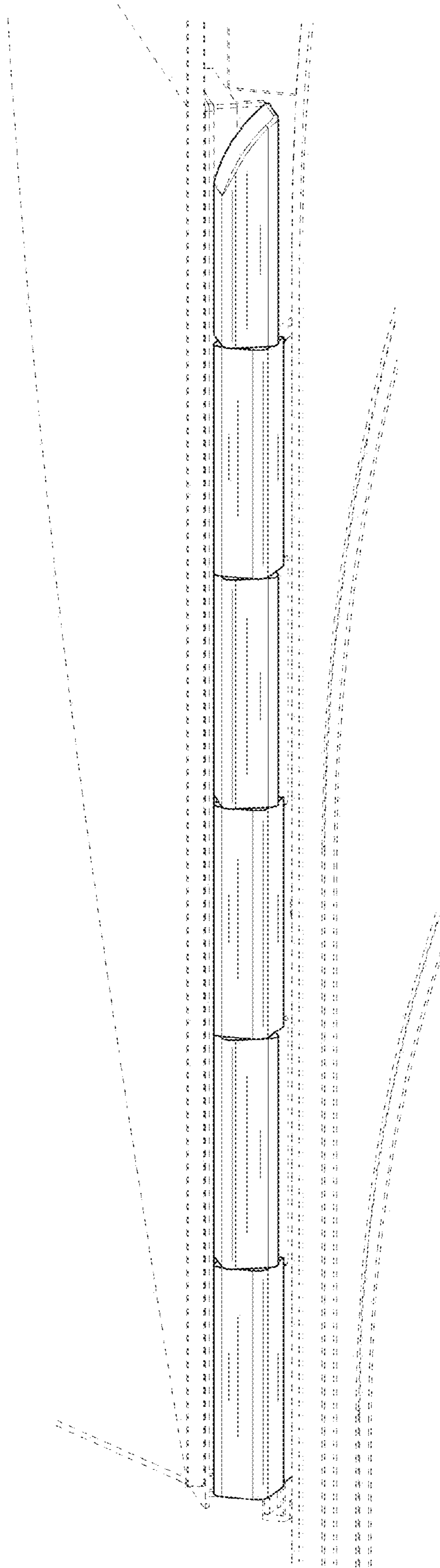


FIG. 52

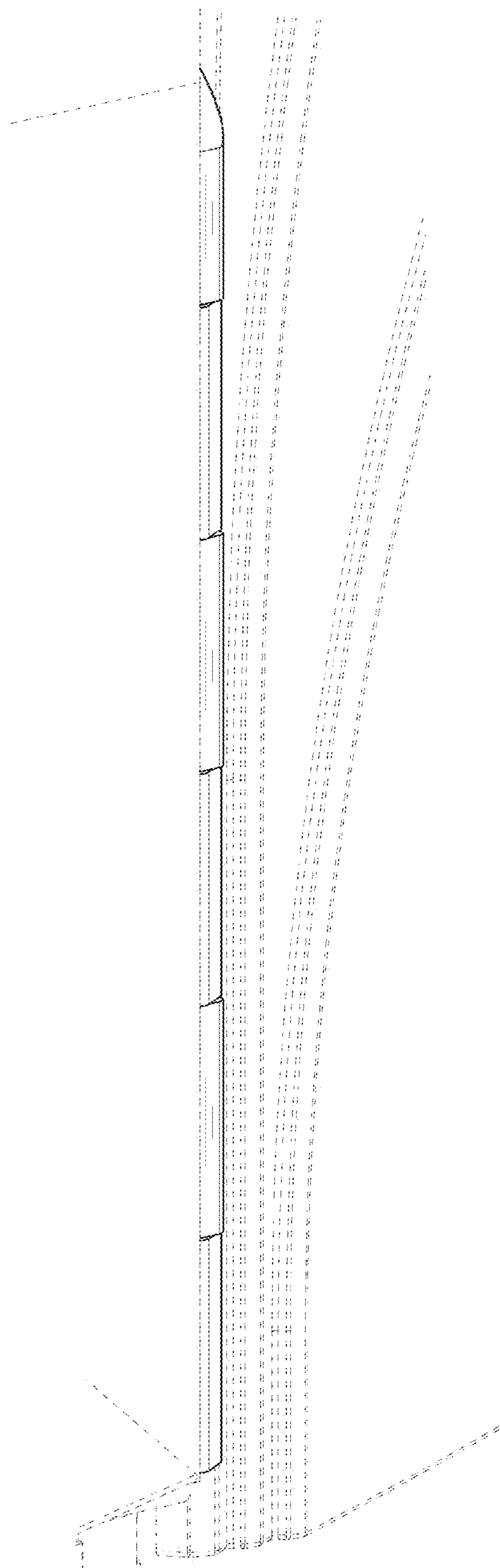


FIG. 53



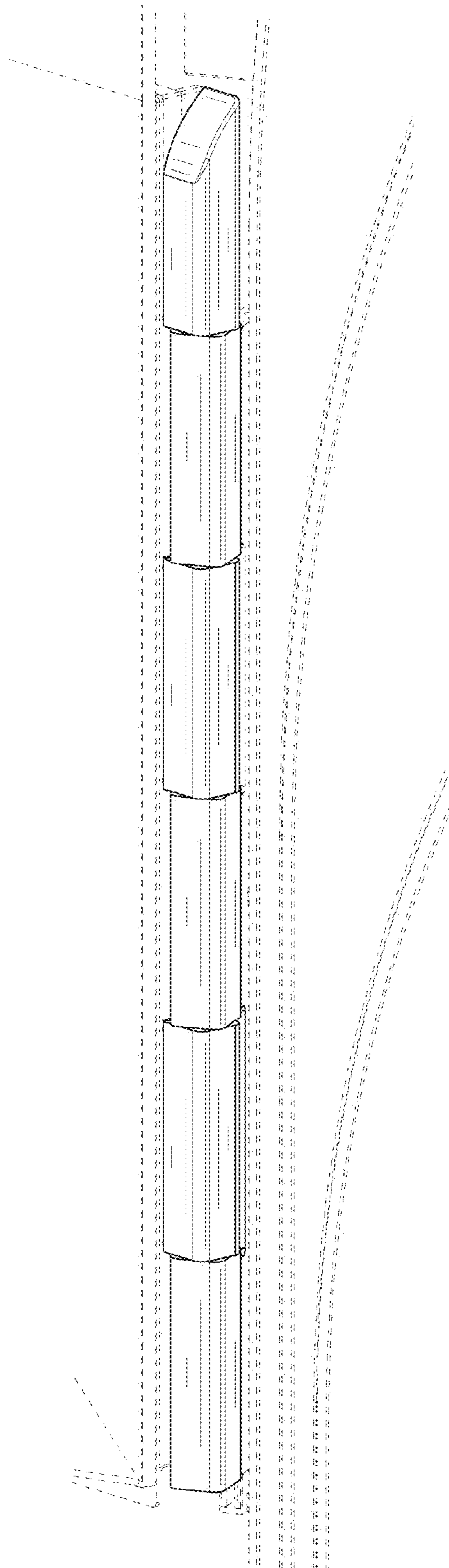


FIG. 54

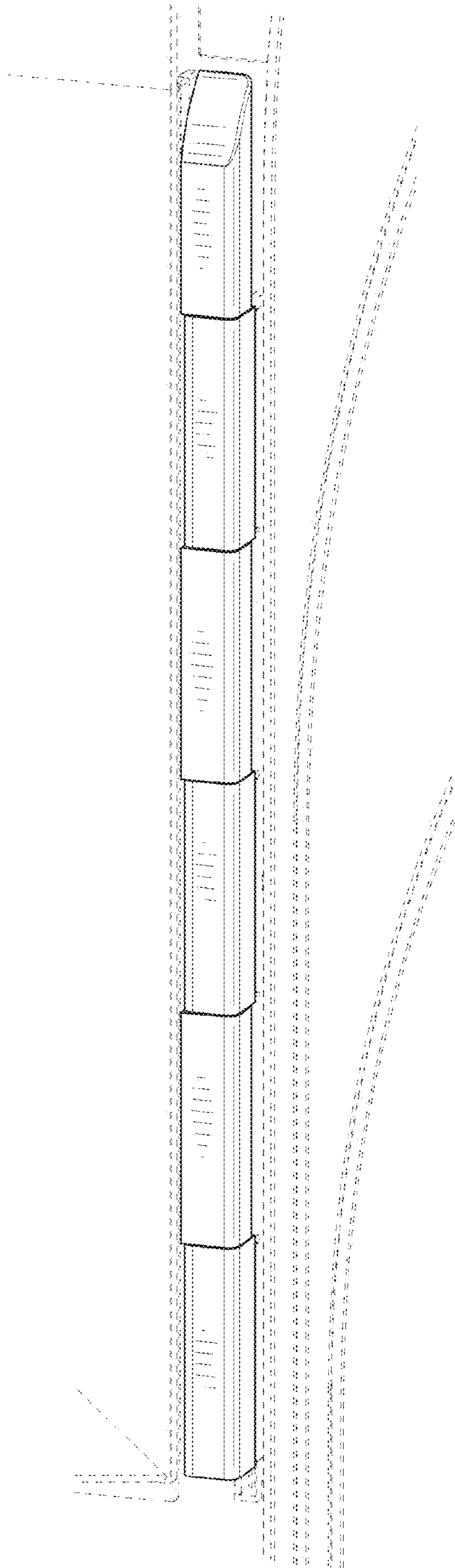


FIG. 55

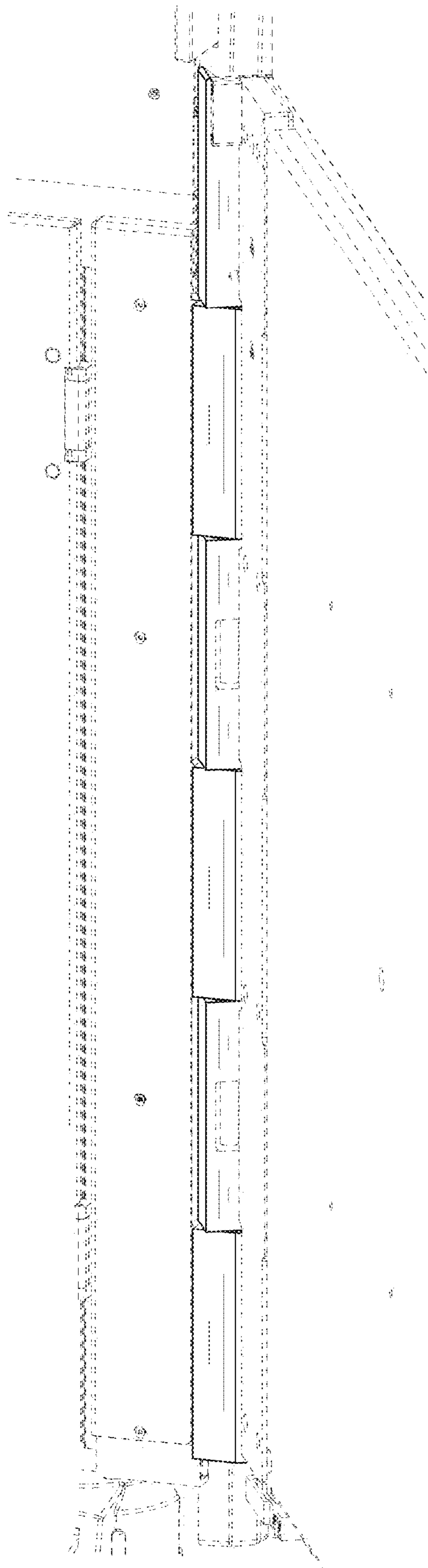


FIG. 56

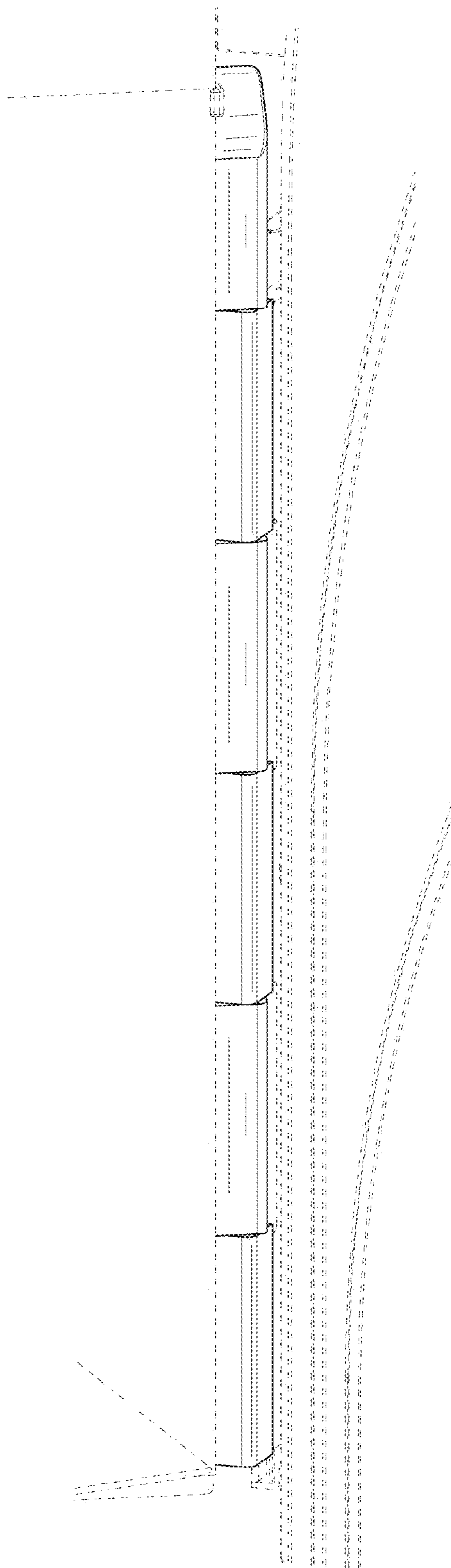


FIG. 57

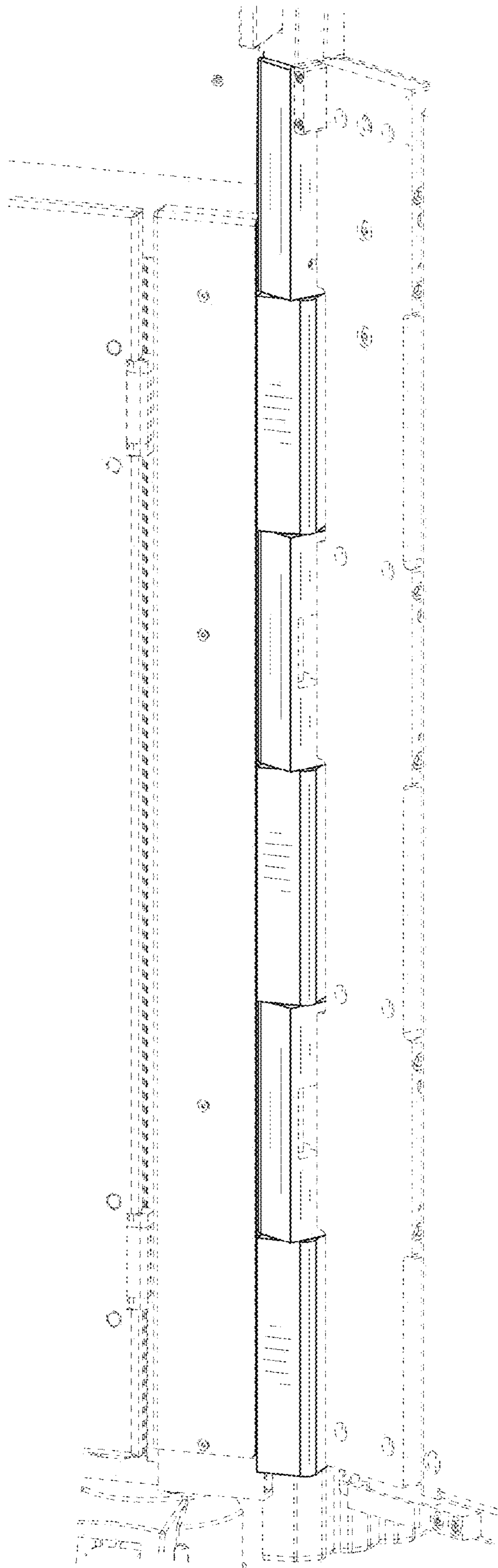


FIG. 58

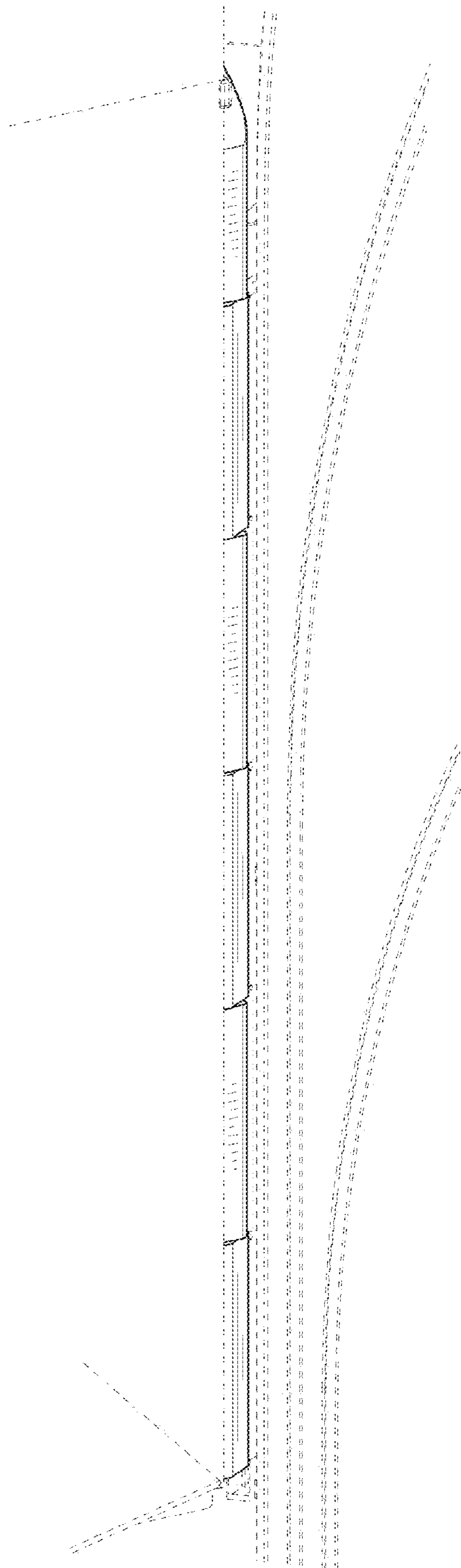


FIG. 59

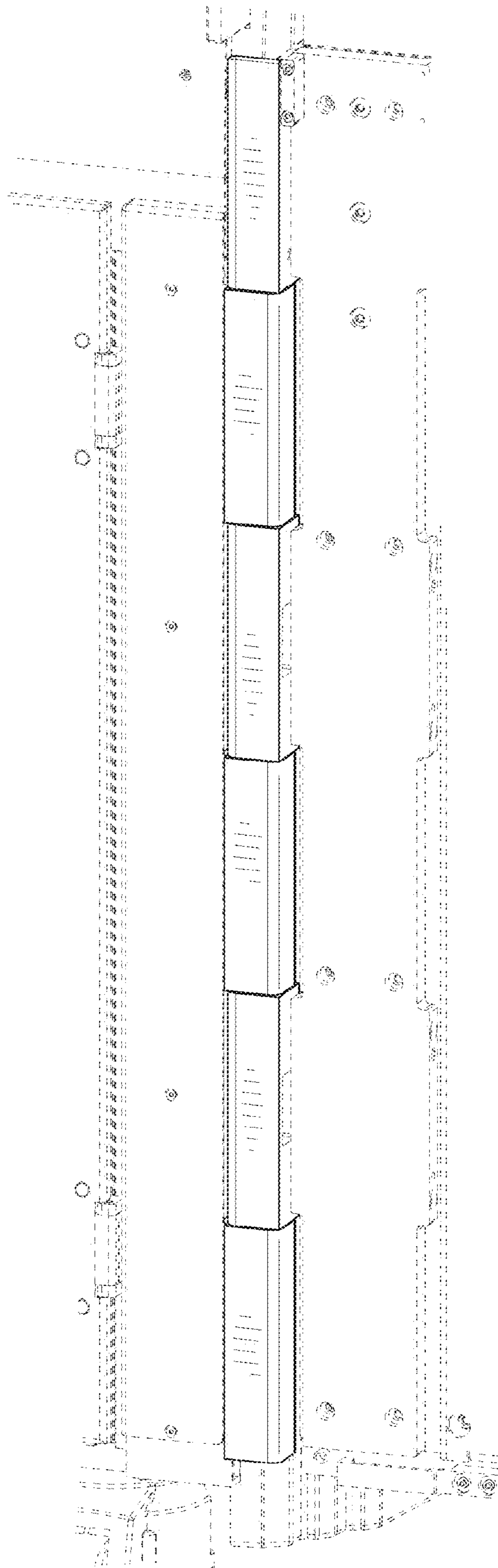


FIG. 60

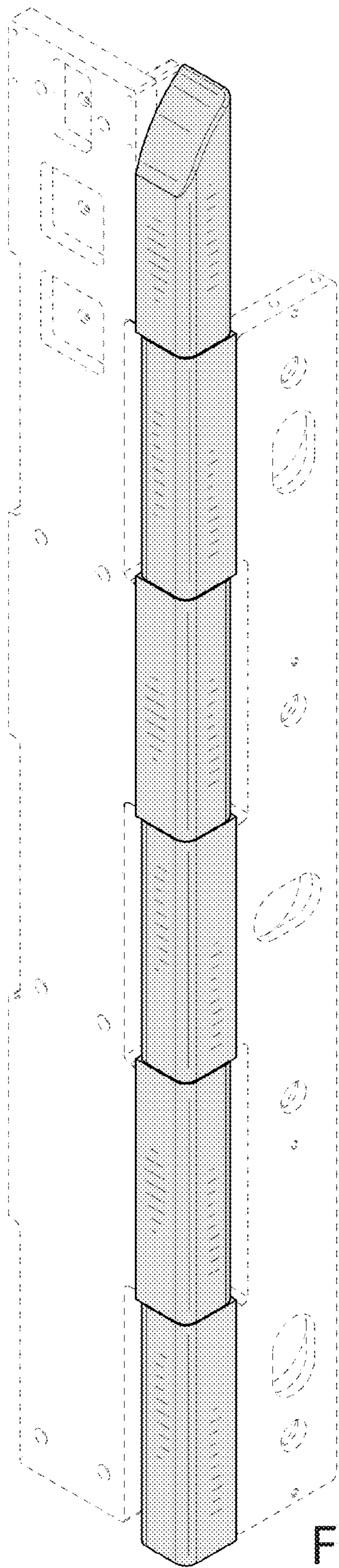


FIG. 61

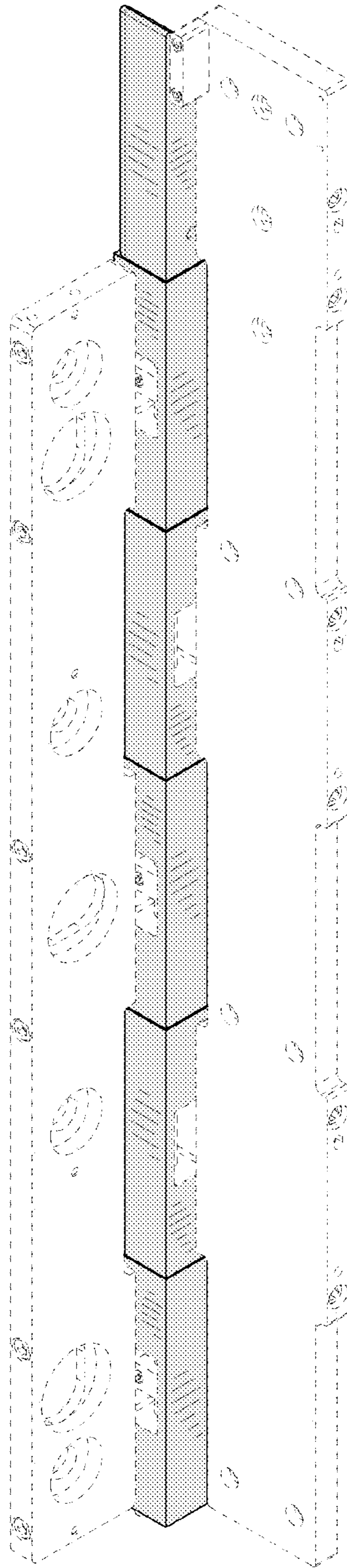


FIG. 62



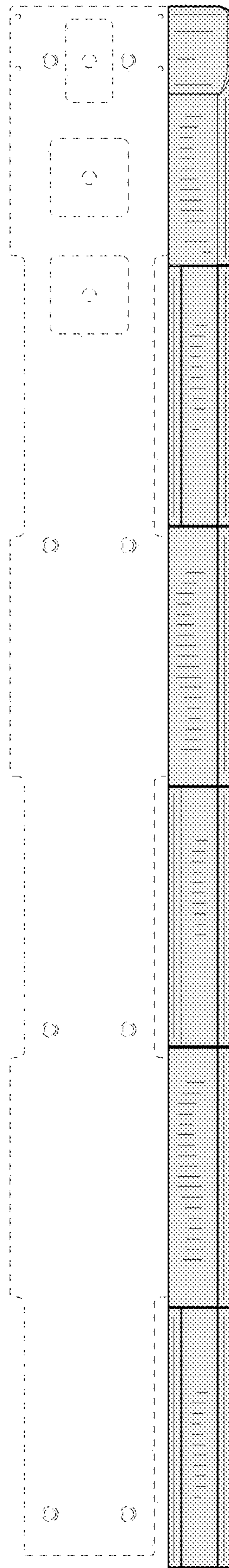


FIG. 63

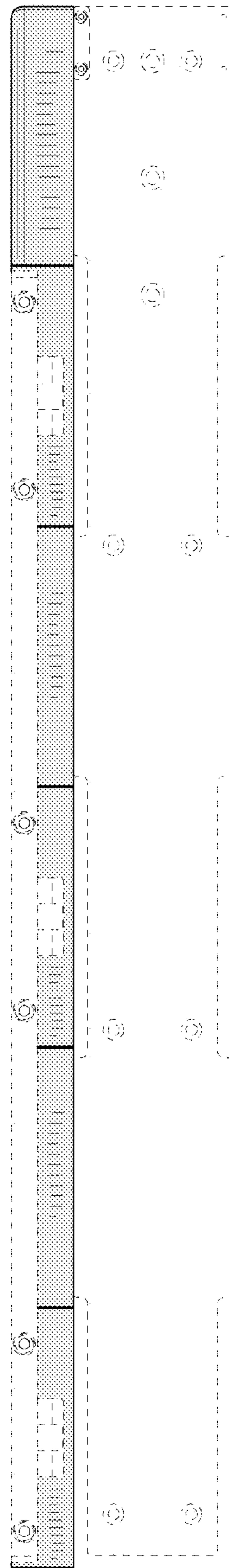


FIG. 64

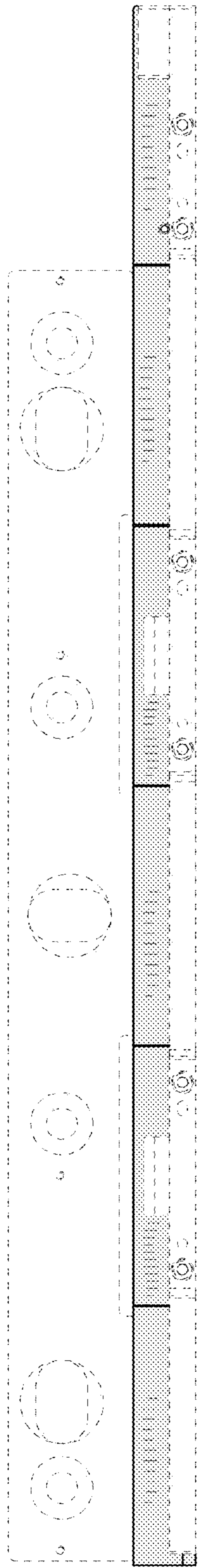


FIG. 65

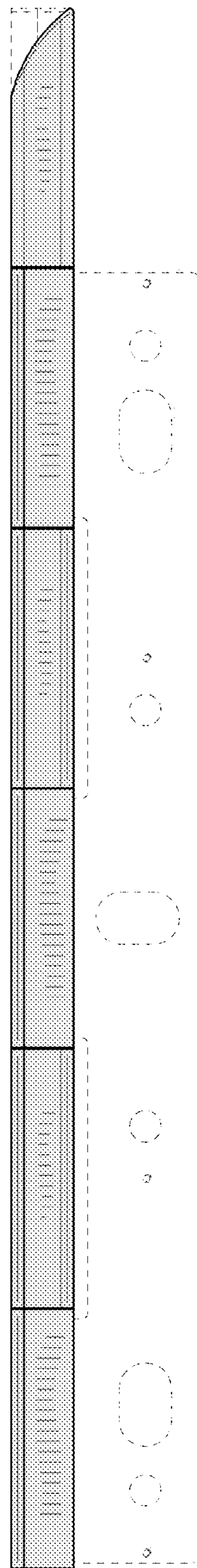


FIG. 66

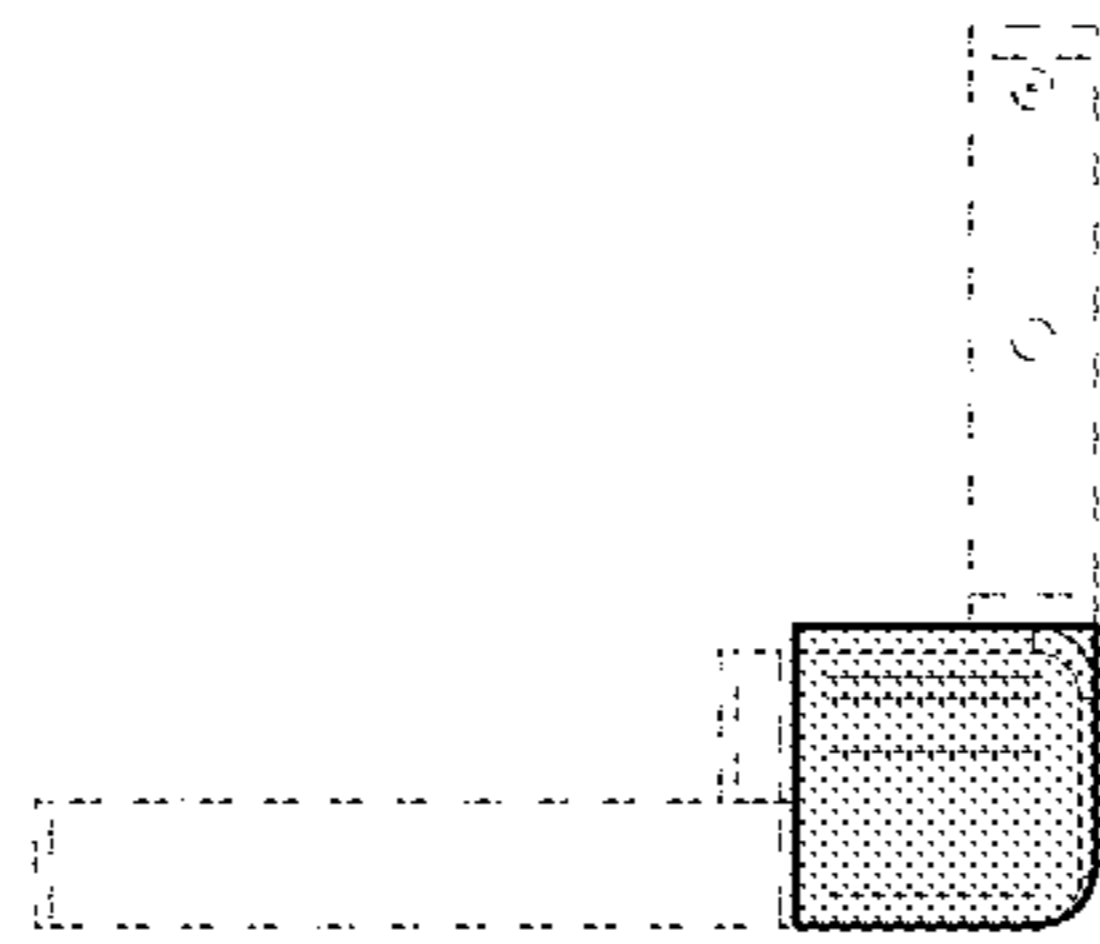


FIG. 67

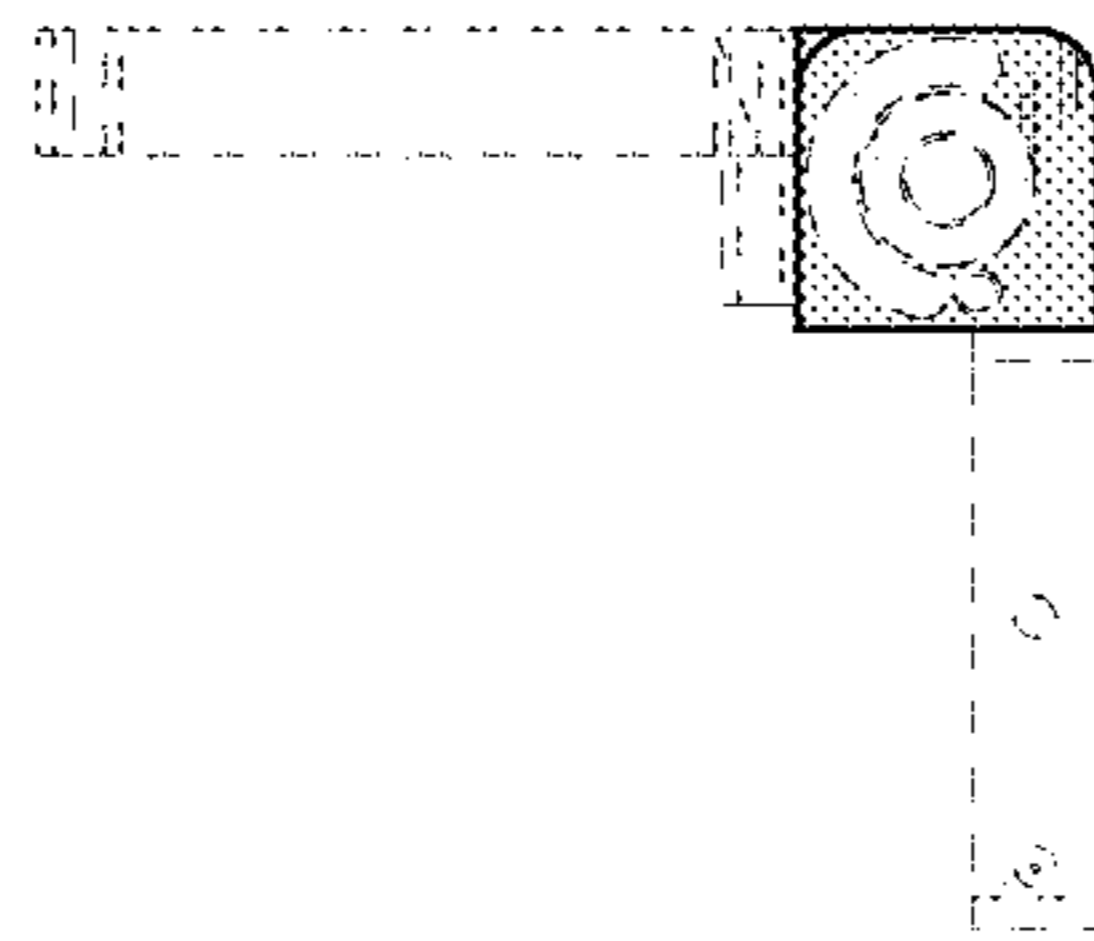


FIG. 68

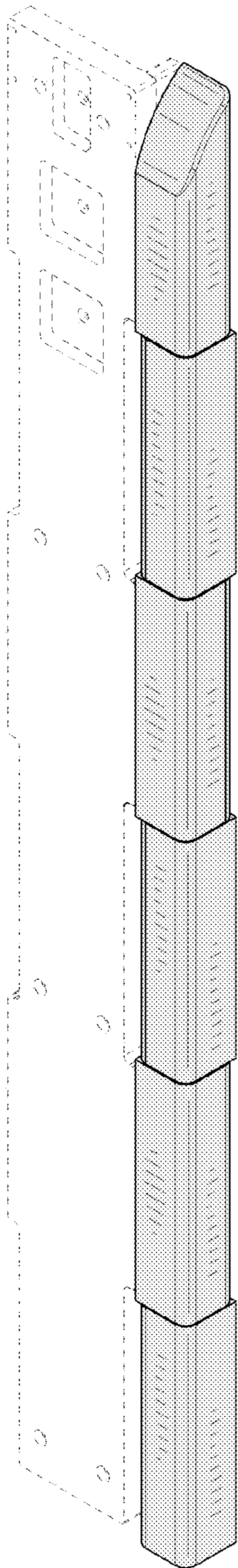


FIG. 69

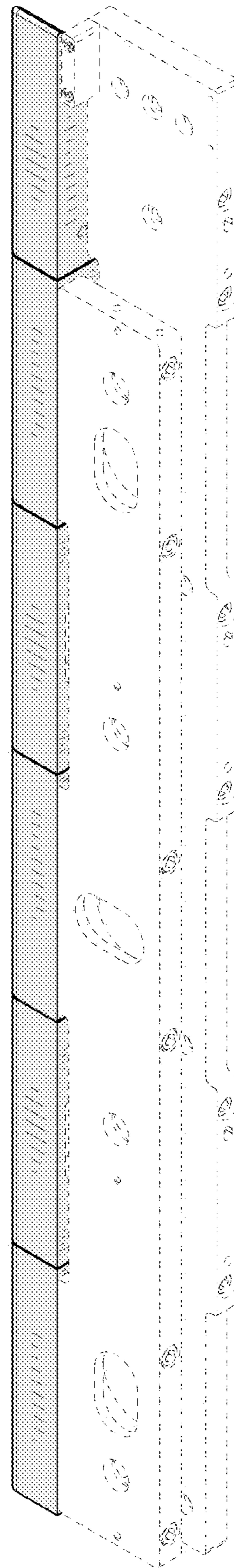


FIG. 70

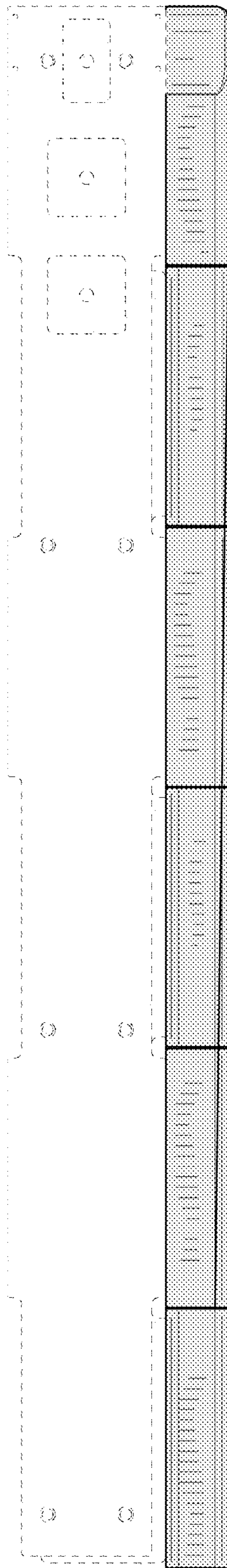


FIG. 71

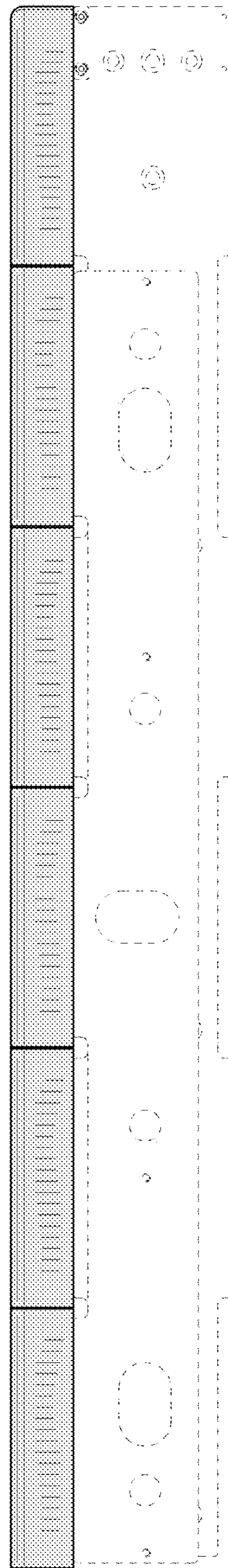


FIG. 72



FIG. 73

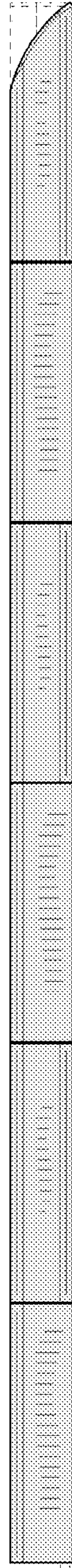


FIG. 74



FIG. 75



FIG. 76

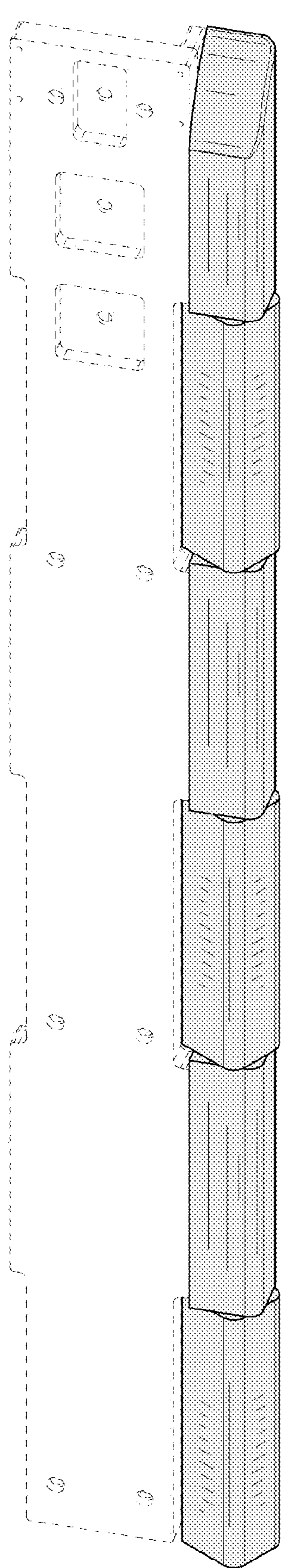


FIG. 77

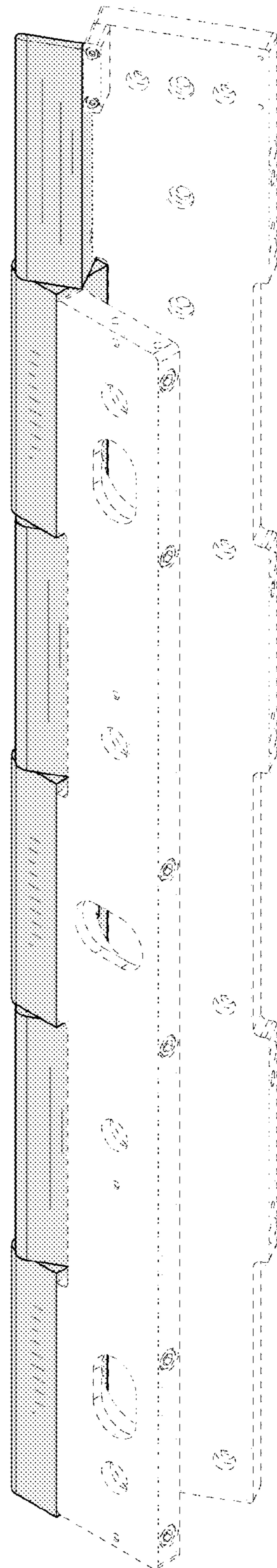


FIG. 78



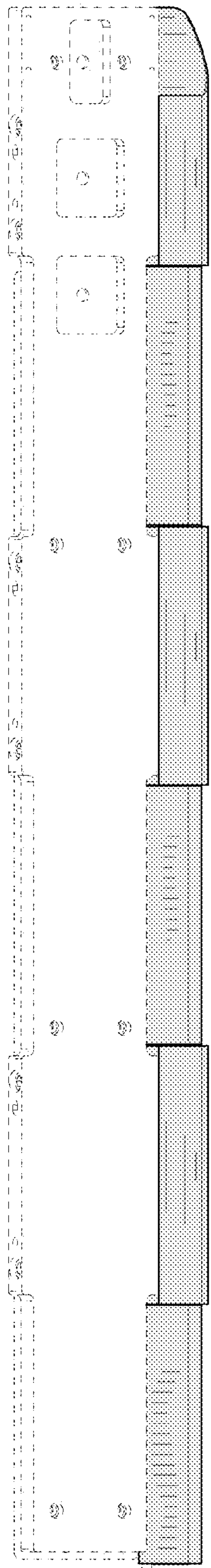


FIG. 79

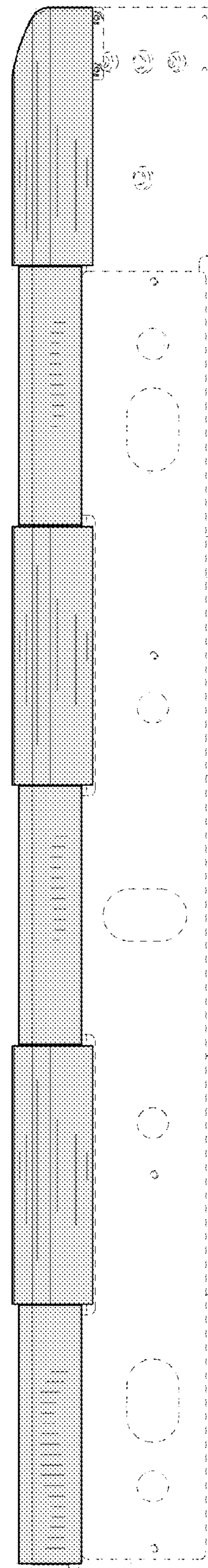


FIG. 80

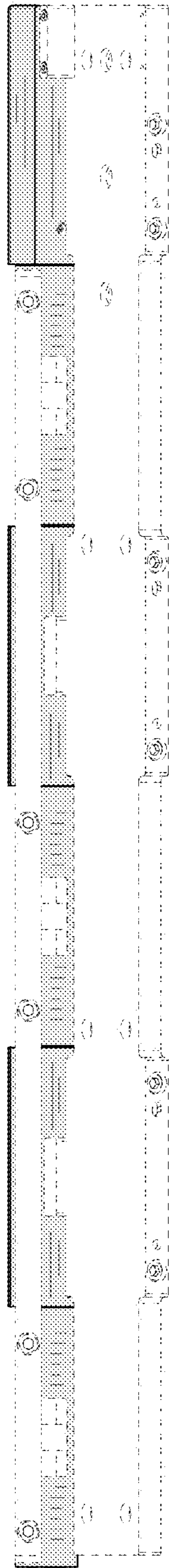


FIG. 81

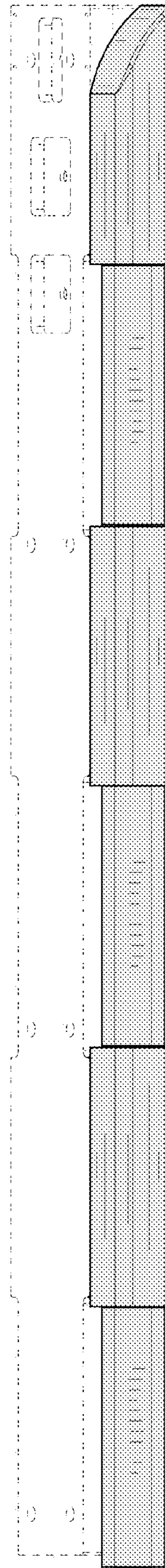


FIG. 82

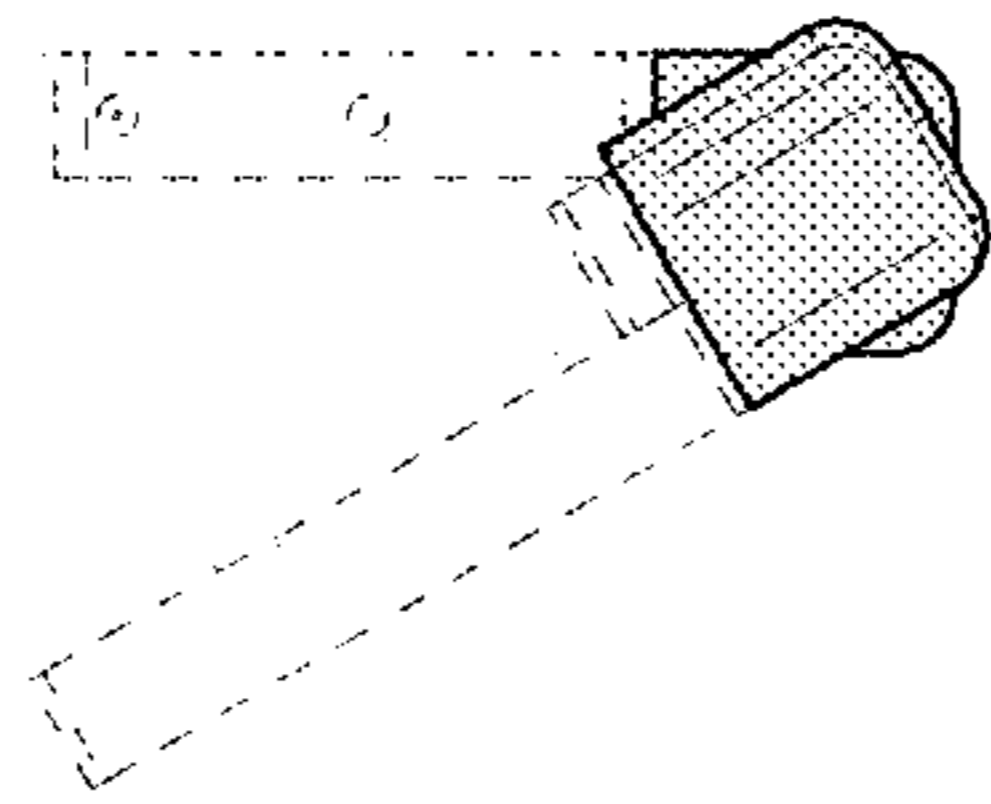


FIG. 83

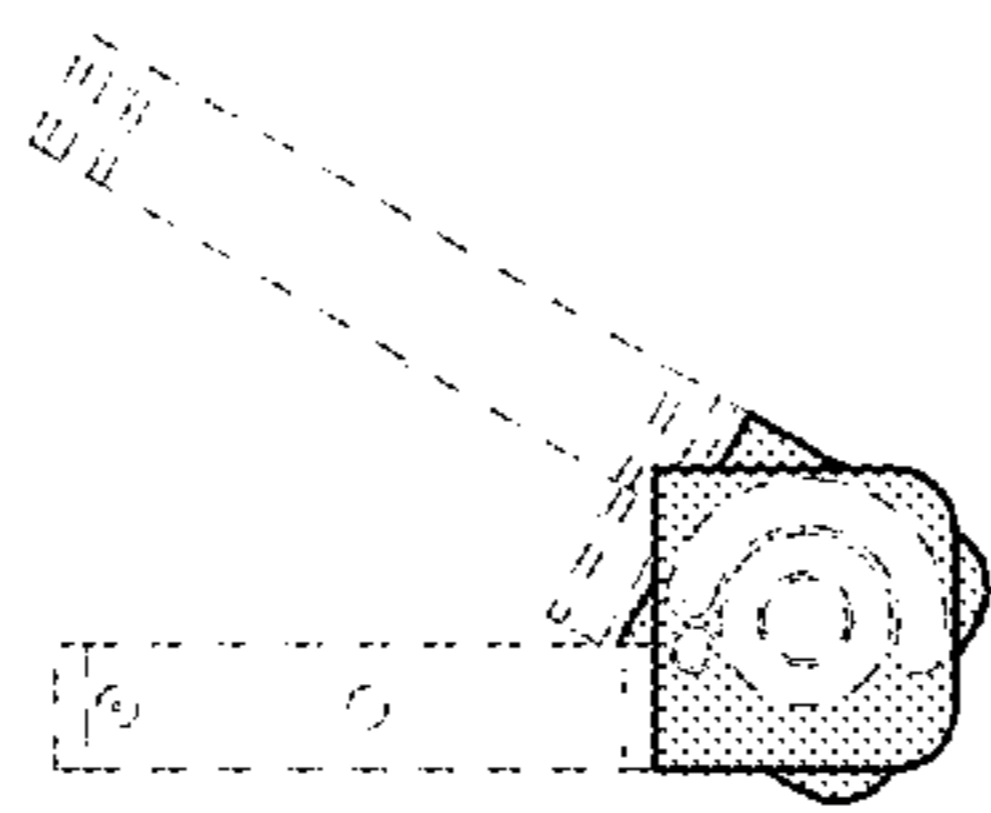


FIG. 84

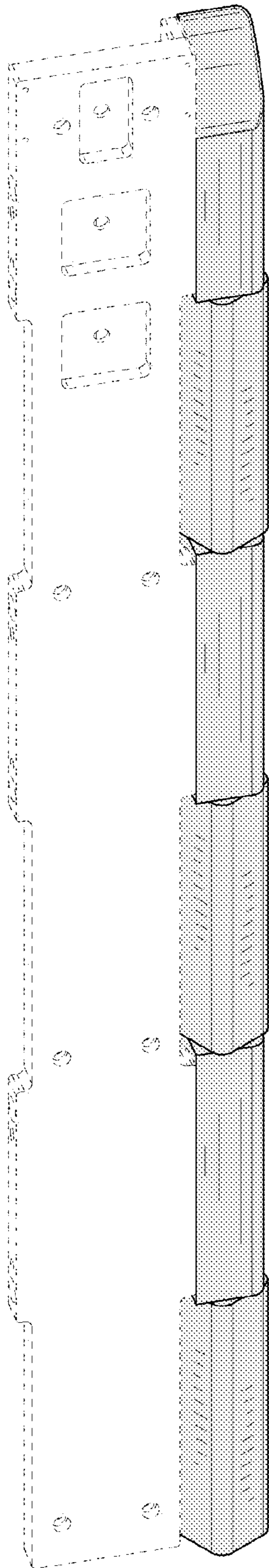


FIG. 85

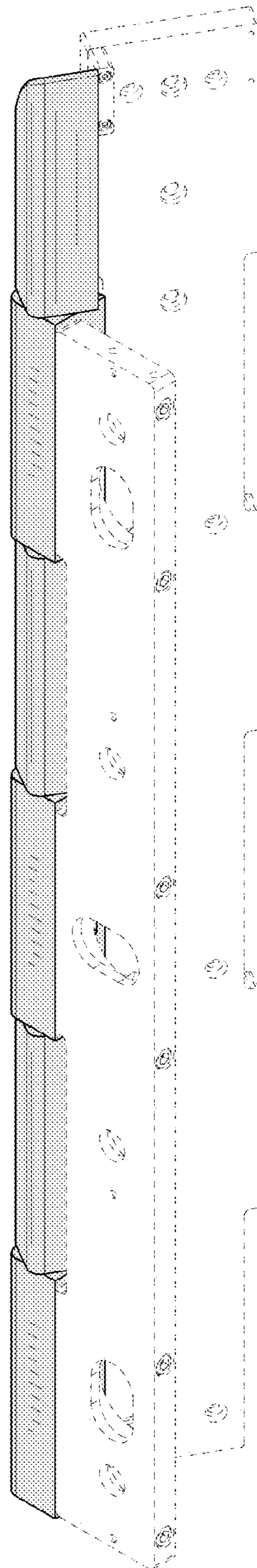


FIG. 86

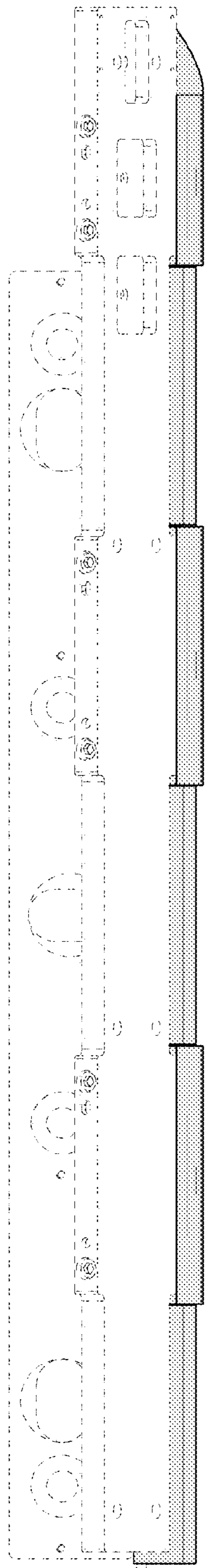


FIG. 87

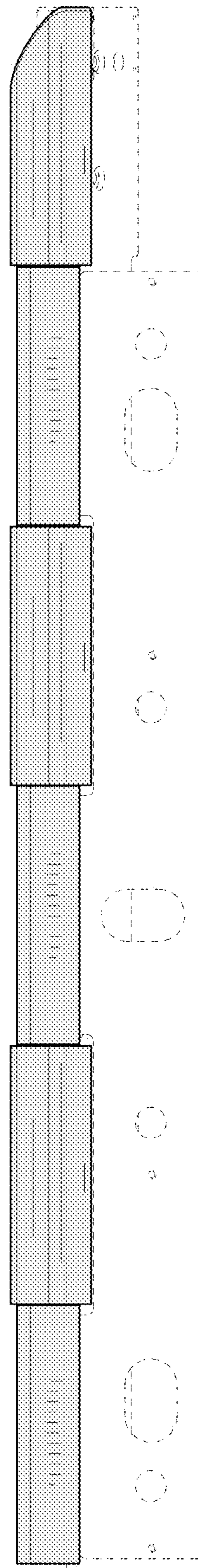


FIG. 88

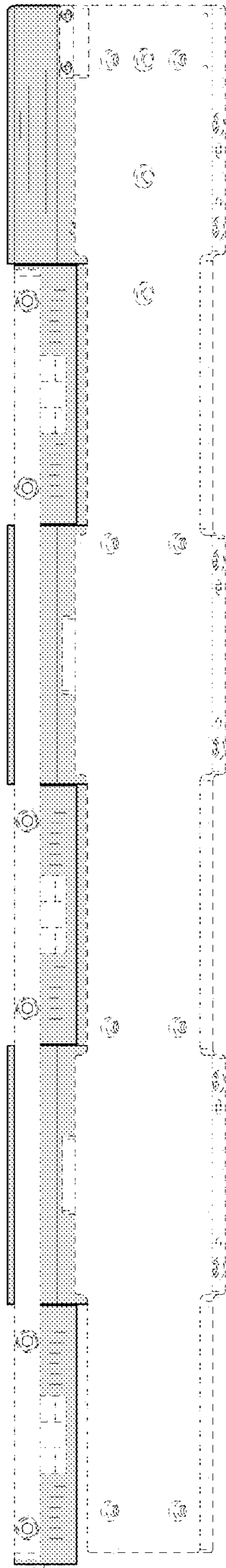


FIG. 89

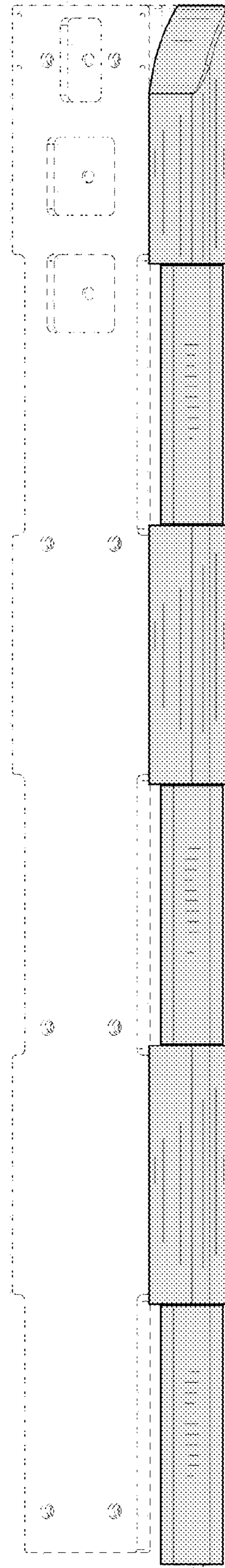


FIG. 90

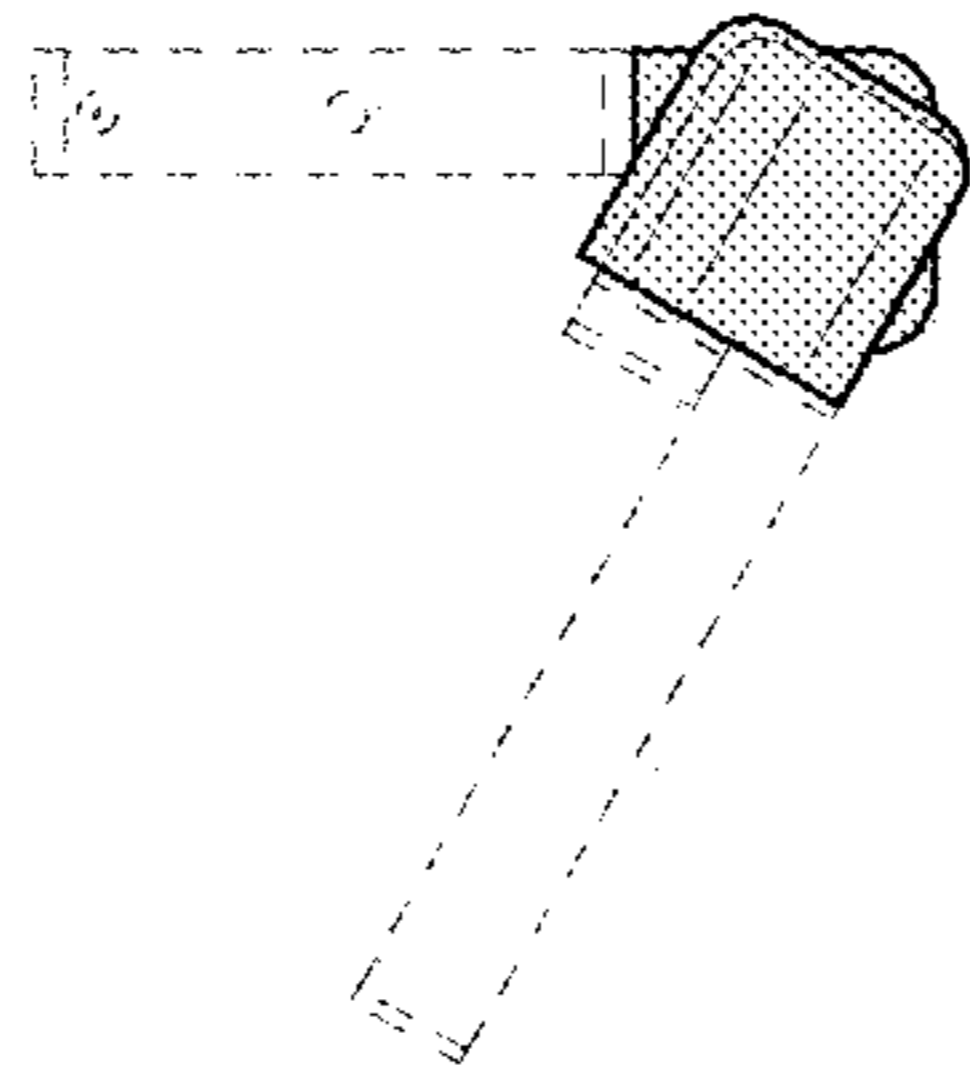


FIG. 91

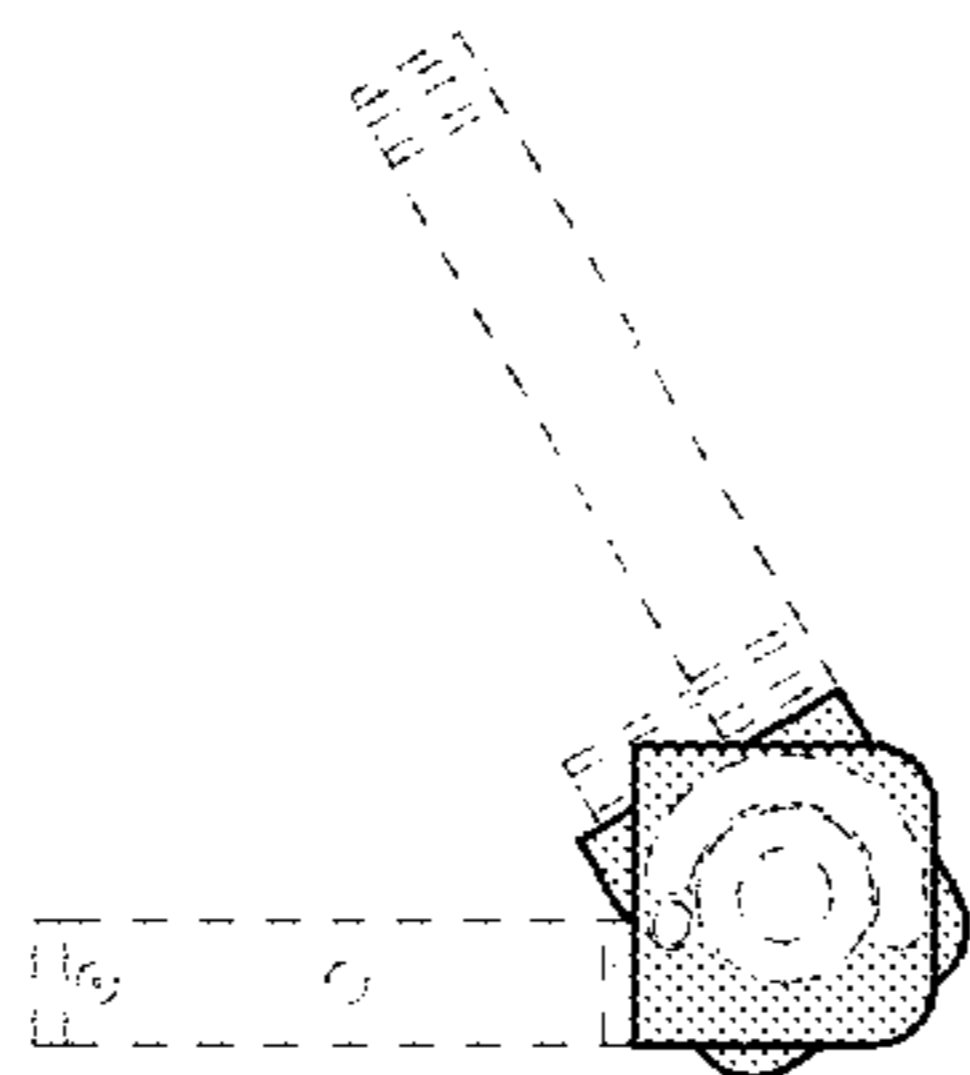


FIG. 92

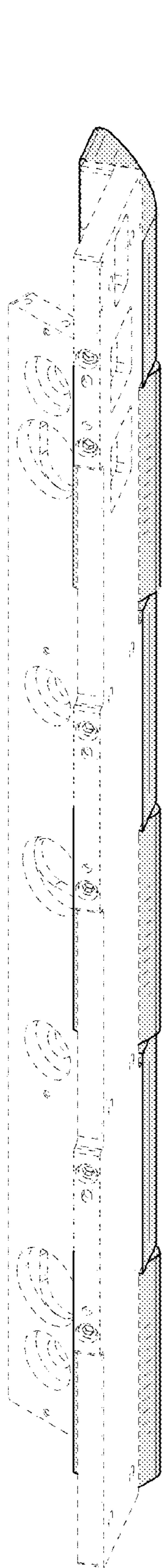


FIG. 93

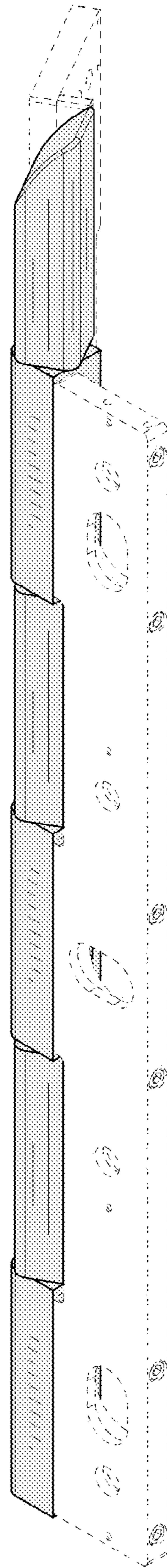


FIG. 94



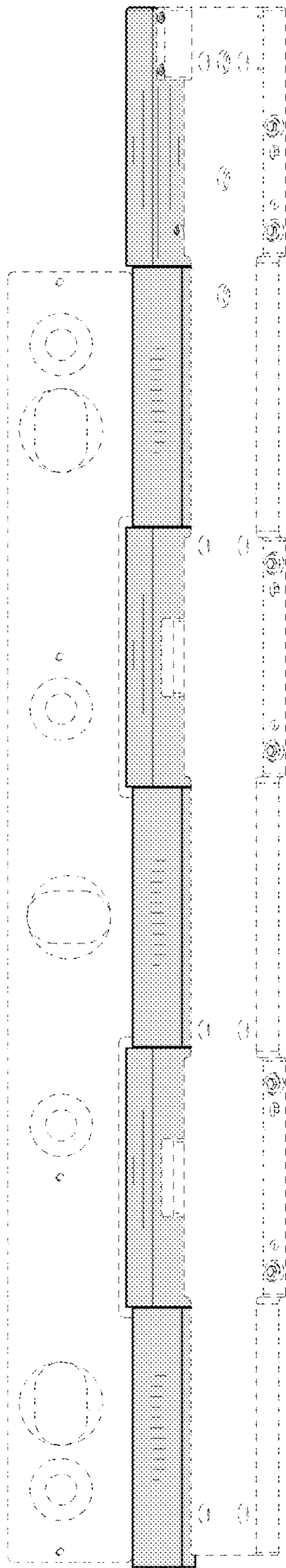


FIG. 95

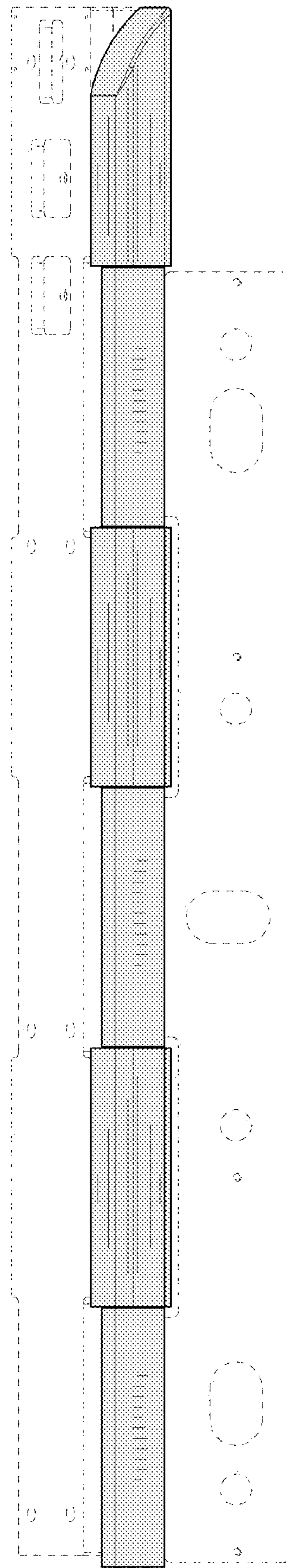


FIG. 96

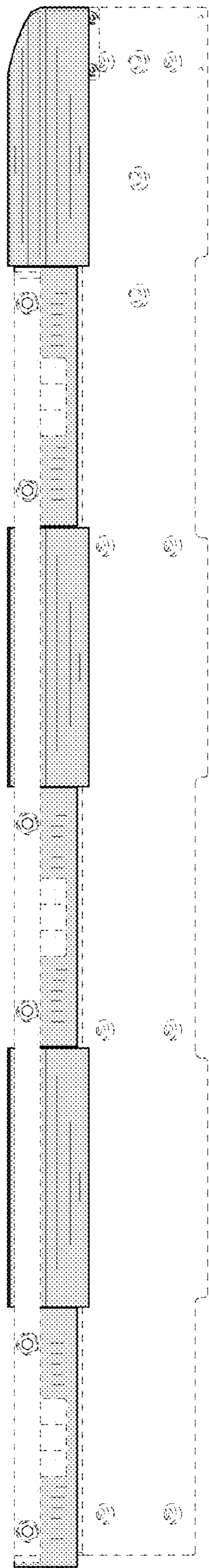


FIG. 97

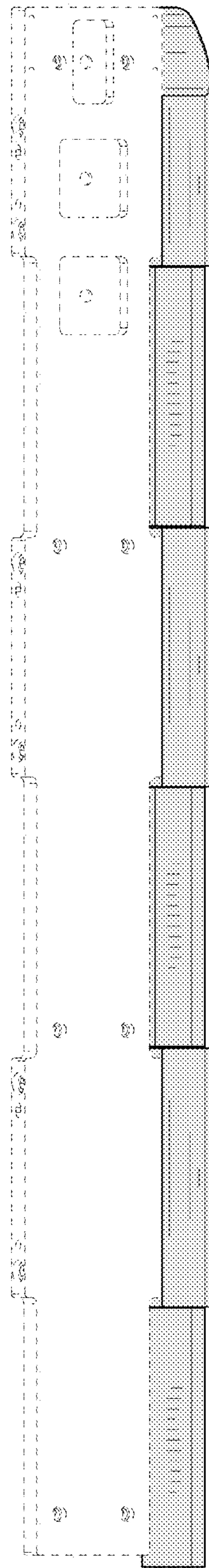


FIG. 98

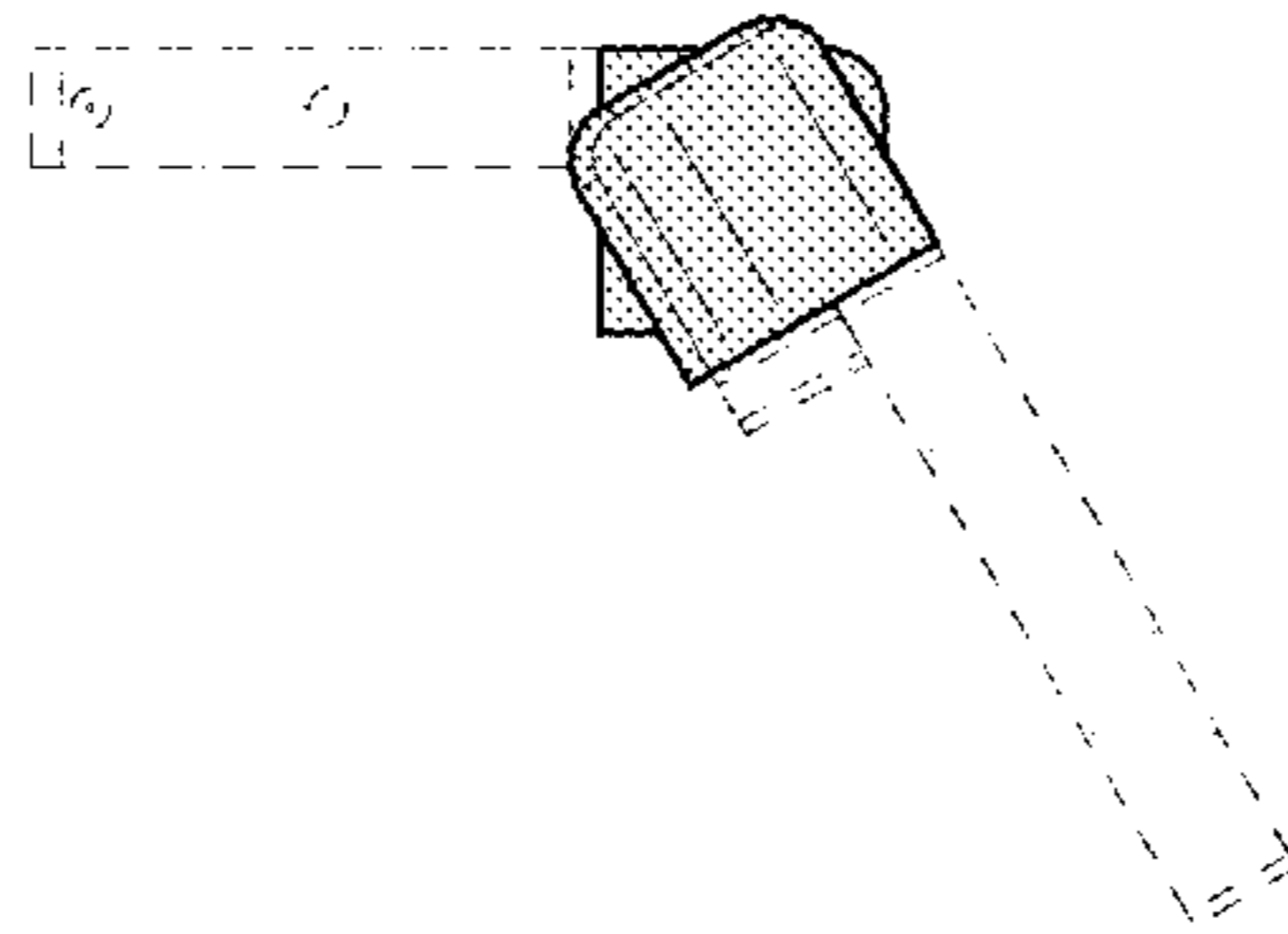


FIG. 99

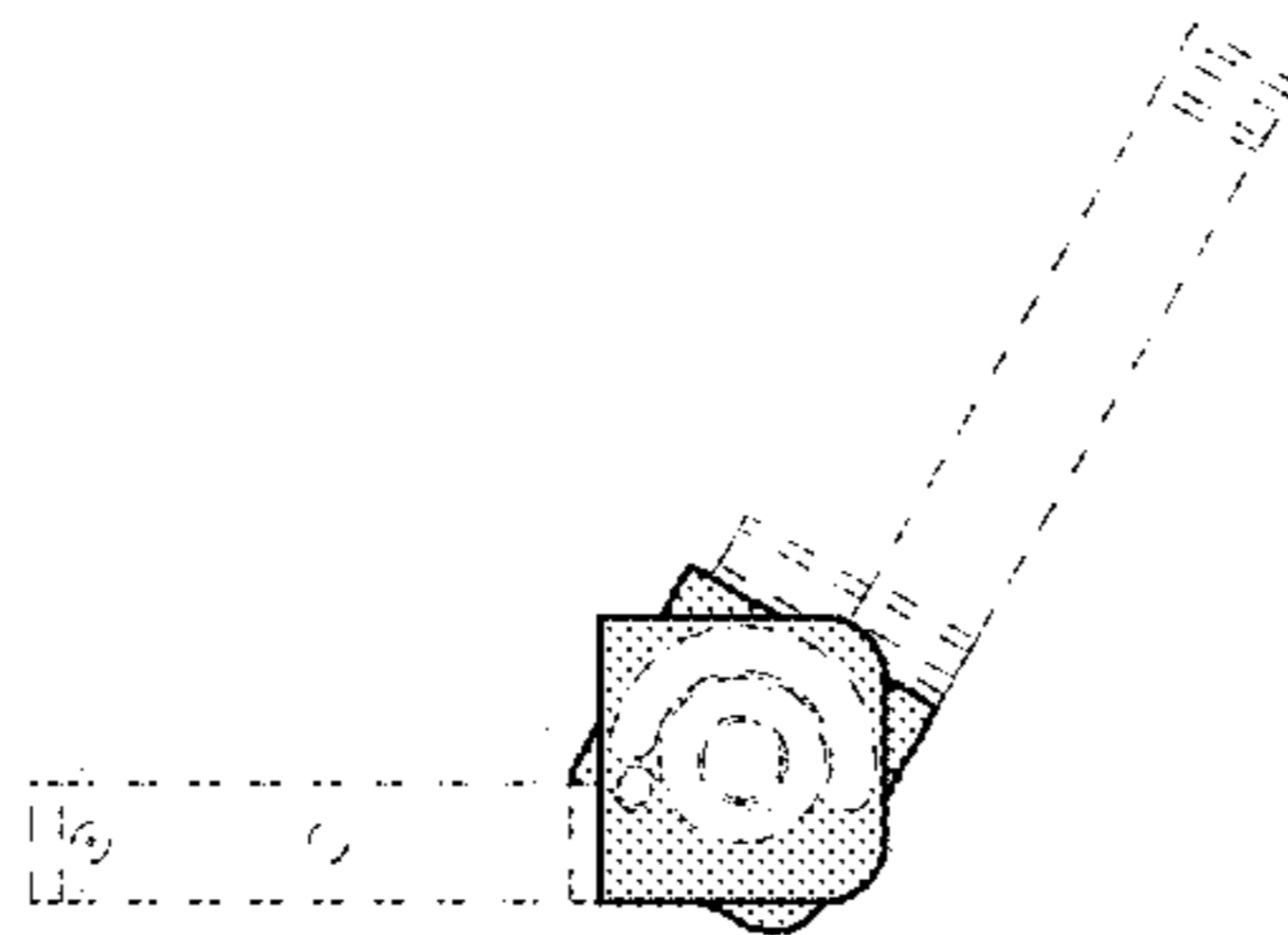


FIG. 100

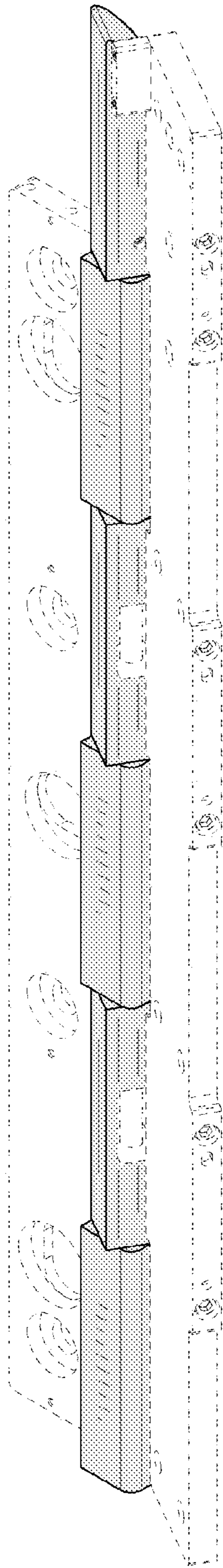


FIG. 101

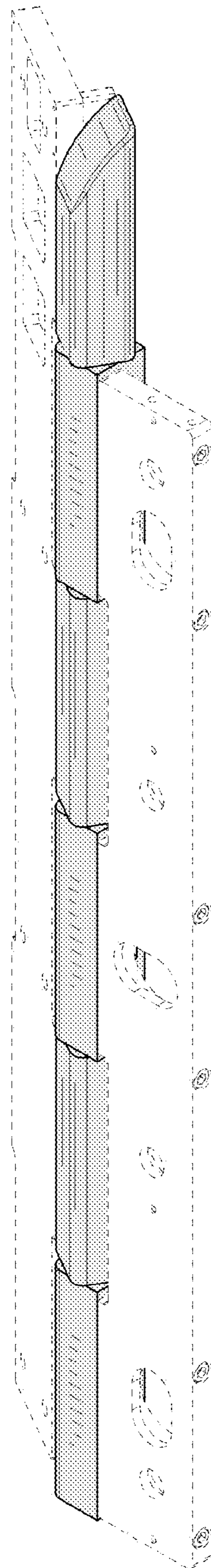


FIG. 102

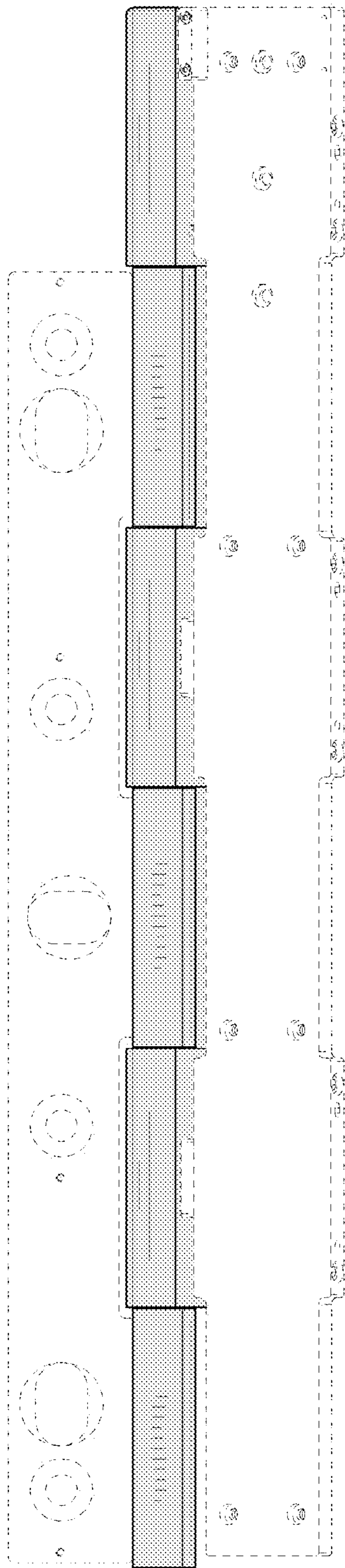


FIG. 103

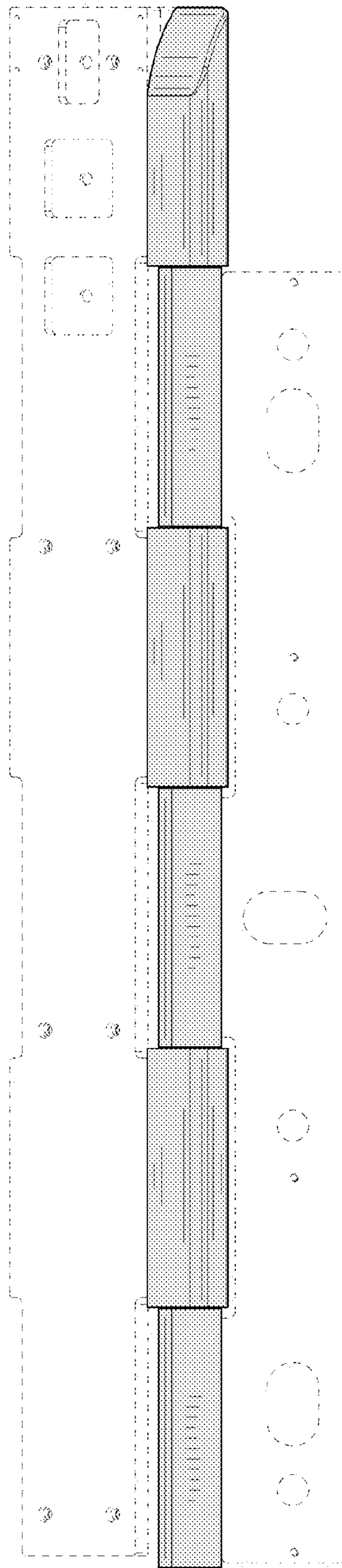


FIG. 104

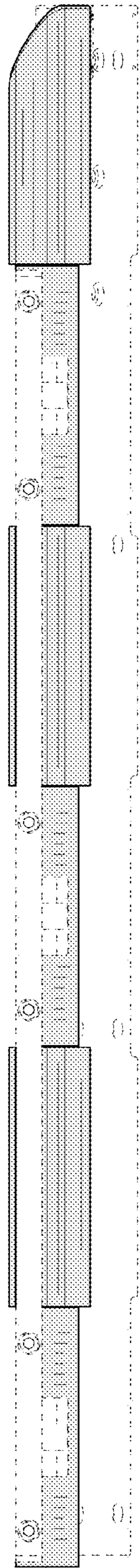


FIG. 105

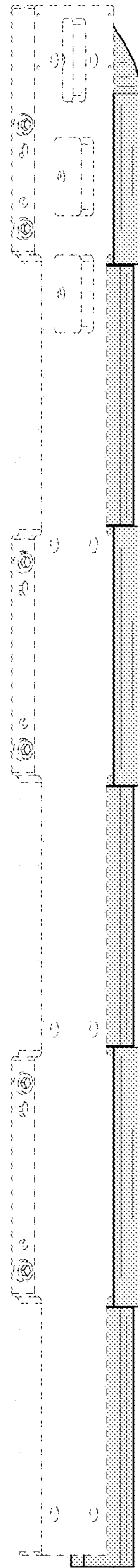


FIG. 106

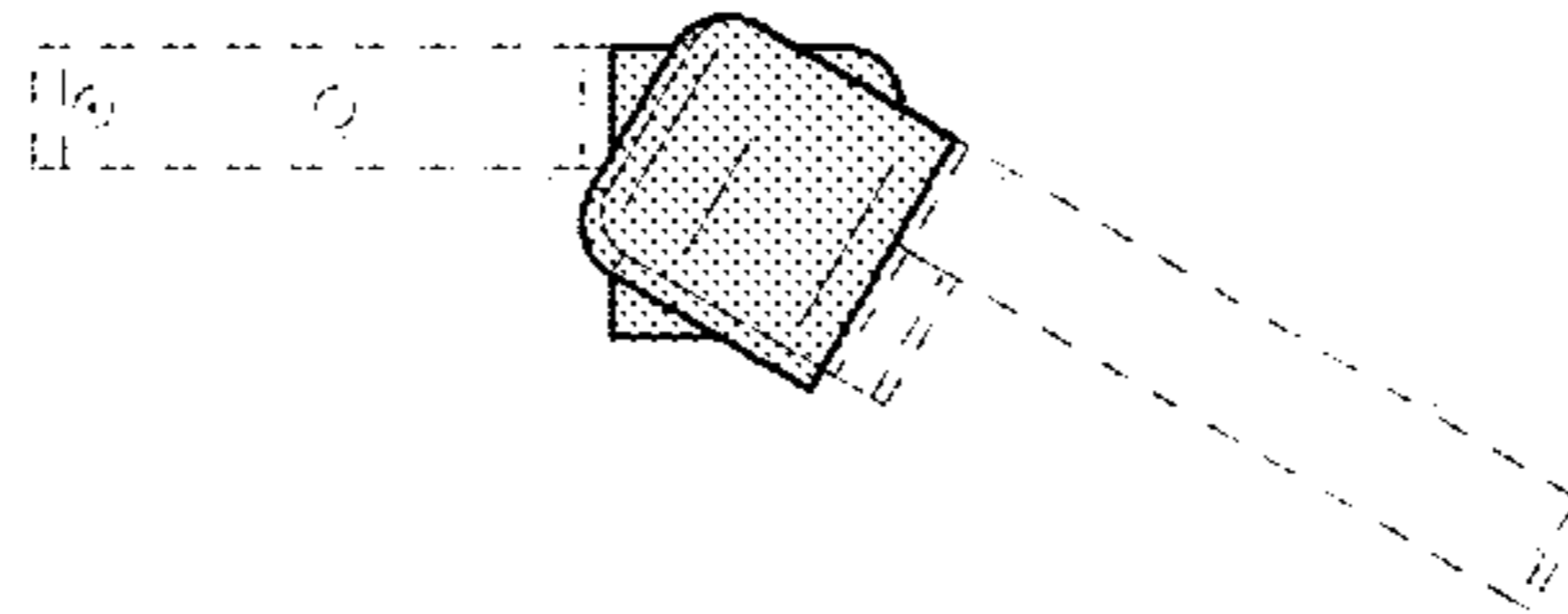


FIG. 107

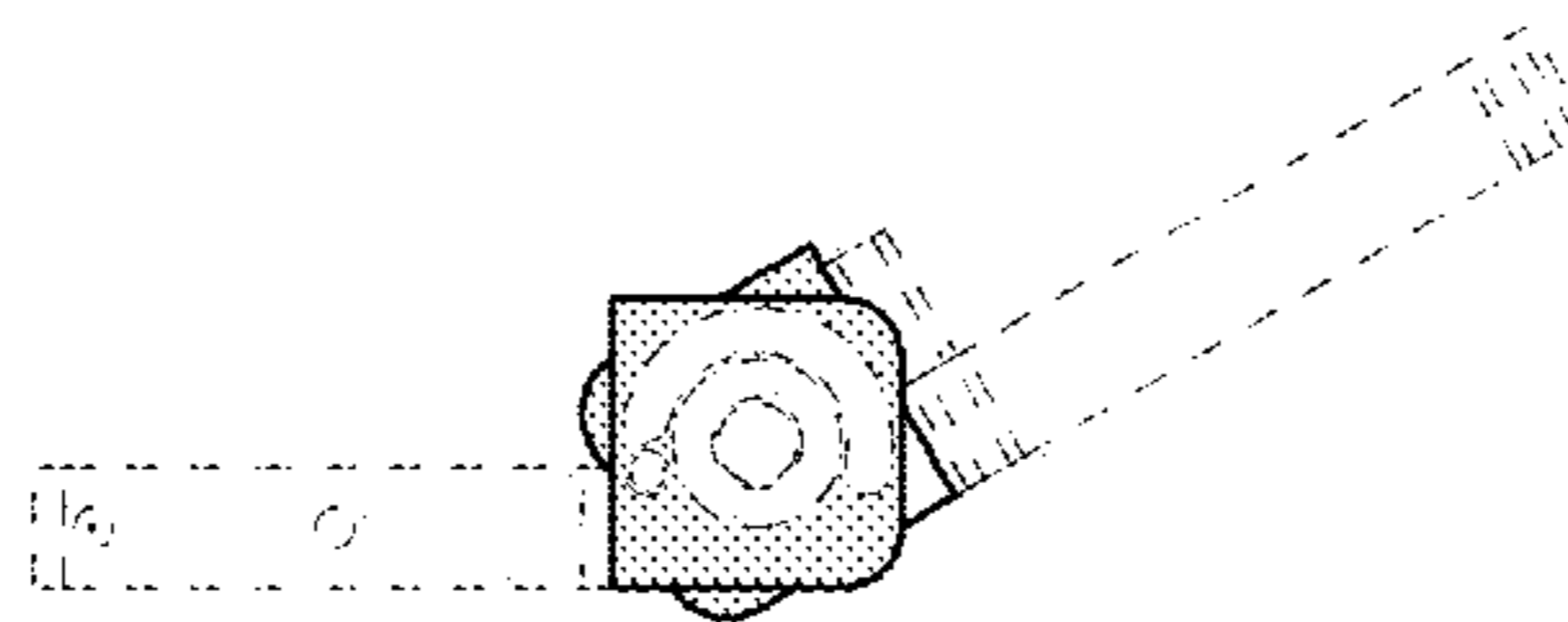


FIG. 108

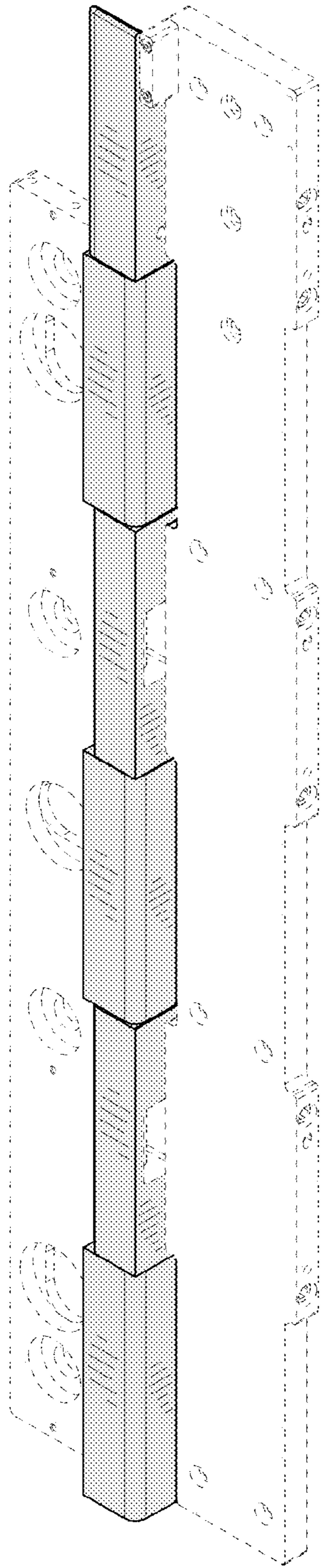


FIG. 109

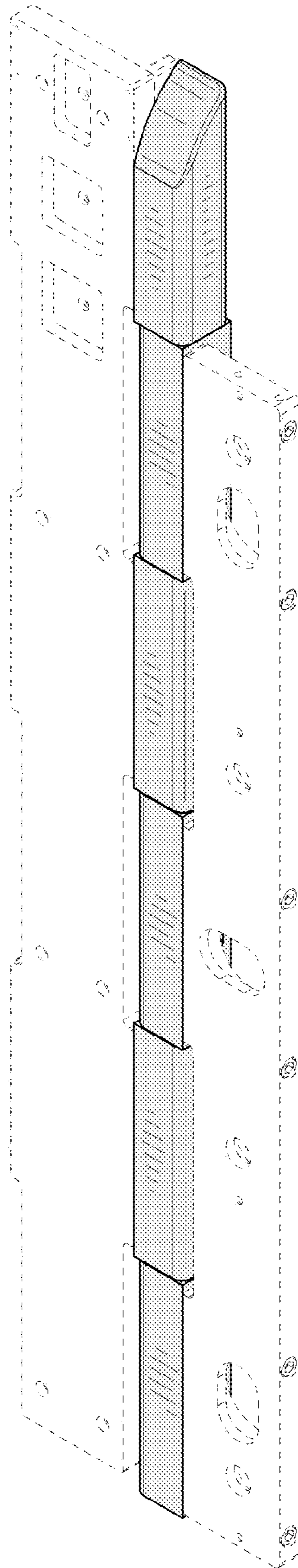


FIG. 110



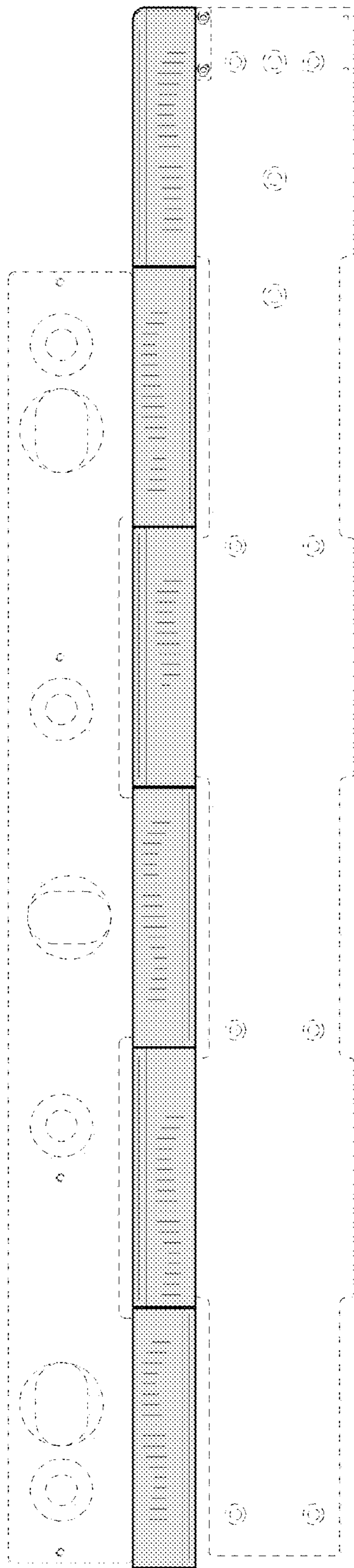


FIG. 111

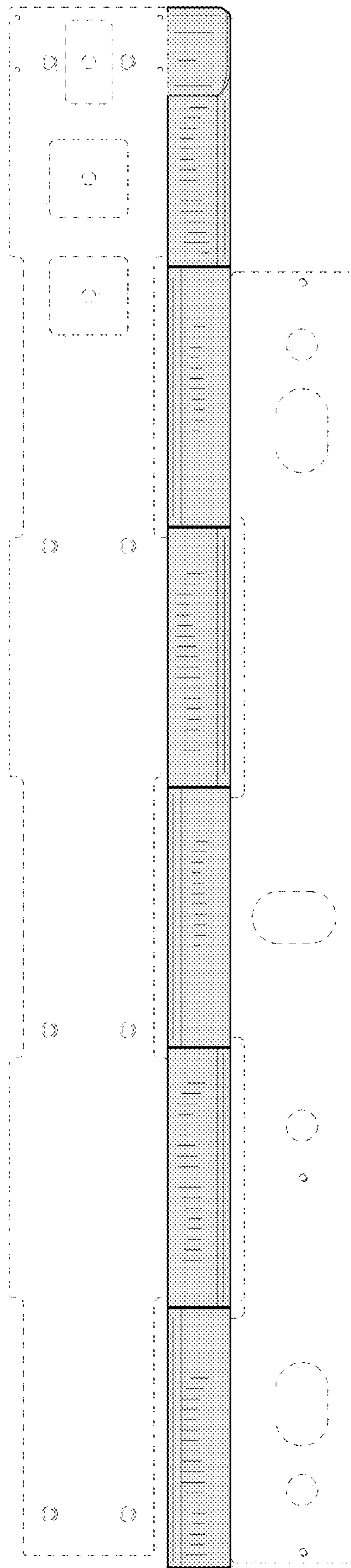


FIG. 112



FIG. 113

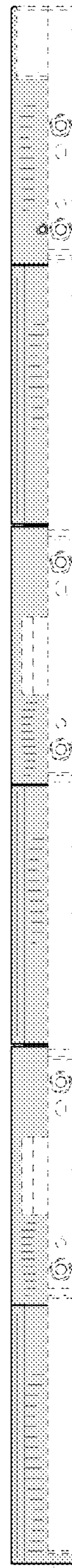


FIG. 114

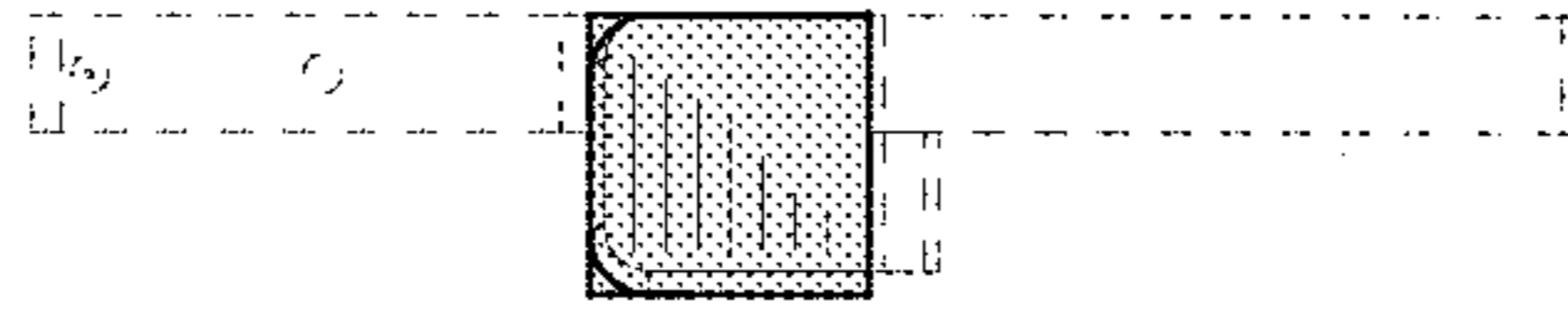


FIG. 115

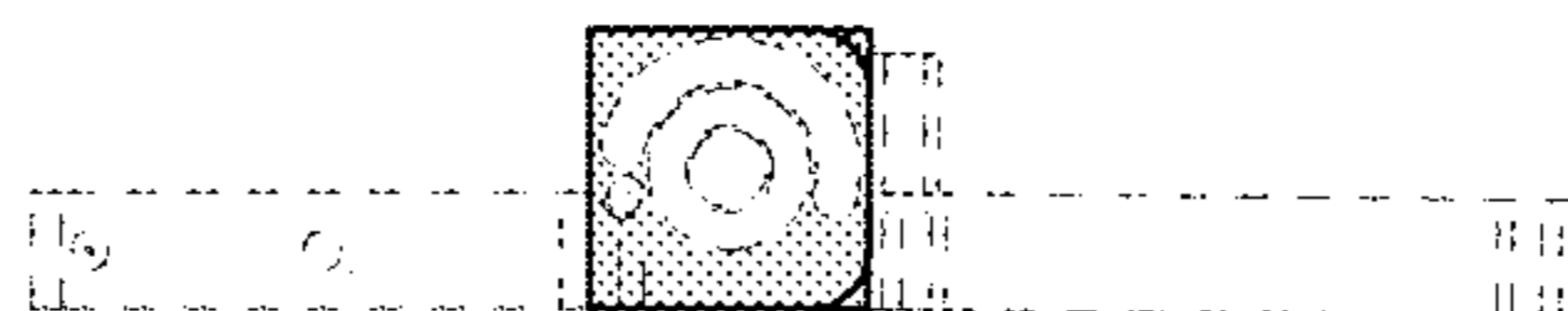


FIG. 116

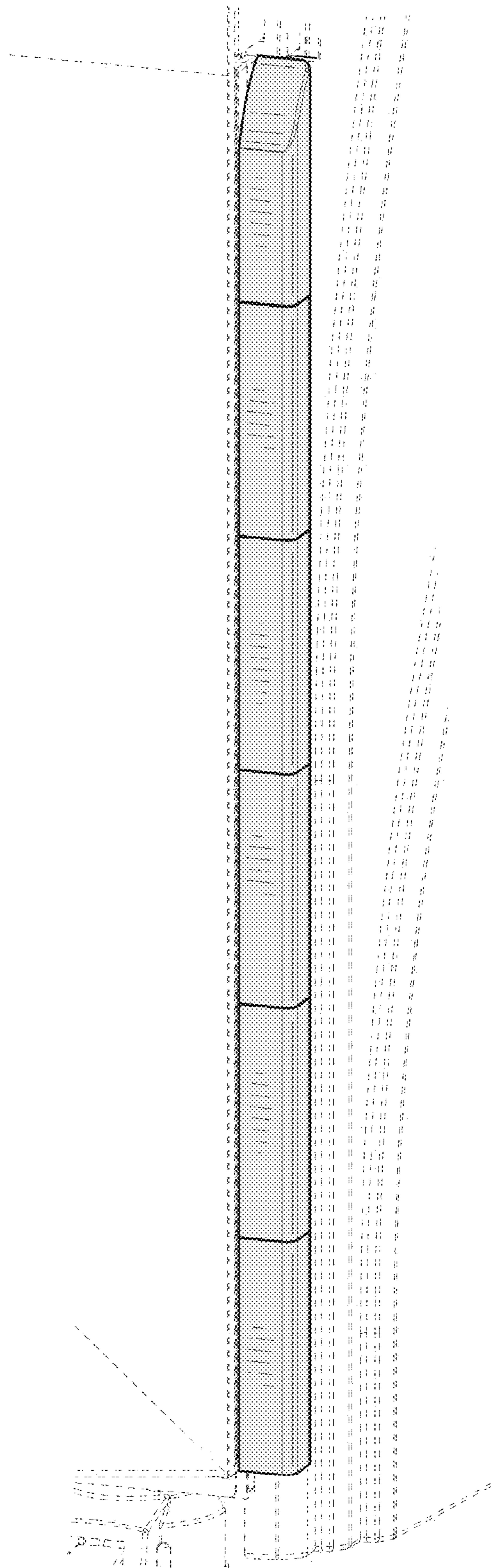


FIG. 117

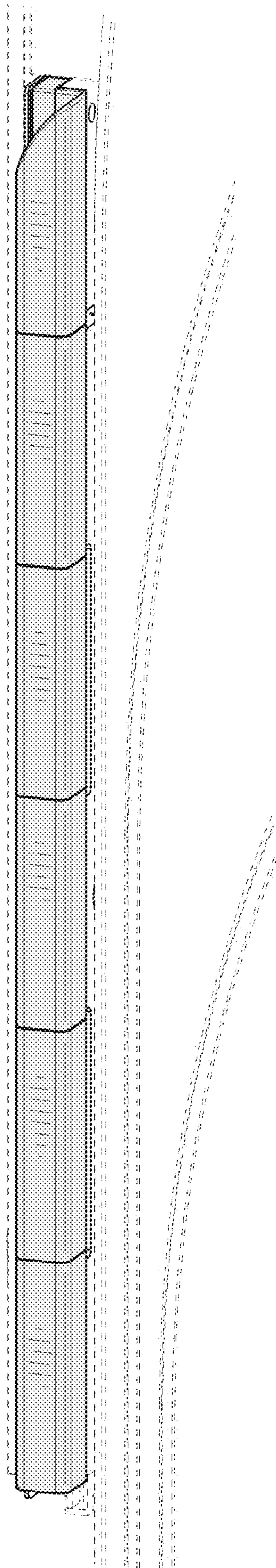


FIG. 118

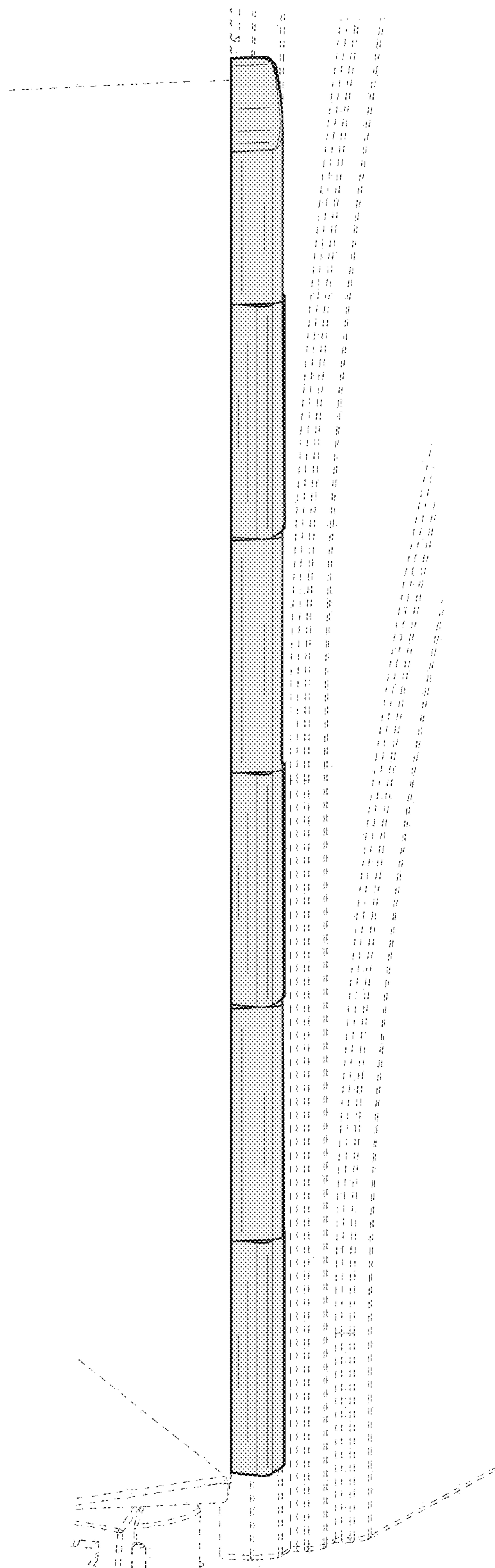


FIG. 119

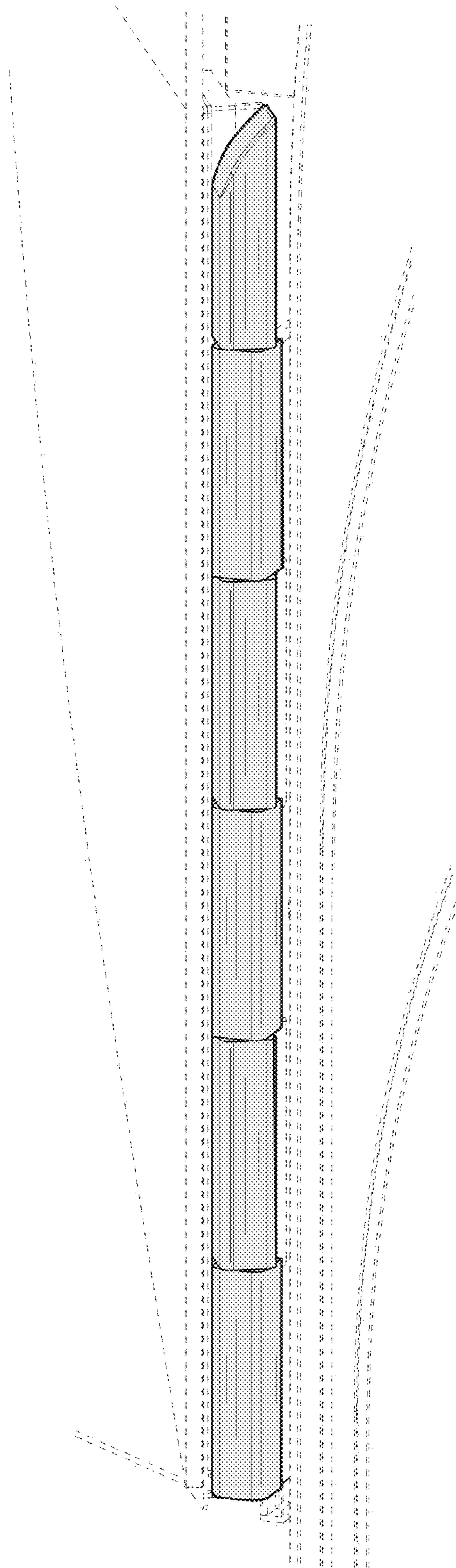


FIG. 120

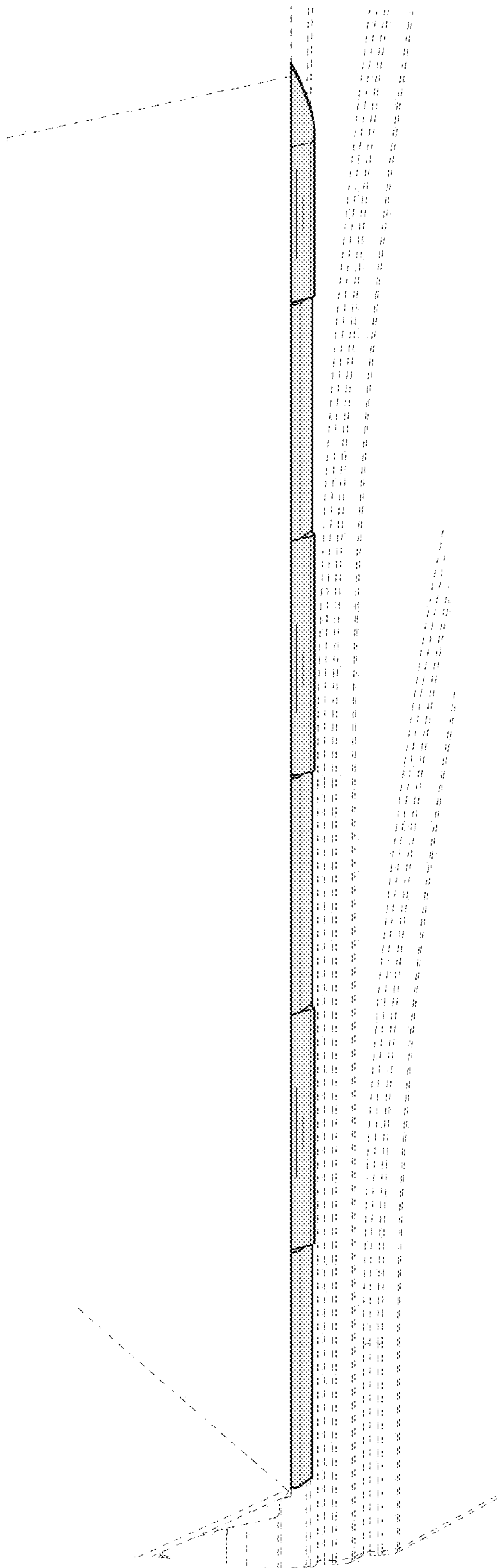


FIG. 121



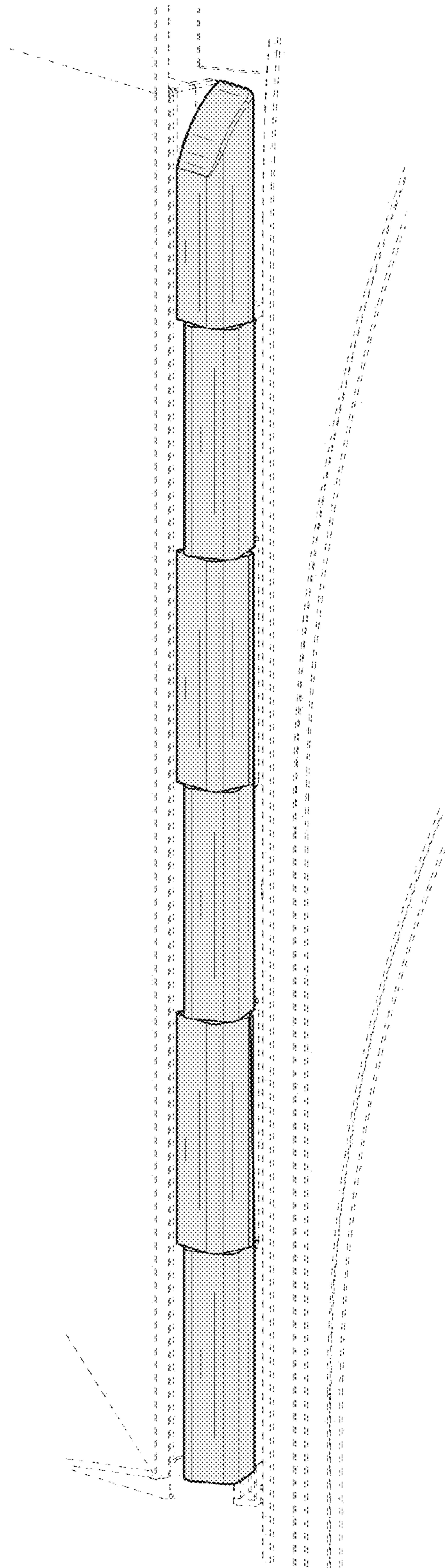


FIG. 122

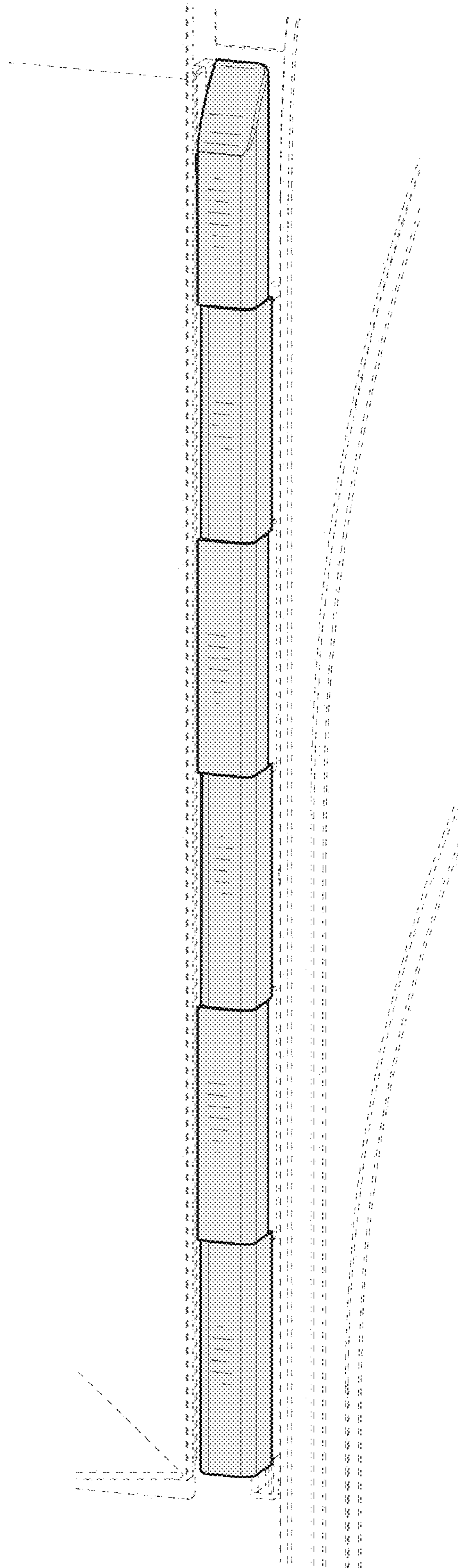


FIG. 123

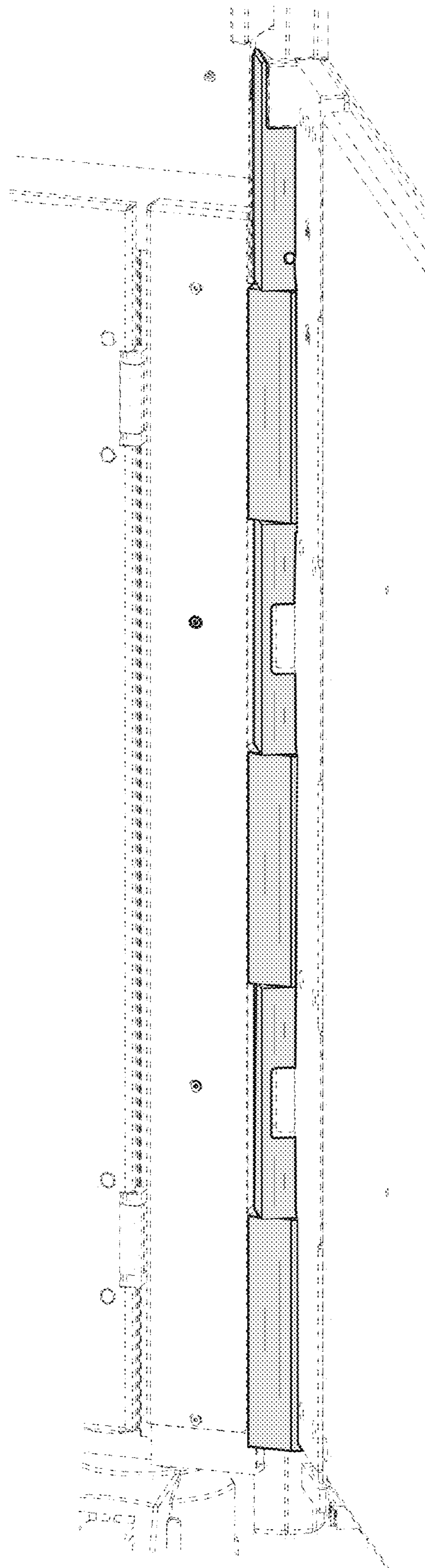


FIG. 124

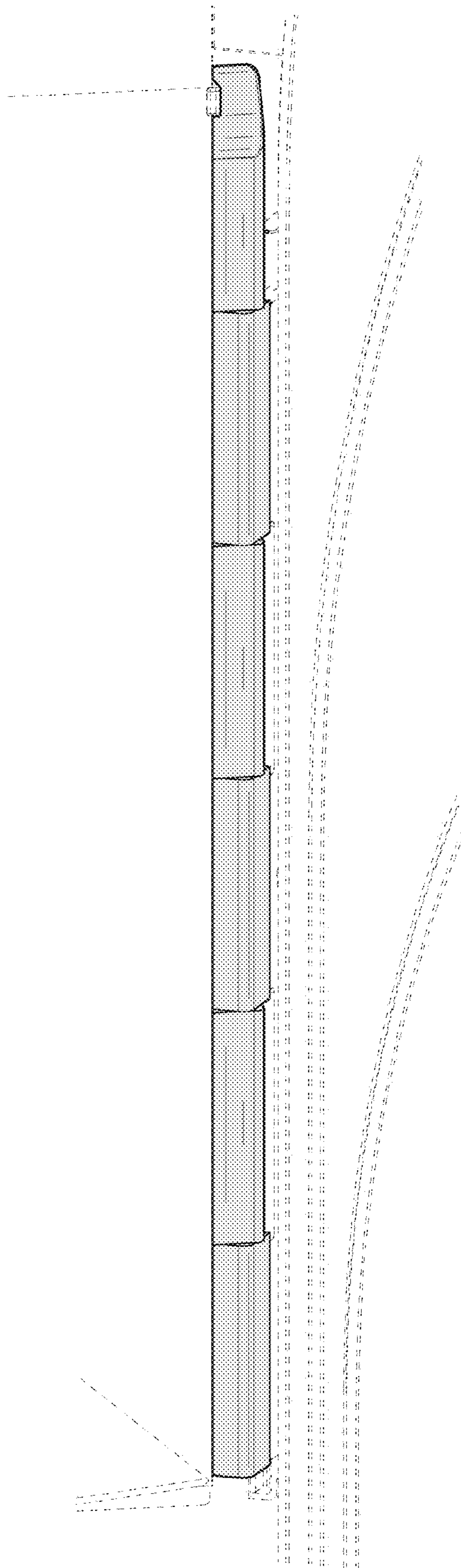


FIG. 125

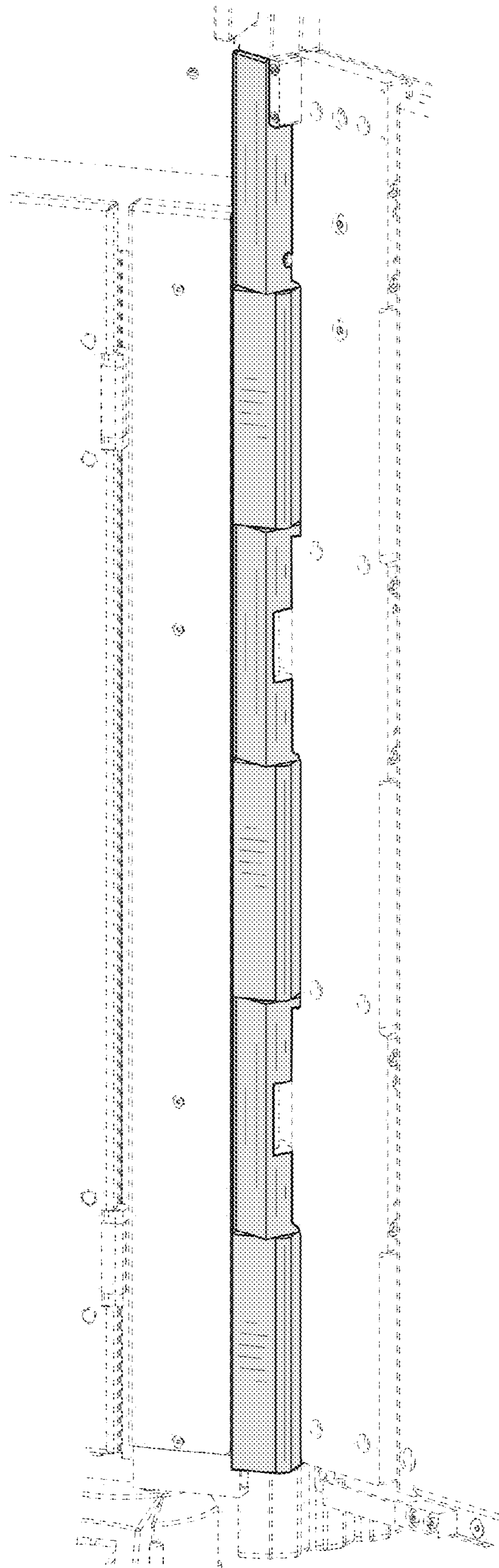


FIG. 126

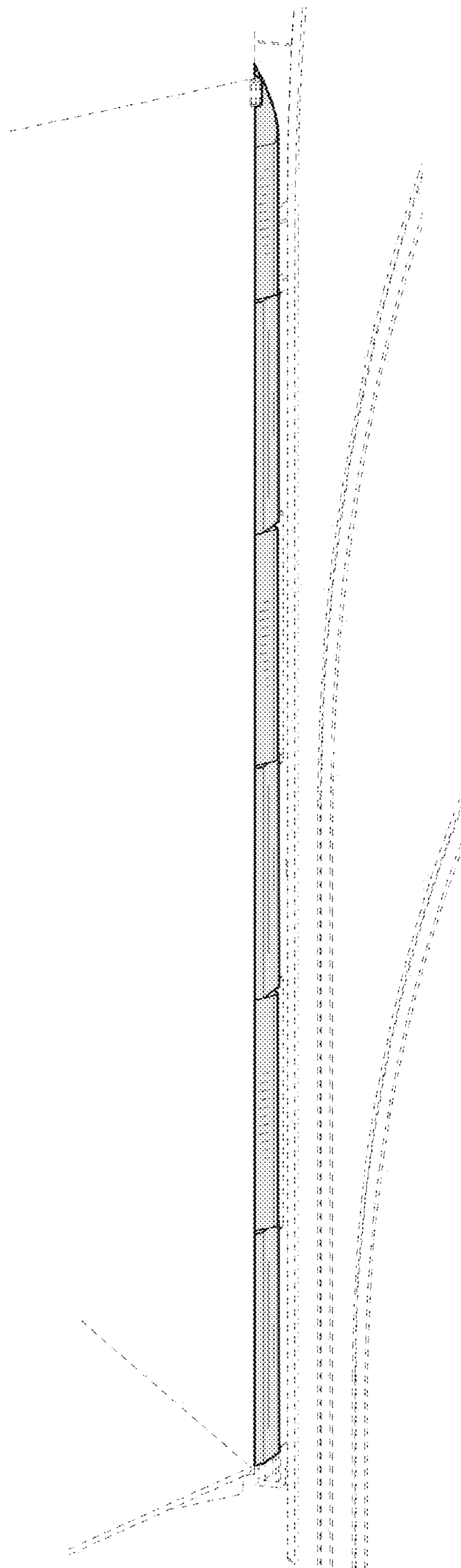


FIG. 127

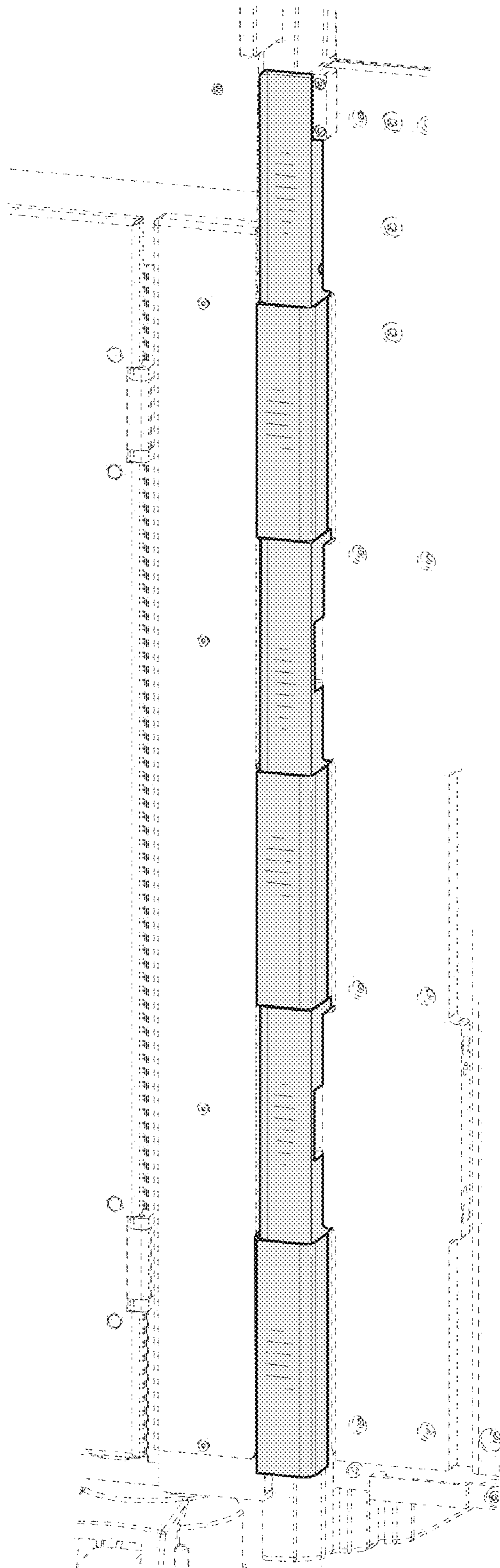


FIG. 128