US00D939321S

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

(10) **Patent No.: US D939,321 S**
(45) **Date of Patent: ** Dec. 28, 2021**

(54) **HINGE**

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

(72) Inventors: **Aaron Leimkuehler**, Upper St. Clair, PA (US); **Rodger Darin Osborne**, Stuart, FL (US); **Jacob N. Wohlstadter**, Potomac, MD (US)

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

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

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

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

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)

(56) **References Cited**

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

Primary Examiner — Cynthia R Underwood
(74) *Attorney, Agent, or Firm* — Scully, Scott, Murphy & Presser, P.C.

(57) **CLAIM**

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

DESCRIPTION

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.

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)

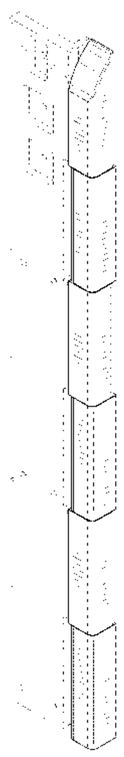

FIG. **22** is an alternate side view thereof;
FIG. **23** is a top view thereof;
FIG. **24** is a bottom view thereof;
FIG. **25** is a front perspective view of the hinge shown in FIG. **1** in an alternate position;
FIG. **26** is a back perspective view of thereof;
FIG. **27** is a front view thereof;
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 hack 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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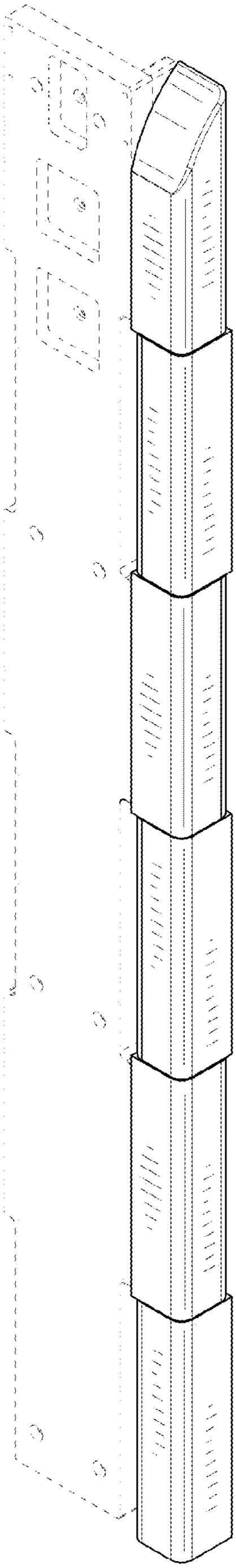

FIG. 1

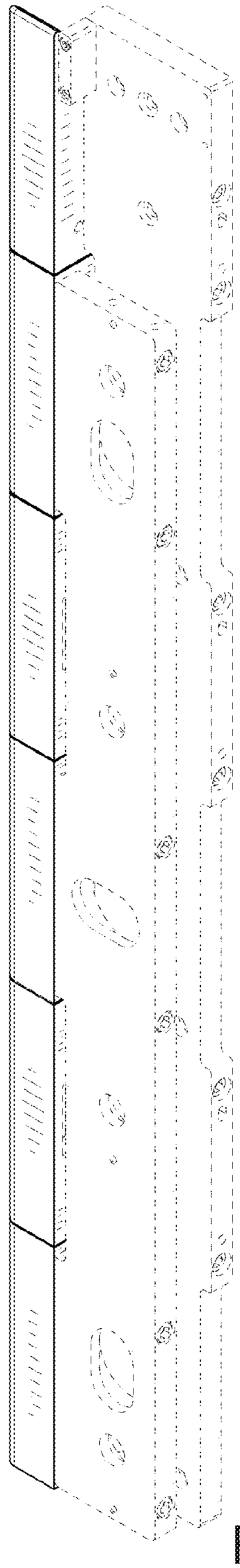

FIG. 2

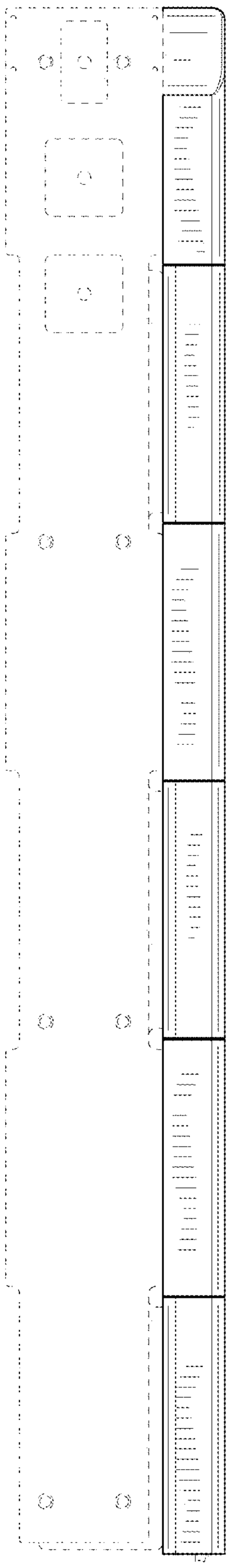

FIG. 3

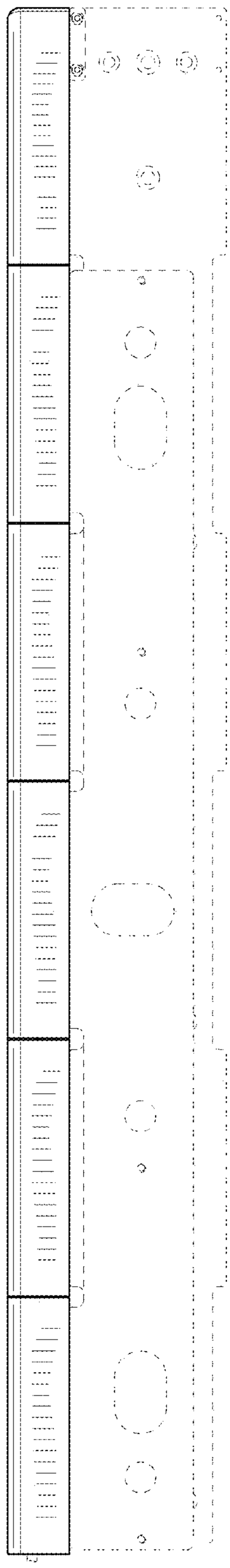

FIG. 4

FIG. 5

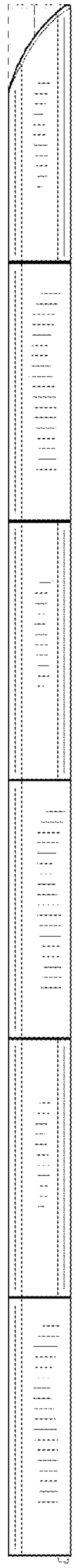

FIG. 6

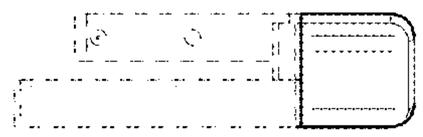

FIG. 7

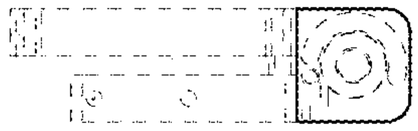

FIG. 8

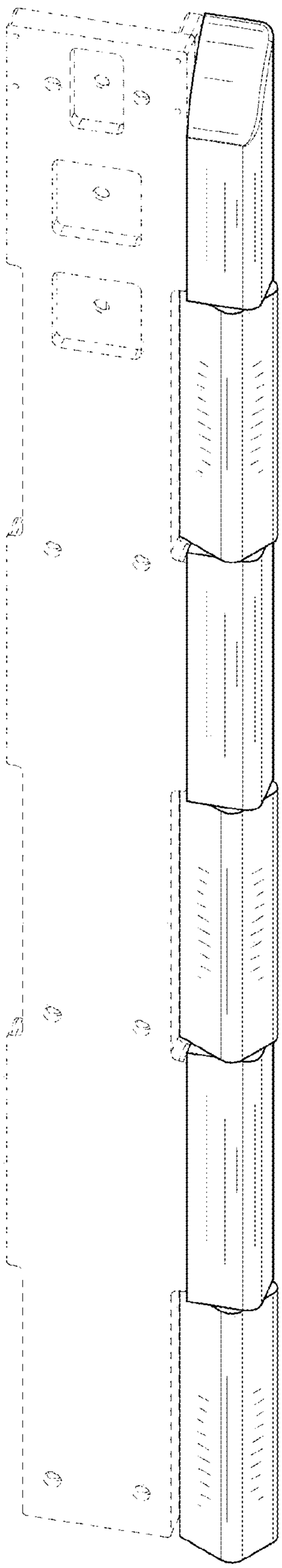

FIG. 9

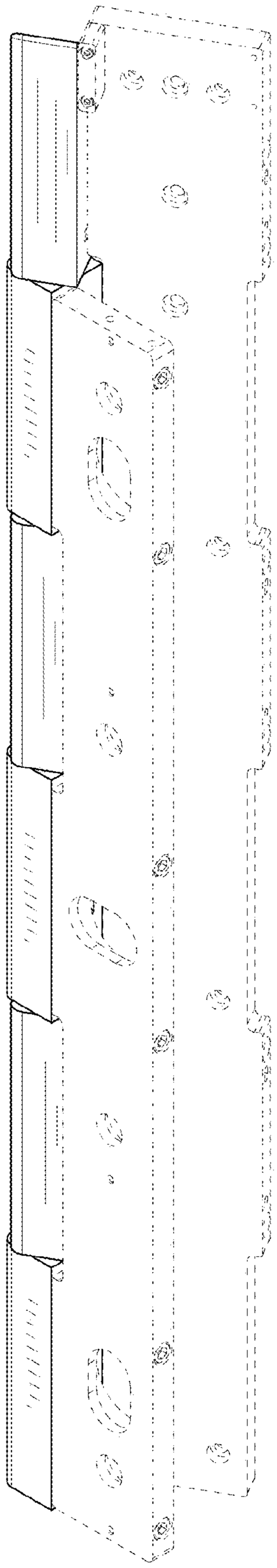

FIG. 10

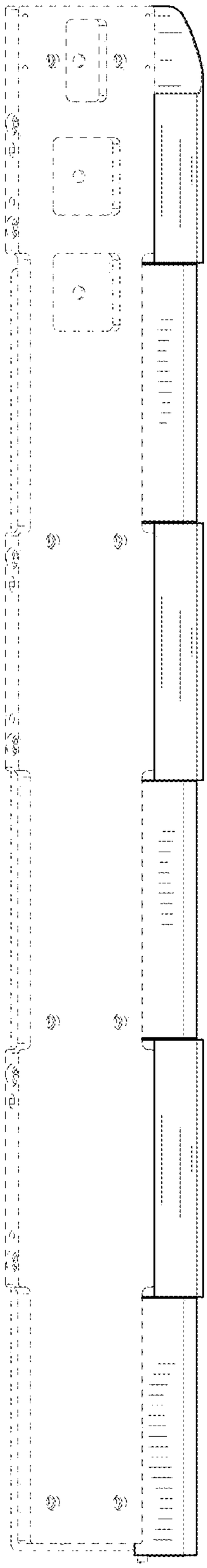

FIG. 11

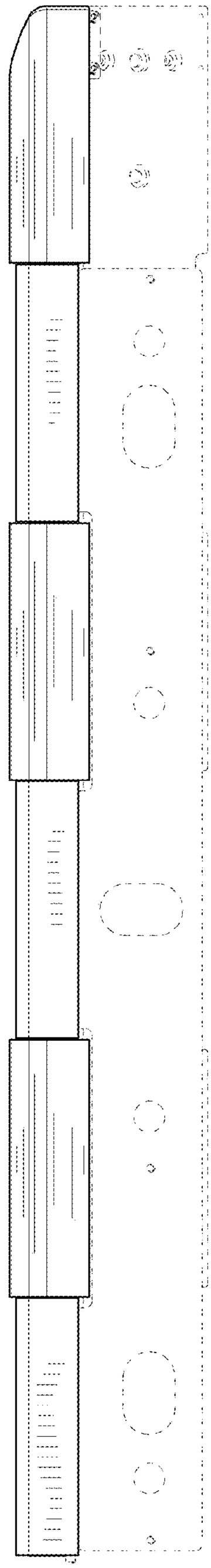

FIG. 12

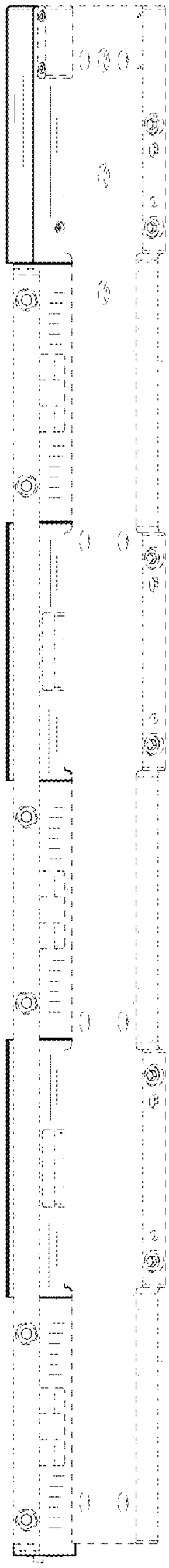

FIG. 13

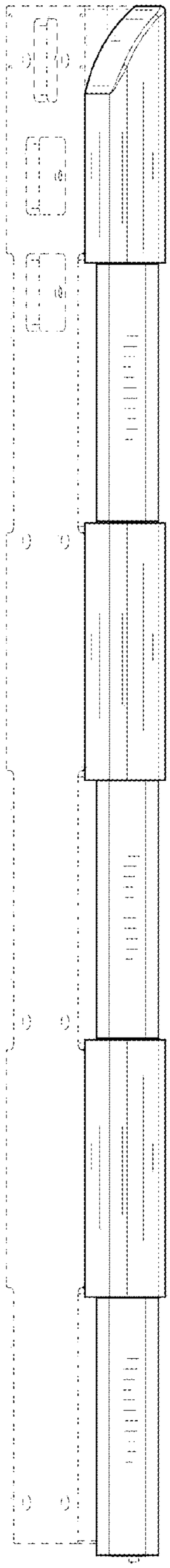

FIG. 14

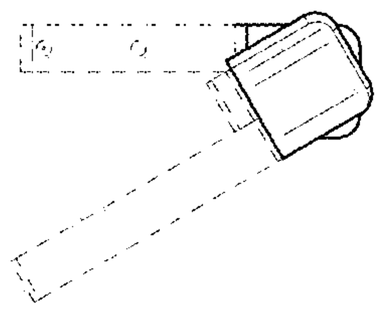

FIG. 15

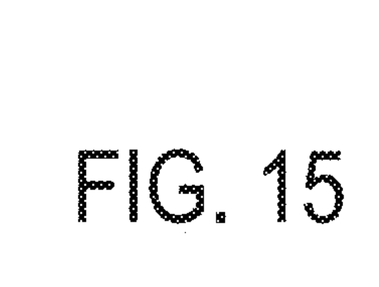

FIG. 16

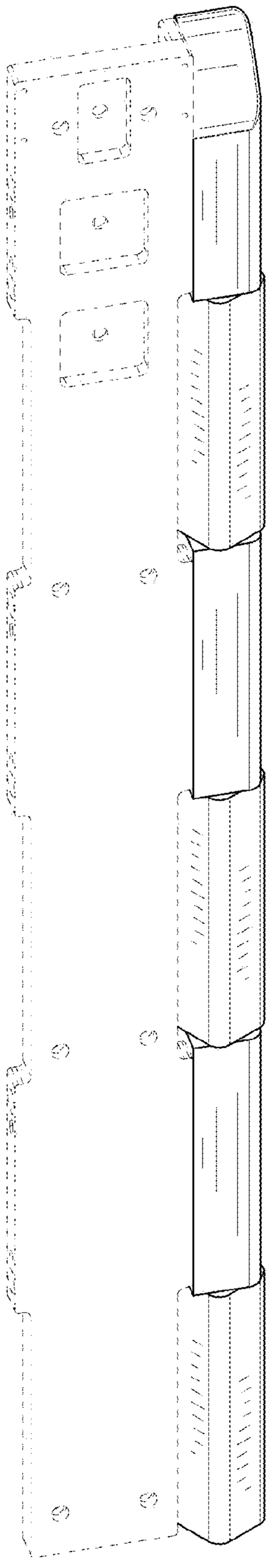

FIG. 17

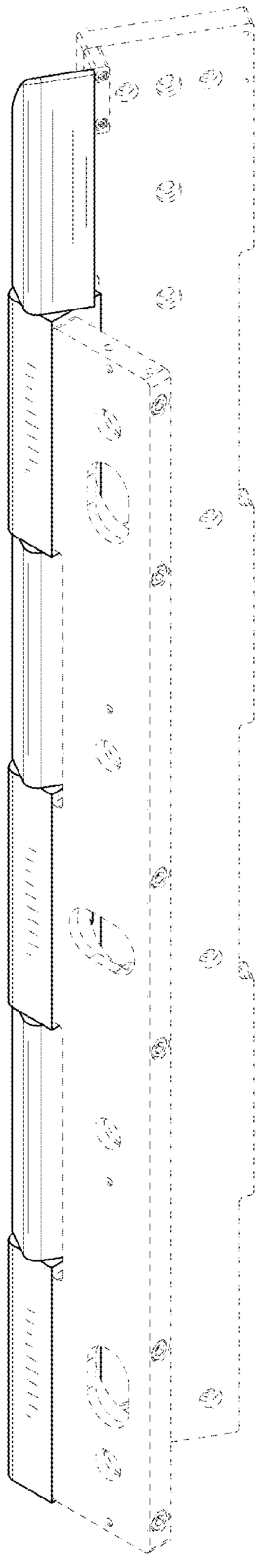

FIG. 18

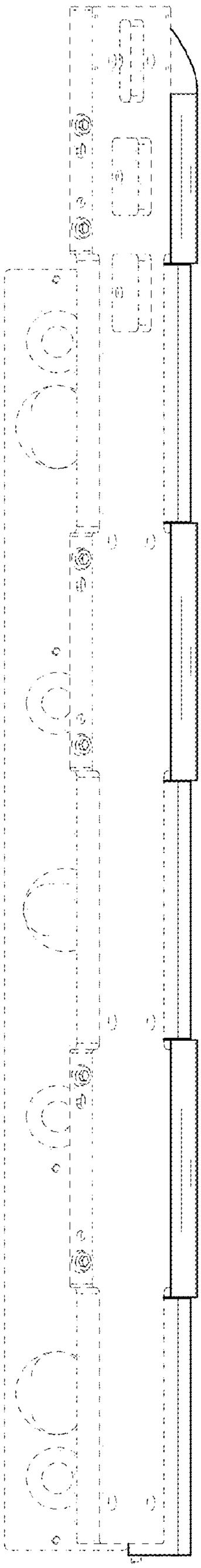

FIG. 19

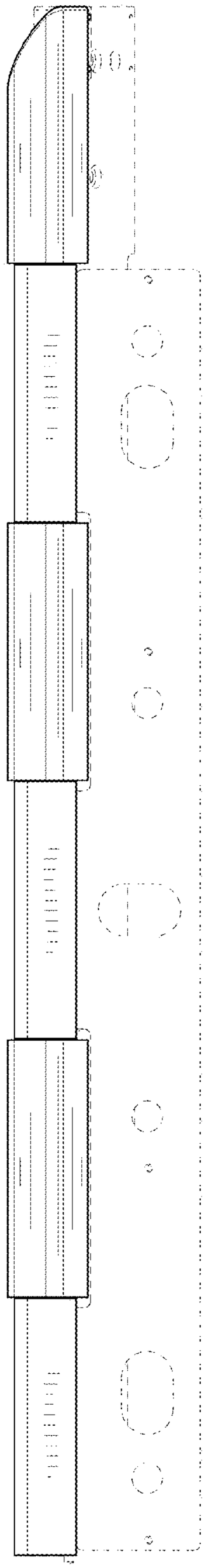

FIG. 20

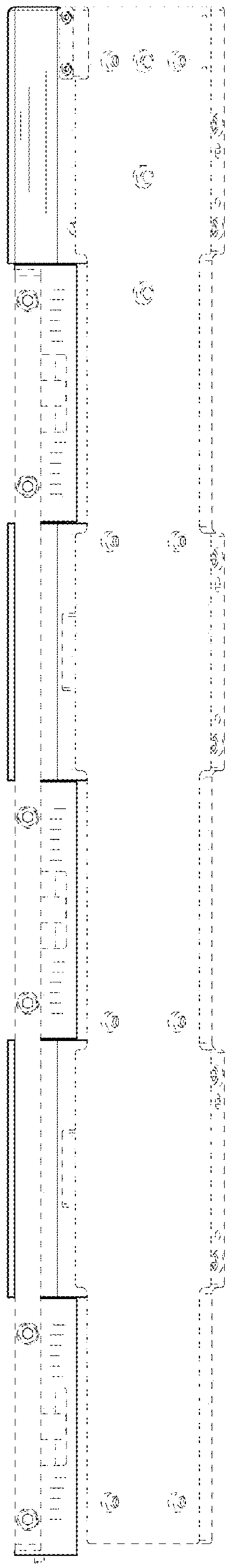

FIG. 21

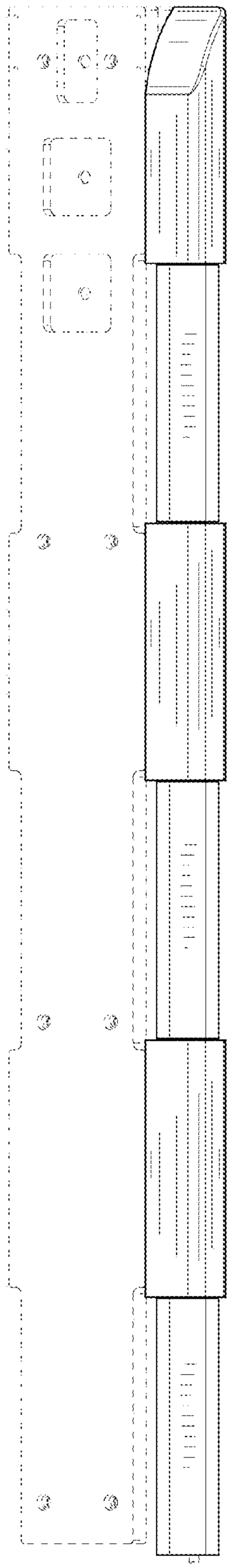

FIG. 22

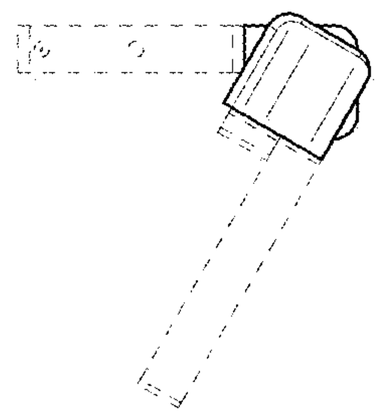

FIG. 23

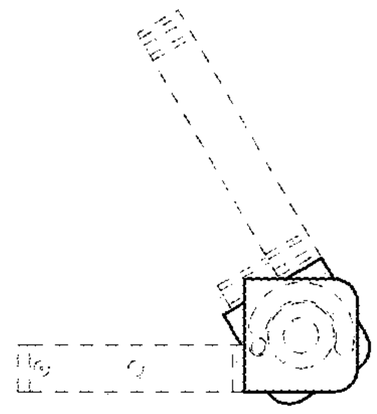

FIG. 24

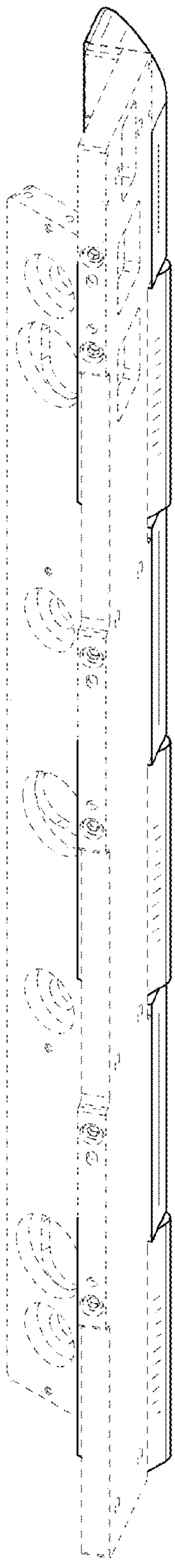

FIG. 25

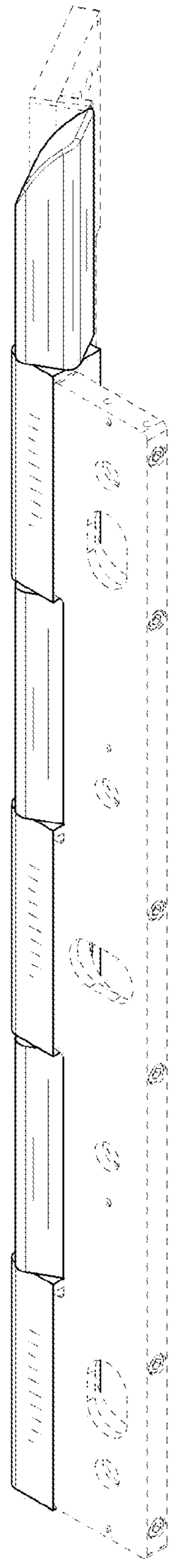

FIG. 26

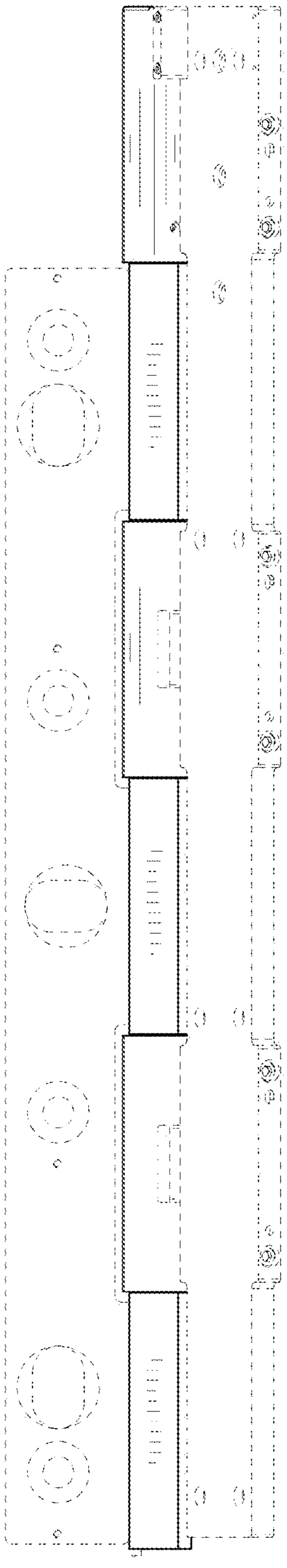

FIG. 27

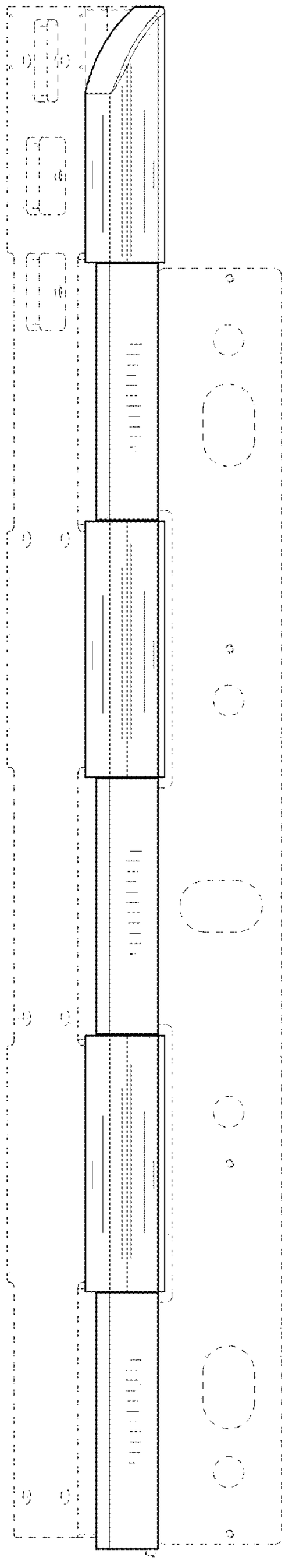

FIG. 28

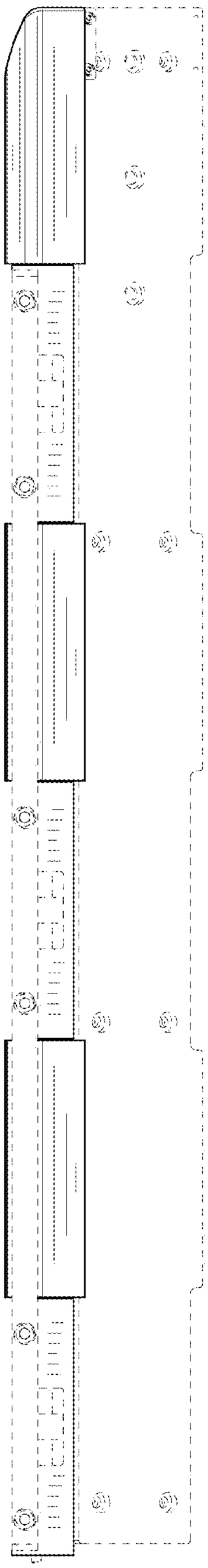

FIG. 29

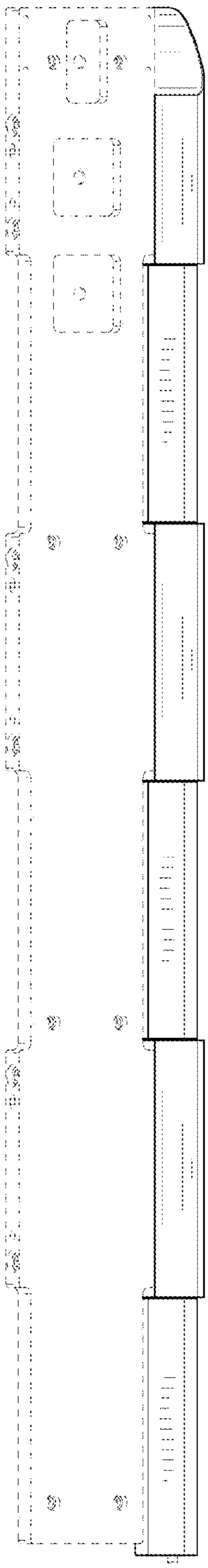

FIG. 30

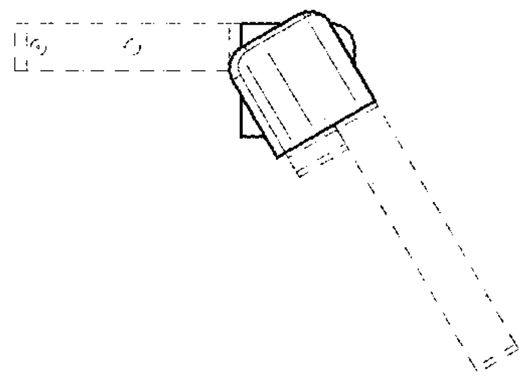

FIG. 31

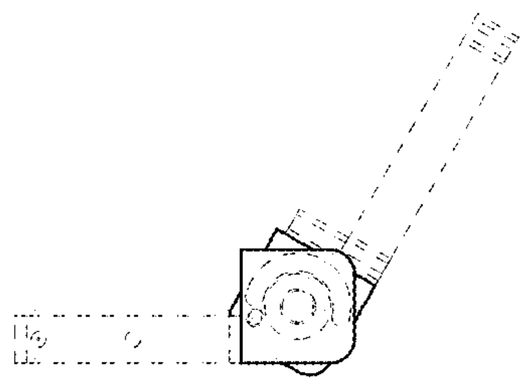

FIG. 32

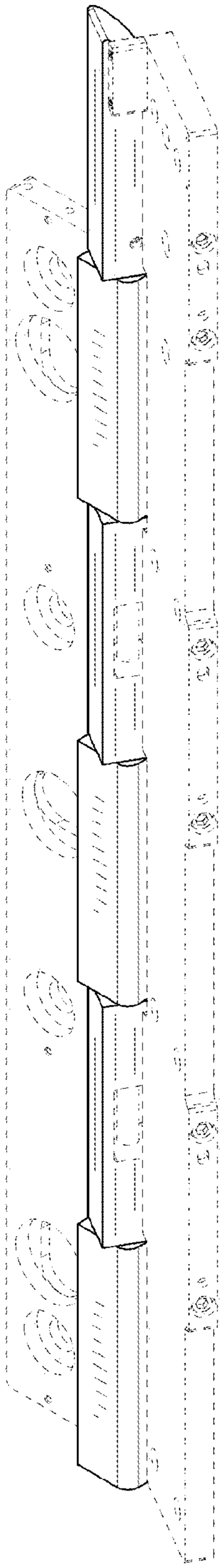

FIG. 33

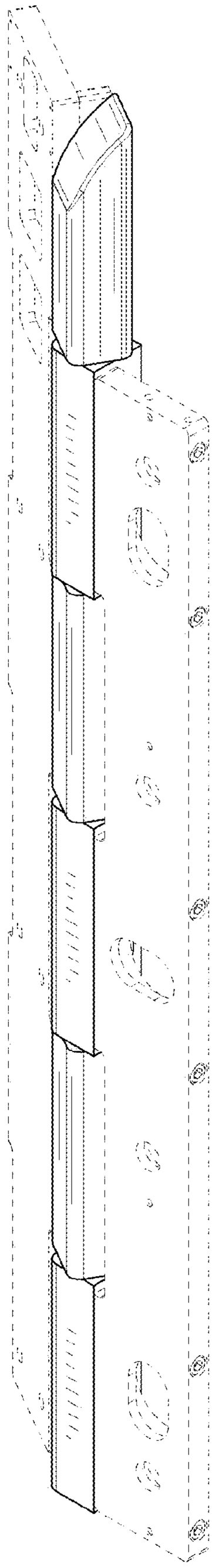

FIG. 34

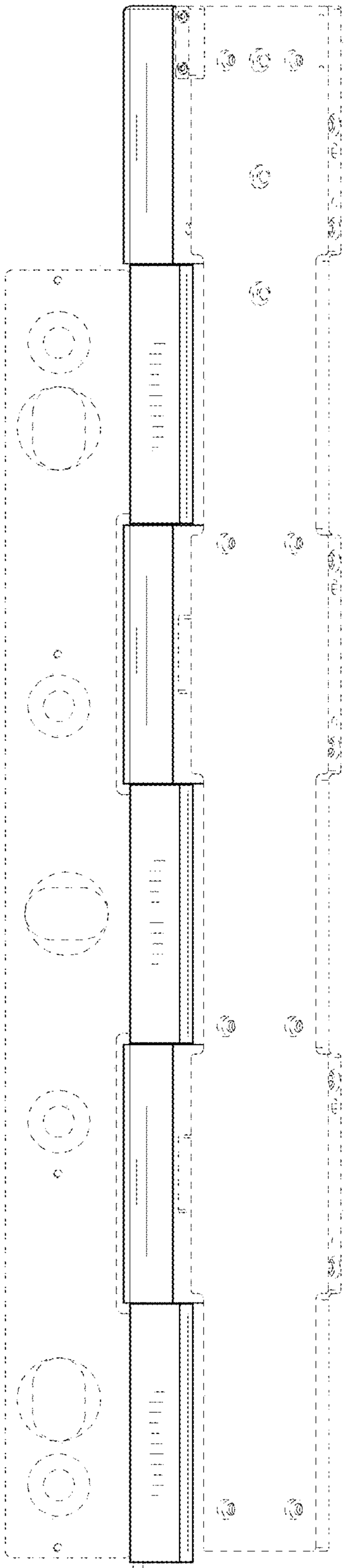

FIG. 35

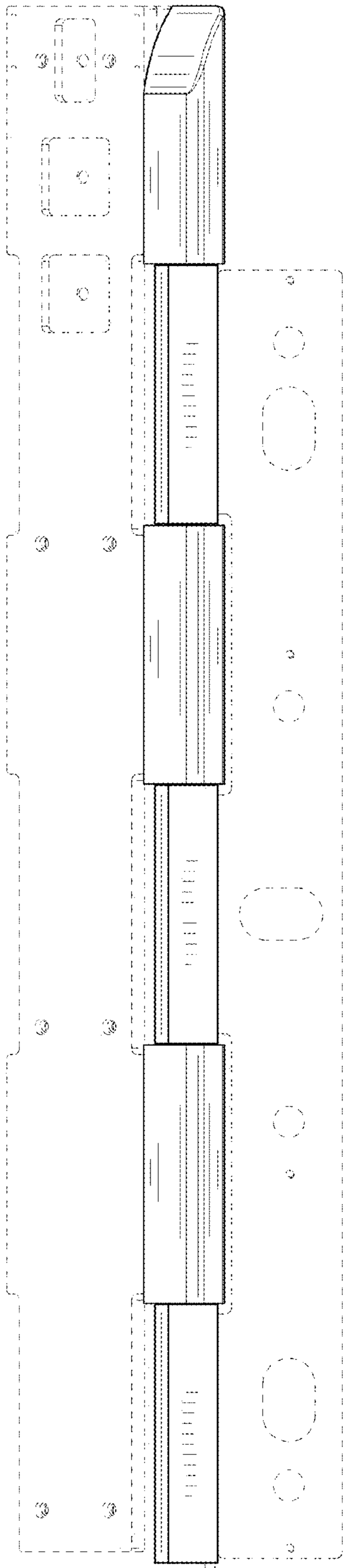

FIG. 36

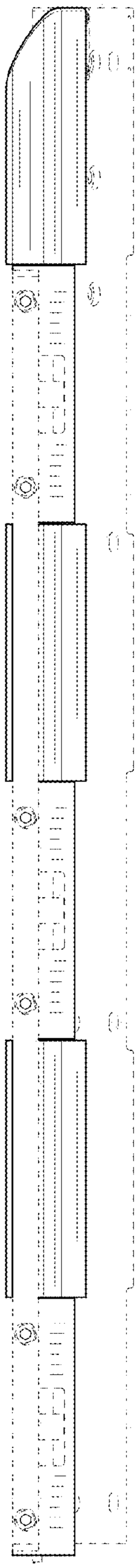

FIG. 37

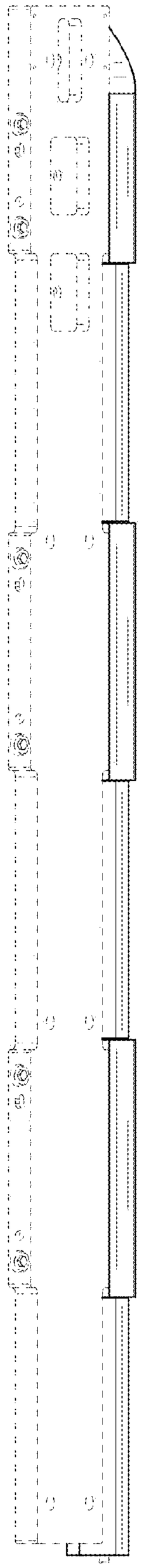

FIG. 38

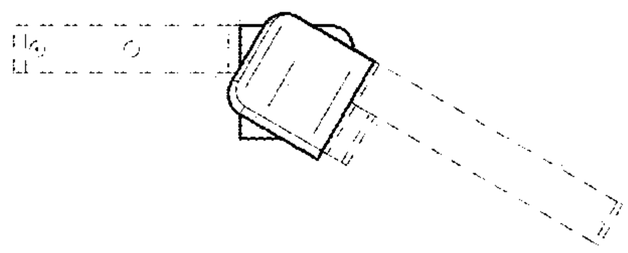

FIG. 39

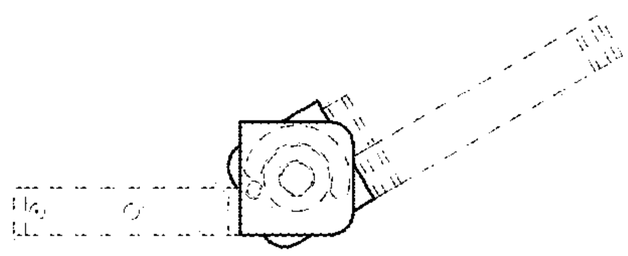

FIG. 40

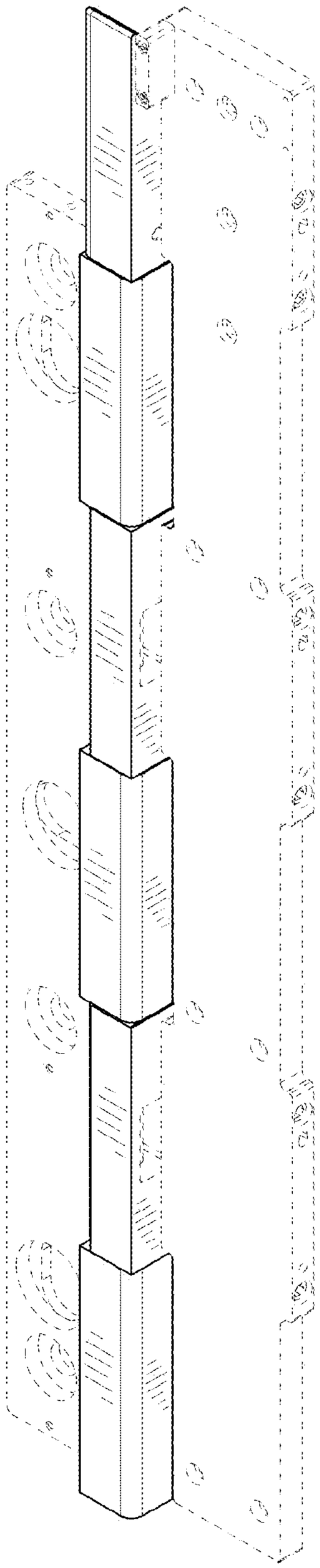

FIG. 41

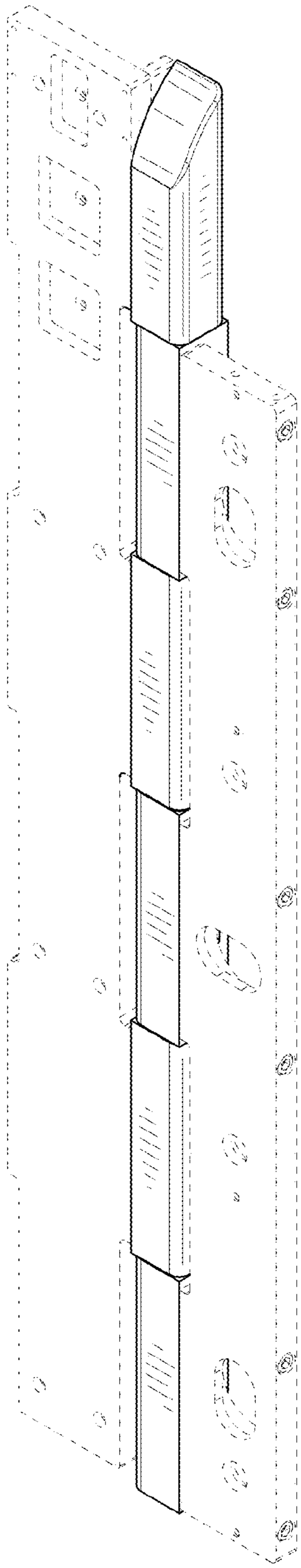

FIG. 42

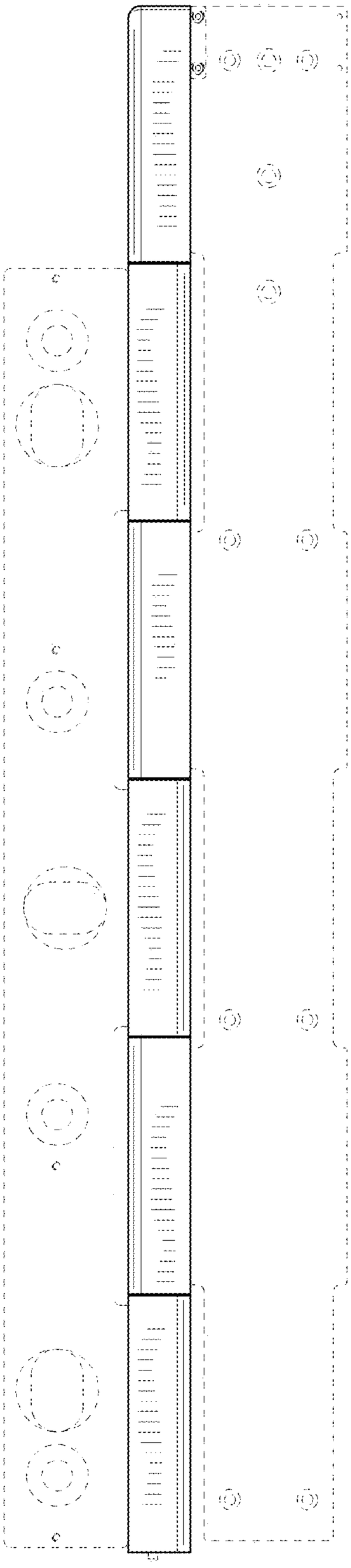

FIG. 43

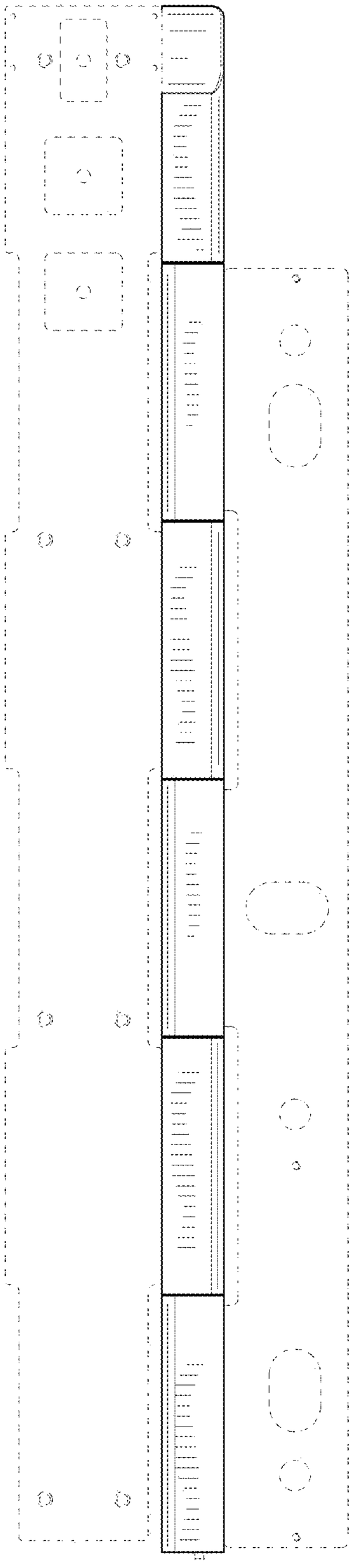

FIG. 44

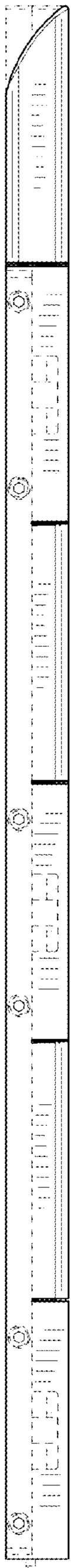

FIG. 45

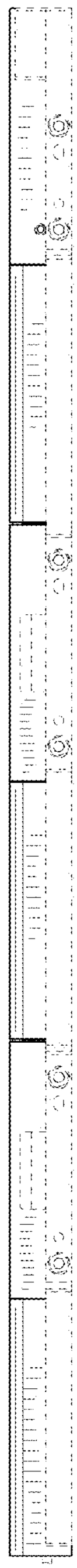

FIG. 46

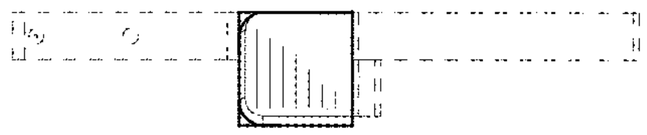

FIG. 47

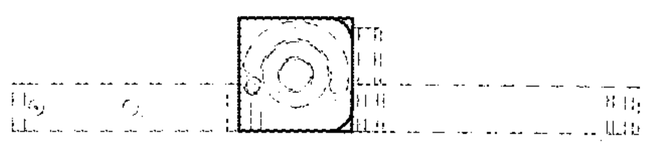

FIG. 48

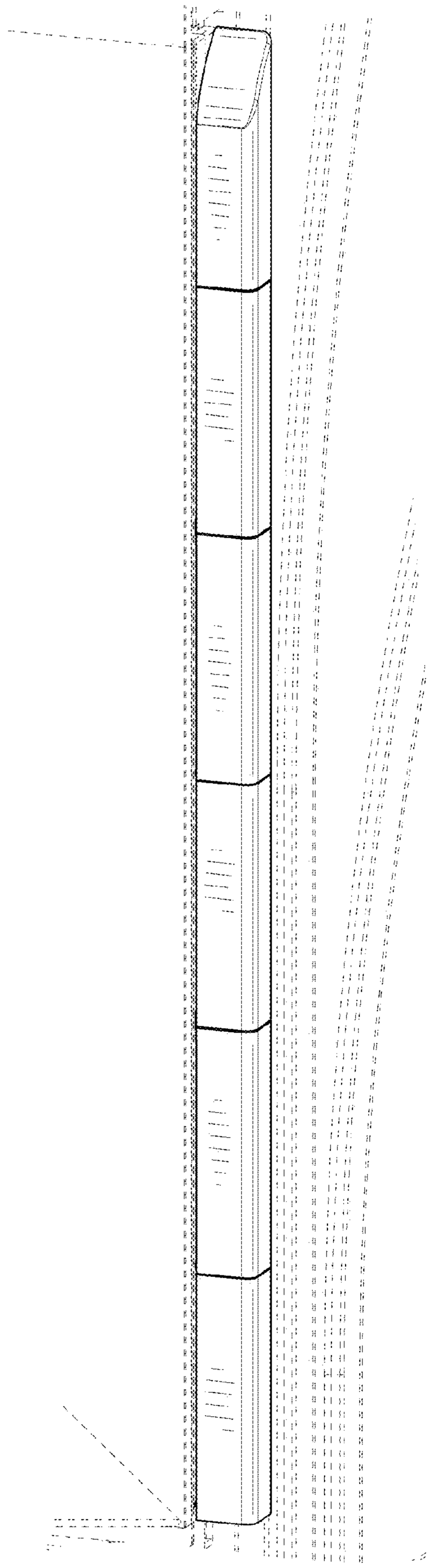

FIG. 49

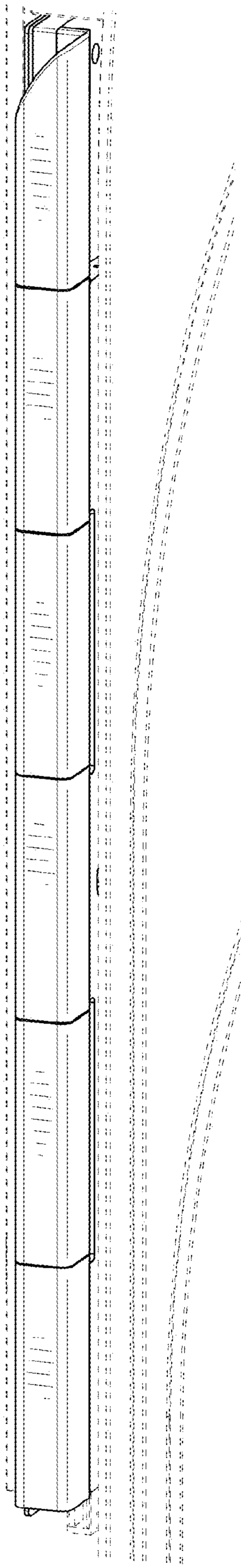

FIG. 50

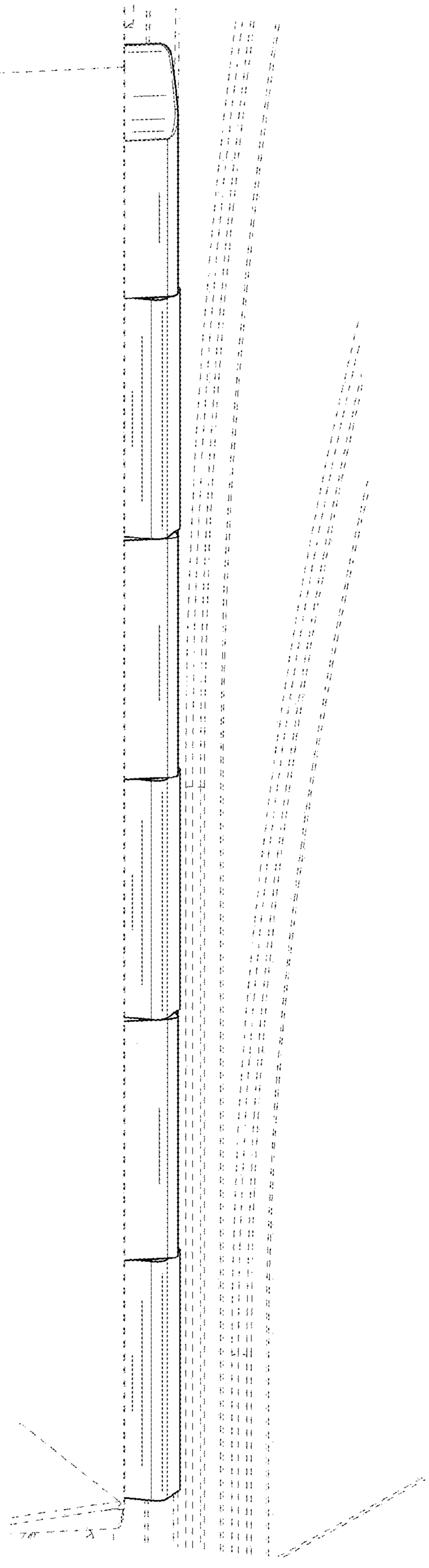

FIG. 51

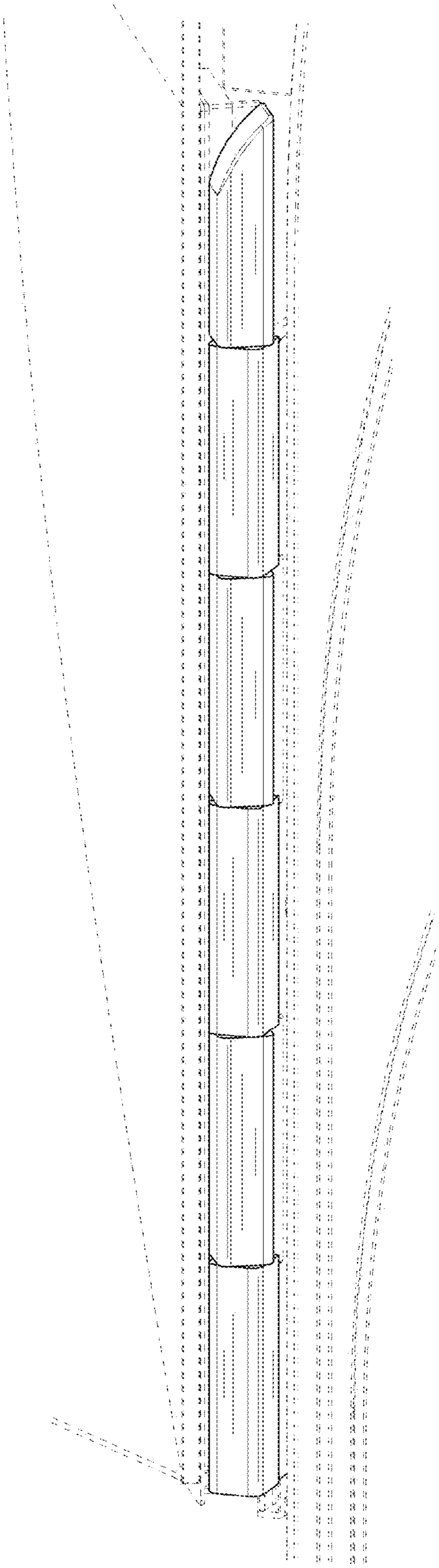

FIG. 52

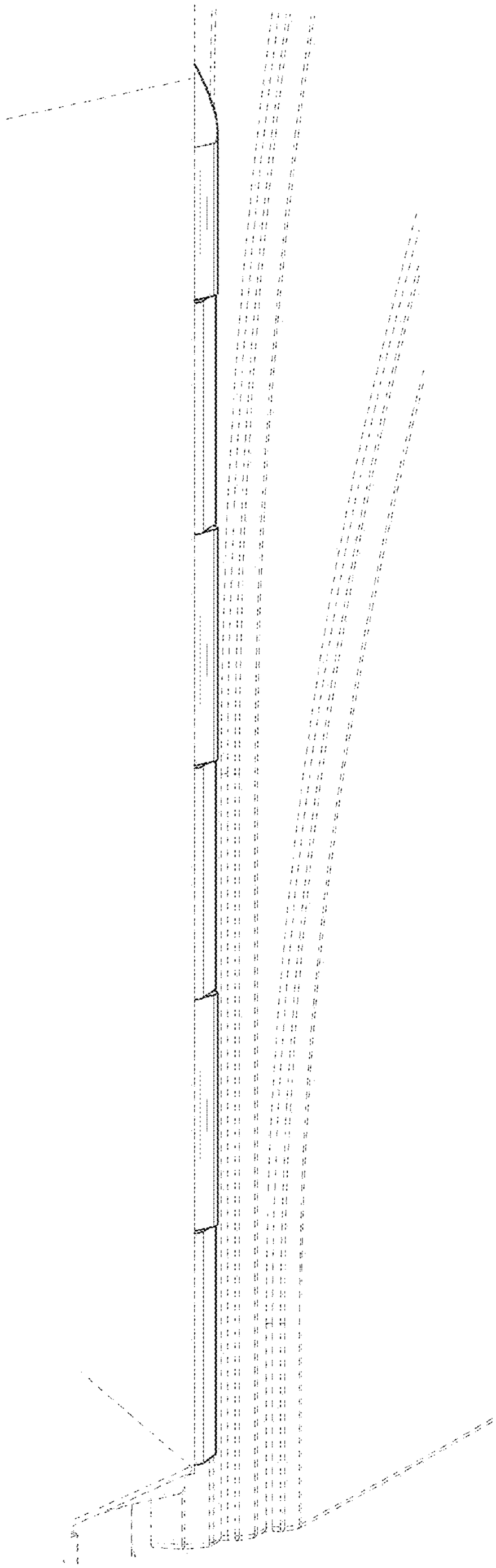

FIG. 53

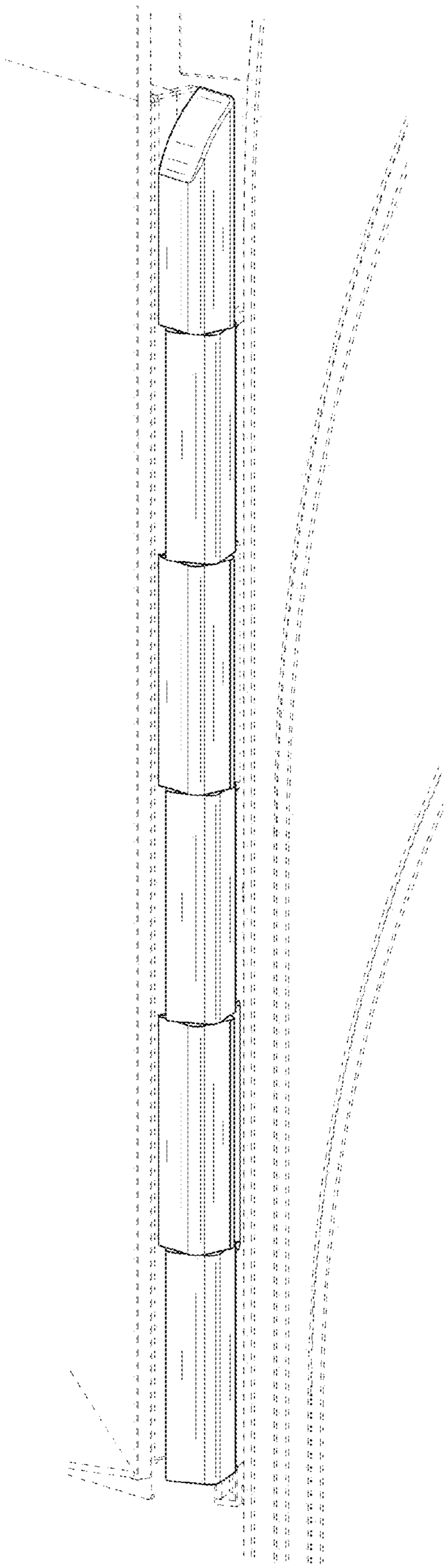

FIG. 54

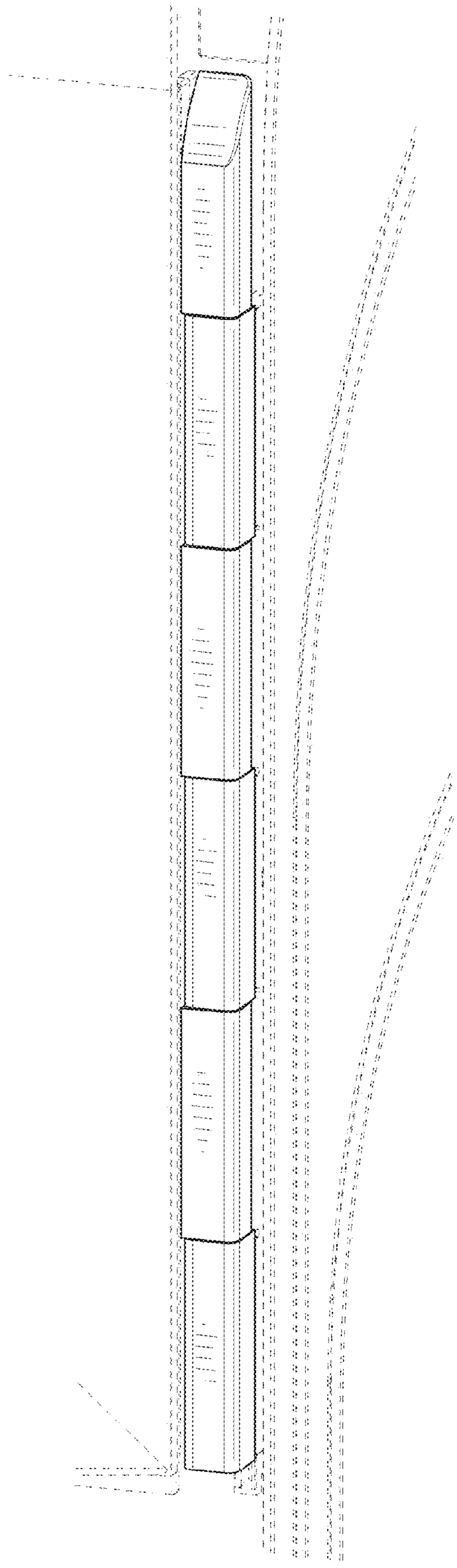

FIG. 55

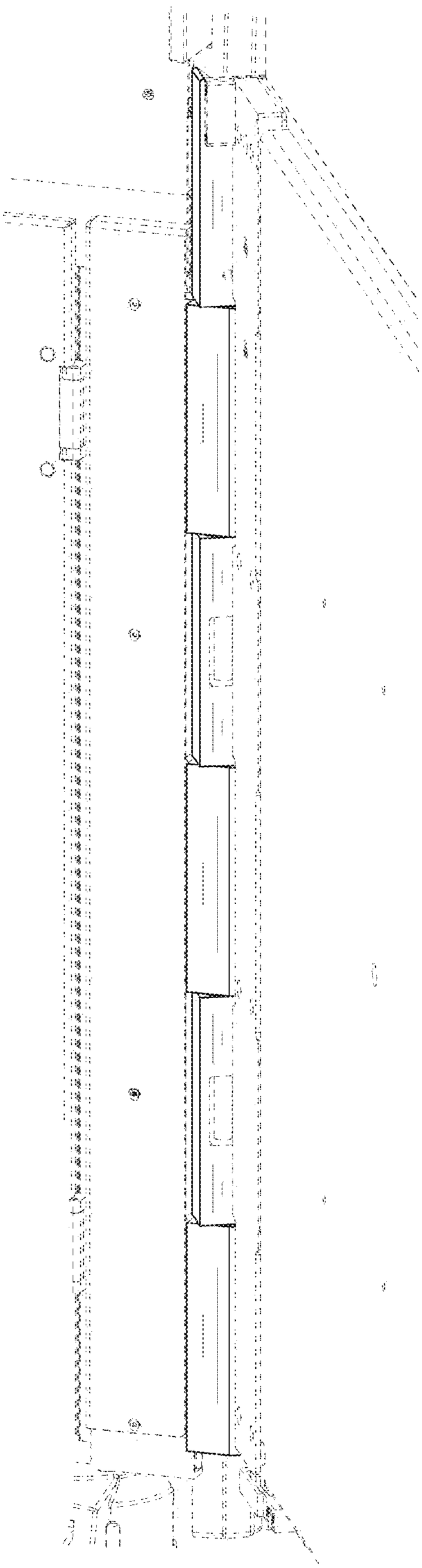

FIG. 56

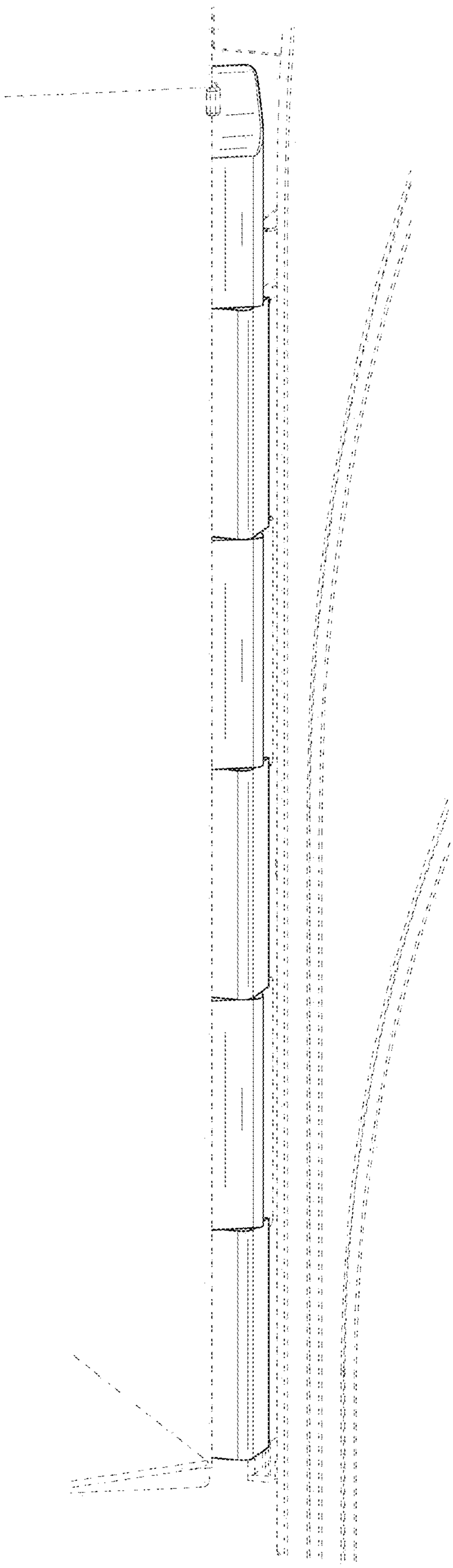

FIG. 57

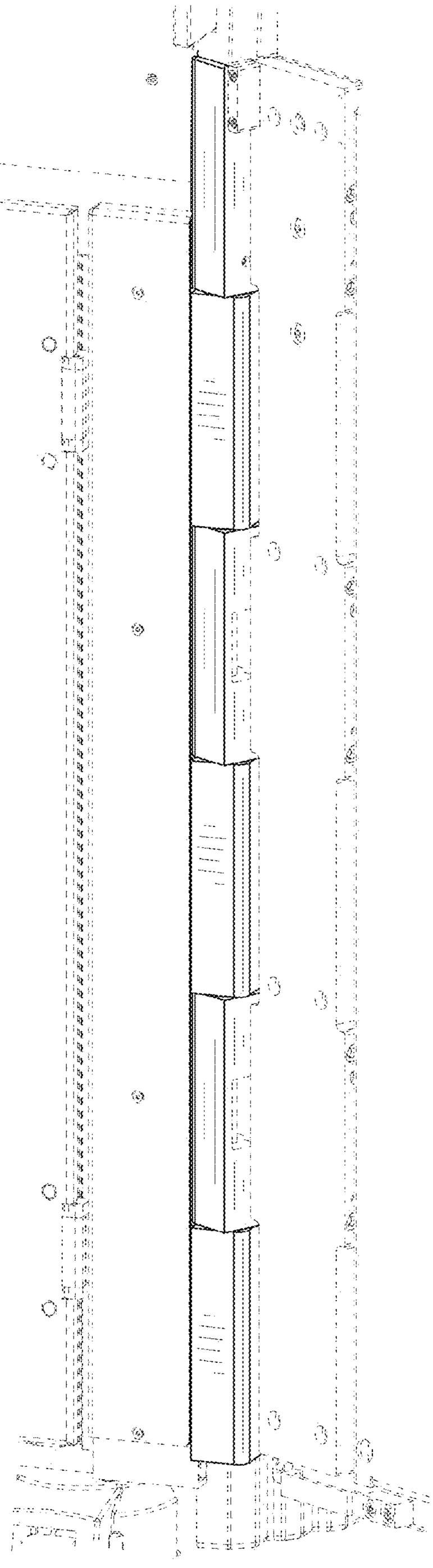

FIG. 58

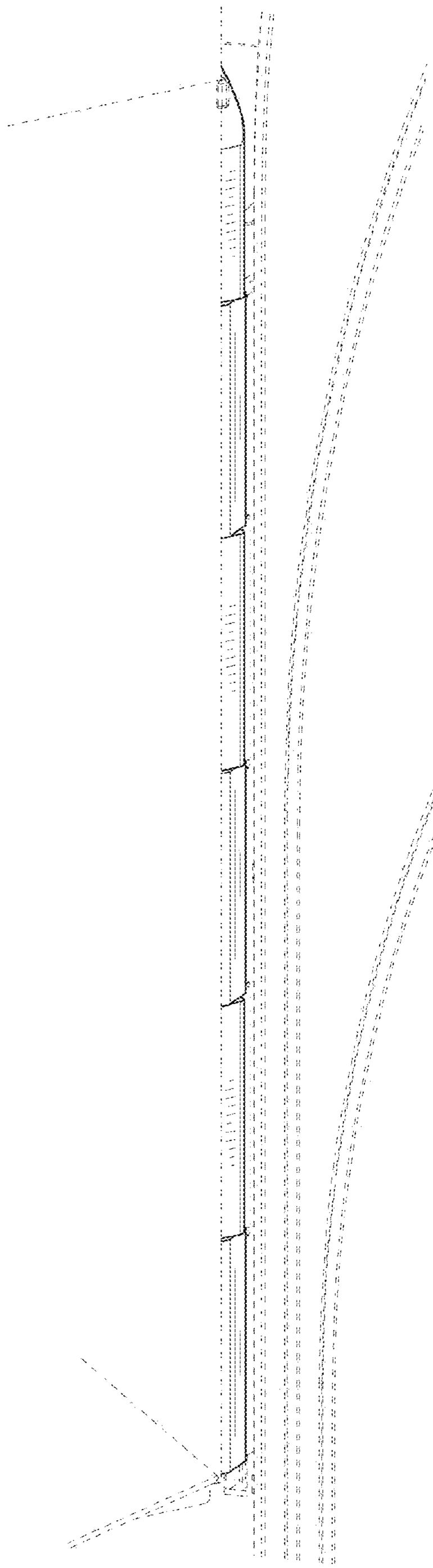

FIG. 59

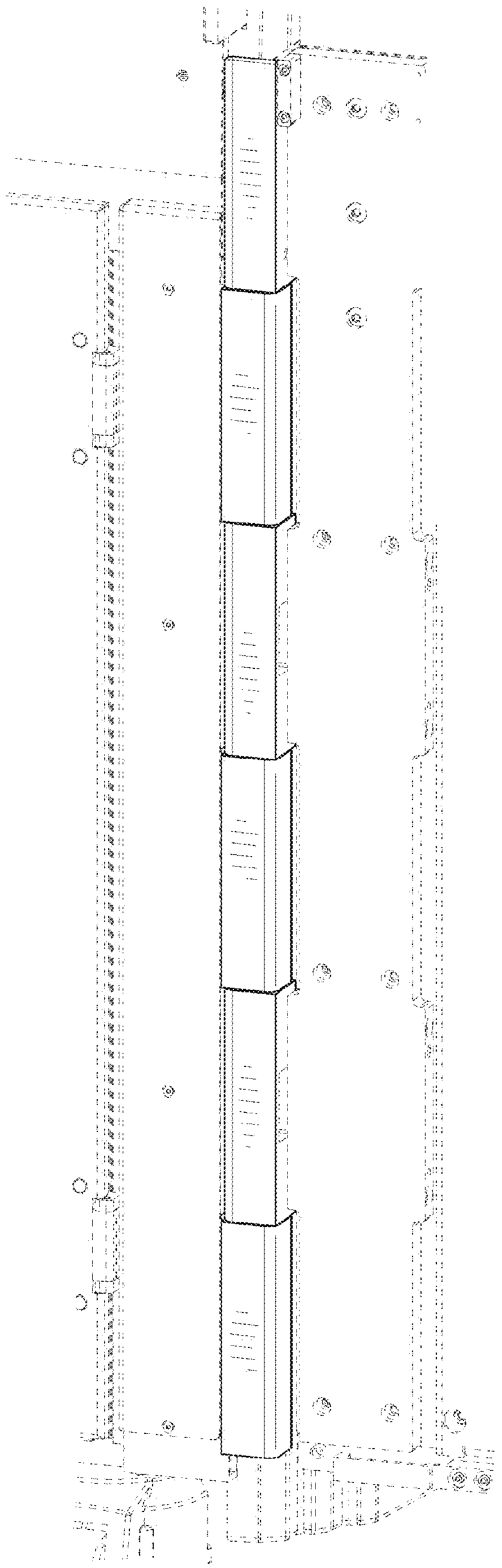

FIG. 60

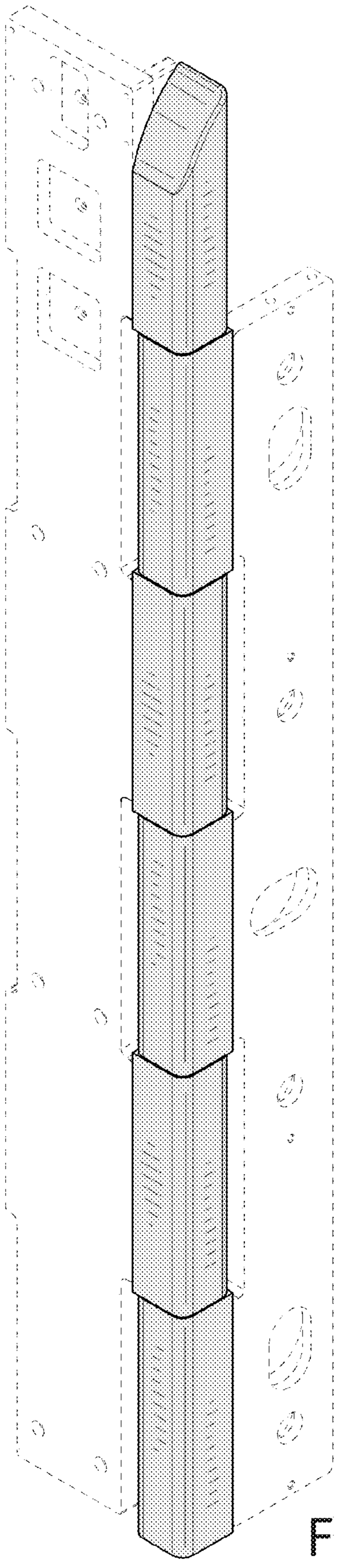

FIG. 61

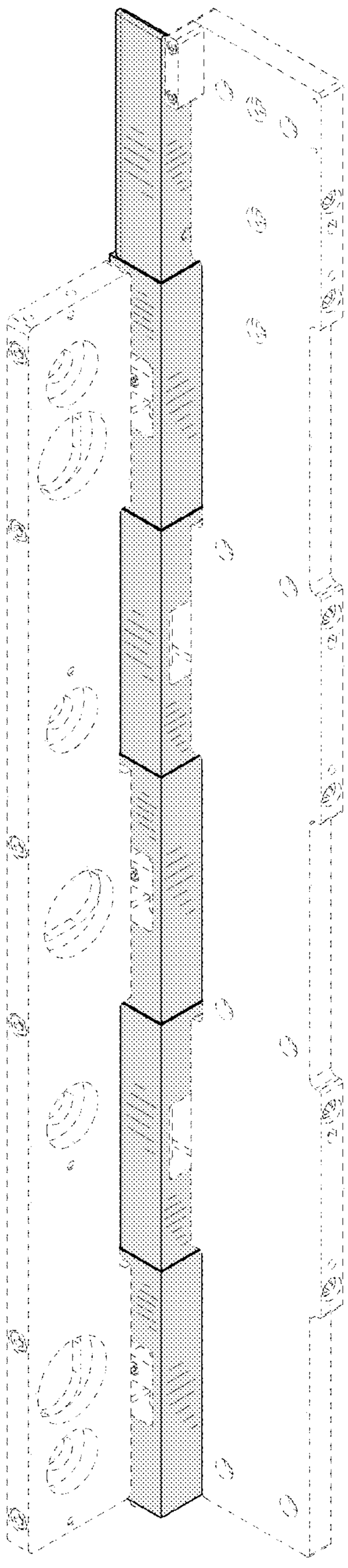

FIG. 62

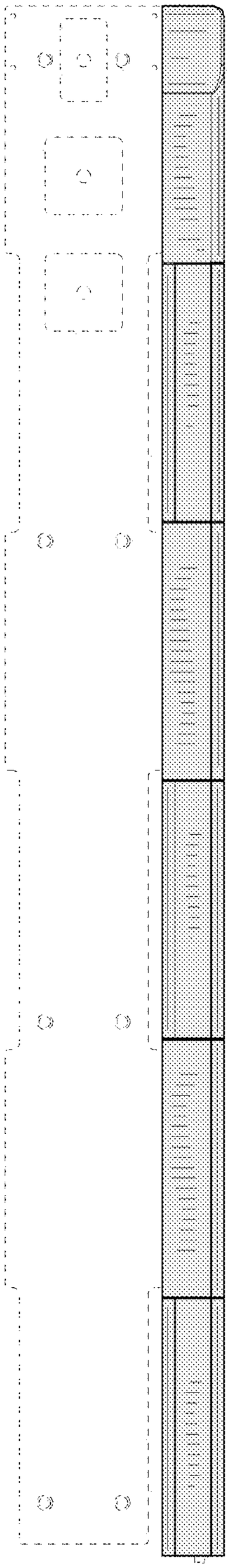

FIG. 63

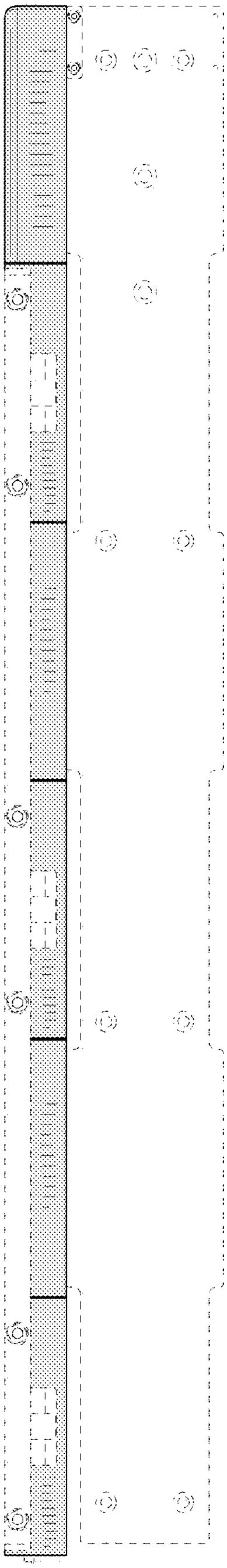

FIG. 64

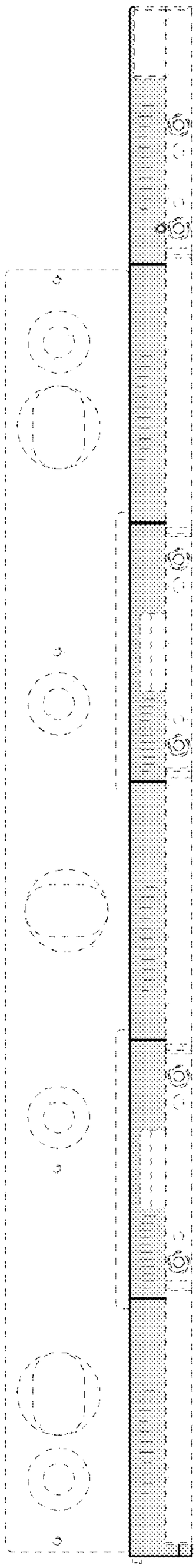

FIG. 65

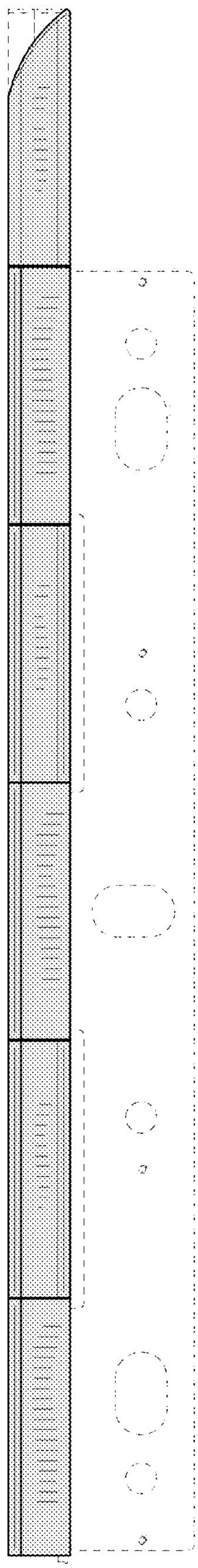

FIG. 66

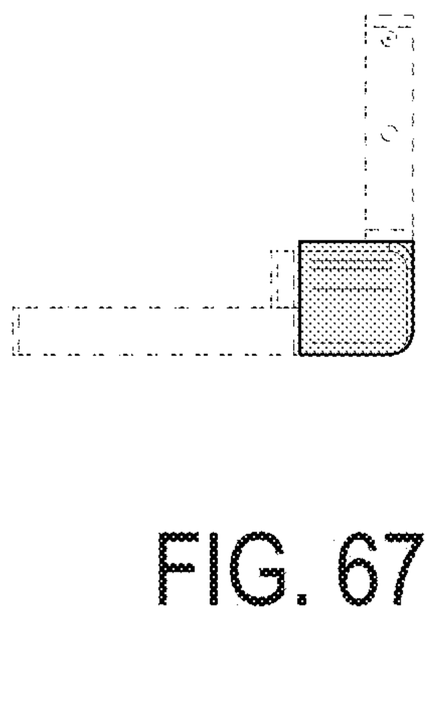

FIG. 67

FIG. 68

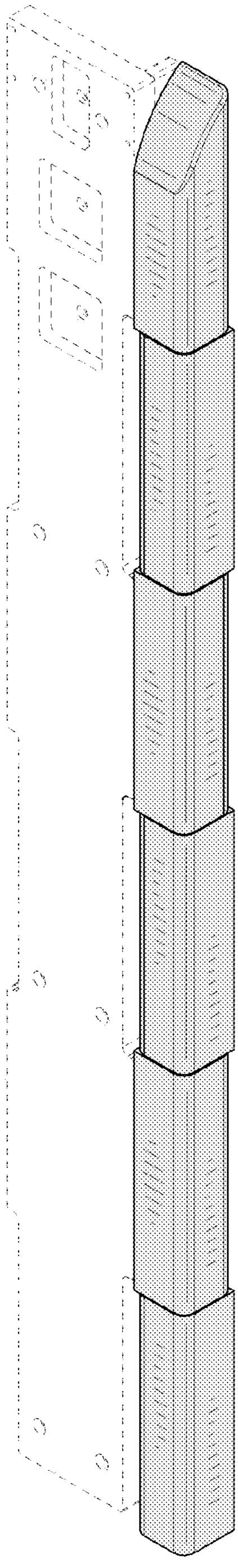

FIG. 69

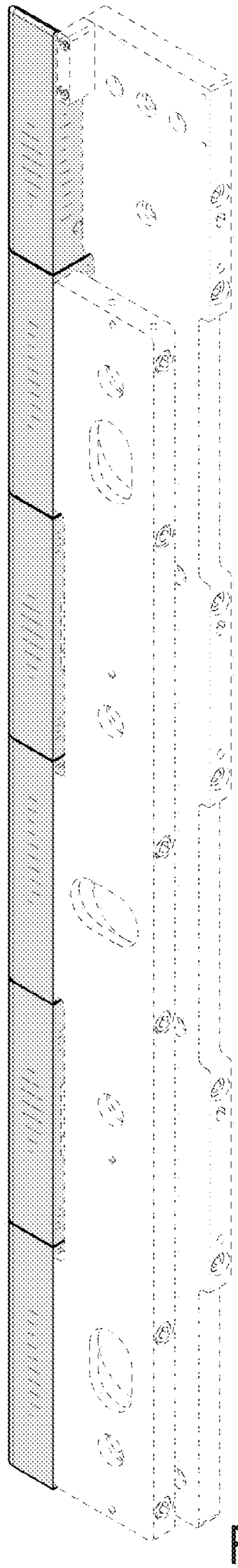

FIG. 70

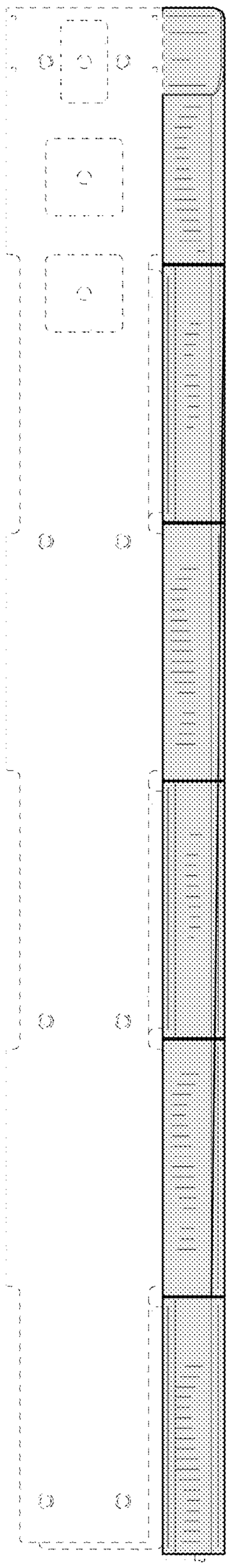

FIG. 71

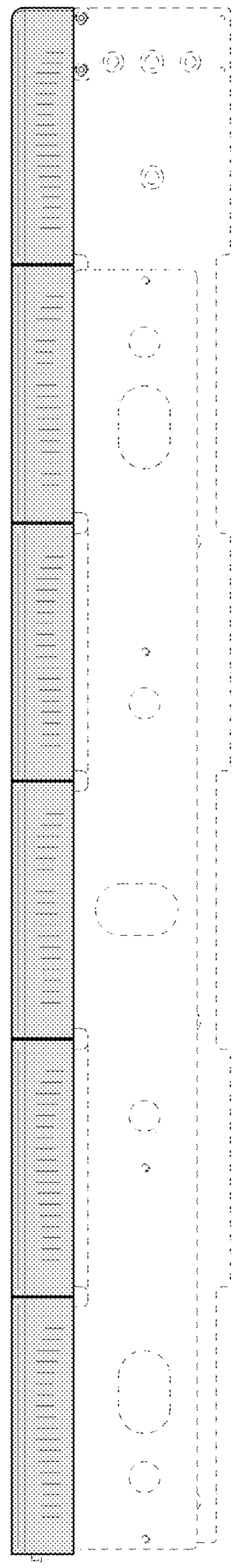

FIG. 72

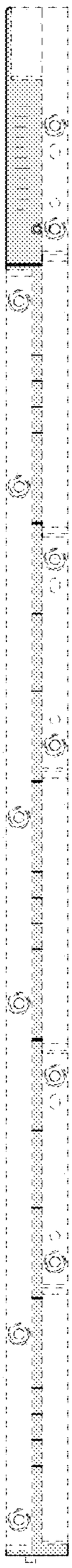

FIG. 73

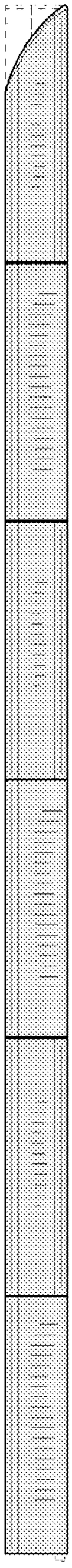

FIG. 74

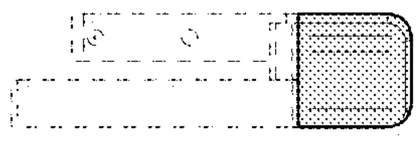

FIG. 75

FIG. 76

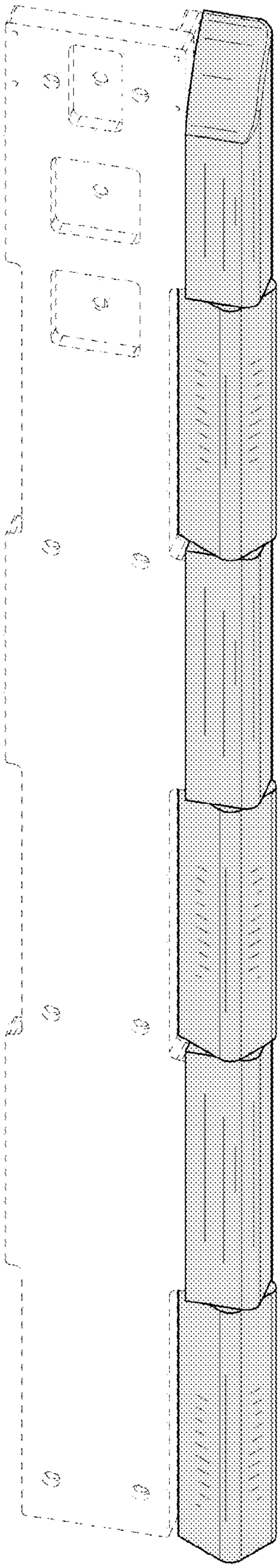

FIG. 77

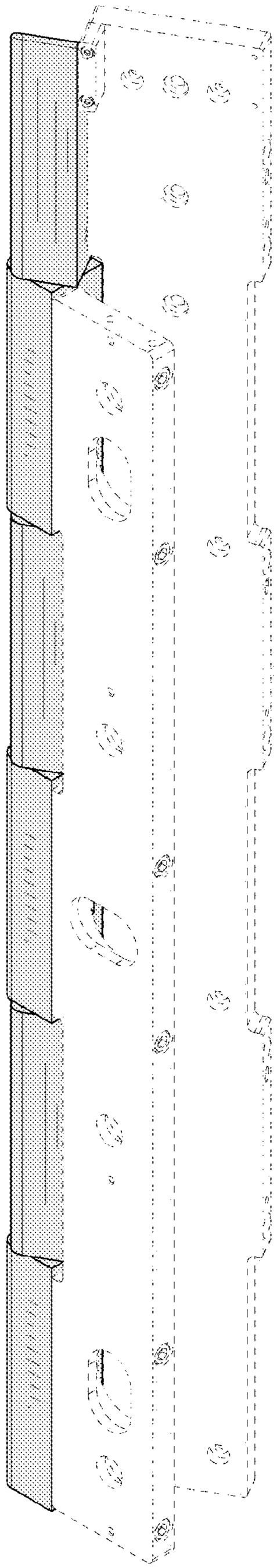

FIG. 78

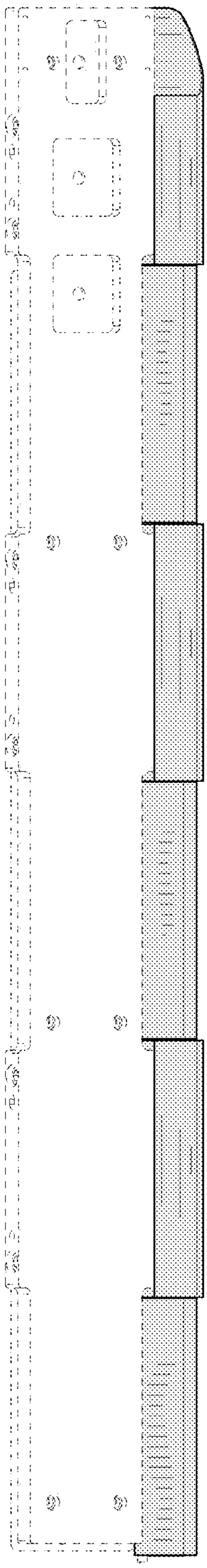

FIG. 79

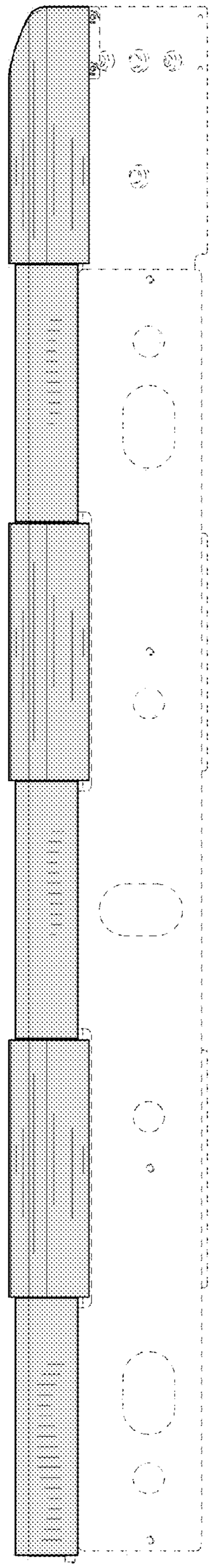

FIG. 80

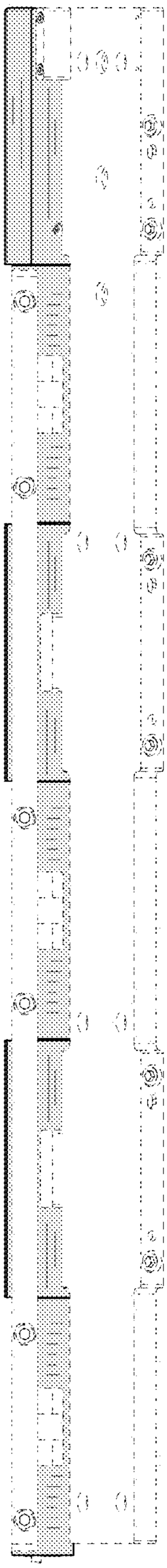

FIG. 81

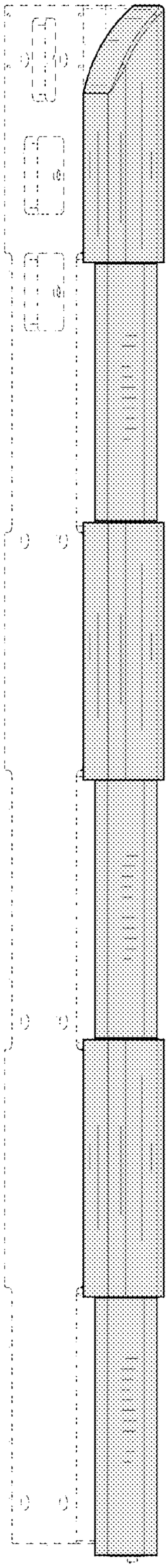

FIG. 82

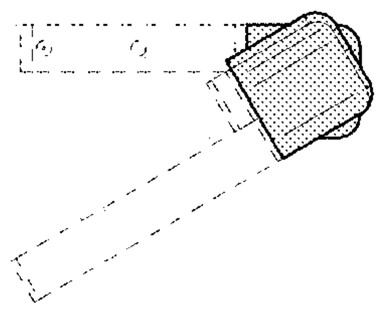

FIG. 83

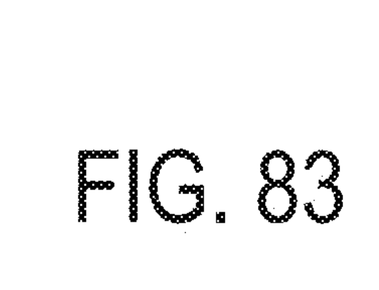

FIG. 84

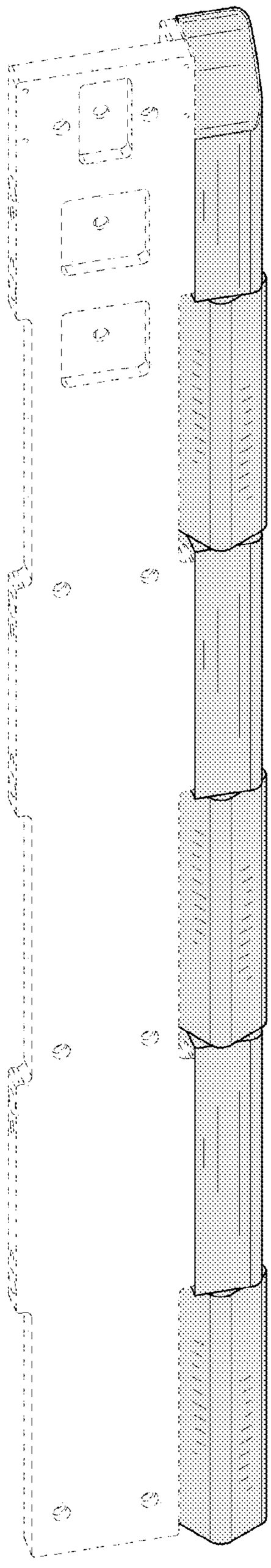

FIG. 85

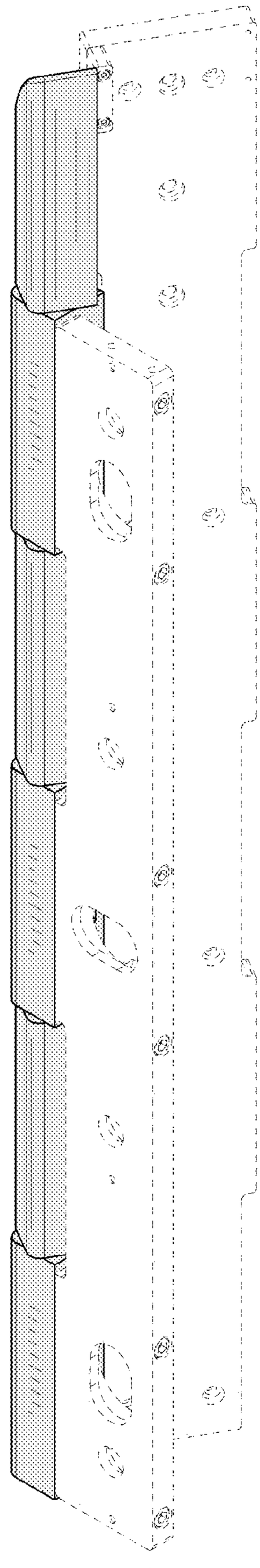

FIG. 86

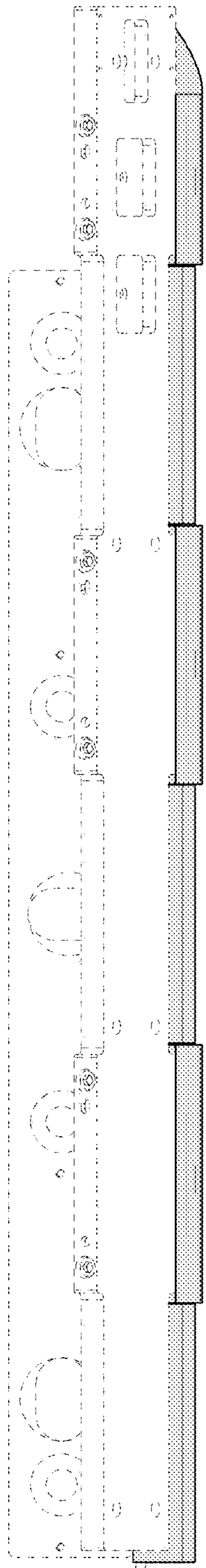

FIG. 87

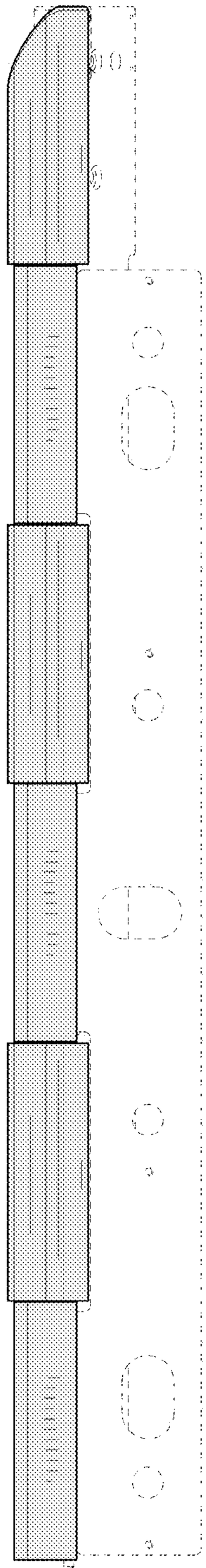

FIG. 88

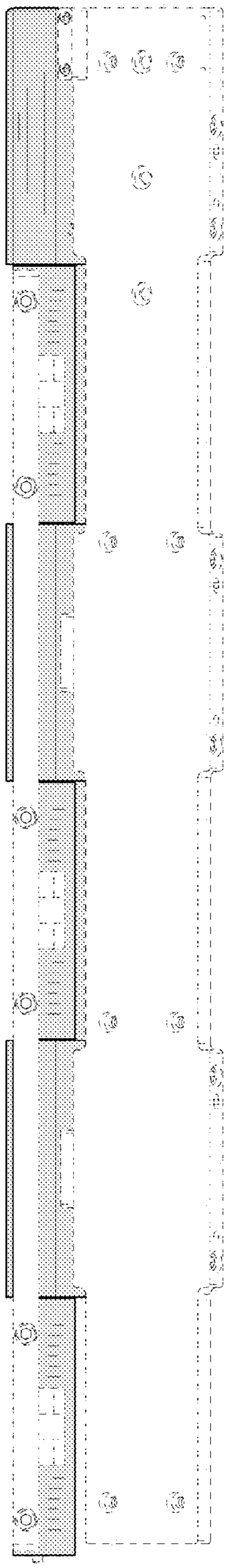

FIG. 89

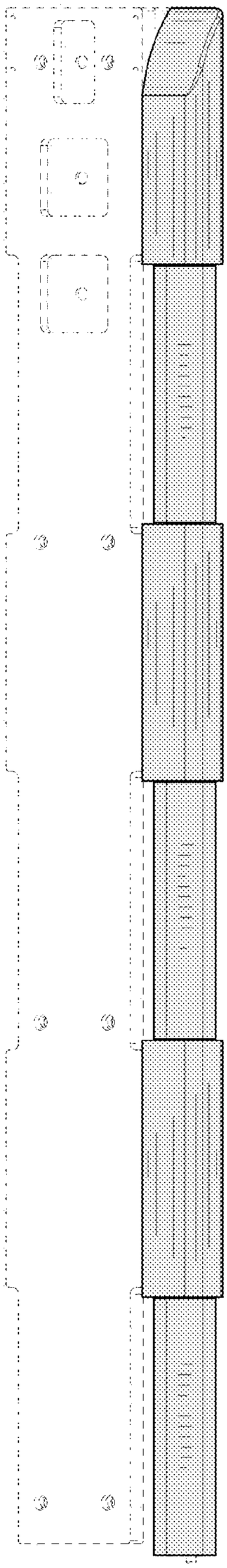

FIG. 90

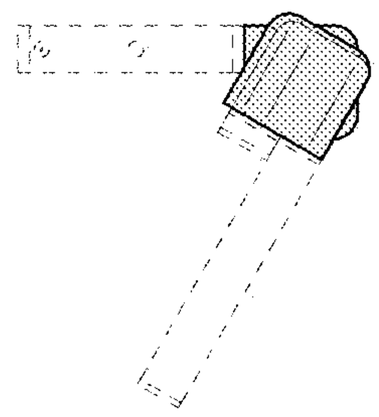

FIG. 91

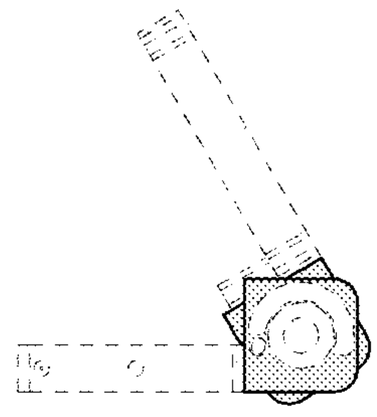

FIG. 92

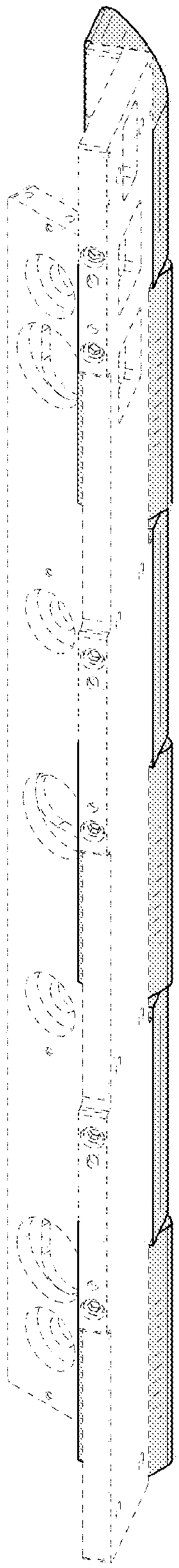

FIG. 93

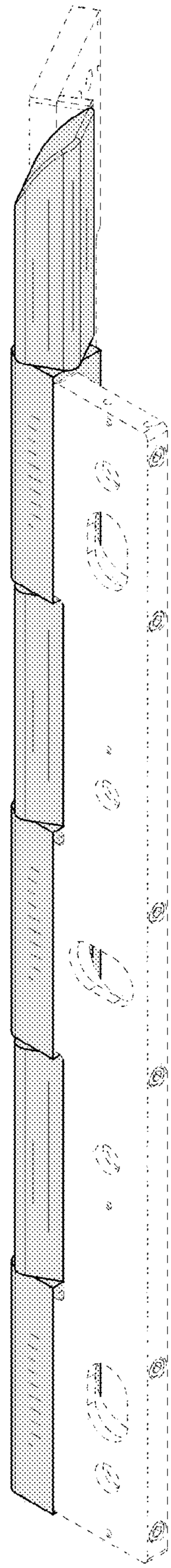

FIG. 94

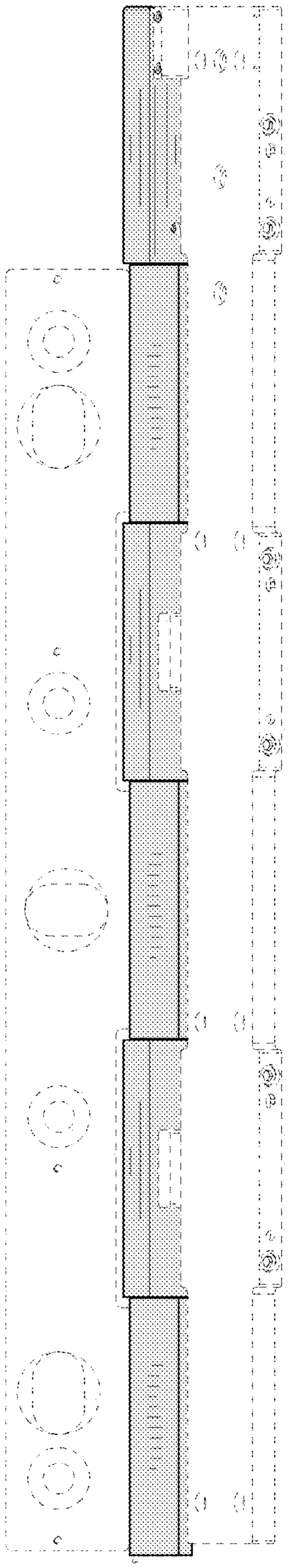

FIG. 95

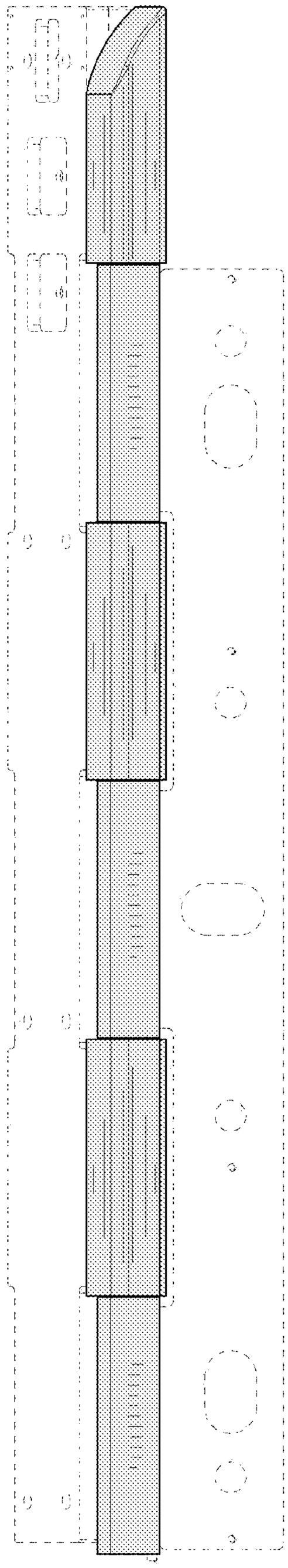

FIG. 96

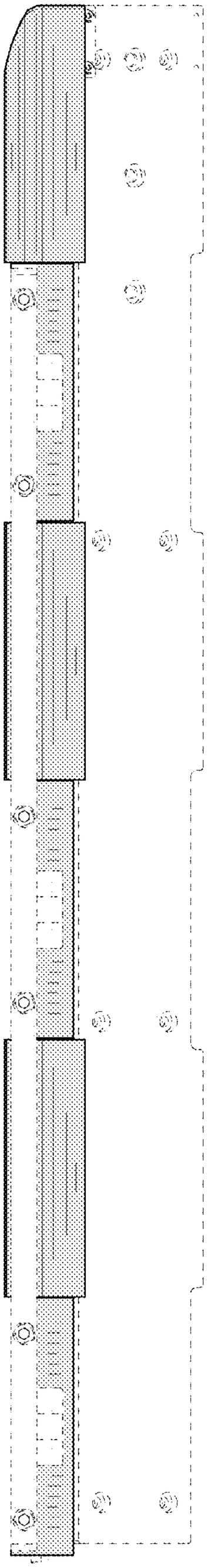

FIG. 97

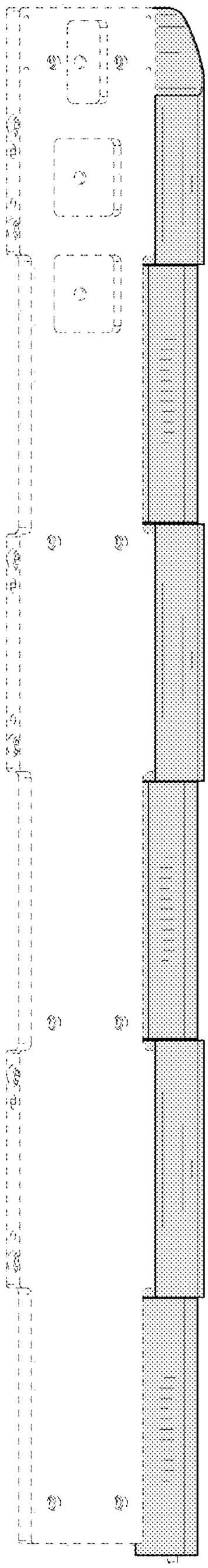

FIG. 98

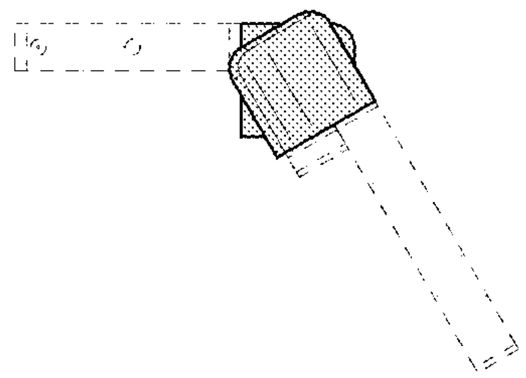

FIG. 99

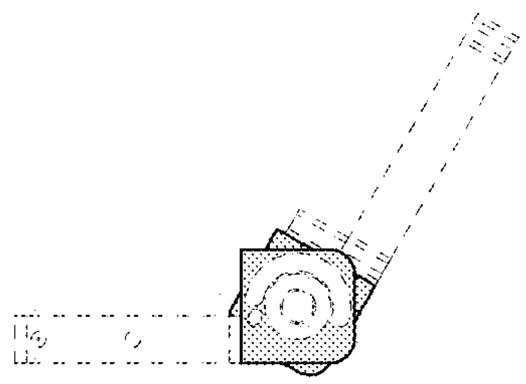

FIG. 100

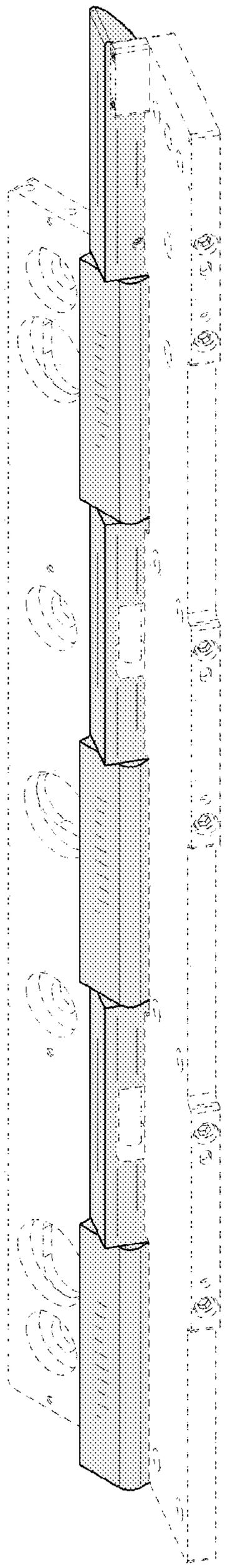

FIG. 101

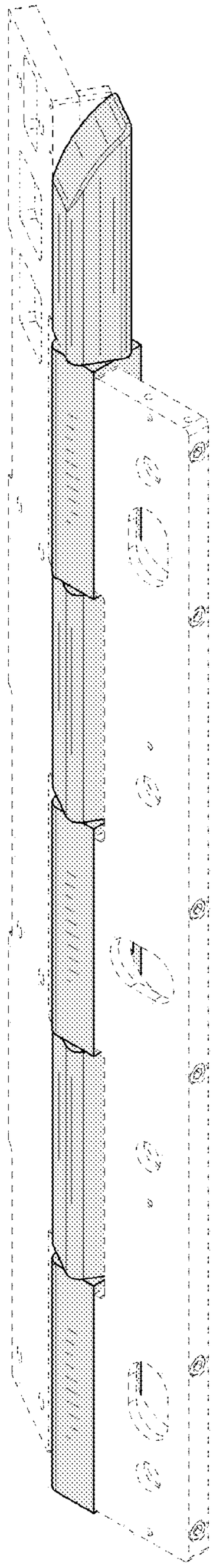

FIG. 102

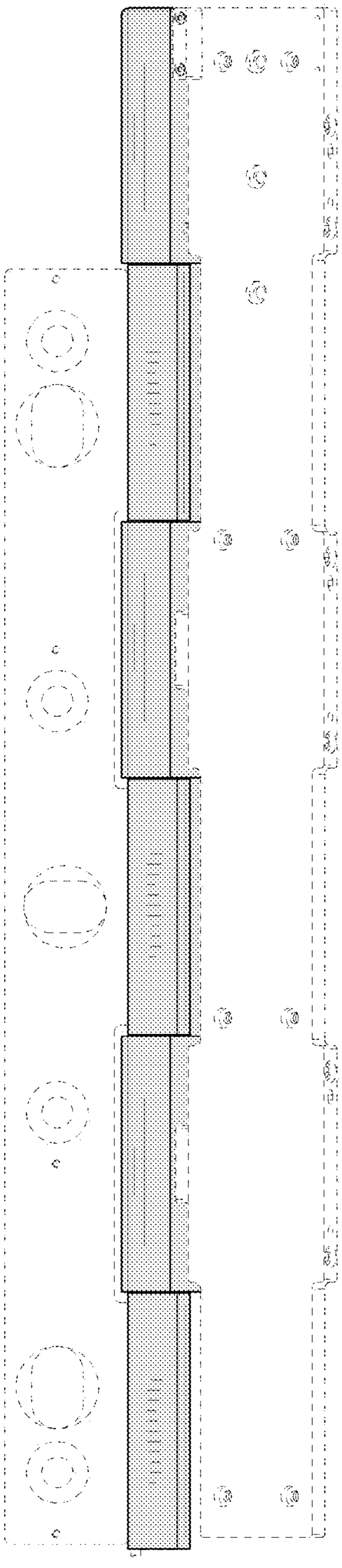

FIG. 103

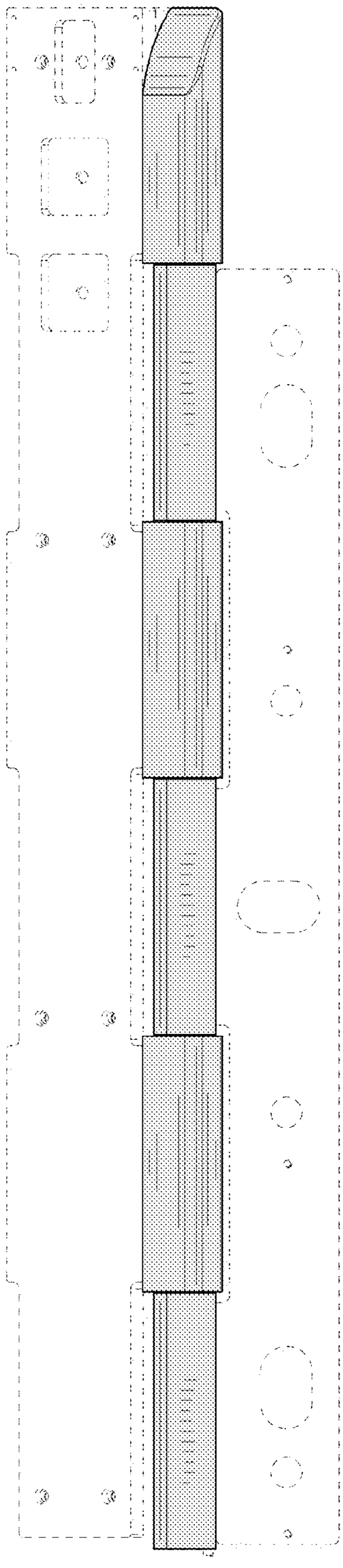

FIG. 104

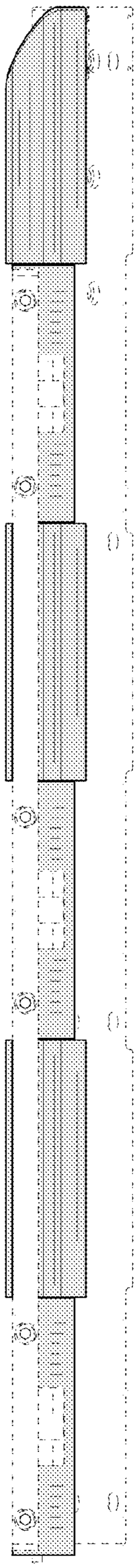

FIG. 105

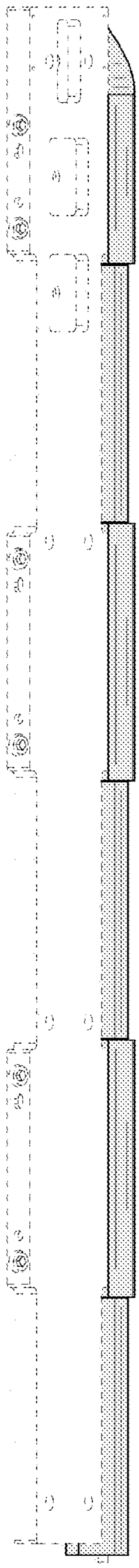

FIG. 106

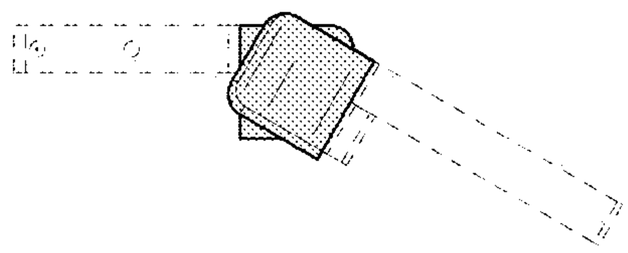

FIG. 107

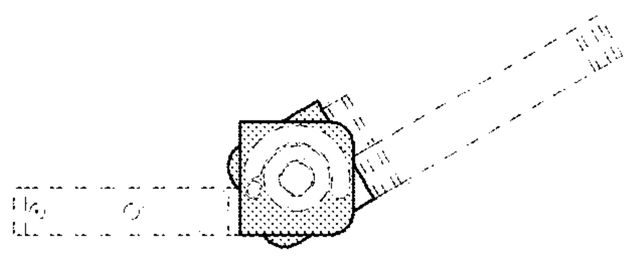

FIG. 108

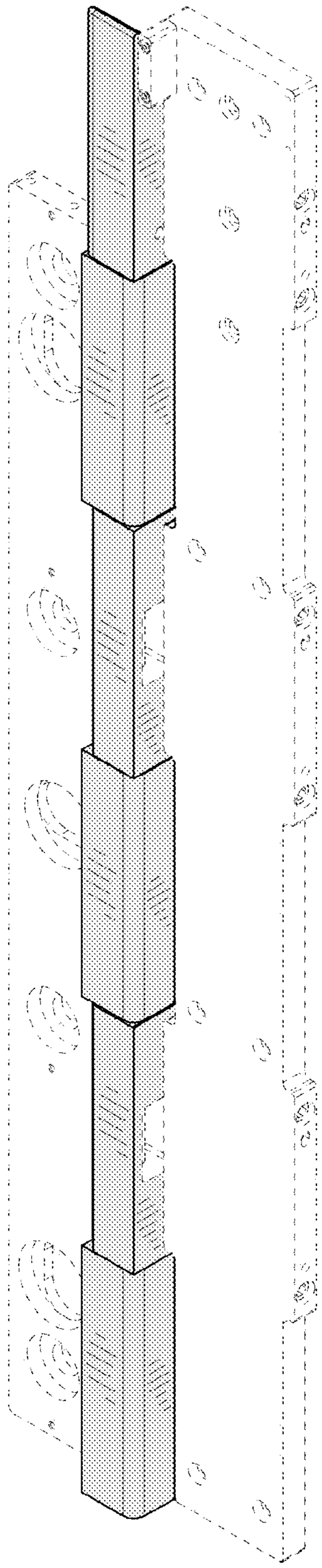

FIG. 109

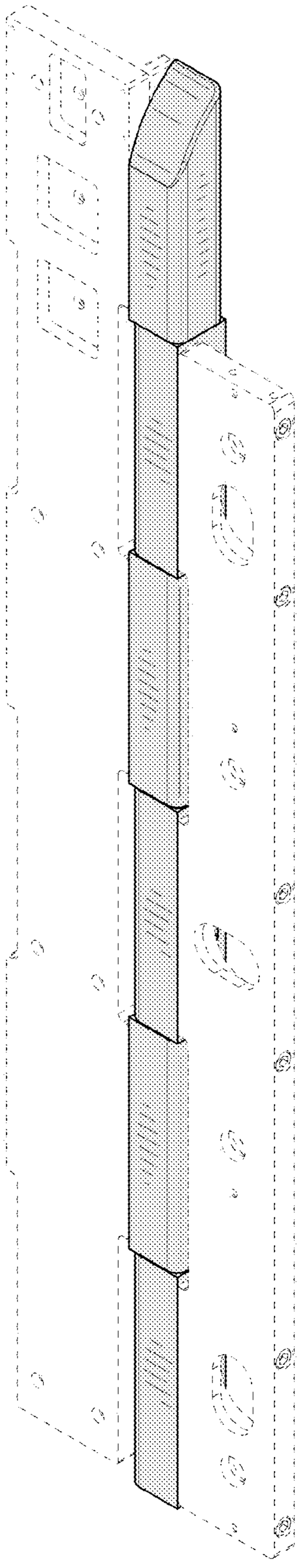

FIG. 110

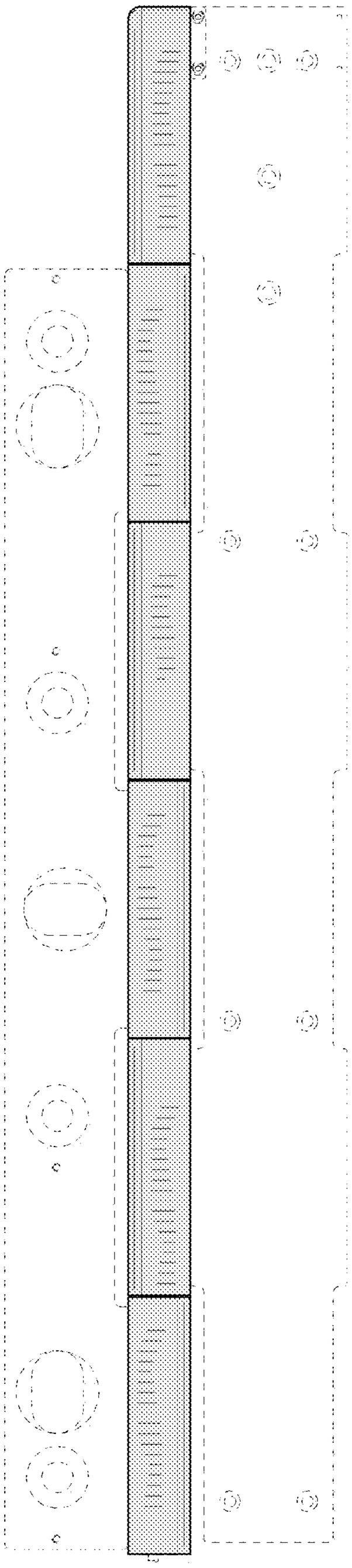

FIG. 111

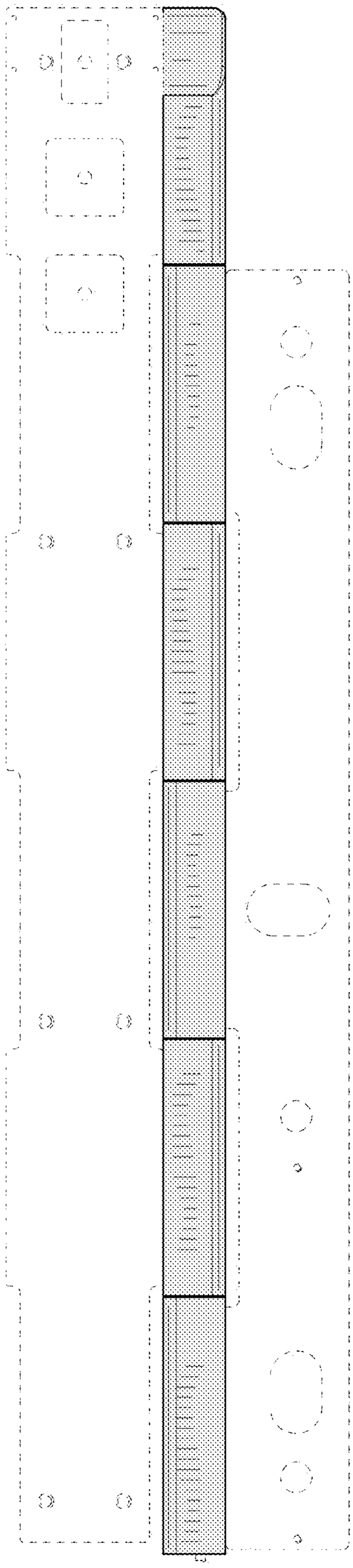

FIG. 112

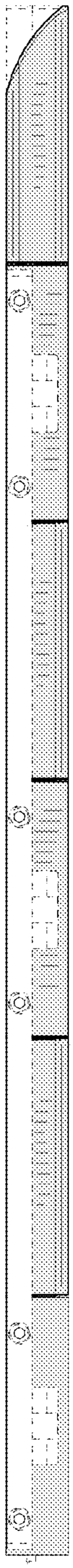

FIG. 113

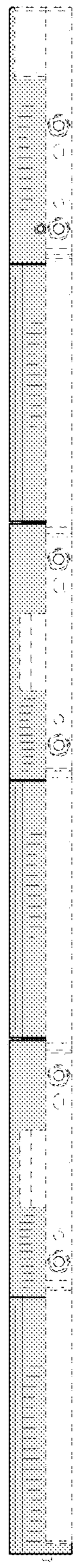

FIG. 114

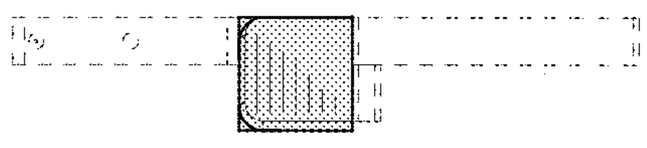

FIG. 115

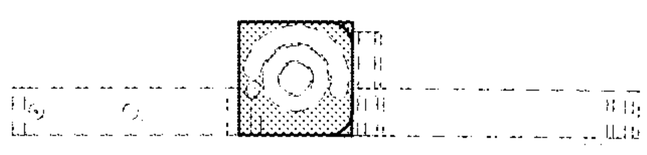

FIG. 116

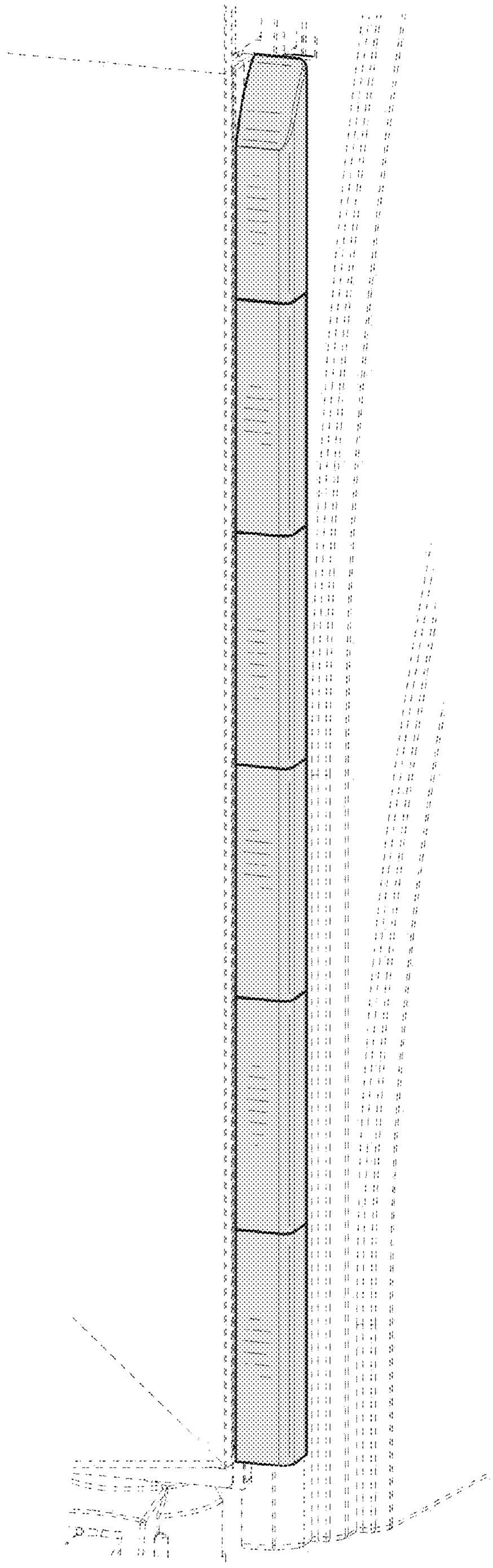

FIG. 117

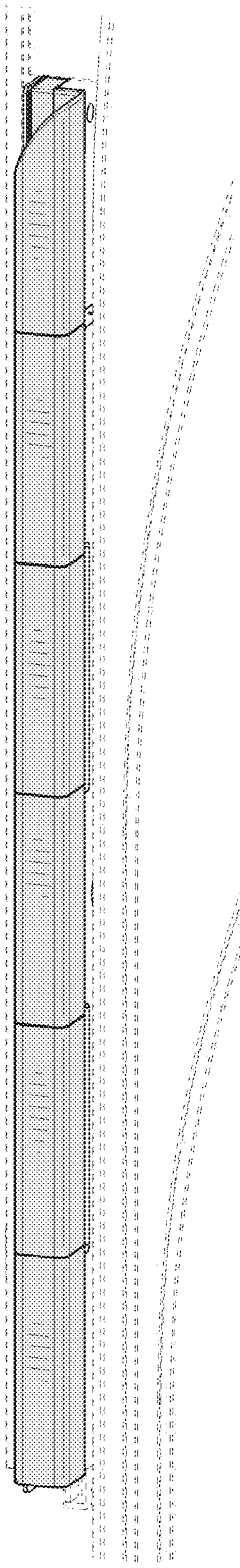

FIG. 118

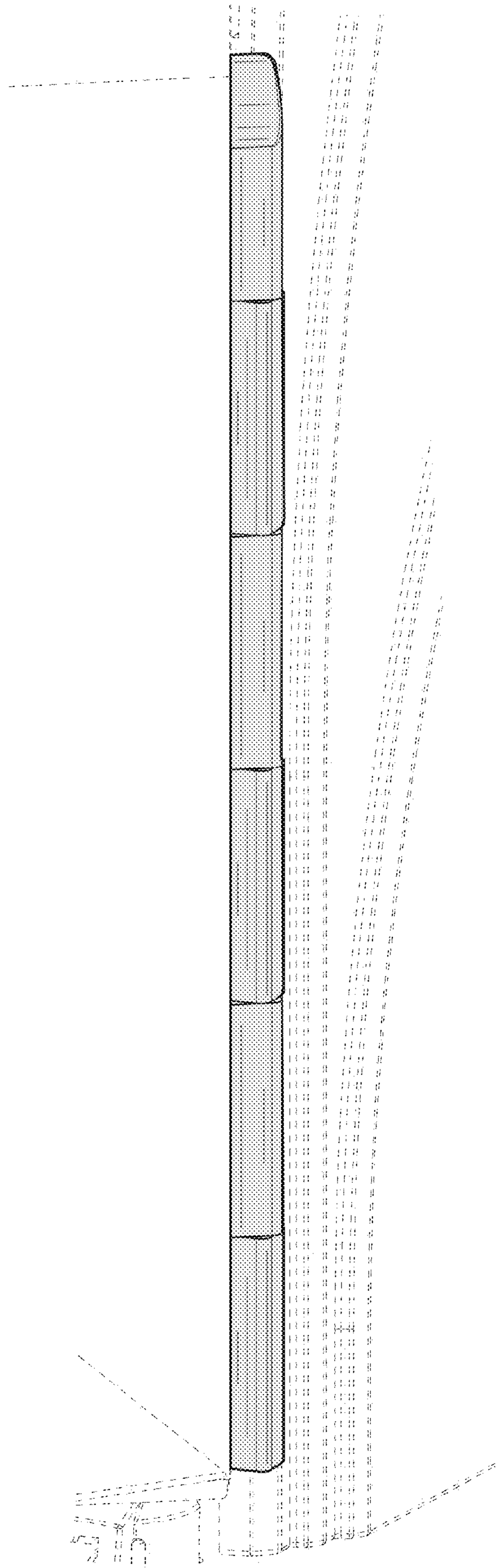

FIG. 119

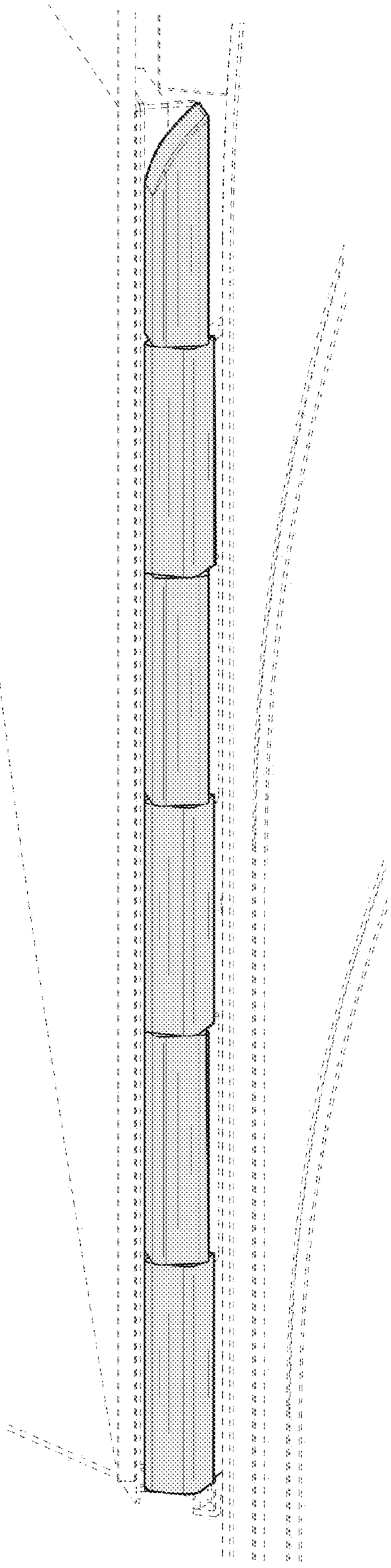

FIG. 120

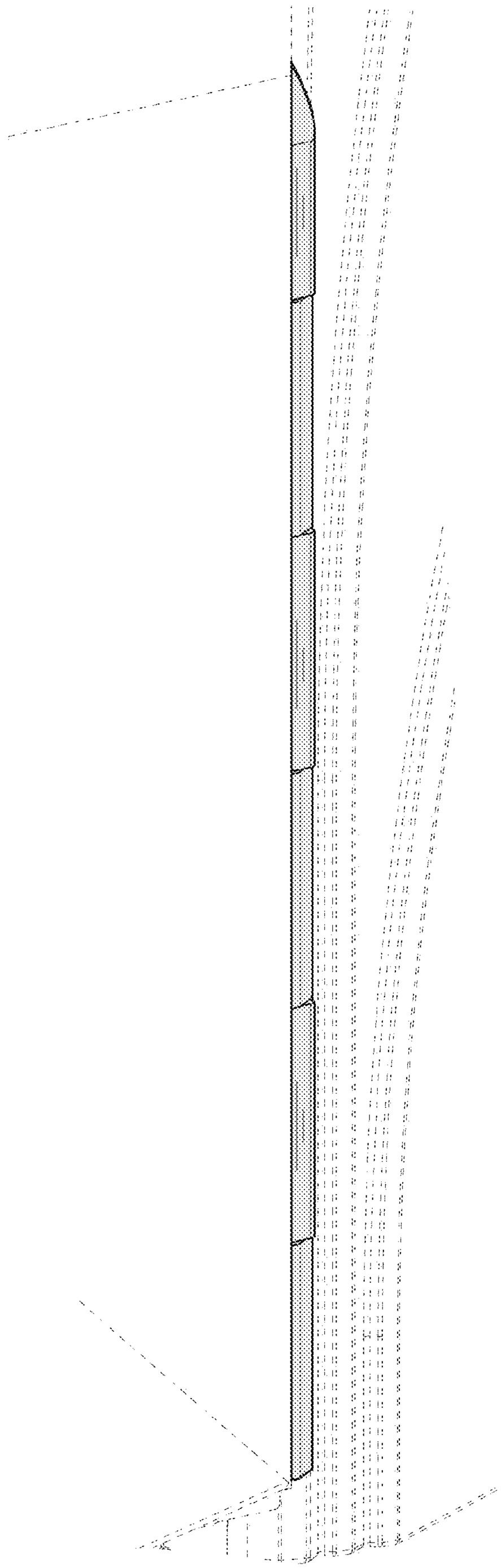

FIG. 121

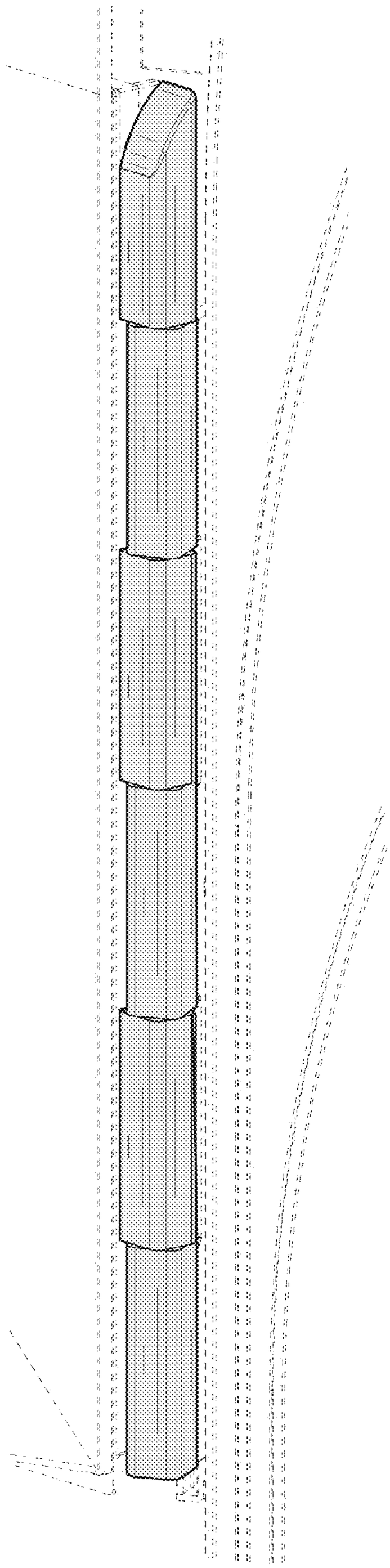

FIG. 122

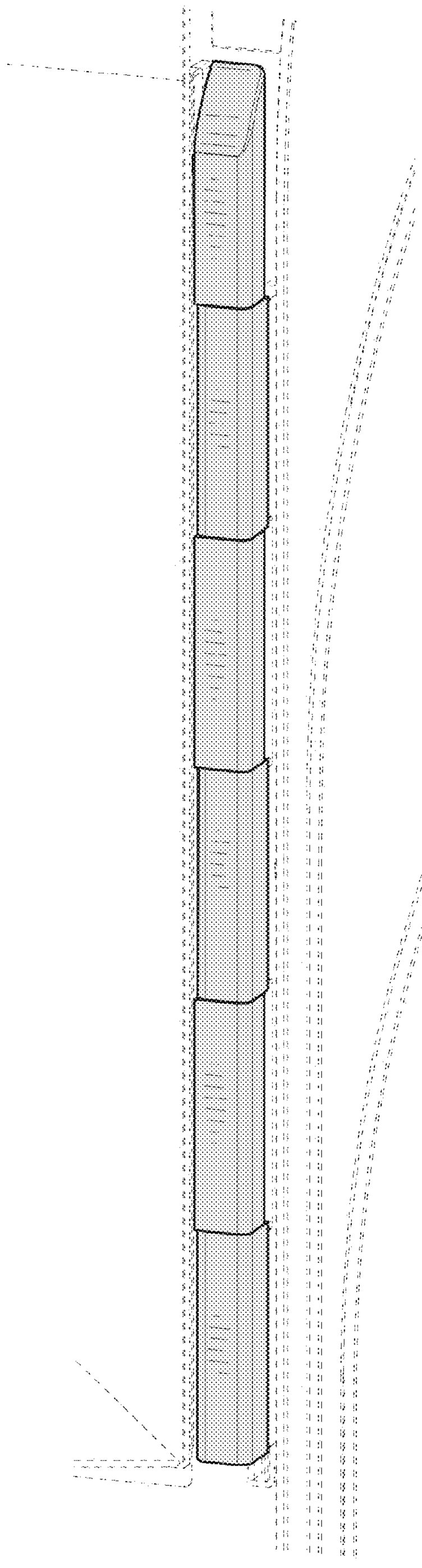

FIG. 123

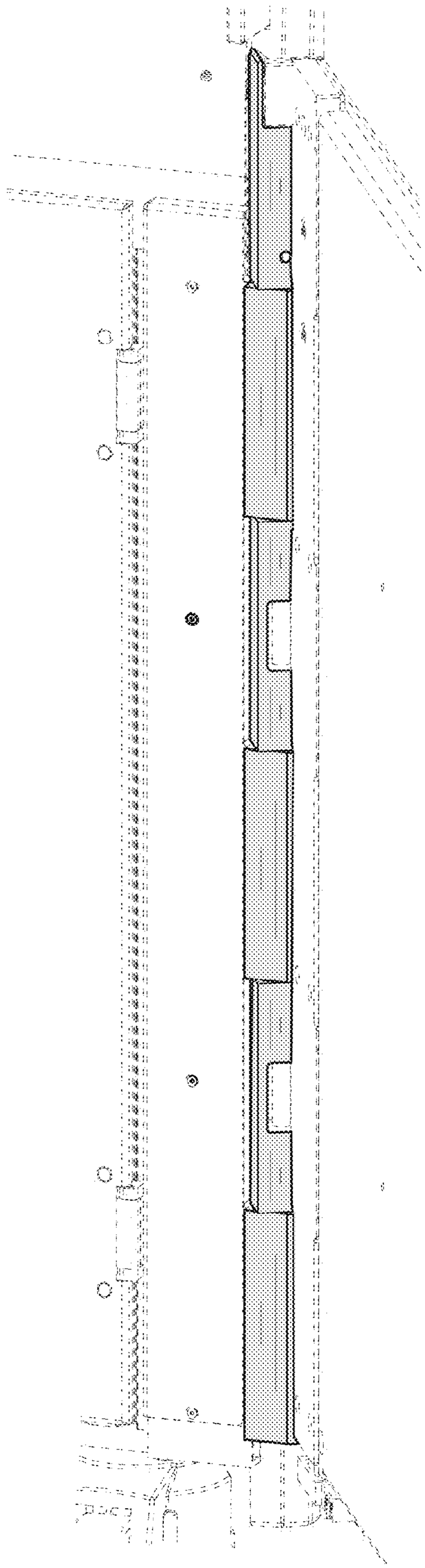

FIG. 124

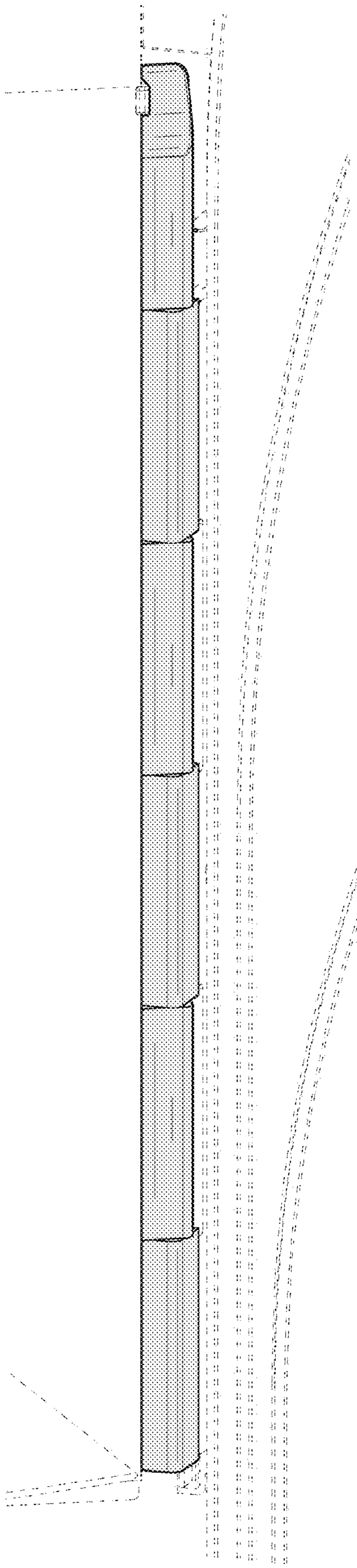

FIG. 125

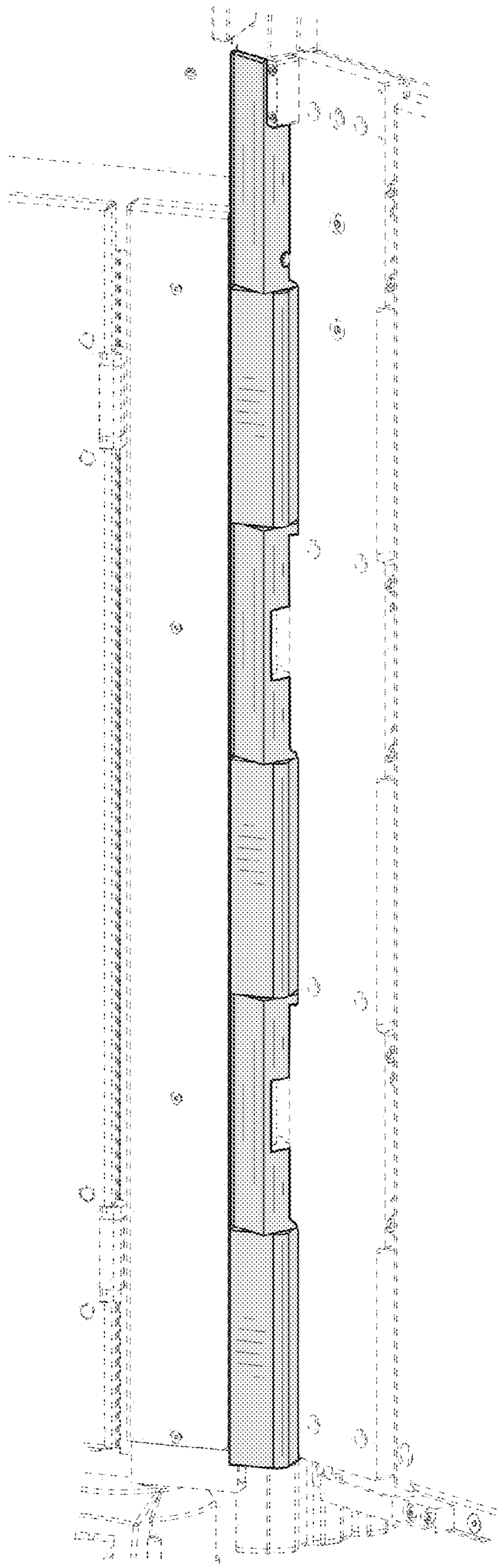

FIG. 126

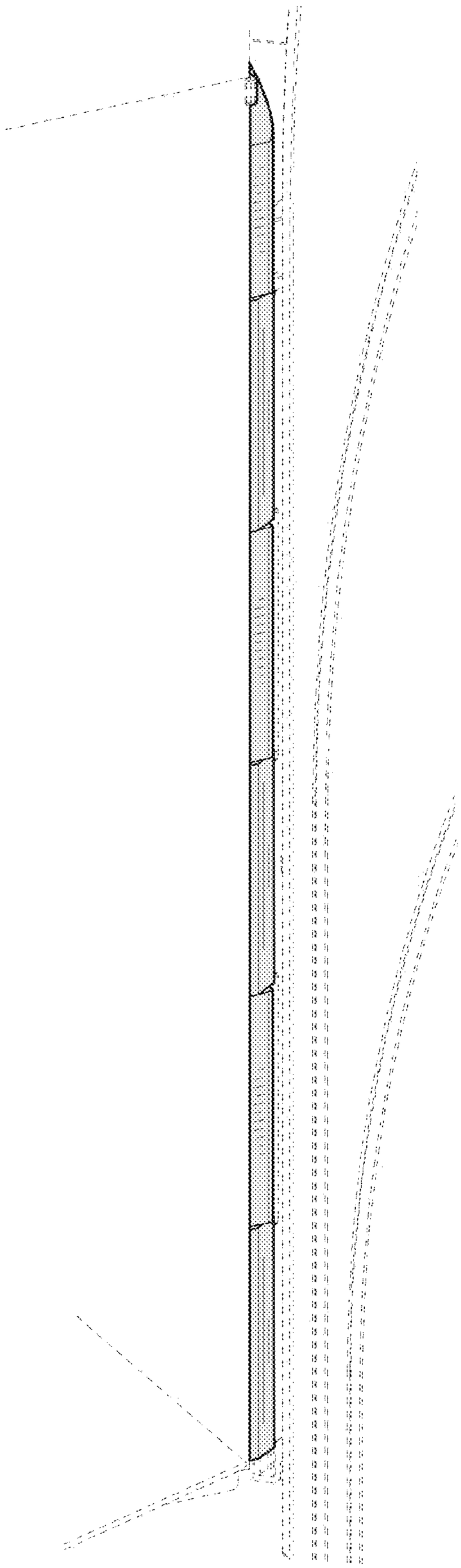

FIG. 127

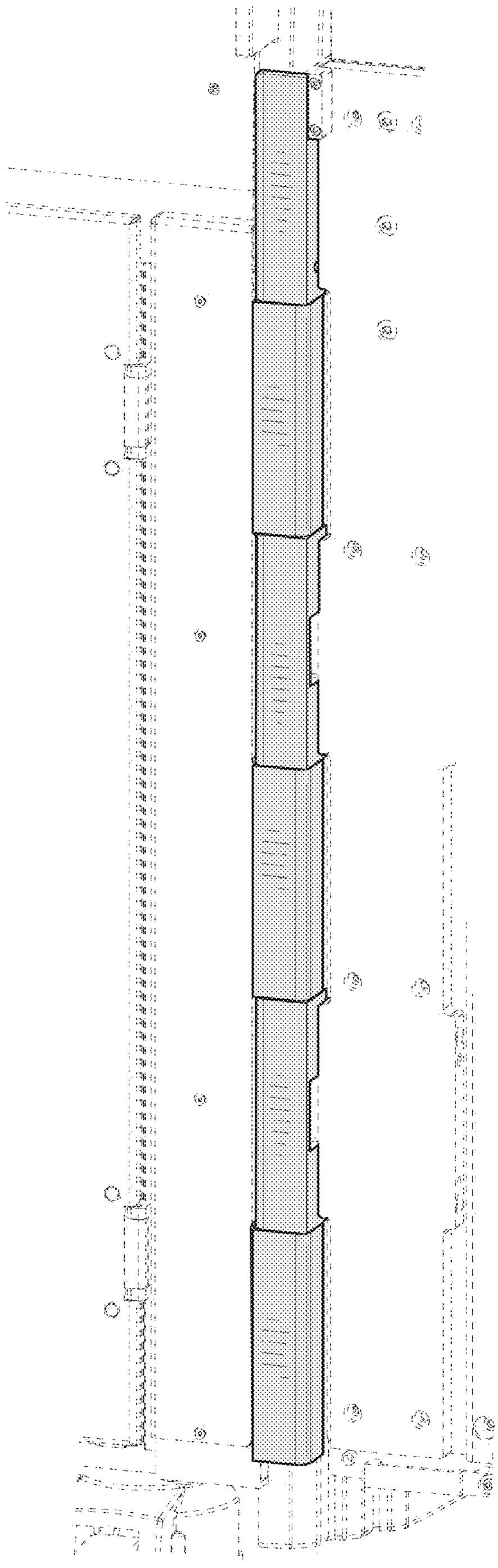

FIG. 128