US00D805416S

(12) **United States Design Patent** (10) **Patent No.: US D805,416 S**
Rymer et al. (45) **Date of Patent: ** *Dec. 19, 2017**

(54) **WAVE-SHAPED ROADWAY RUMBLE STRIP**

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(*) Notice: This patent is subject to a terminal disclaimer.

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

(21) Appl. No.: **29/544,678**

(22) Filed: **Nov. 5, 2015**

Related U.S. Application Data

(63) Continuation-in-part of application No. 29/541,381, filed on Oct. 2, 2015.

(51) **LOC (10) Cl.** **10-05**

(52) **U.S. Cl.**
USPC **D10/113.1**

(58) **Field of Classification Search**
USPC D10/113.1, 113.3

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,327,850	A *	7/1994	Sly	E01F 9/553 116/6 P
5,392,728	A *	2/1995	Speer	E01F 9/553 116/63 R

(Continued)

Primary Examiner — George D Kirschbaum
(74) *Attorney, Agent, or Firm* — Craig H. Simmermon

(57) **CLAIM**

The ornamental design for wave-shaped roadway rumble strip, as shown and described.

DESCRIPTION

FIG. **1** is a top perspective view of a wave-shaped roadway rumble strip showing my new design

FIG. **2** is a top plan view thereof.

FIG. **3** is a longitudinal cross sectional view taken along the lines **3-3** in FIG. **2** thereof.

FIG. **4** is a lateral cross sectional view taken along the lines **4-4** in FIG. **2** thereof.

FIG. **5** is an enlarged view thereof.

FIG. **6** is another top perspective view thereof.

FIG. **7** is another top plan view thereof.

FIG. **8** is a top perspective view of a second embodiment of my design.

FIG. **9** is a top plan view thereof.

FIG. **10** is a longitudinal cross-sectional view taken along the lines **10-10** in FIG. **9** thereof.

FIG. **11** is a lateral cross sectional view taken along the lines **11-11** in FIG. **9** thereof.

FIG. **12** is an enlarged view thereof.

FIG. **13** is another top perspective view thereof.

FIG. **14** is another top plan view thereof.

FIG. **15** is a top perspective view of a third embodiment of my design.

FIG. **16** is a top plan view thereof,

FIG. **17** is a longitudinal cross sectional view taken along the lines **17-17** in FIG. **16** thereof,

FIG. **18** is a longitudinal cross sectional view taken along the lines **18-18** In FIG. **16** thereof,

FIG. **19** is an enlarged view thereof.

FIG. **20** is a partial top perspective view thereof.

FIG. **21** is another top plan view thereof.

FIG. **22** is top perspective view of a fourth embodiment of my design.

FIG. **23** is a top plan view thereof,

FIG. **24** is a longitudinal cross sectional view taken along the lines **24-24** in FIG. **23** thereof.

FIG. **25** is a longitudinal cross sectional view taken along the lines **25-25** in FIG. **23** thereof,

FIG. **26** is an enlarged view thereof.

FIG. **27** is a partial top perspective view thereof.

FIG. **28** is another top plan view thereof,

FIG. **29** is top perspective view of a fourth embodiment of my design,

FIG. **30** is a top plan view thereof,

FIG. **31** is a longitudinal cross sectional view taken along the lines **31-31** in FIG. **30** thereof.

(Continued)

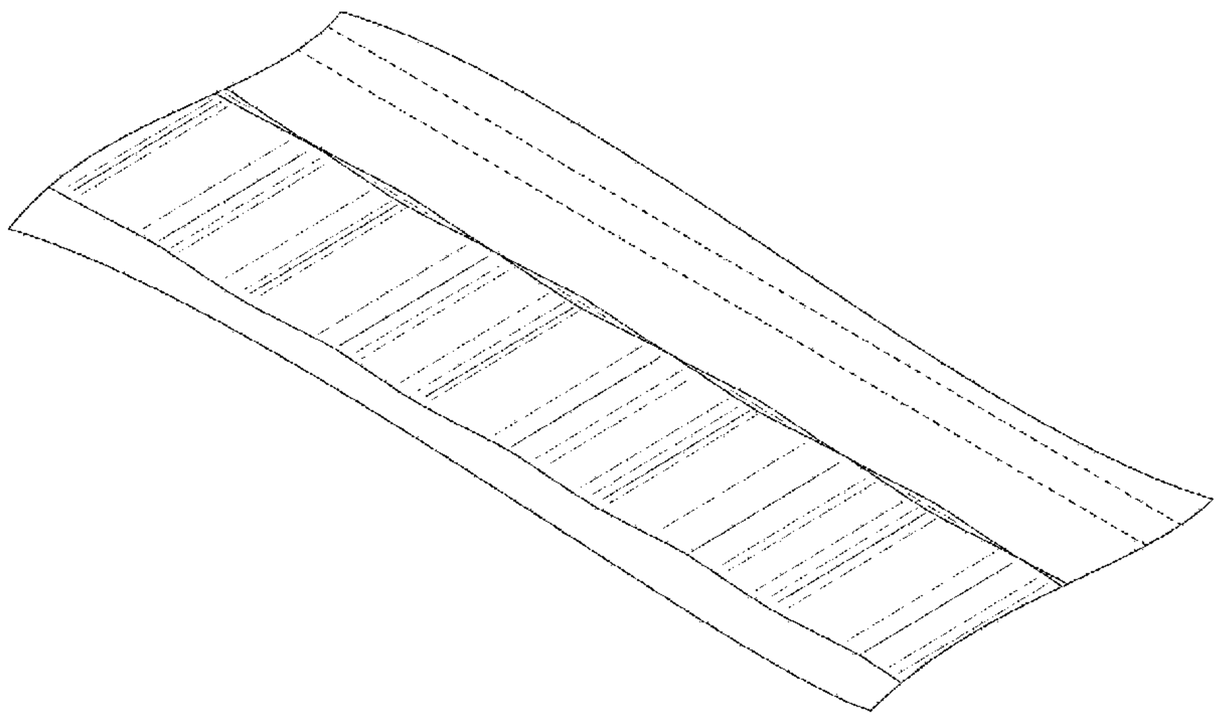


FIG. **32** is a longitudinal cross sectional view taken along the lines **32-32** in FIG. **30** thereof.
FIG. **33** is an enlarged view thereof.
FIG. **34** is a partial top perspective view thereof.
FIG. **35** is another top plan view thereof.
FIG. **36** is top perspective view of a fifth embodiment of my design.
FIG. **37** is a top plan view thereof.
FIG. **38** is a longitudinal cross sectional view taken along the lines **38-38** in FIG. **37** thereof,
FIG. **39** is a longitudinal cross sectional view taken along the lines **39-39** in FIG. **37** thereof,
FIG. **40** is an enlarged view thereof.
FIG. **41** is a partial top perspective view thereof.
FIG. **42** is another top plan view thereof.
FIG. **43** is top perspective view of a sixth embodiment of my design.
FIG. **44** is a top plan view thereof,
FIG. **45** is a longitudinal cross sectional view taken along the lines **45-45** in FIG. **44** thereof,
FIG. **46** is a longitudinal cross sectional view taken along the lines **46-46** in FIG. **44** thereof.
FIG. **47** is an enlarged view thereof.
FIG. **48** is a partial top perspective view thereof.
FIG. **49** is another top plan view thereof.
FIG. **50** is top perspective view of a seventh embodiment of my design.
FIG. **51** is a top plan view thereof,
FIG. **52** is a longitudinal cross sectional view taken along the lines **52-52** in FIG. **51** thereof,
FIG. **53** is a longitudinal cross sectional view taken along the lines **53-53** in FIG. **51** thereof,
FIG. **54** is an enlarged view thereof.
FIG. **55** is a partial top perspective view thereof.
FIG. **56** is another top plan view thereof.
FIG. **57** is top perspective view of an eighth embodiment of my design.
FIG. **58** is a top plan view thereof.
FIG. **59** is a longitudinal cross sectional view taken along the lines **59-59** in FIG. **58** thereof.
FIG. **60** is a longitudinal cross sectional view taken along the lines **60-60** in FIG. **58** thereof.
FIG. **61** is an enlarged view thereof.
FIG. **62** is a partial top perspective view thereof; and,
FIG. **63** is another top plan view thereof.
Broken lines in the drawings represent unclaimed environmental subject matter and form no part of the claimed design.

1 Claim, 54 Drawing Sheets

(58) **Field of Classification Search**
CPC E01F 9/553; E01F 9/512; E01F 9/529; G01M 17/06; E01C 5/08
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,769,563	A *	6/1998	Flynn	E01F 9/512 116/63 P
7,118,305	B1 *	10/2006	Corbett	E01F 13/12 404/6
7,302,825	B2 *	12/2007	Knox	G01M 17/06 73/11.04
7,625,152	B2 *	12/2009	Swamidass	E01F 9/529 404/12
7,731,448	B2 *	6/2010	Fillie	E01F 9/529 404/15
7,736,087	B1 *	6/2010	Mettler	E01F 9/529 116/63 P
7,950,276	B1 *	5/2011	Freyhof	E01O 5/08 73/146

* cited by examiner

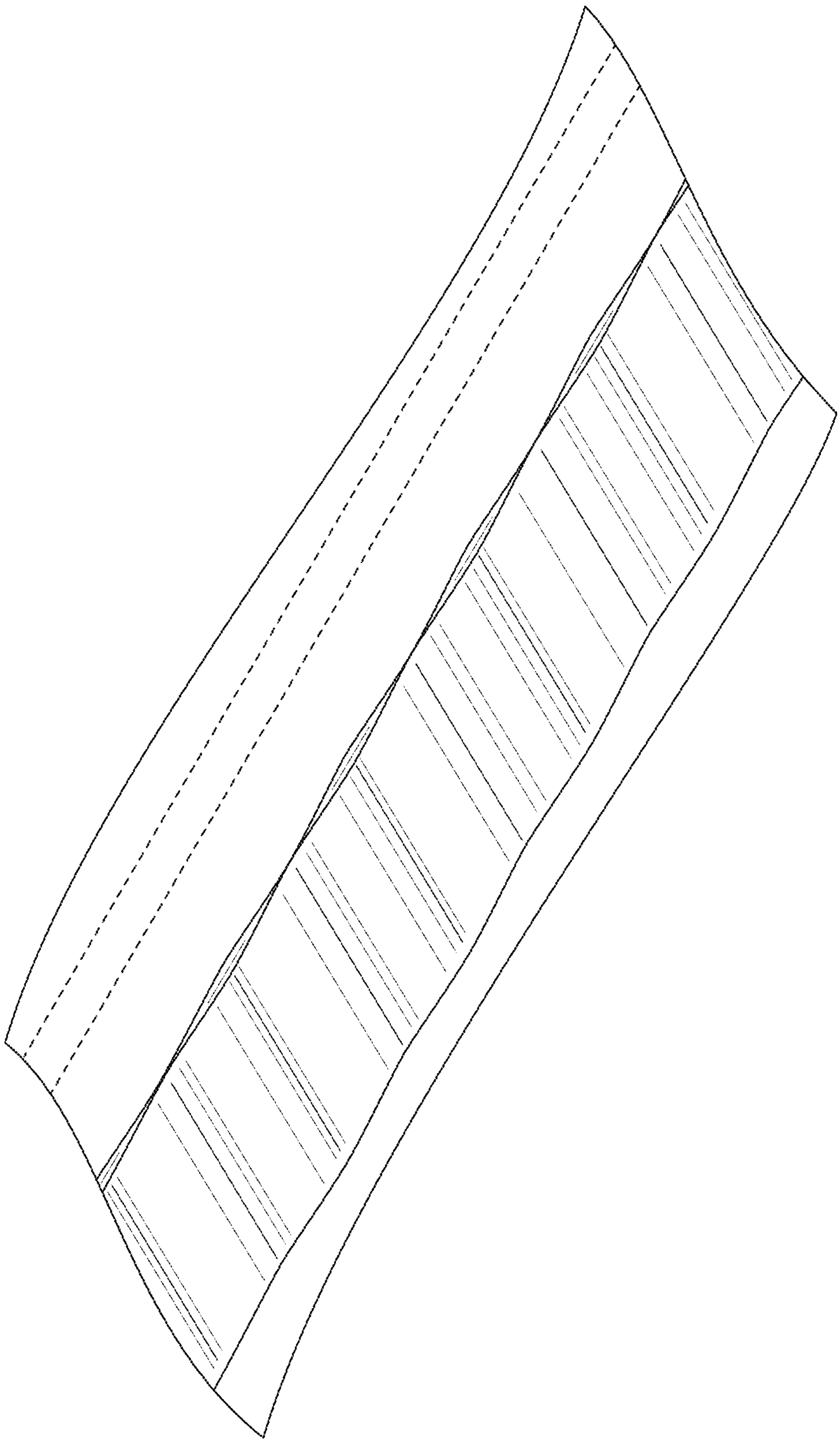


FIG. 1

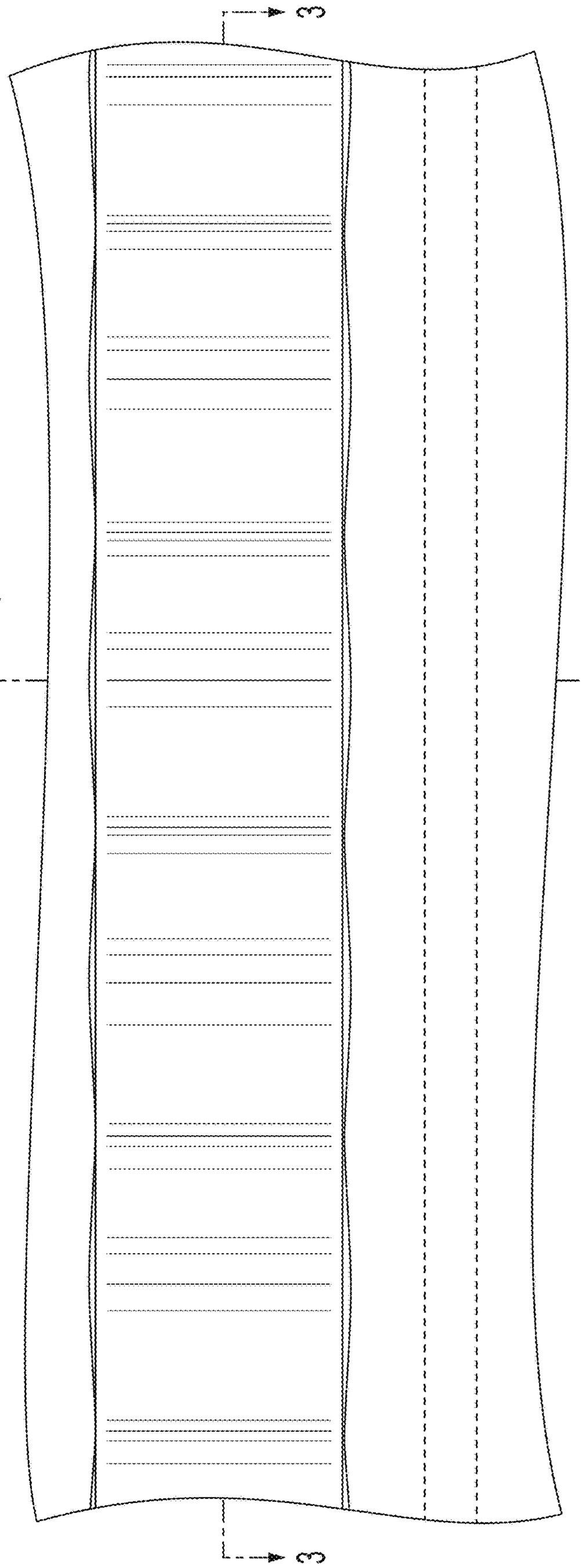
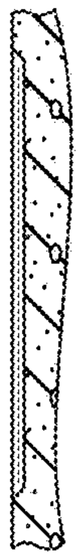


FIG. 2

FIG. 3



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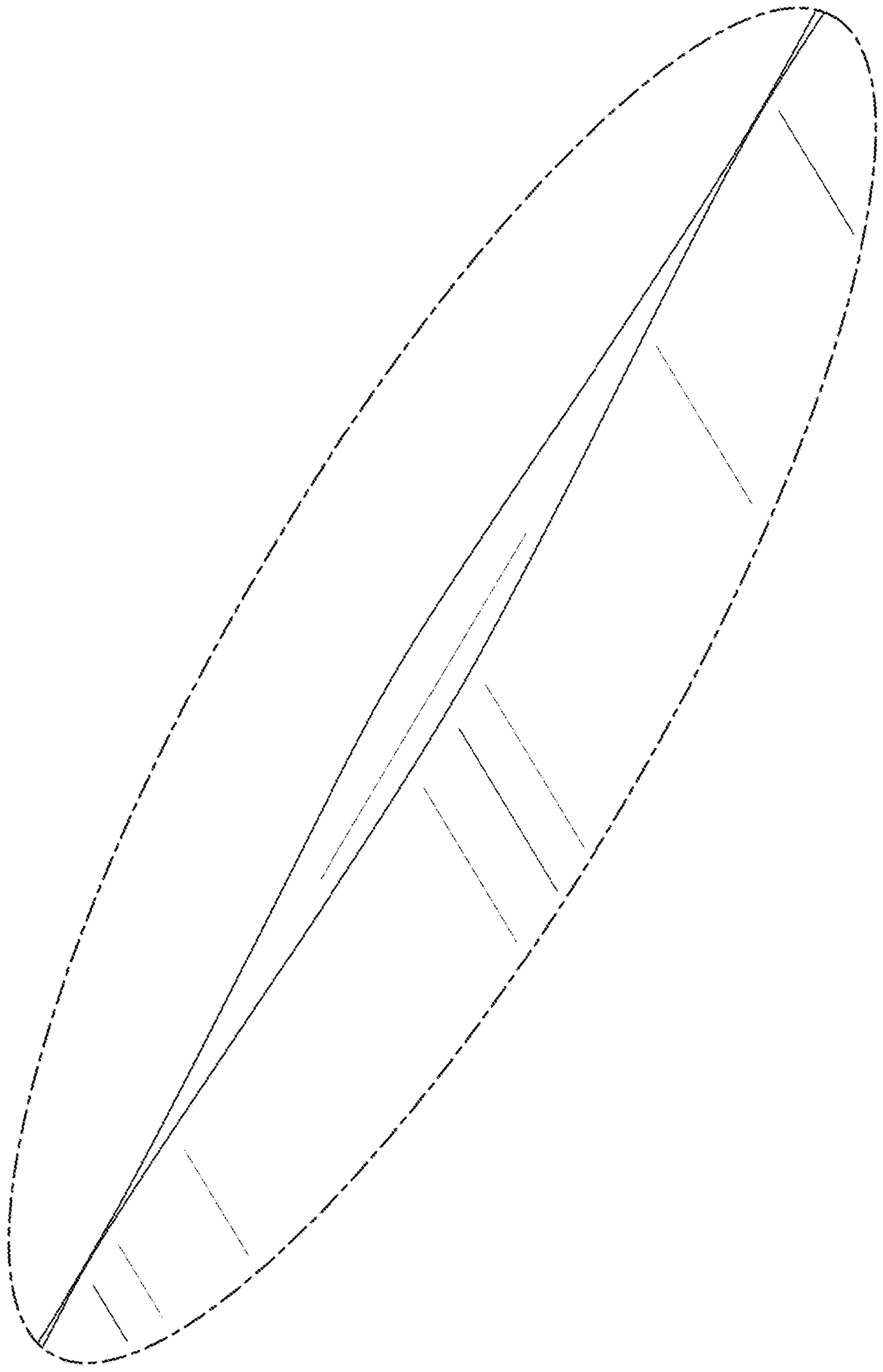

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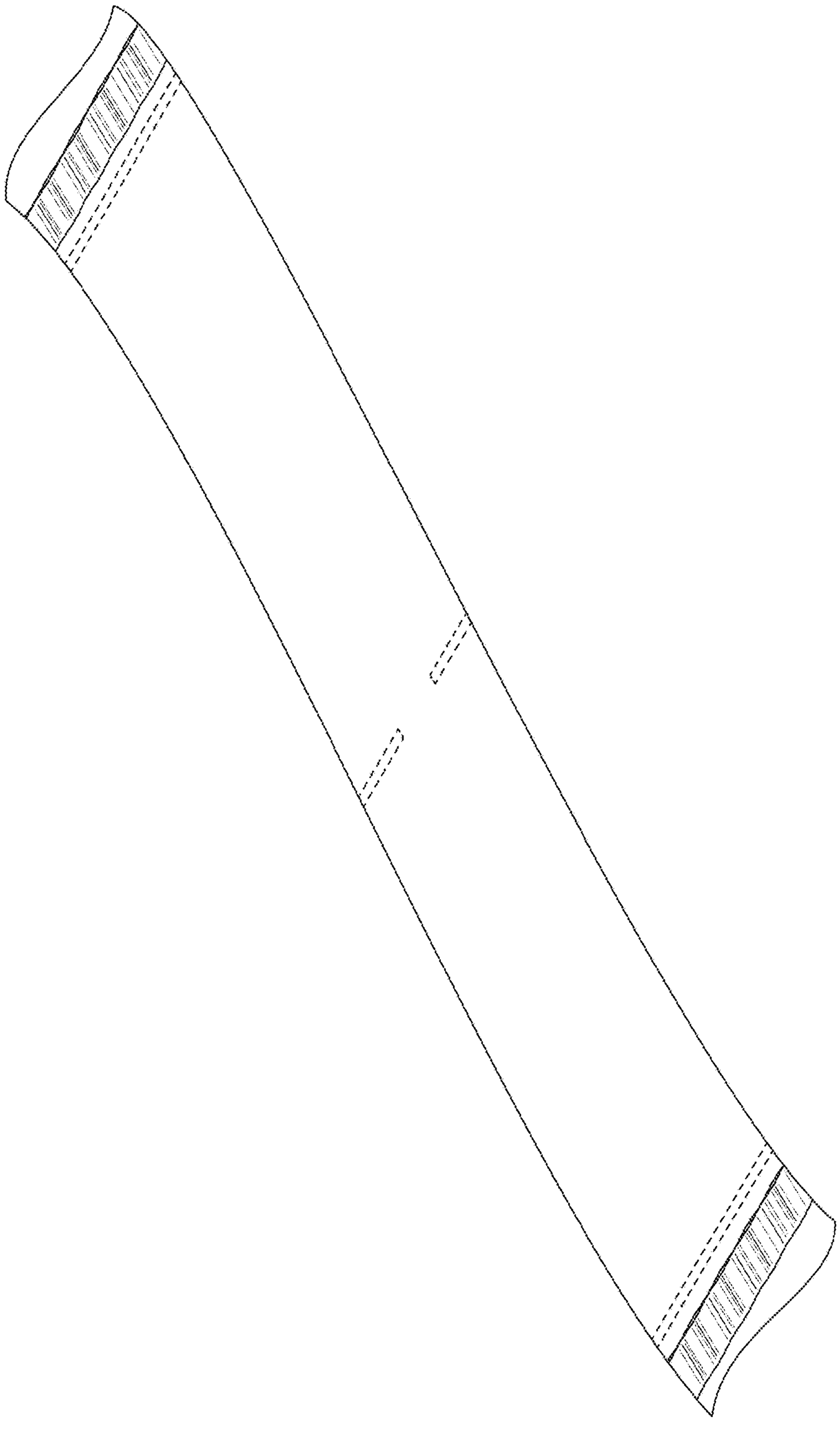
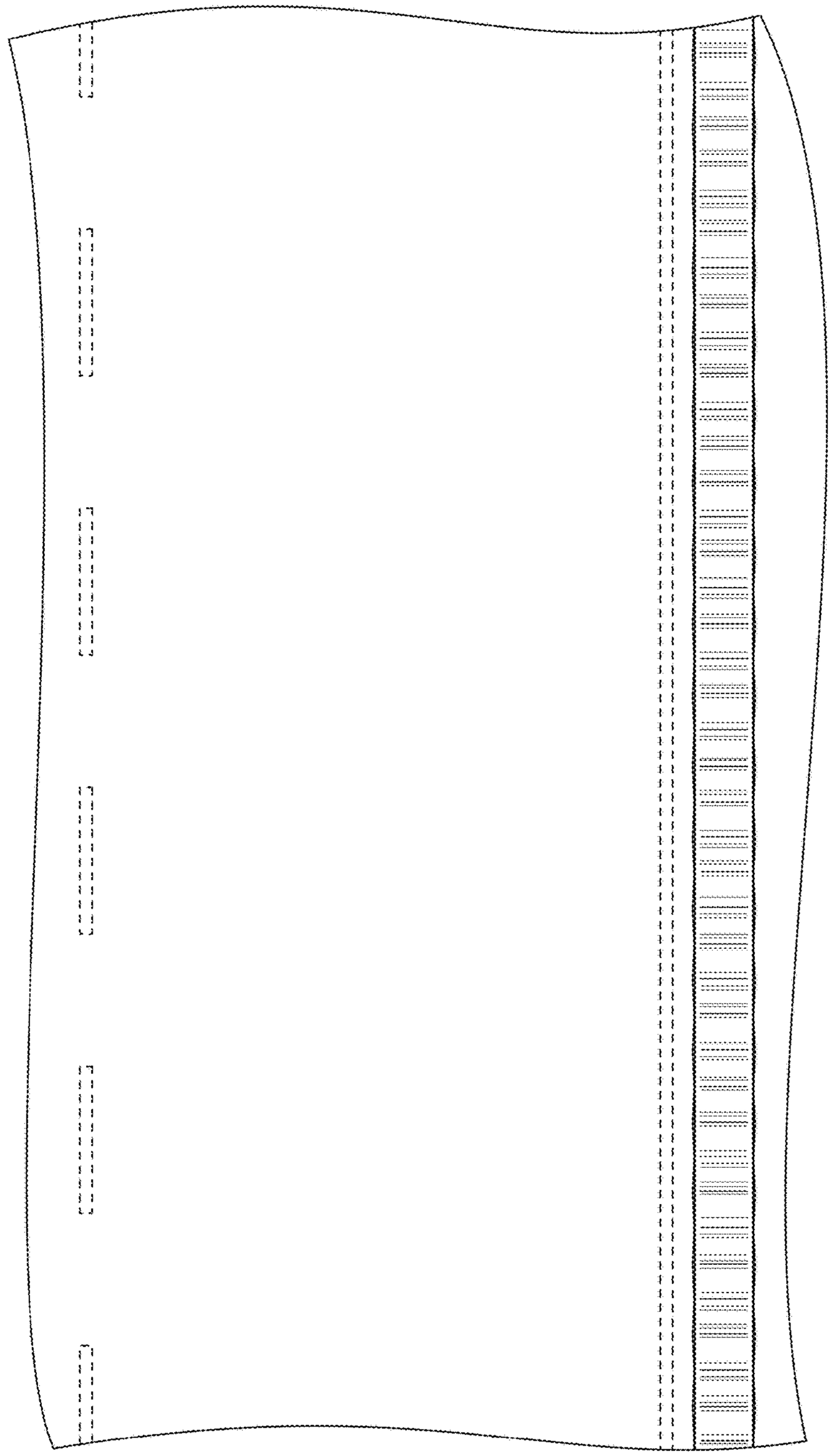


FIG. 6



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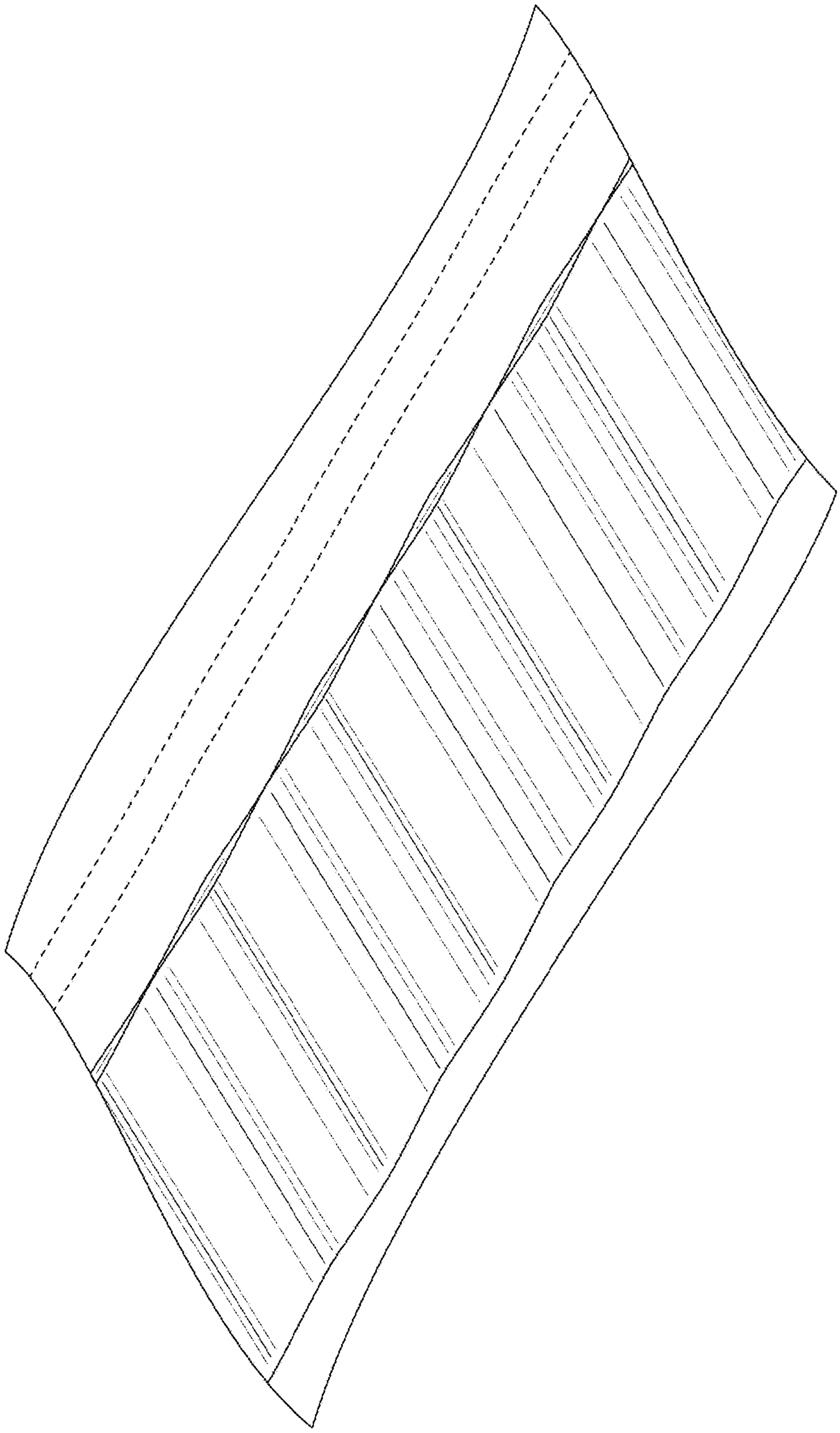

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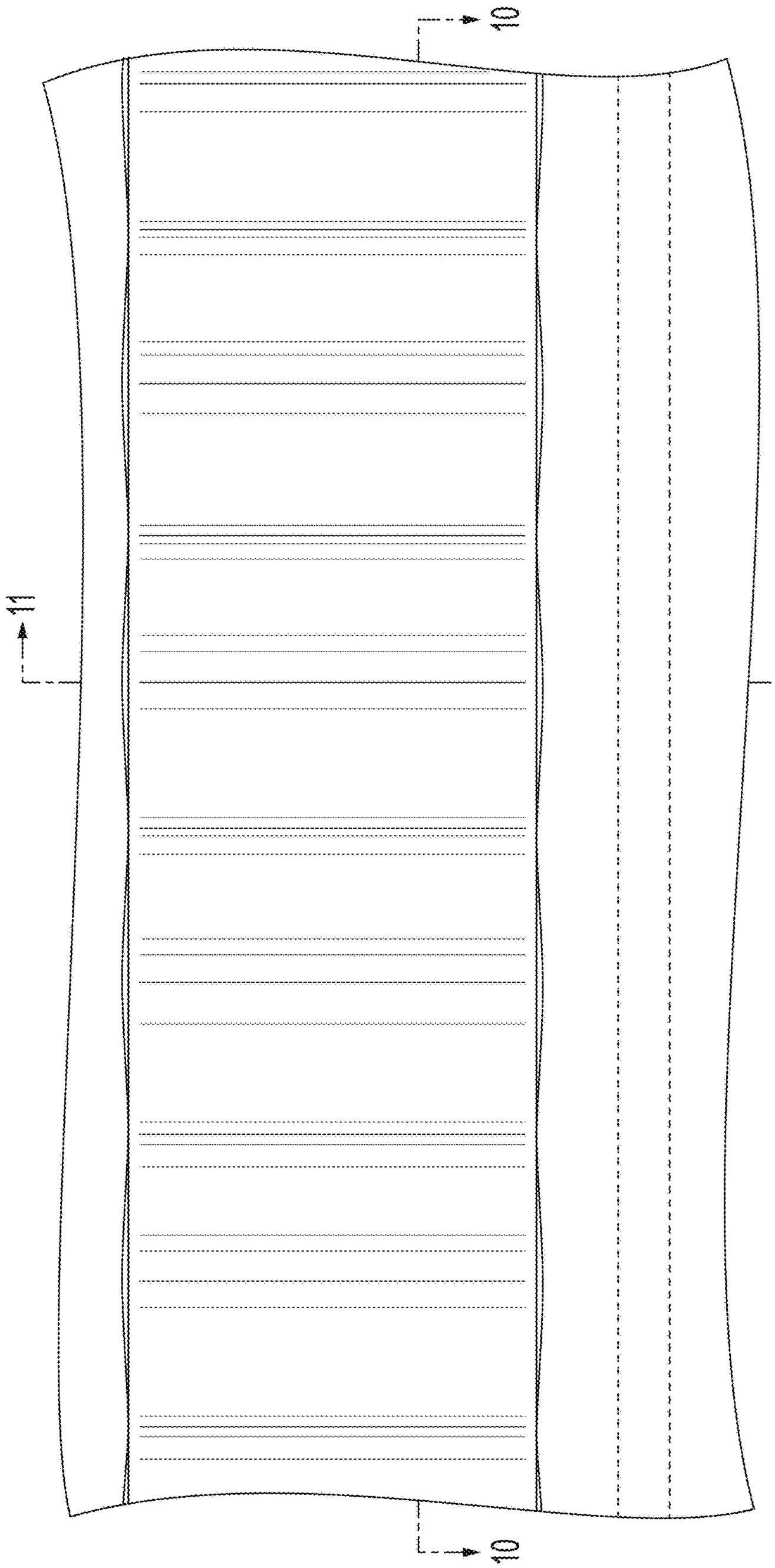


FIG. 9

FIG. 10

FIG. 11

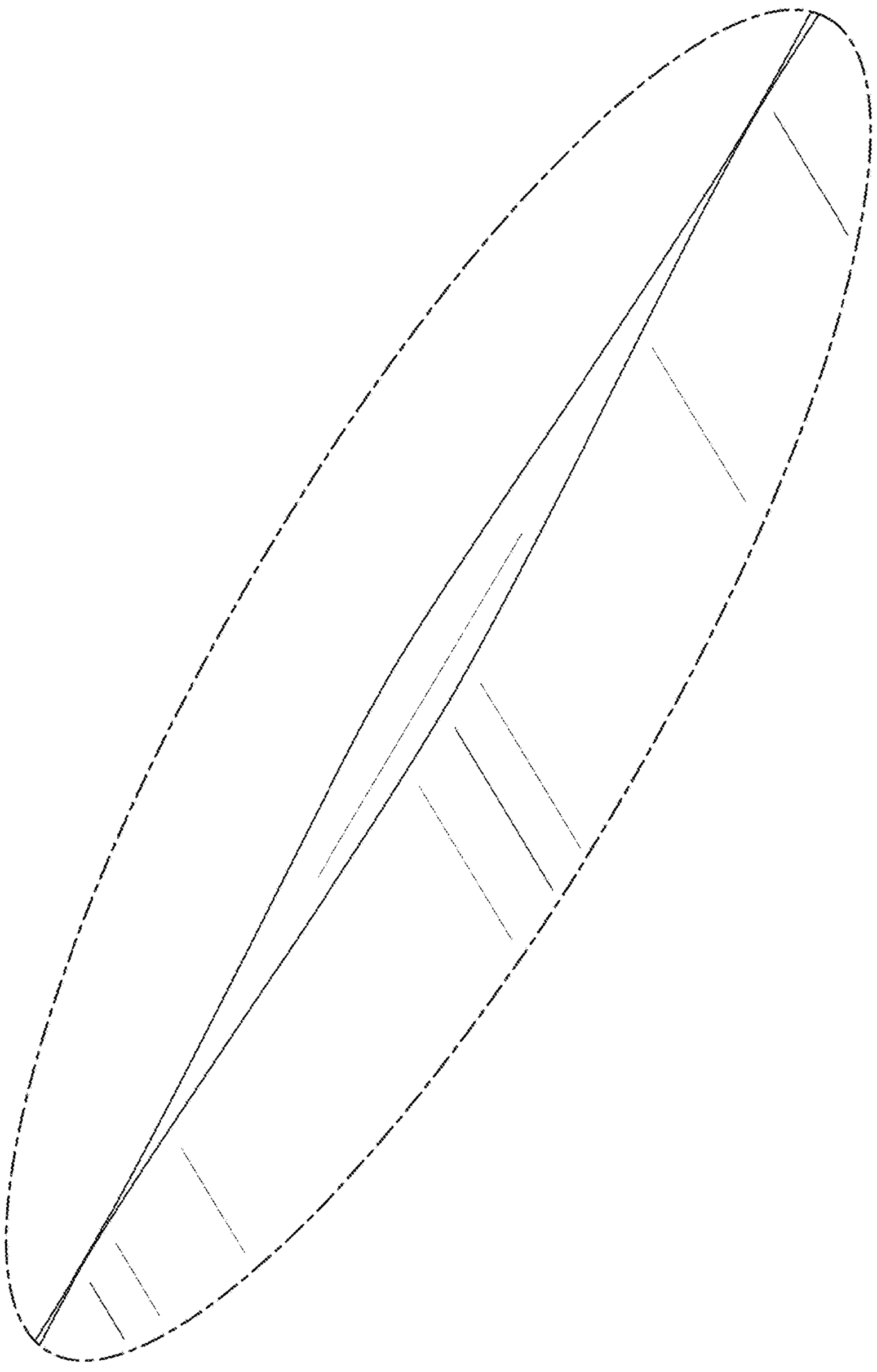
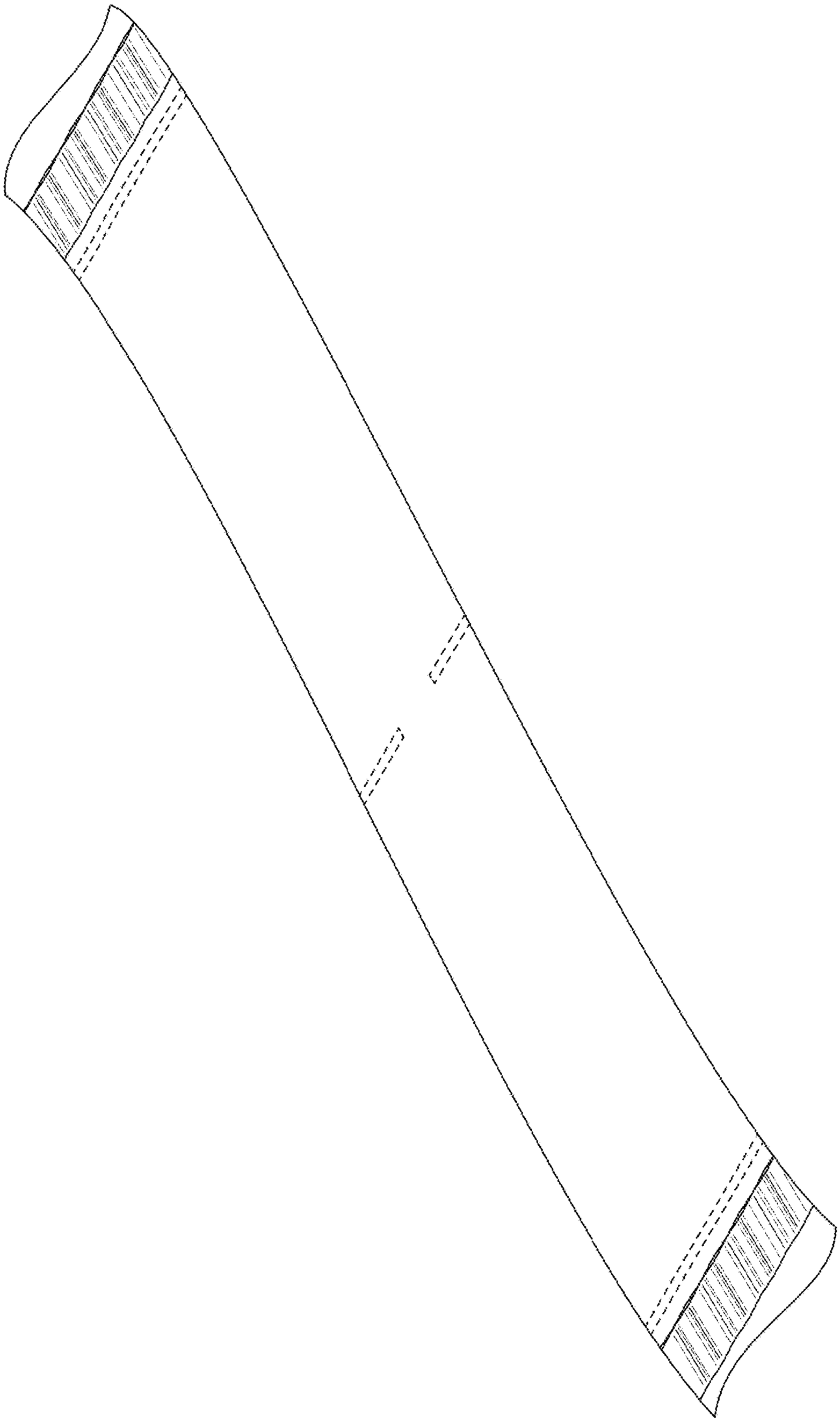


FIG. 12



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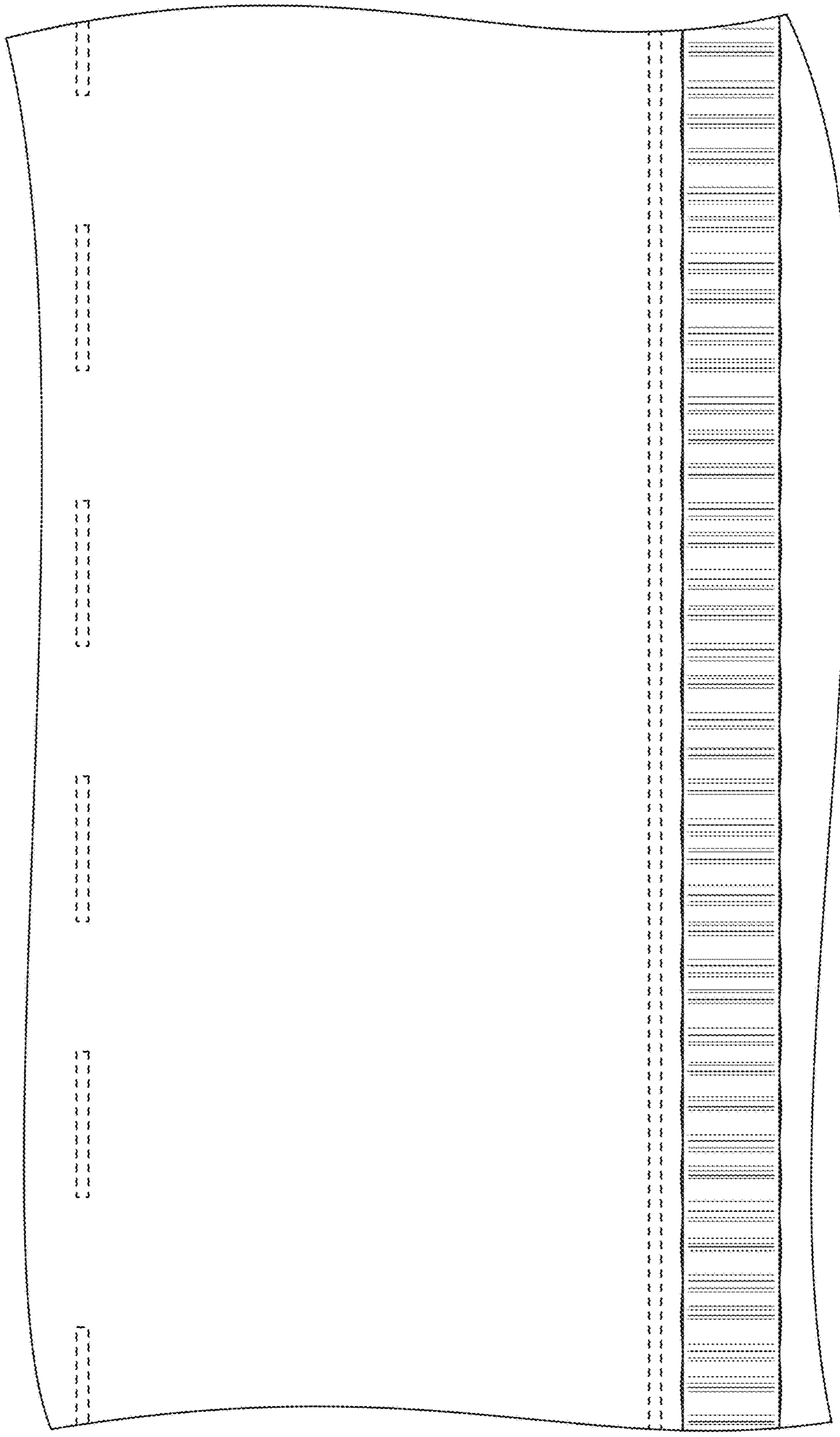

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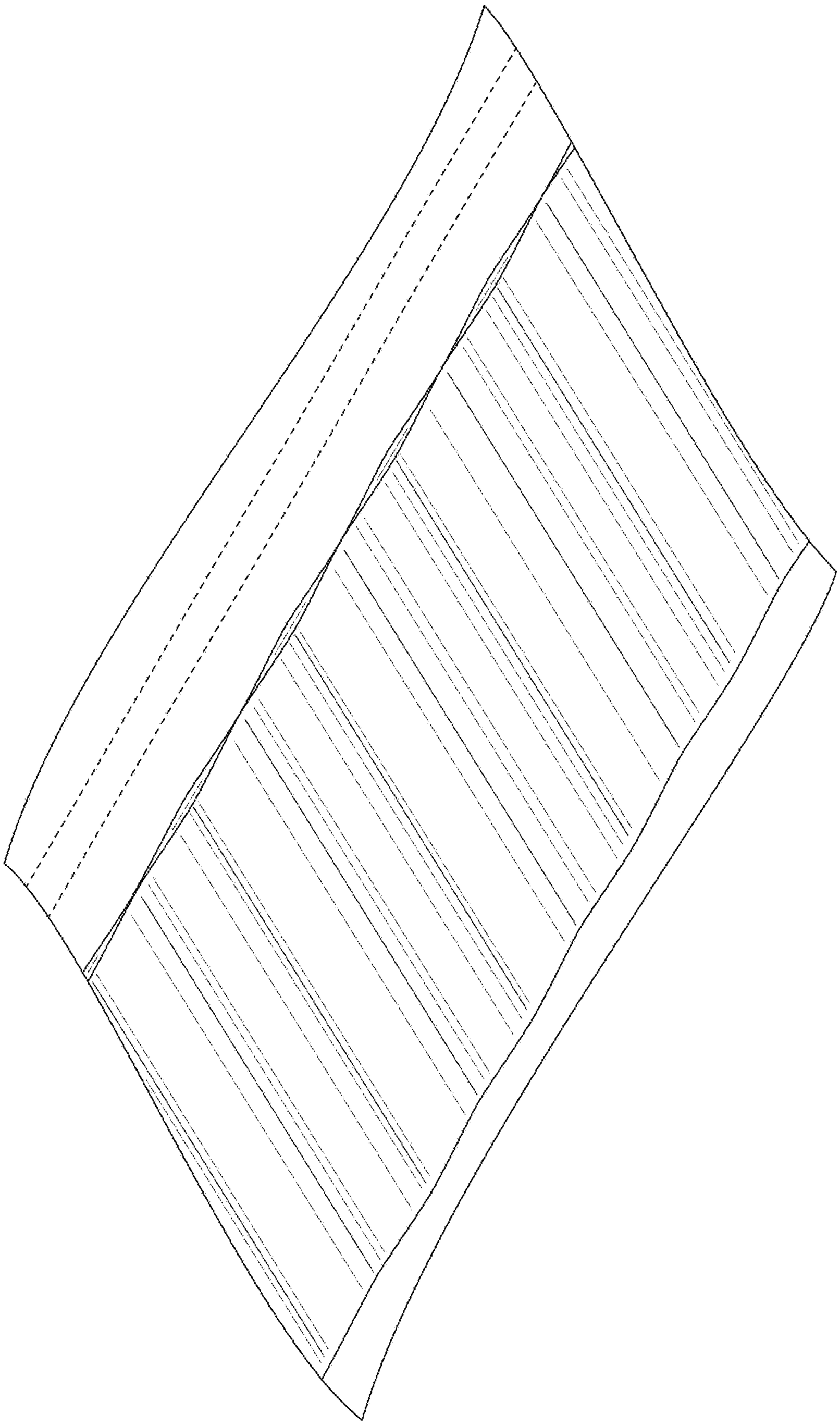

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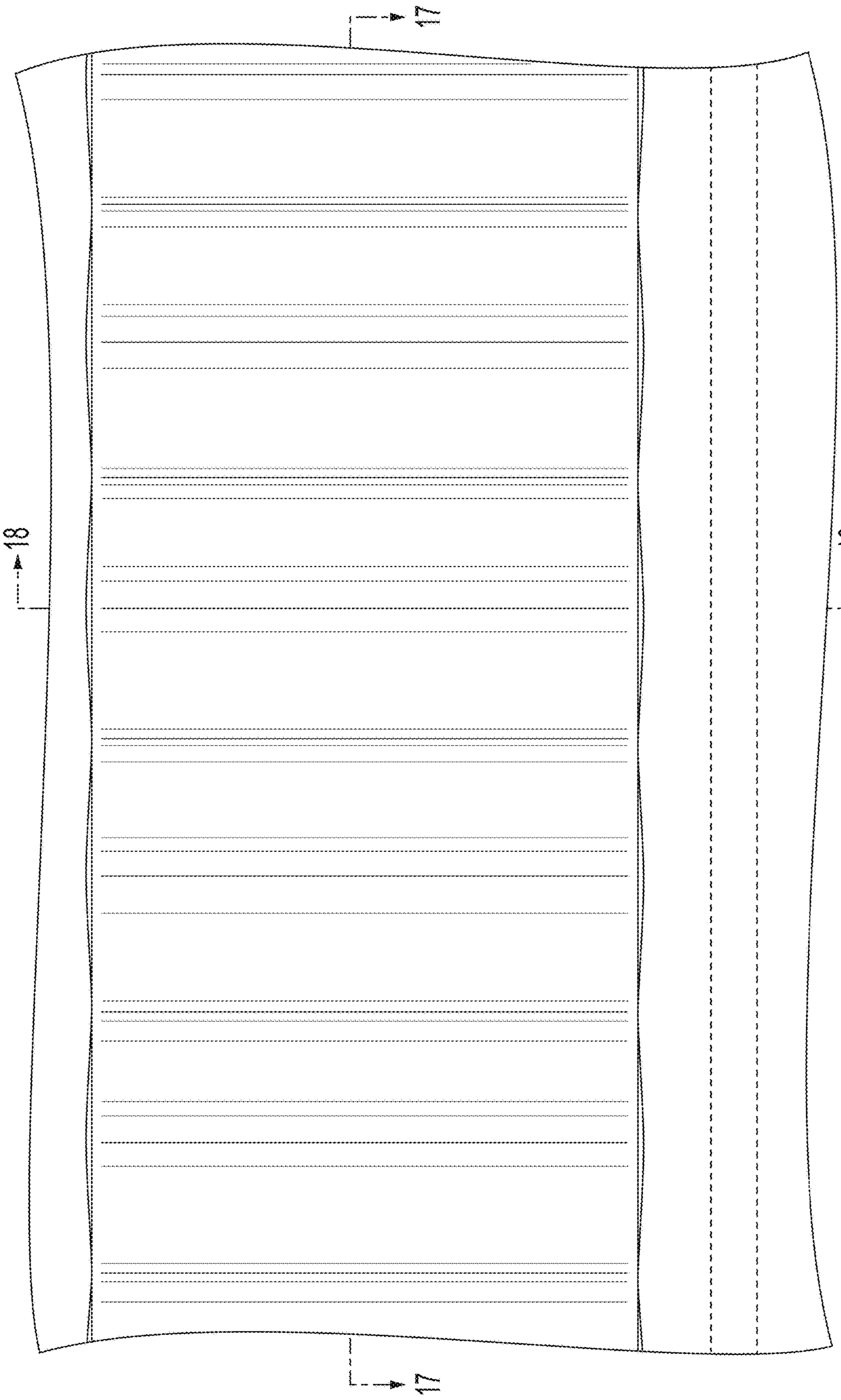

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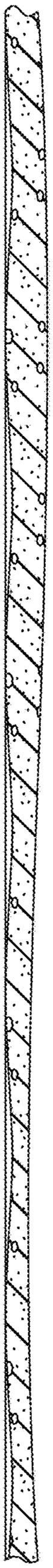
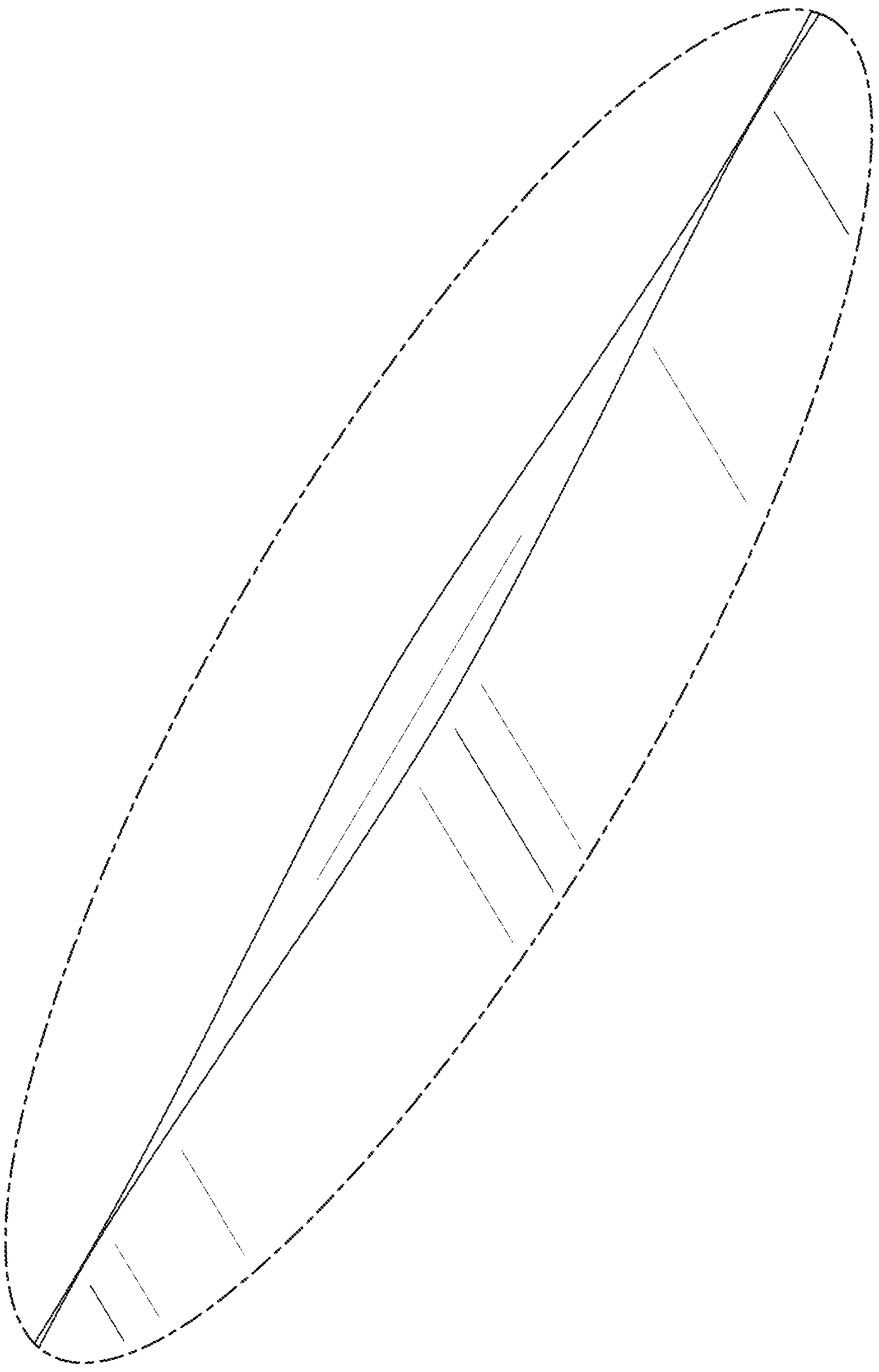


FIG. 17

FIG. 18



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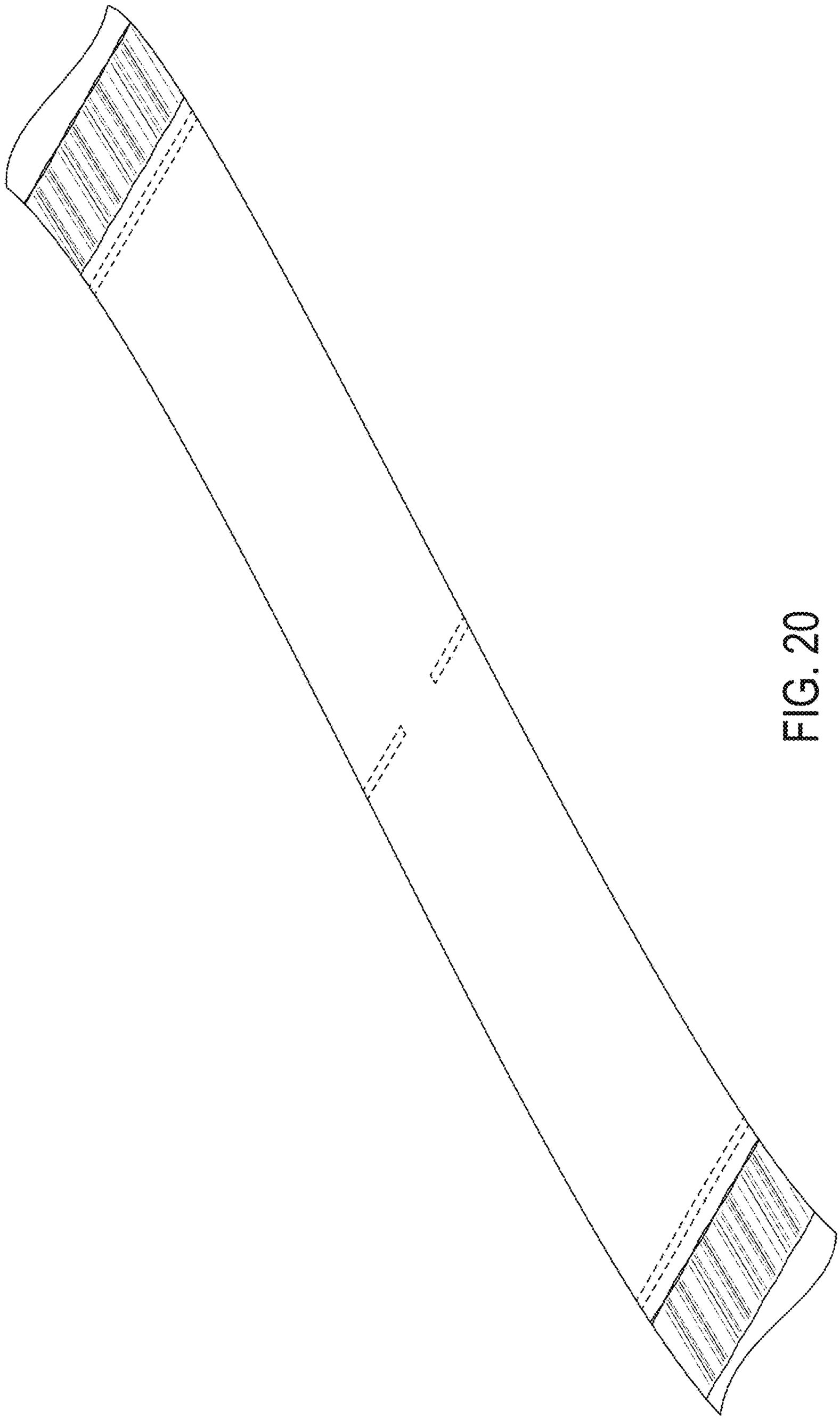

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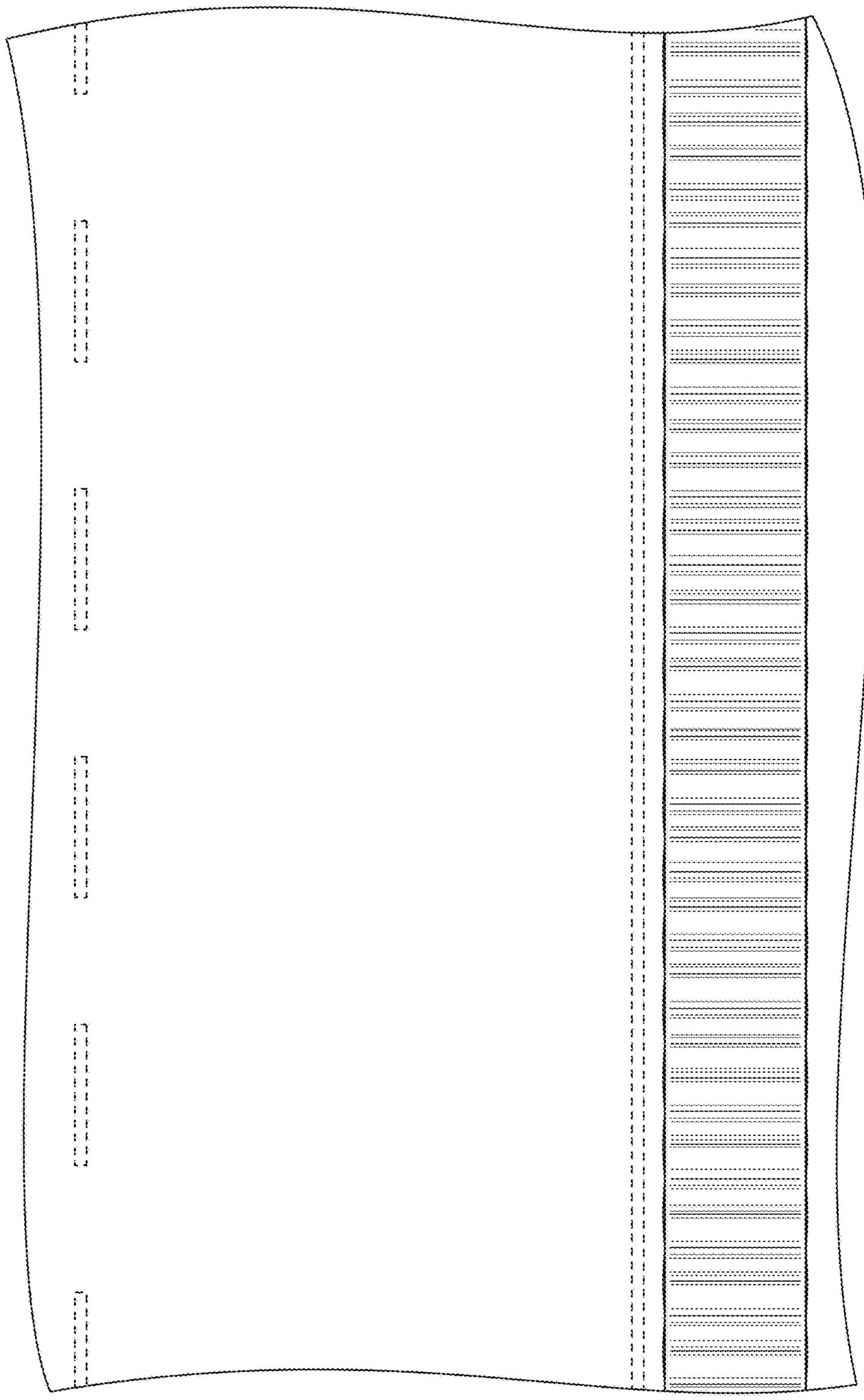

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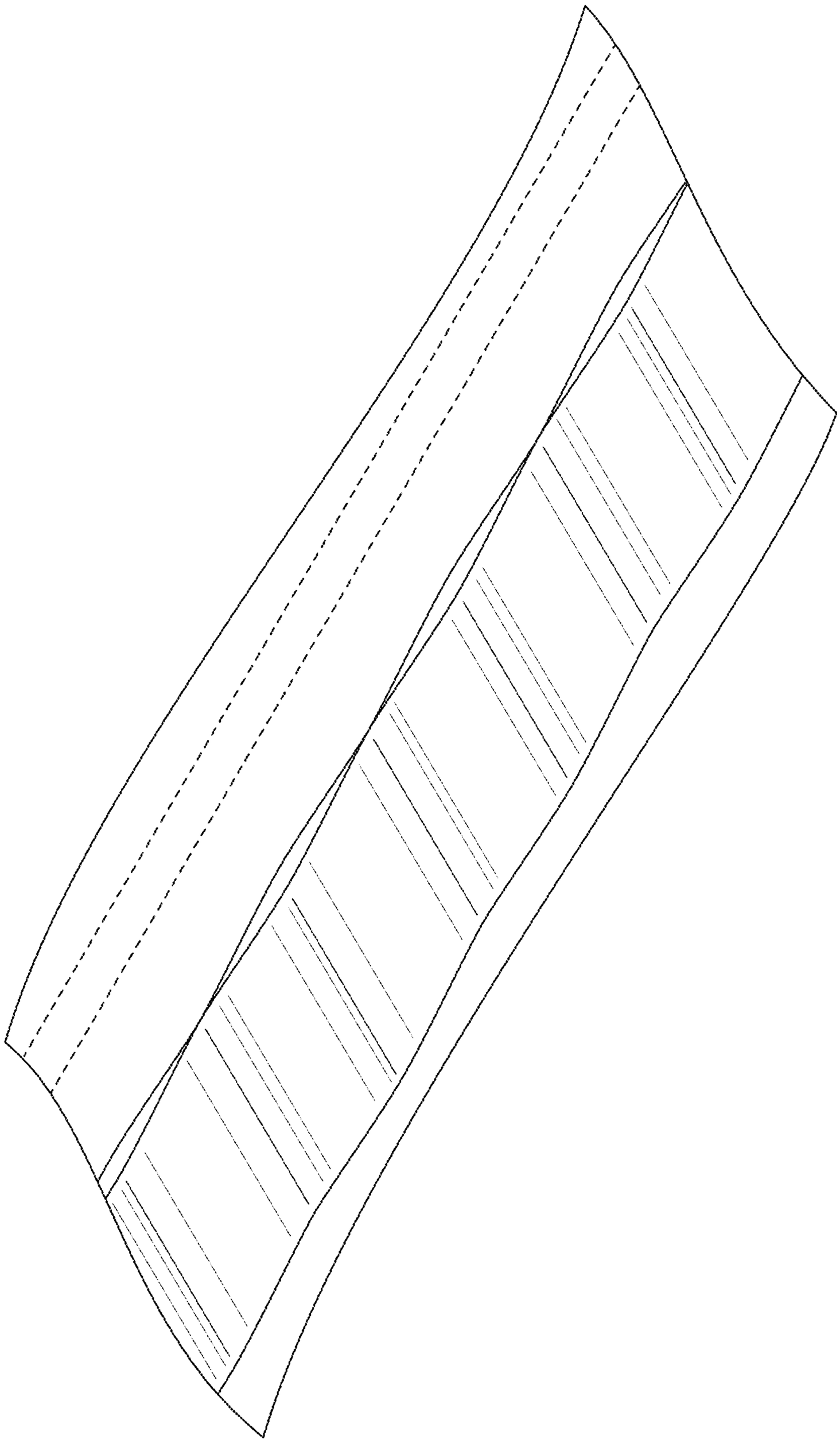


FIG. 22

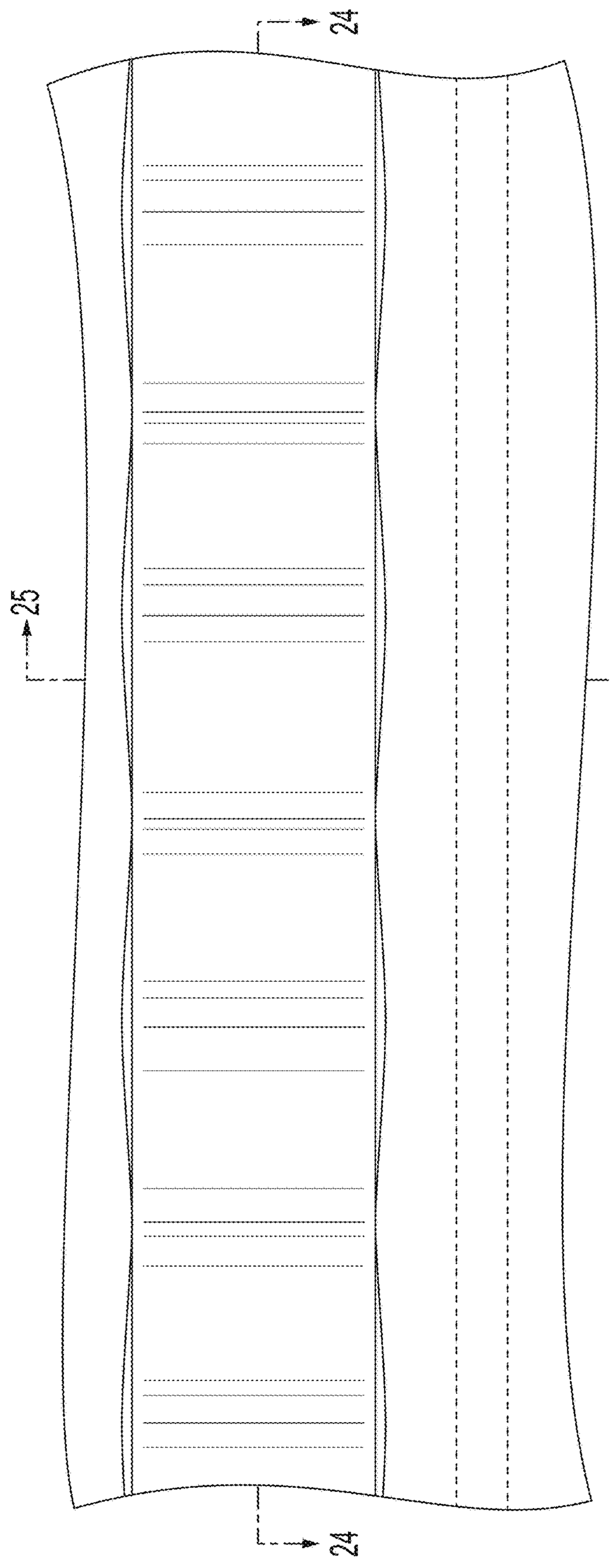


FIG. 23

FIG. 24

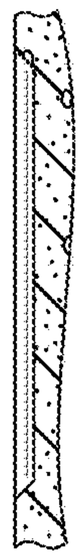


FIG. 25

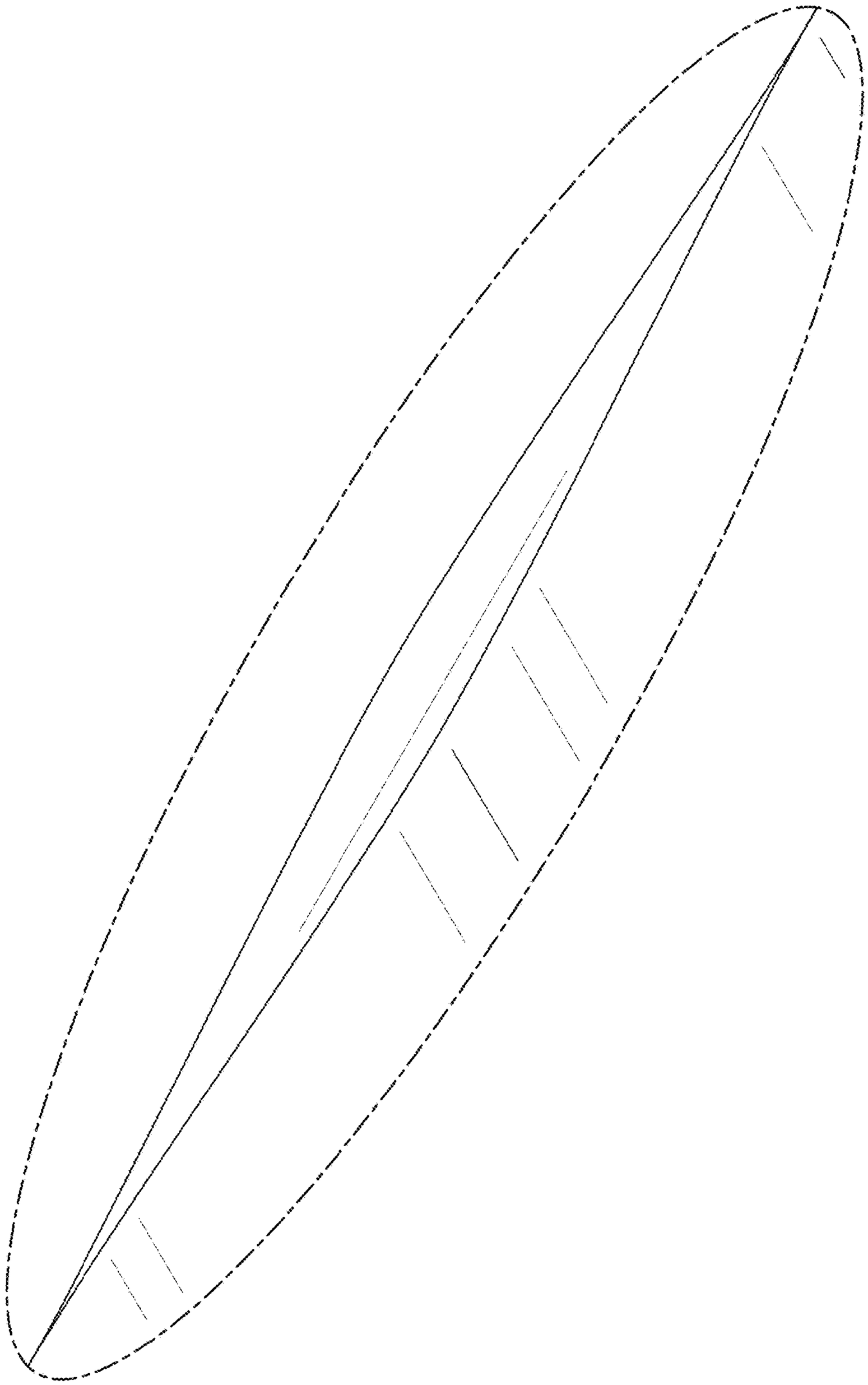


FIG. 26

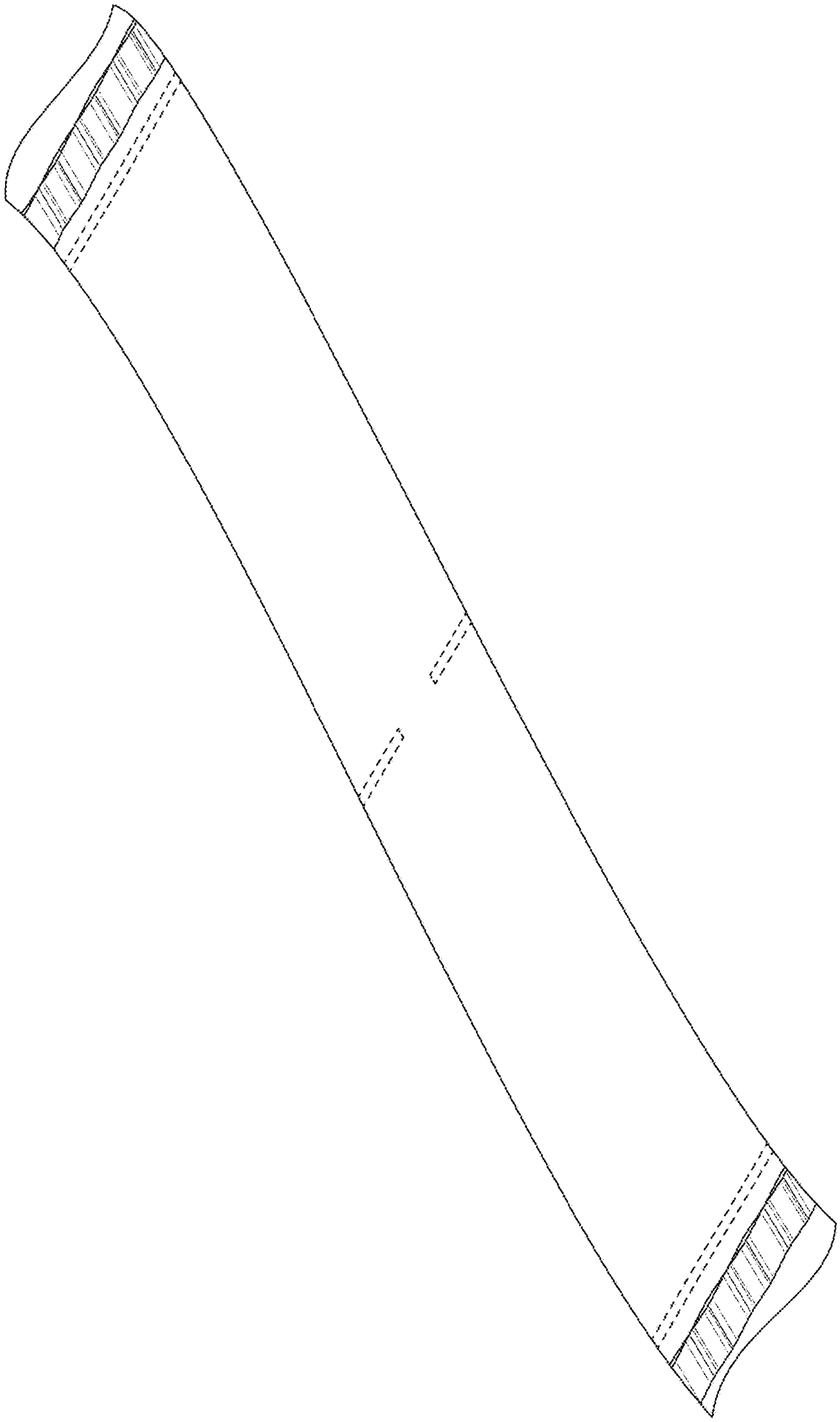


FIG. 27

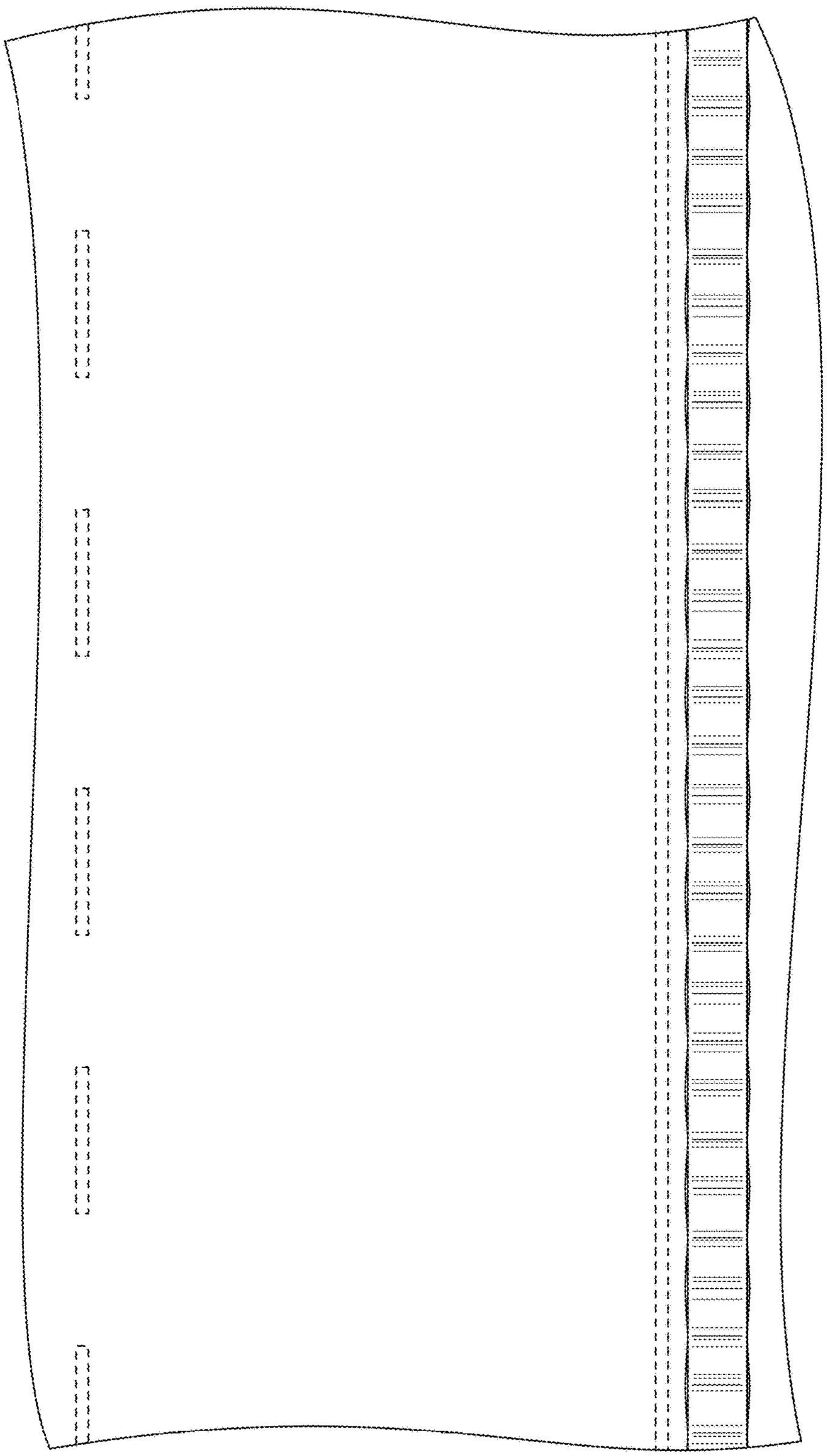


FIG. 28

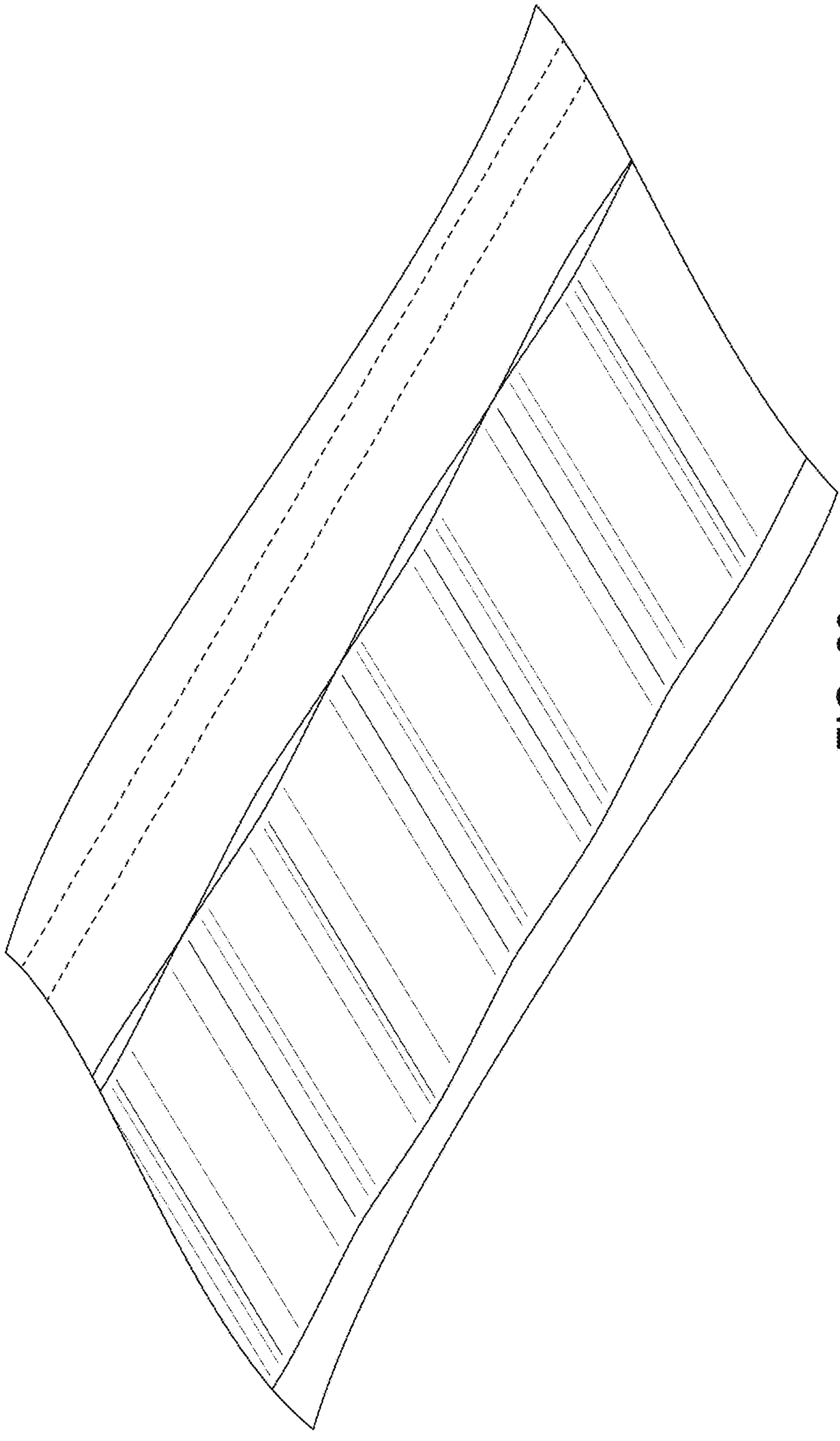
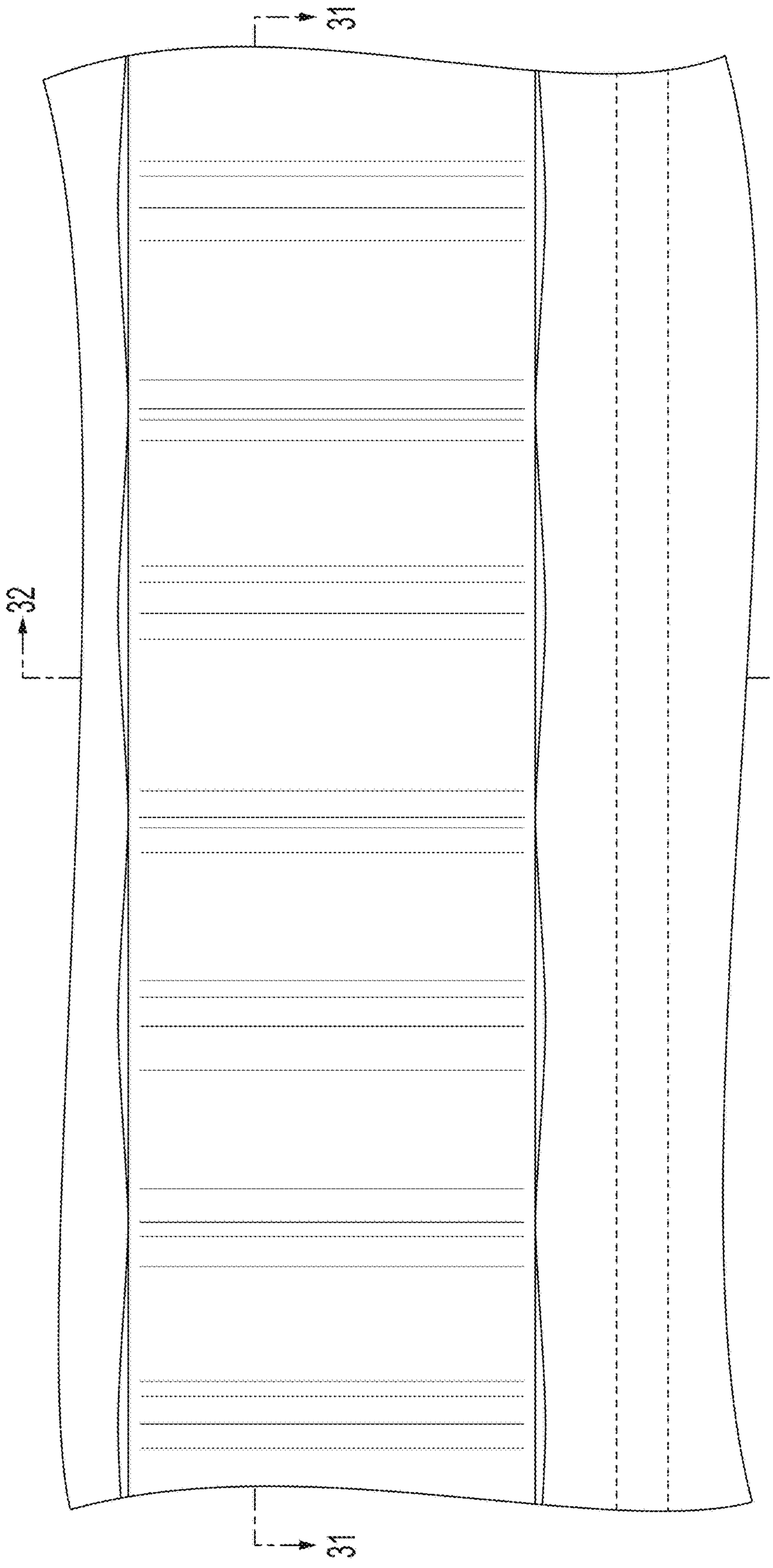


FIG. 29



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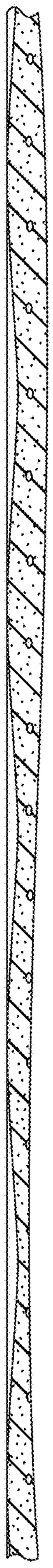
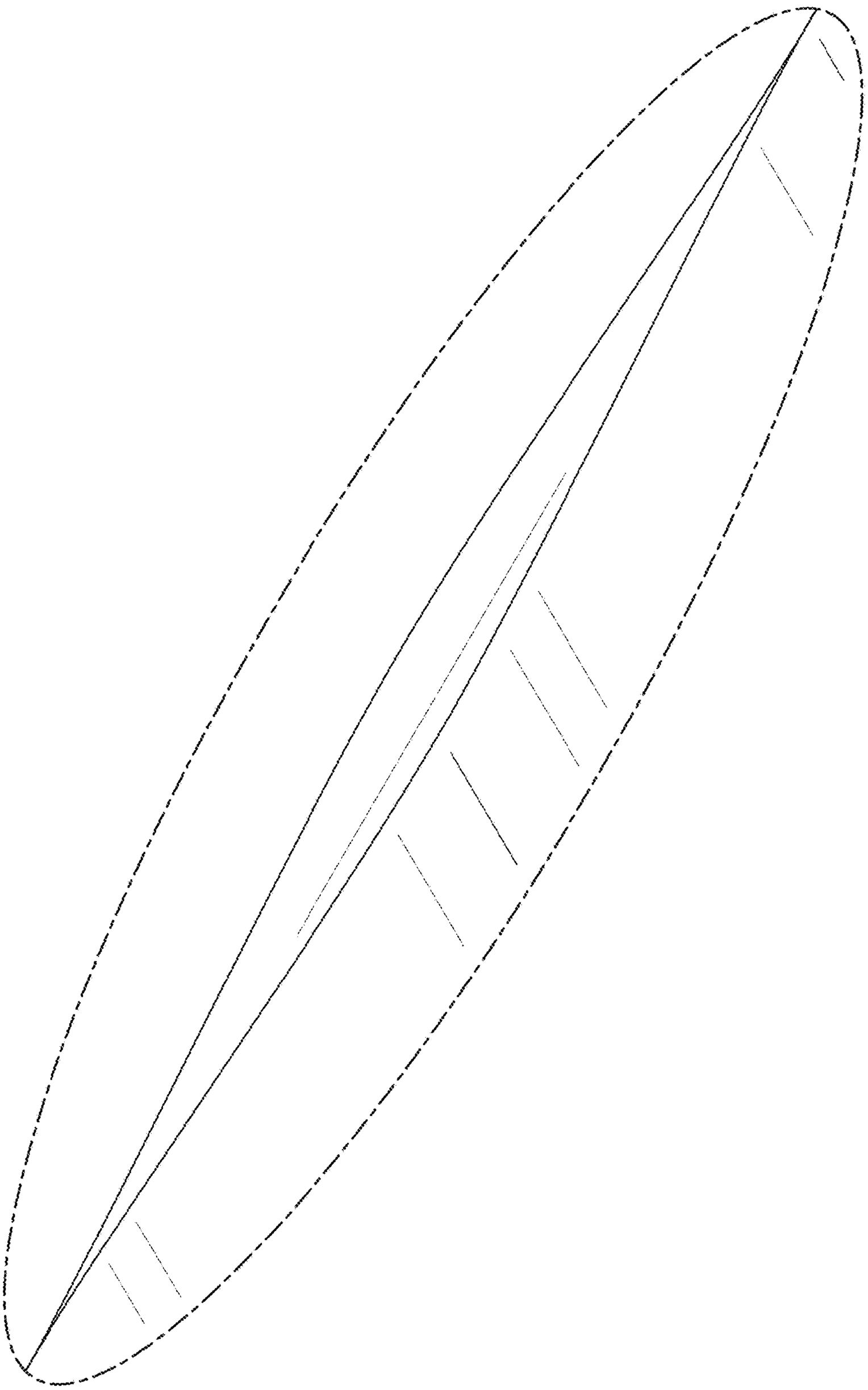


FIG. 31

FIG. 32



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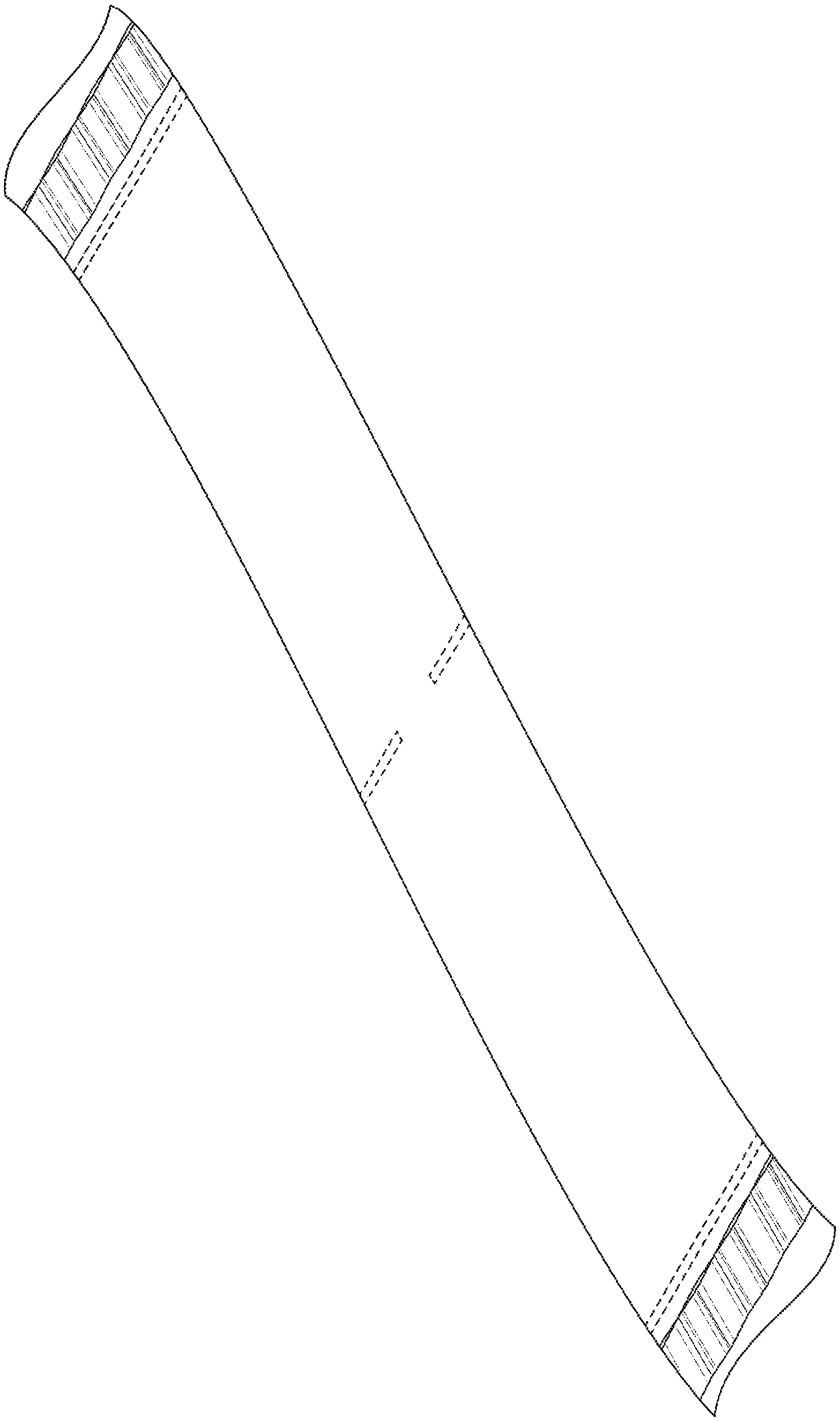

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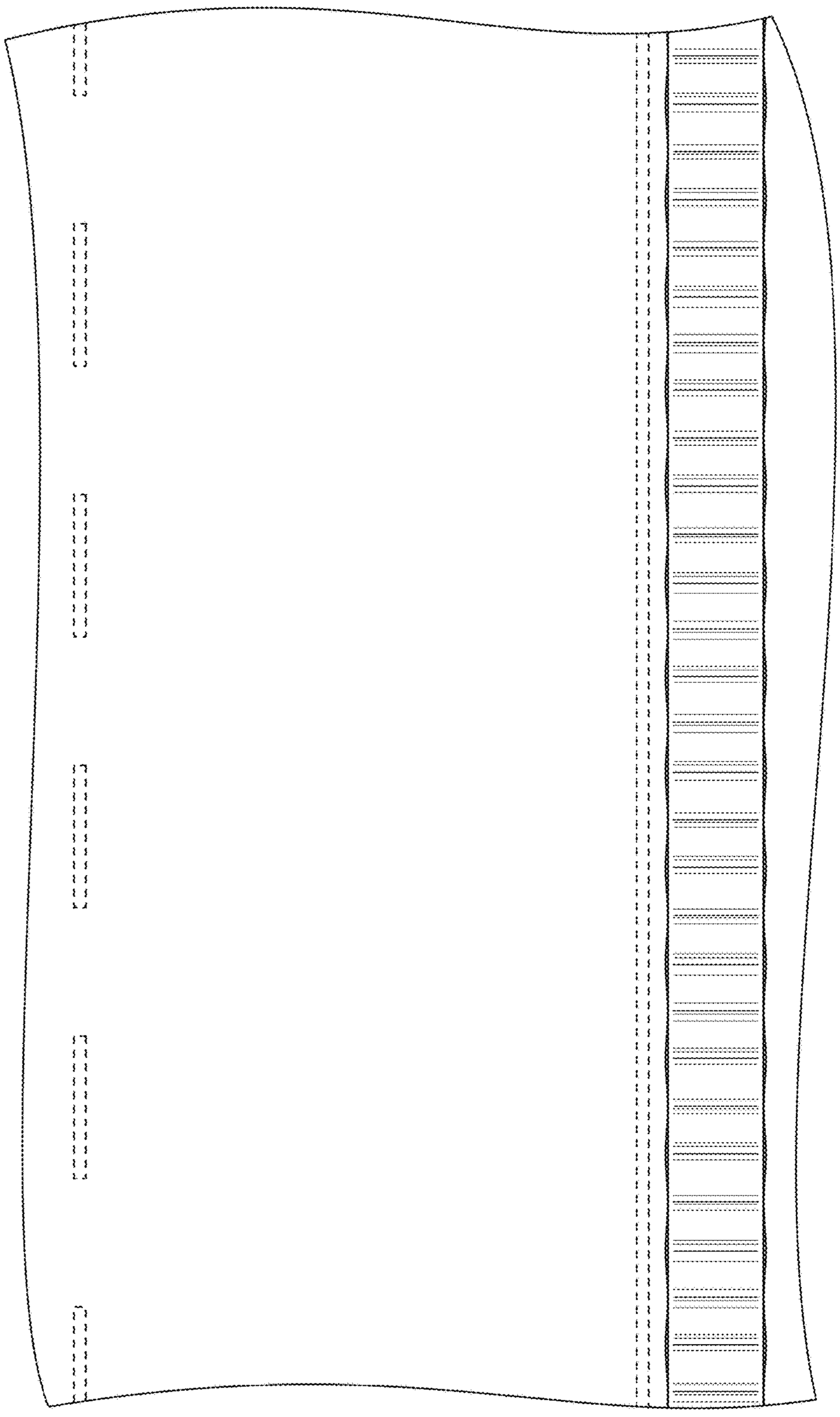

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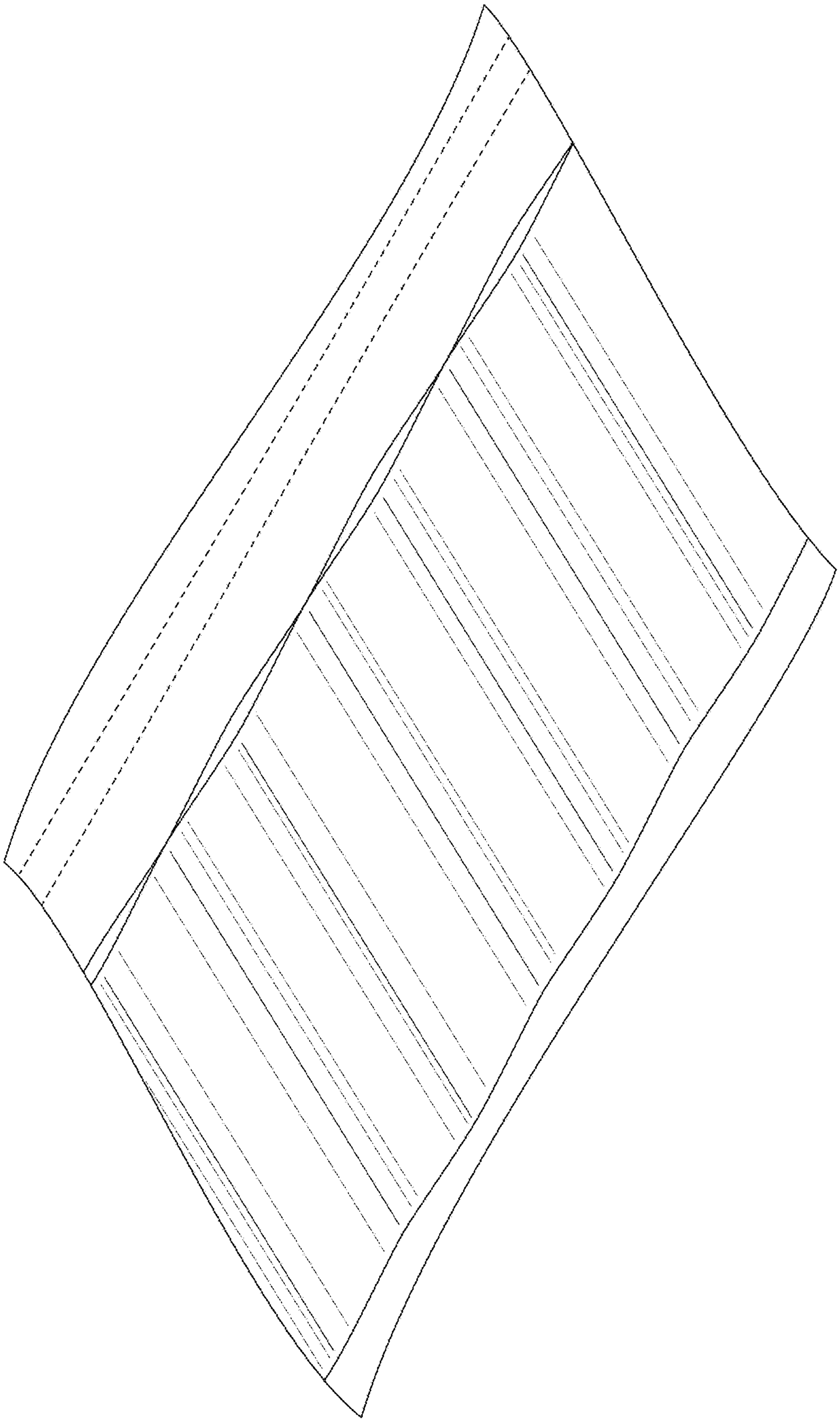

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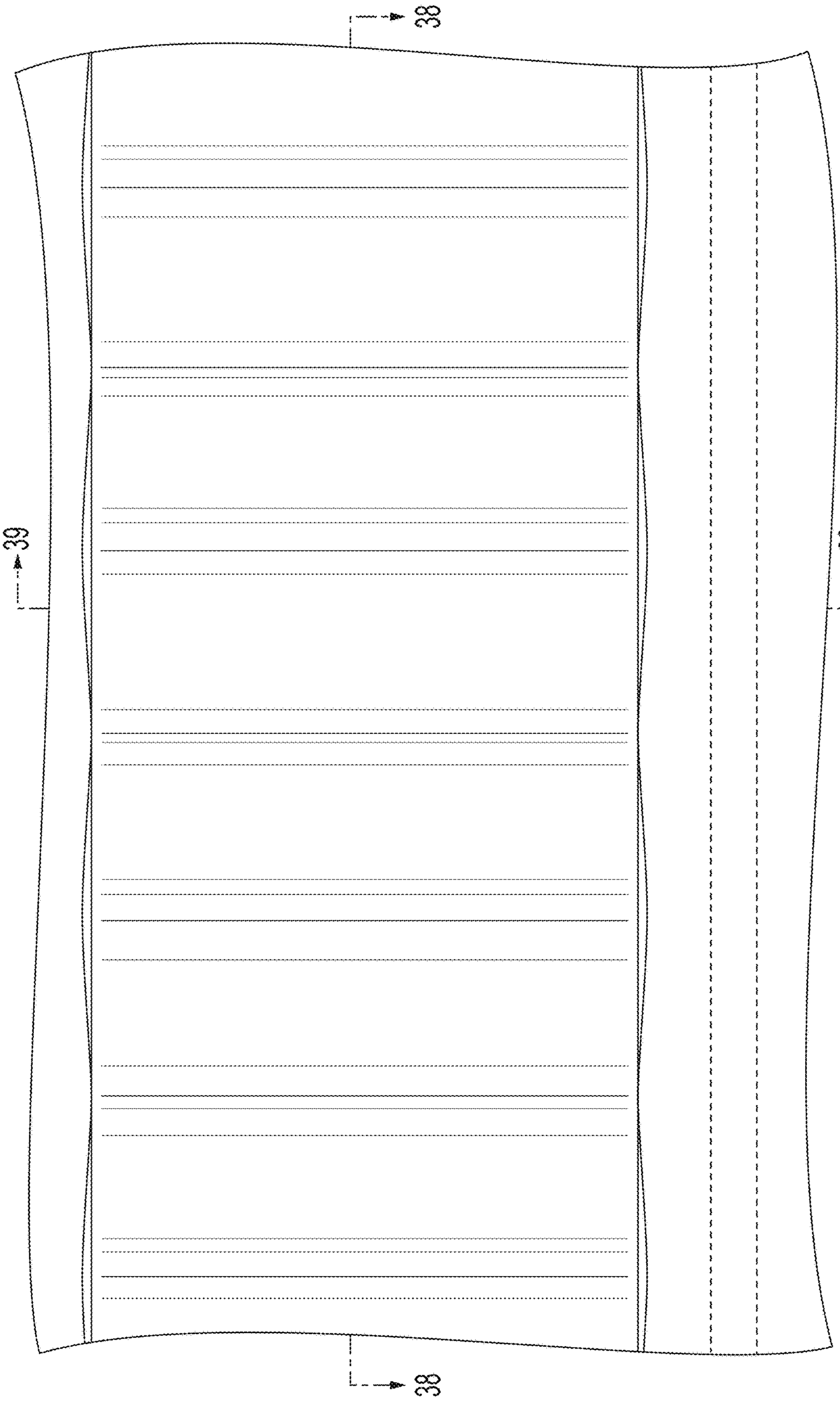
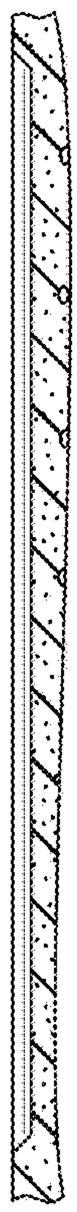


FIG. 37

FIG. 38



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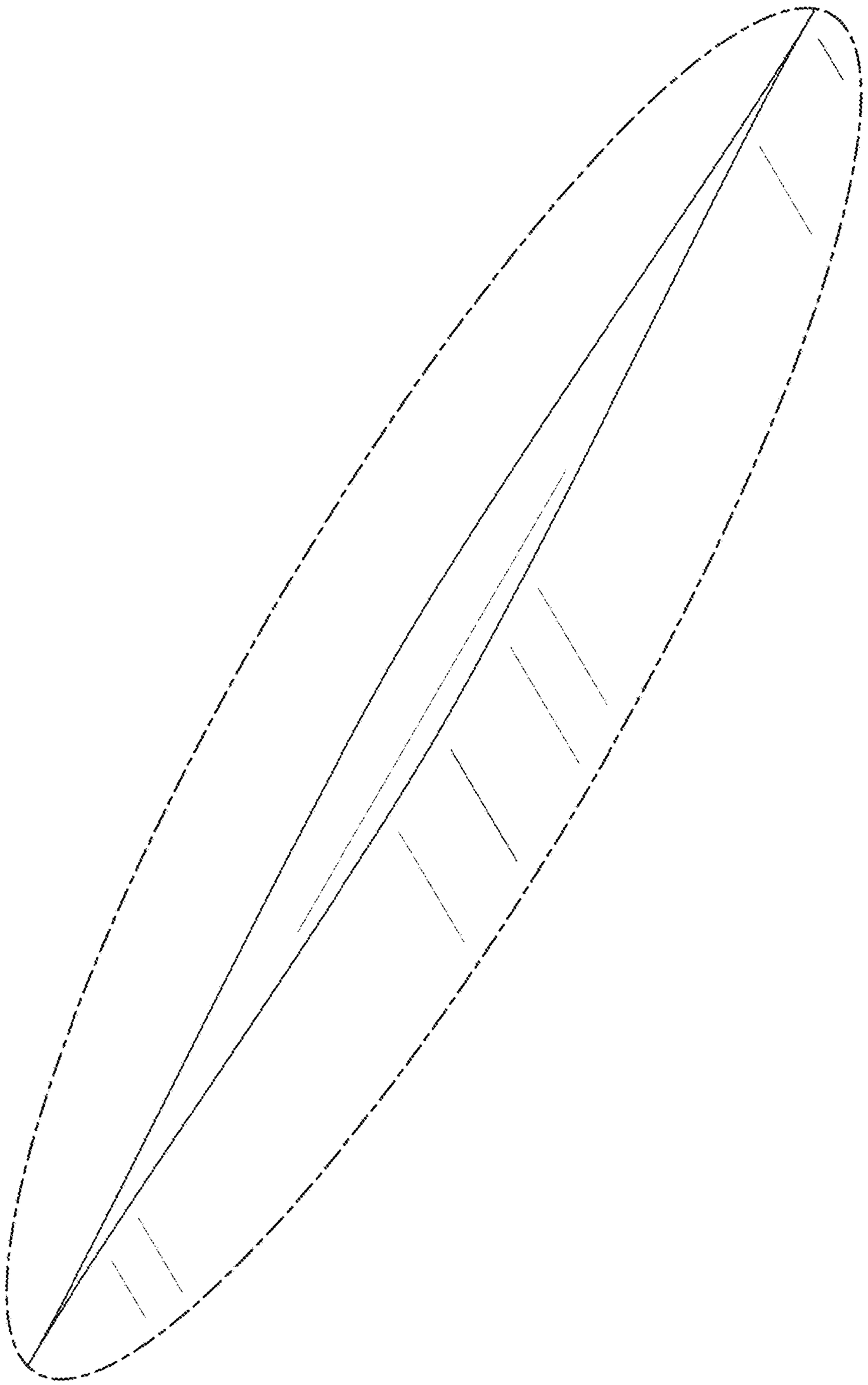

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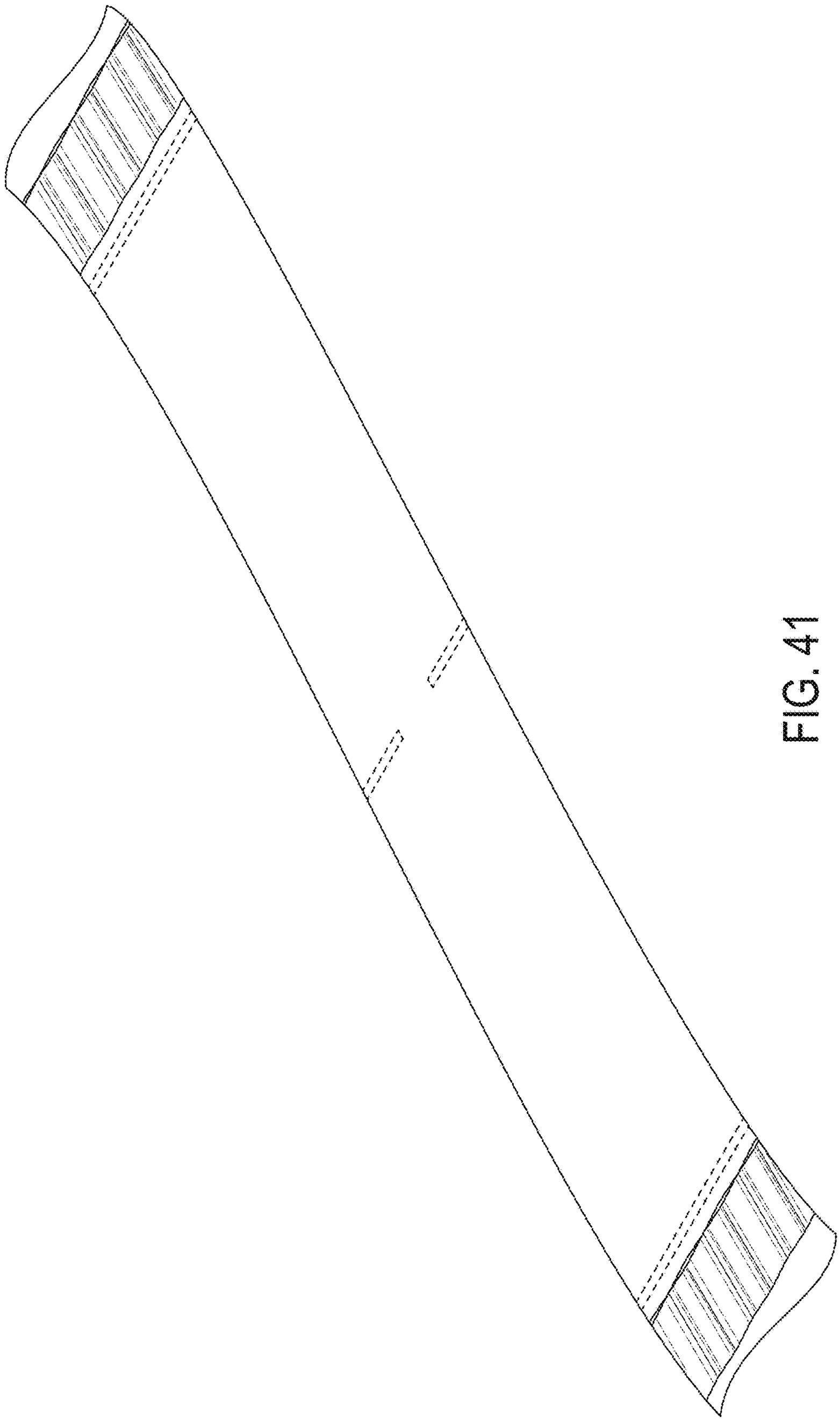

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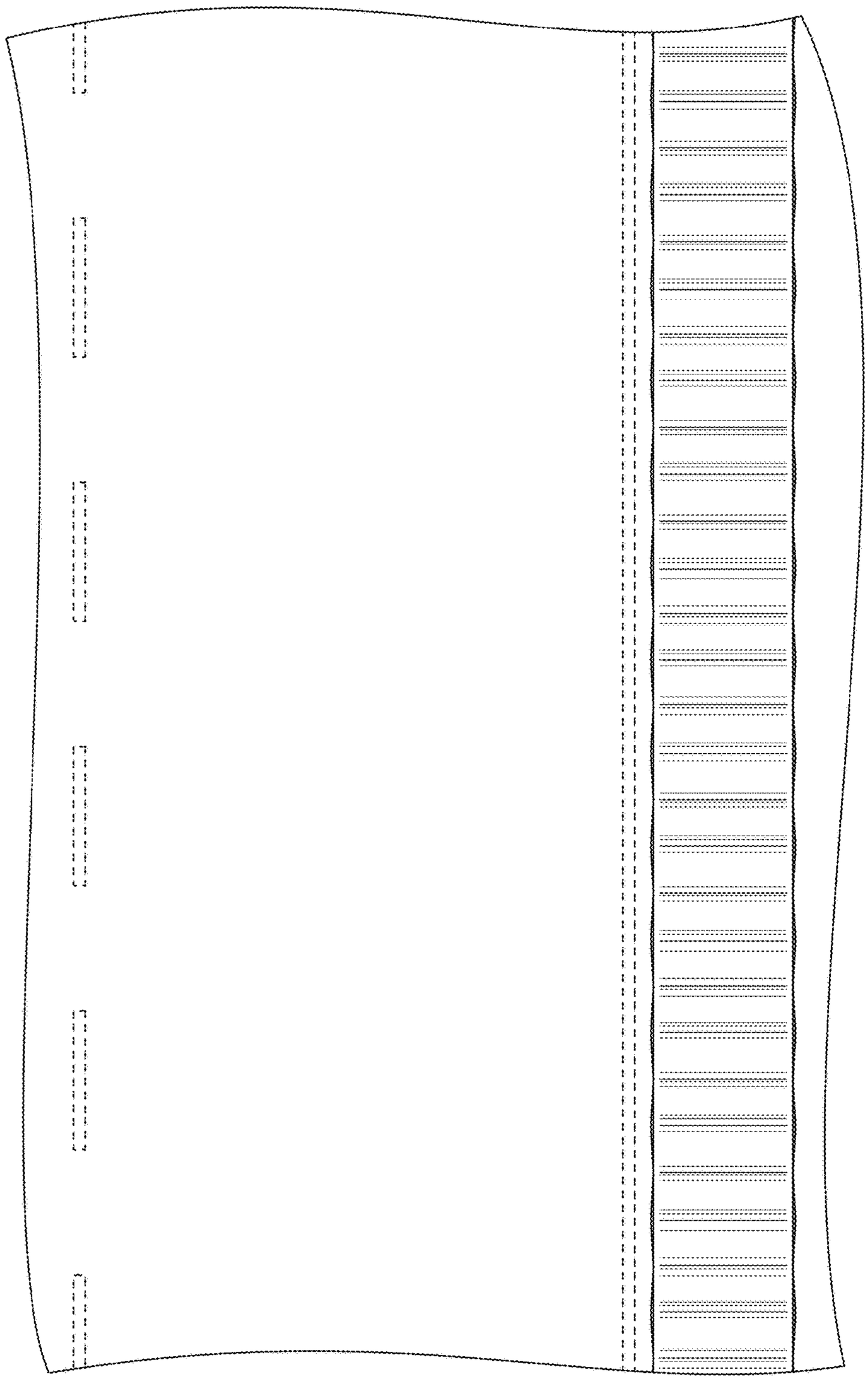

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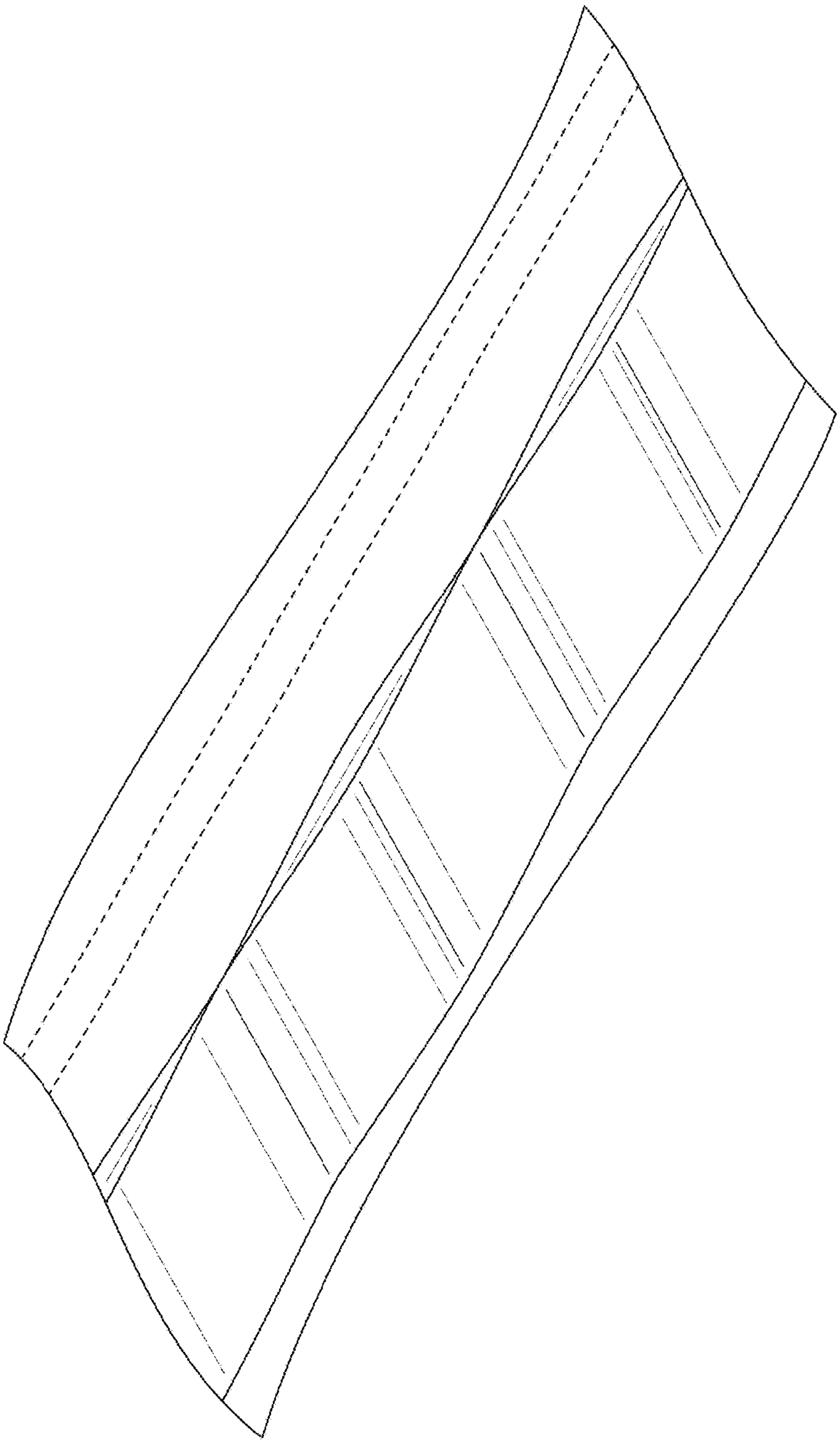

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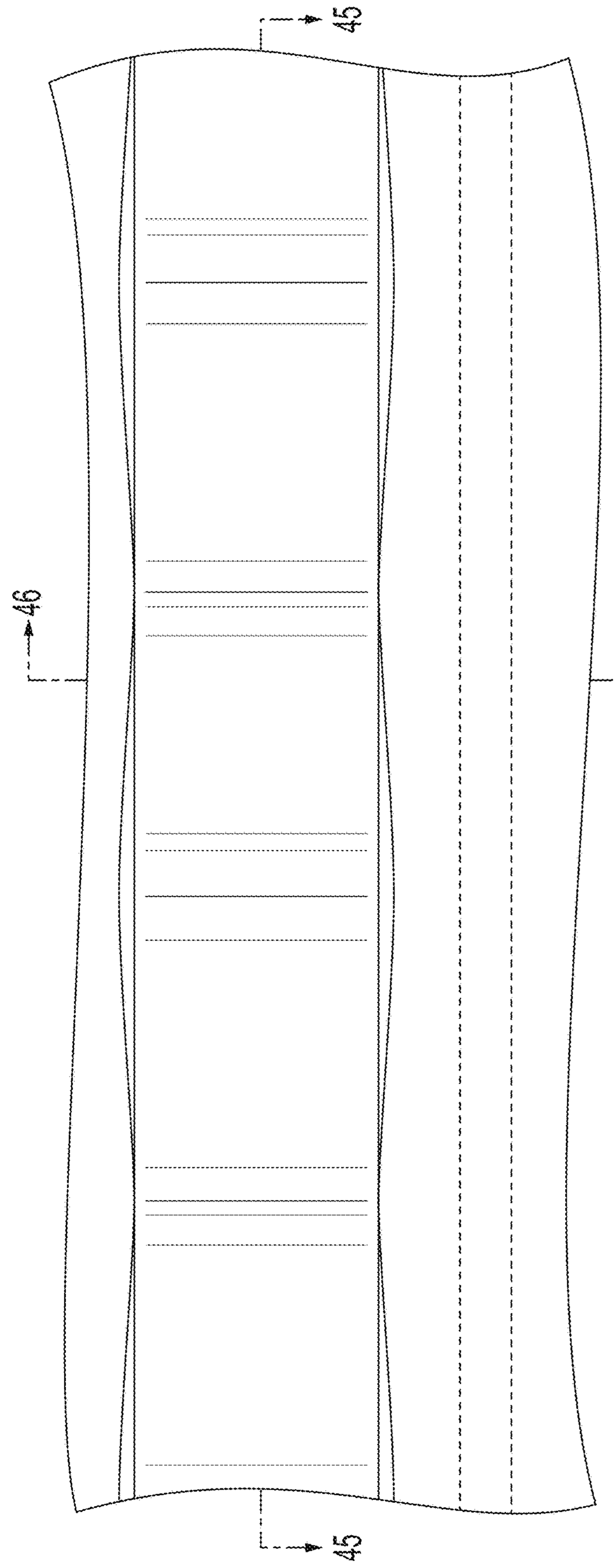
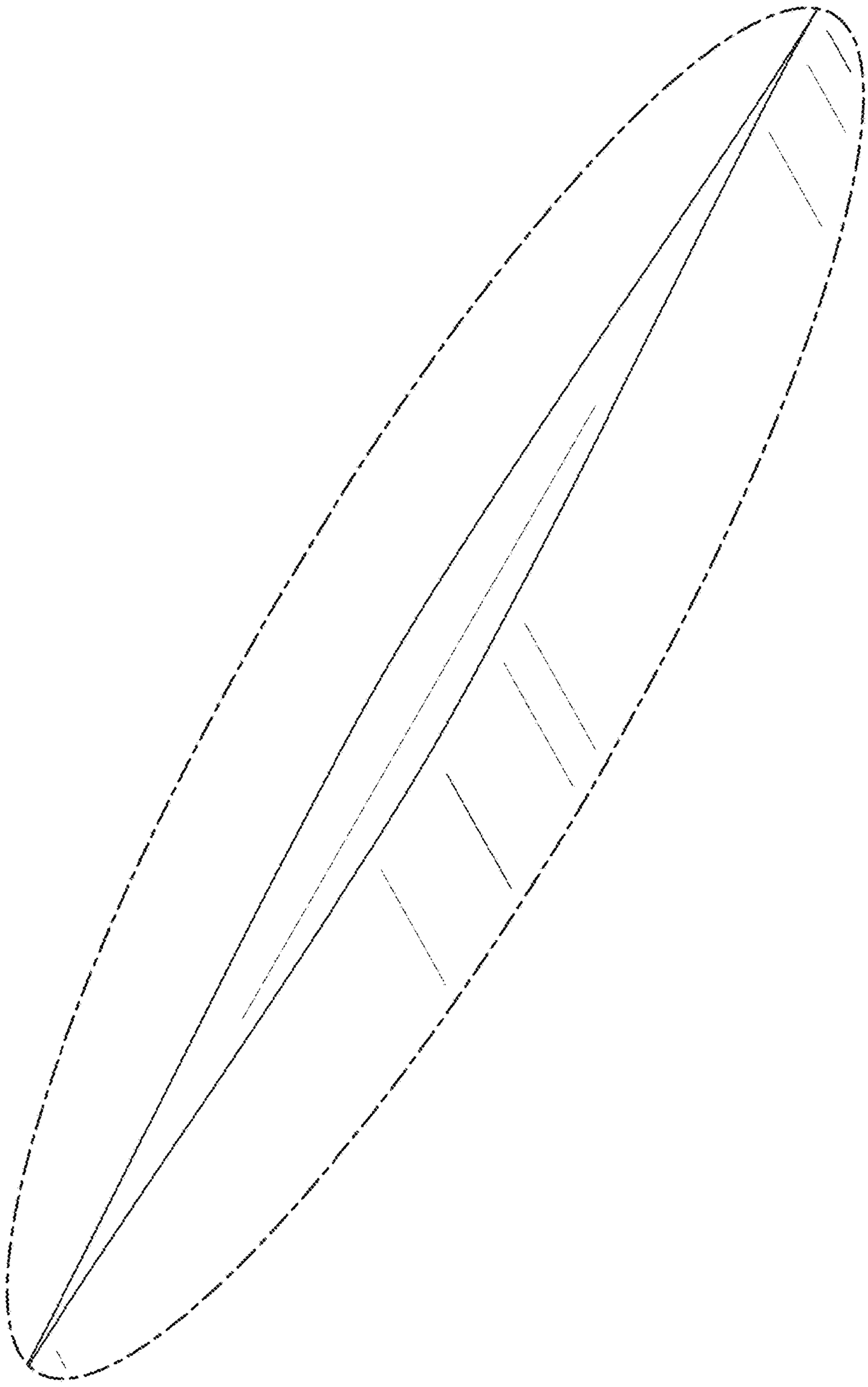


FIG. 44

FIG. 45

FIG. 46



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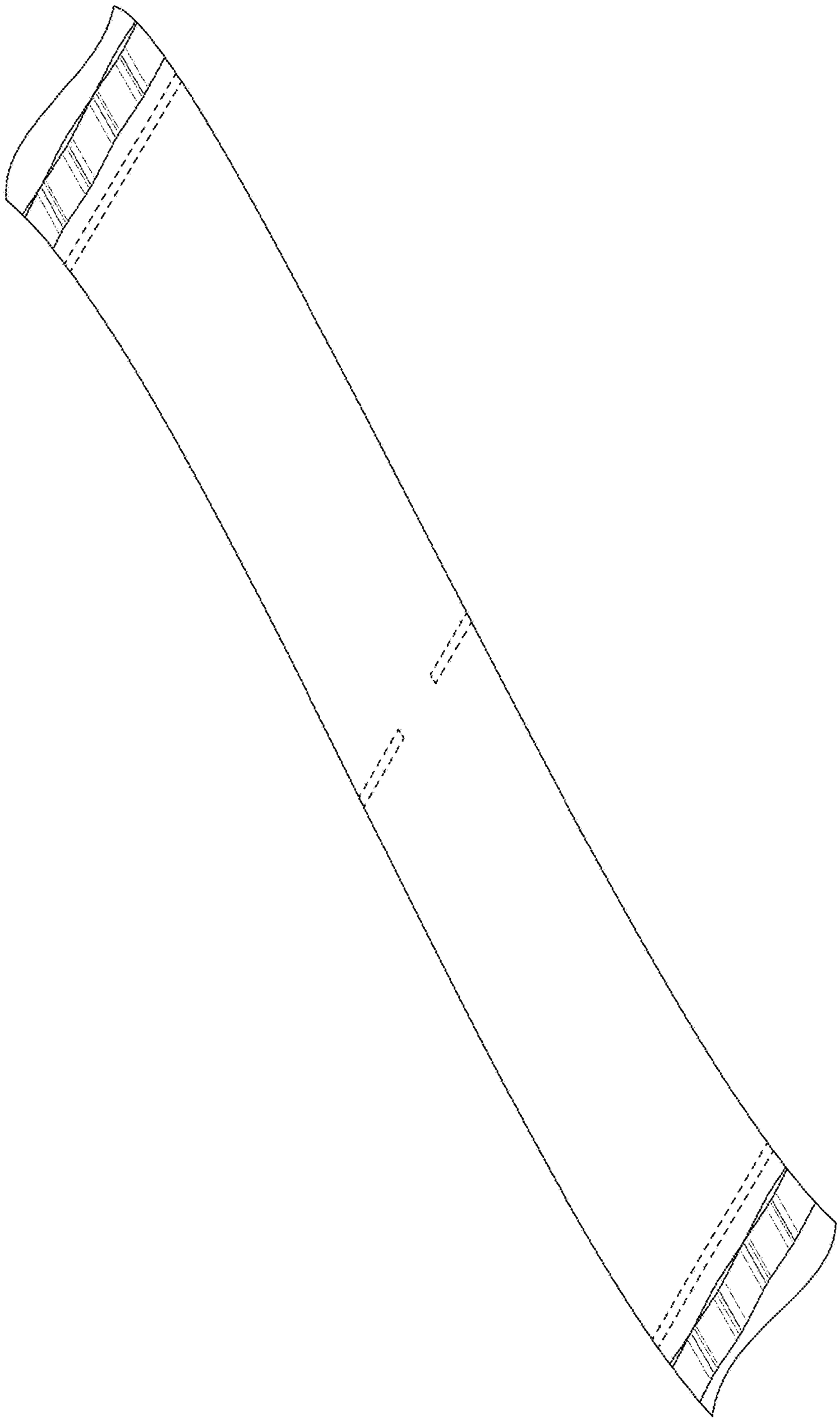

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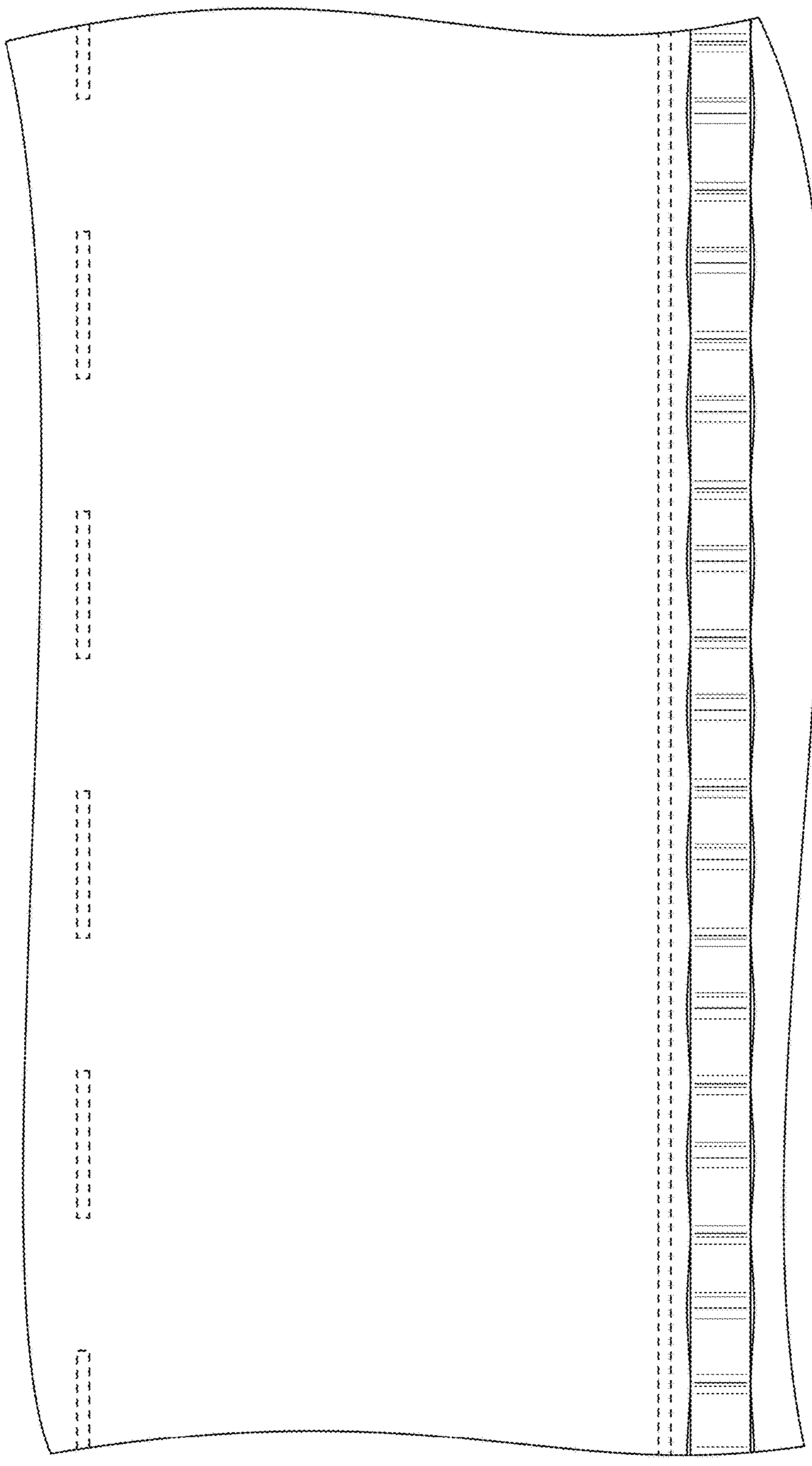

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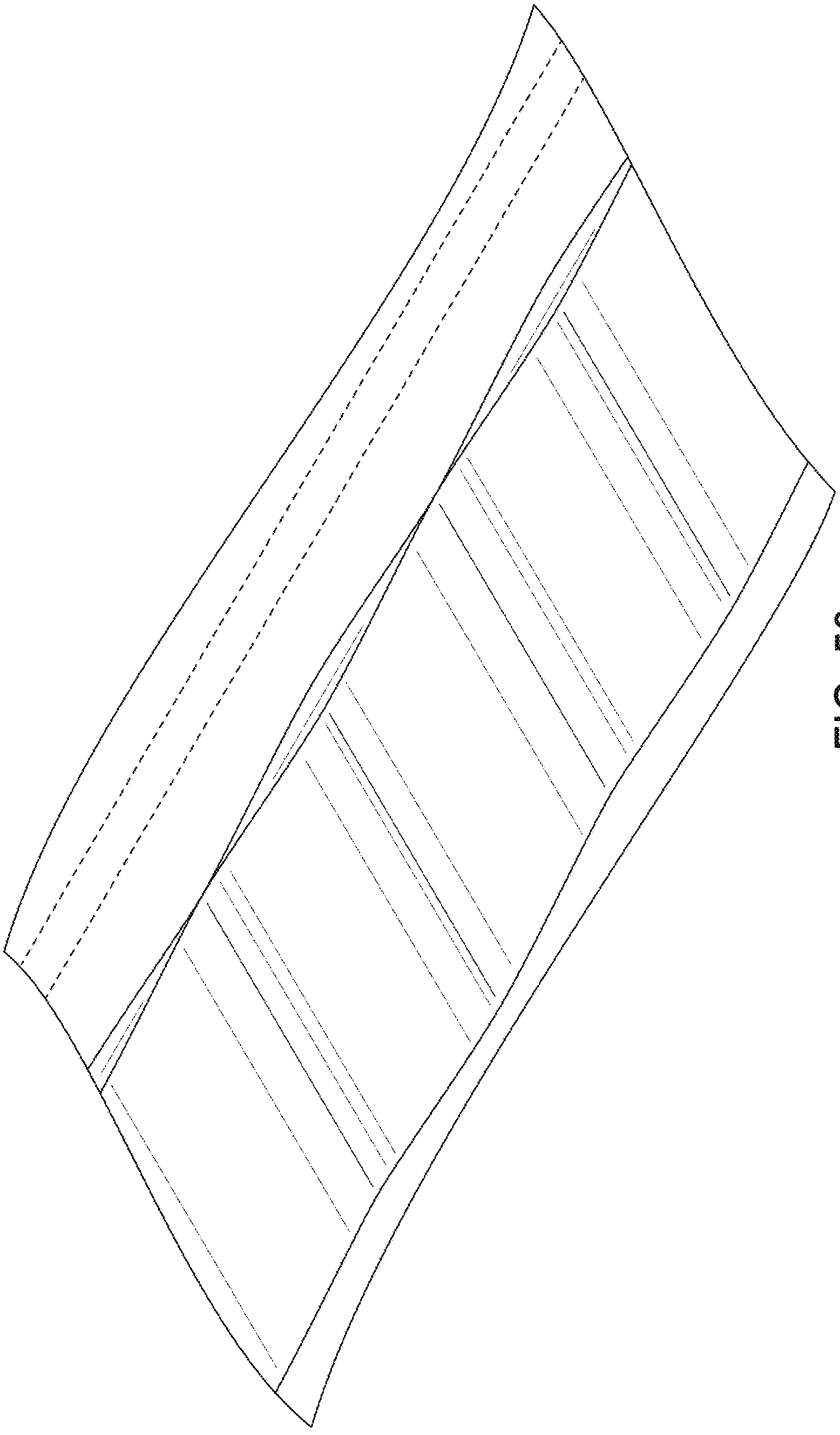

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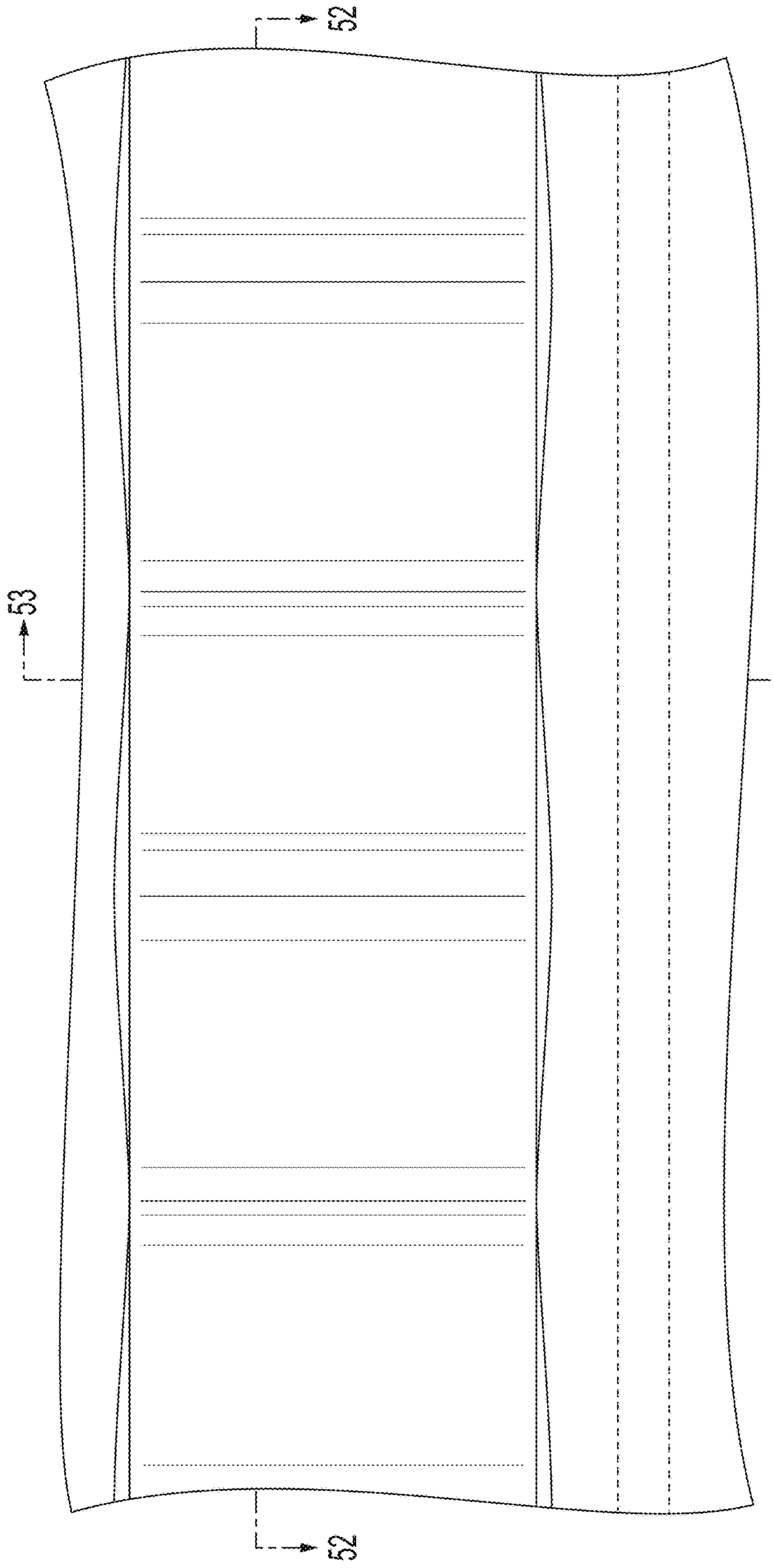

FIG. 51

FIG. 52

FIG. 53

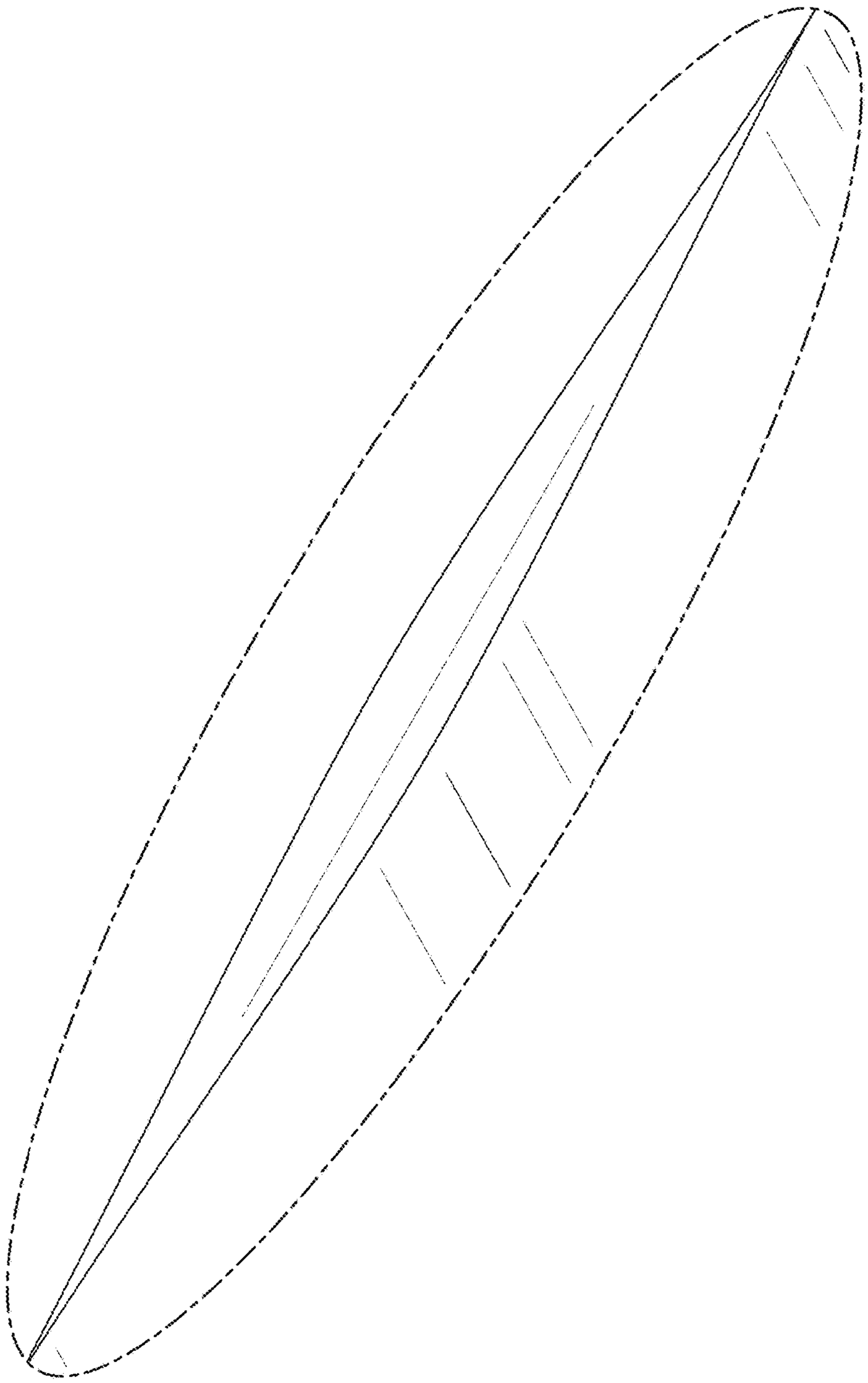

FIG. 54

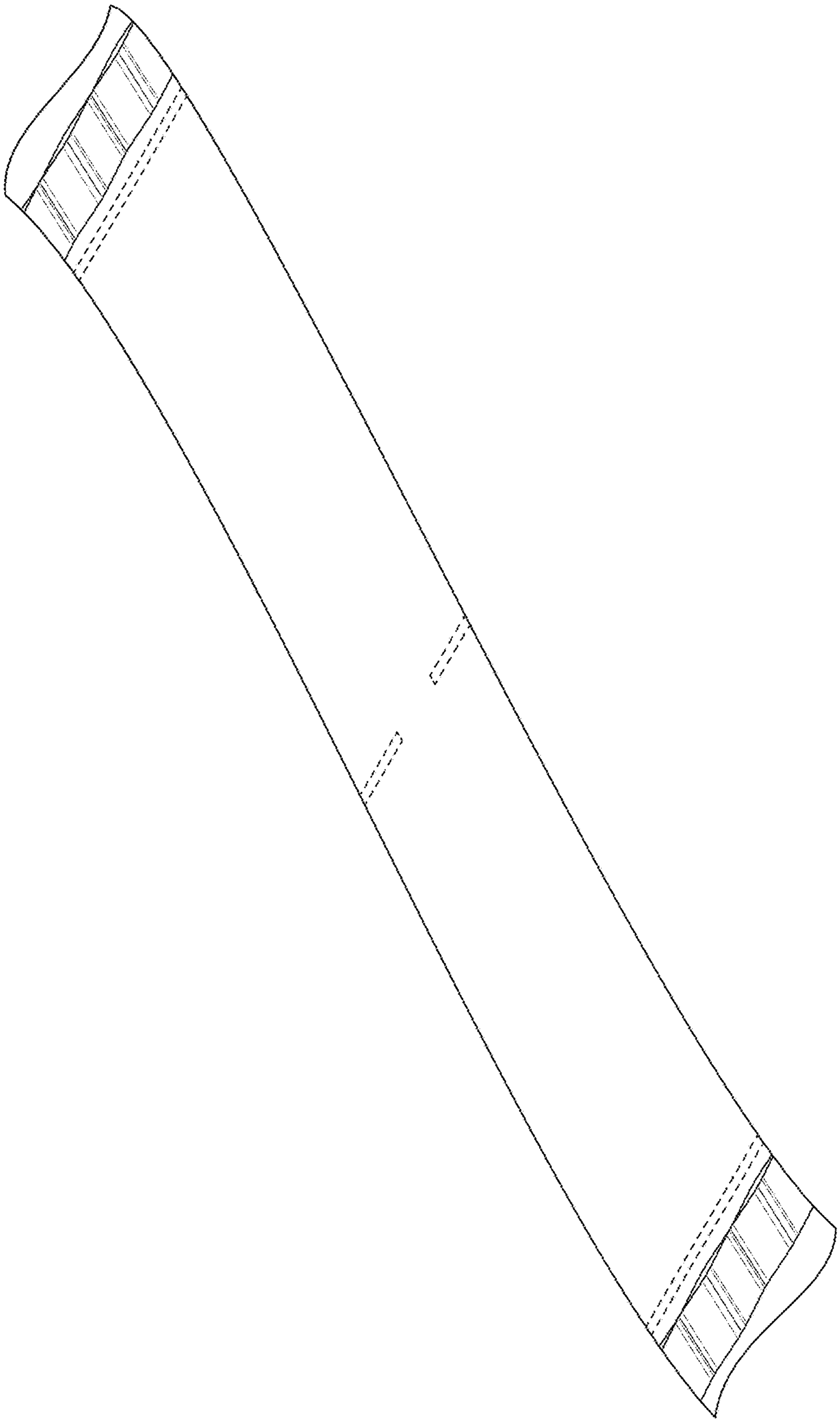

FIG. 55

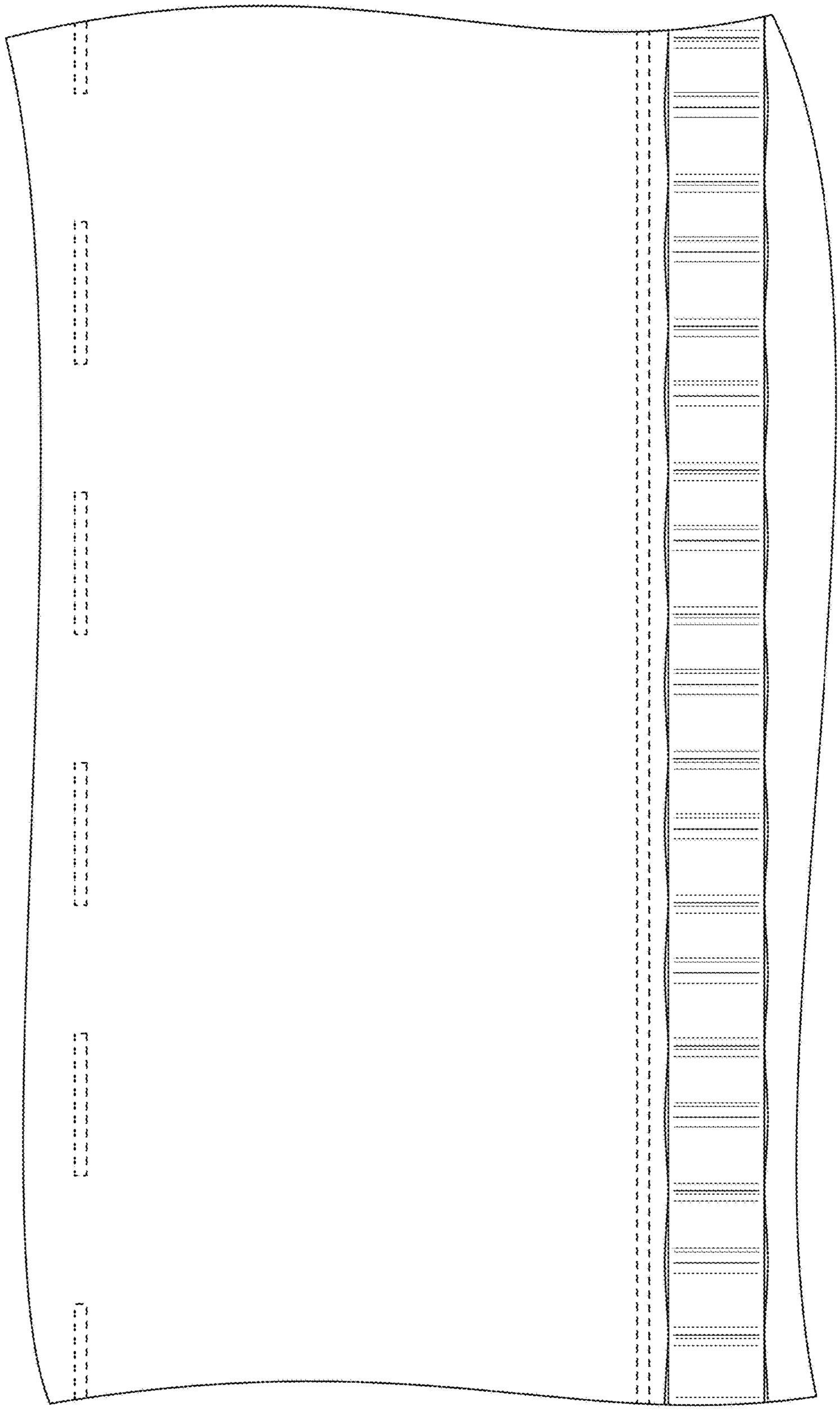

FIG. 56

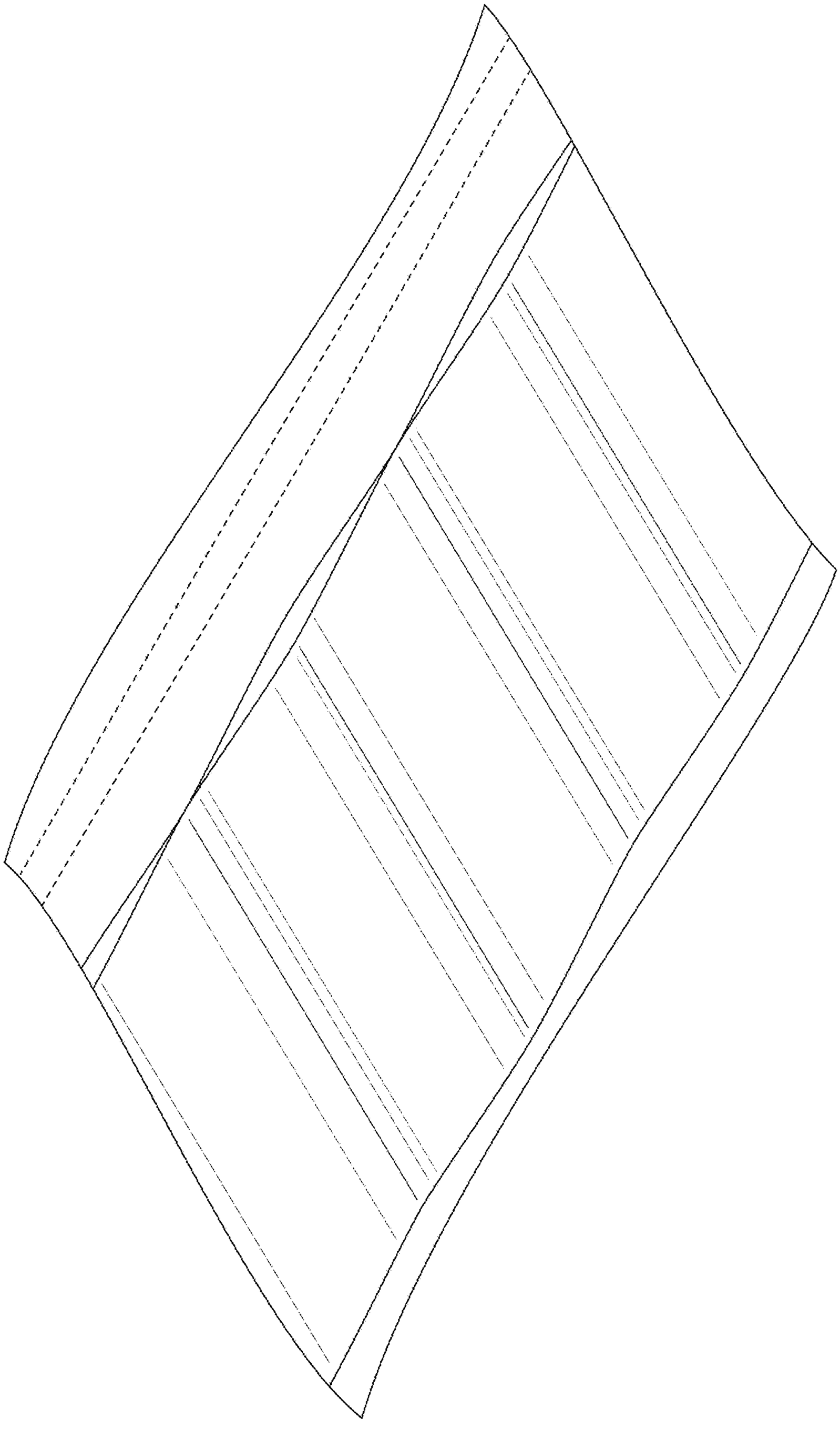

FIG. 57

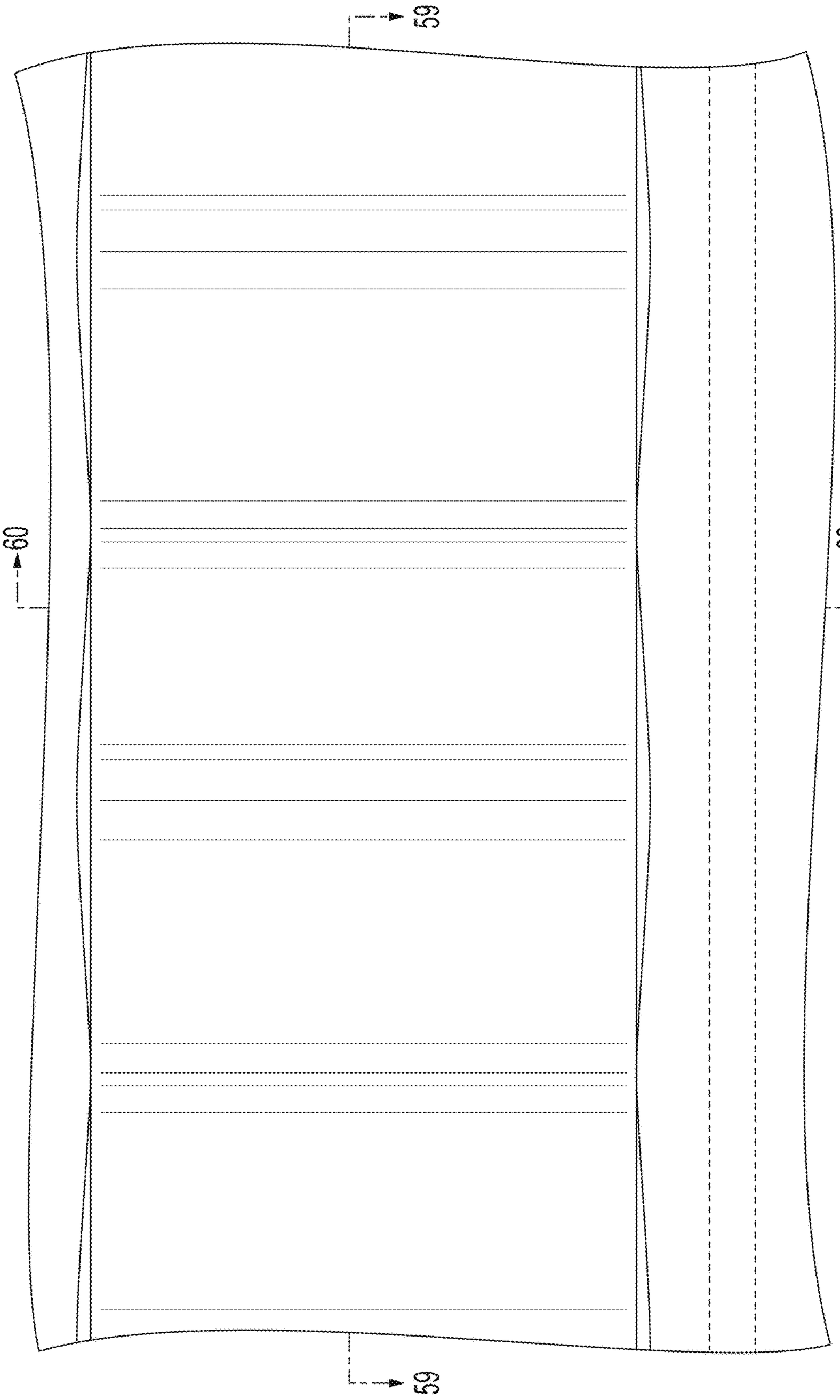

FIG. 58

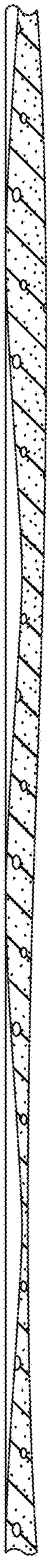

FIG. 59

FIG. 60

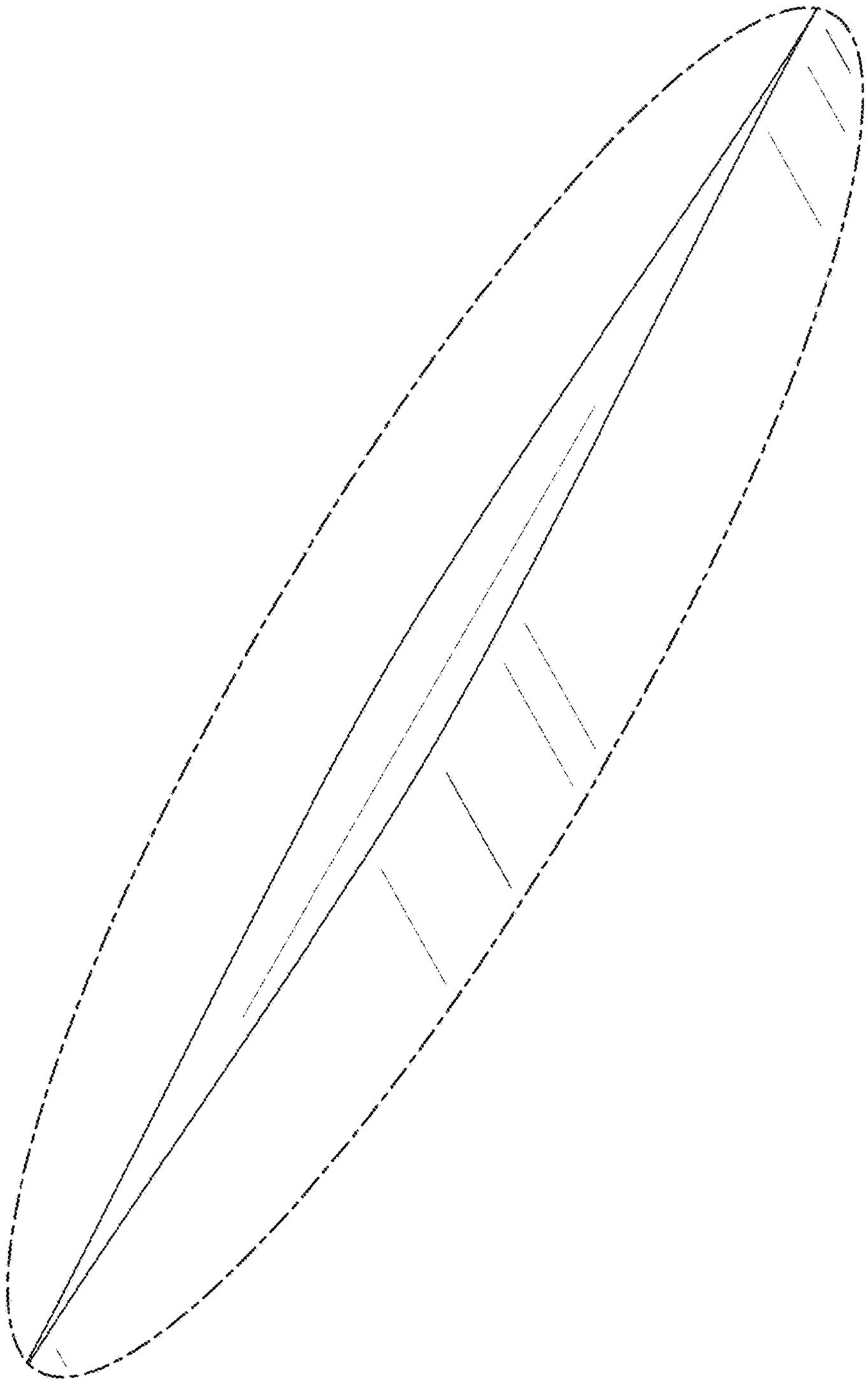

FIG. 61

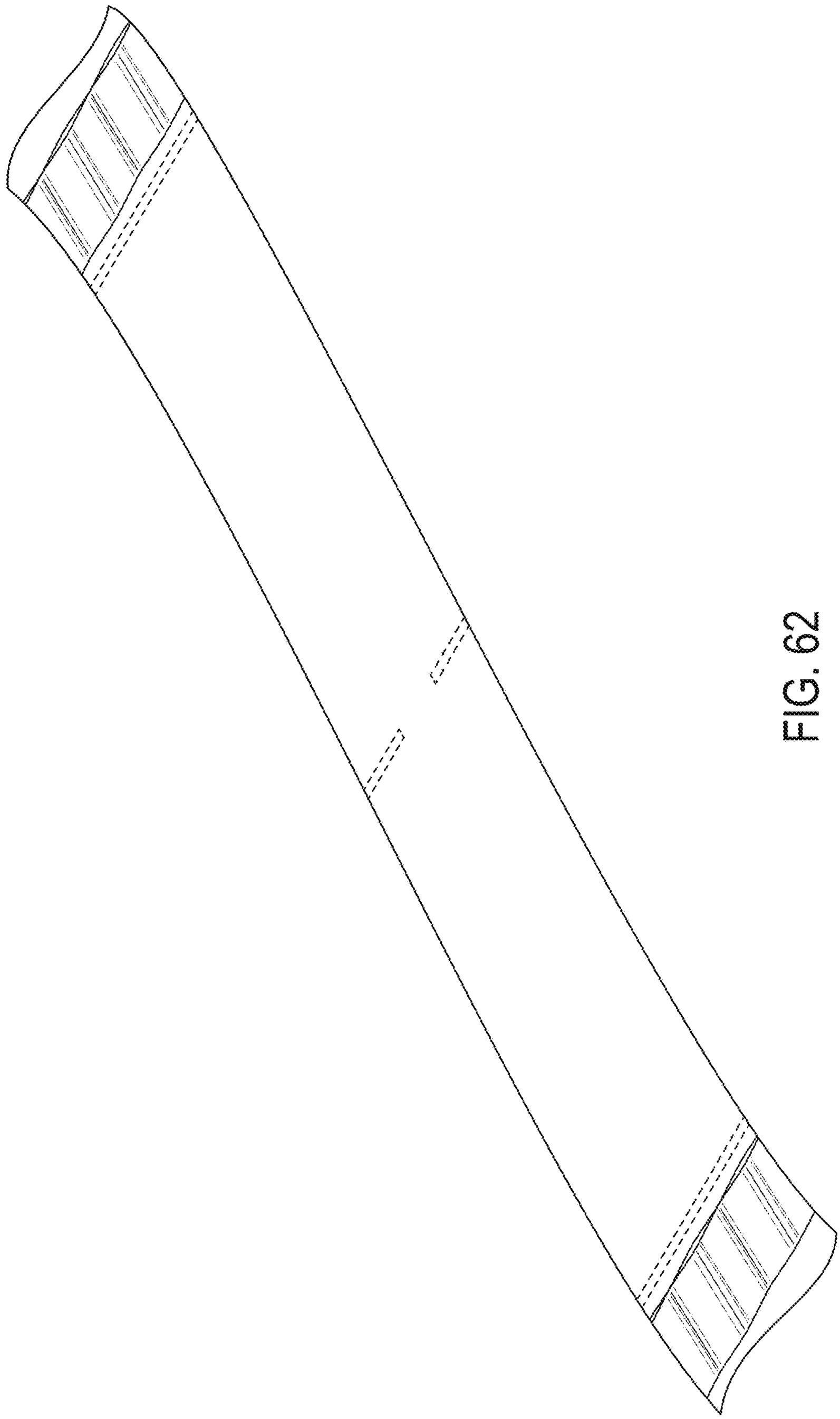

FIG. 62

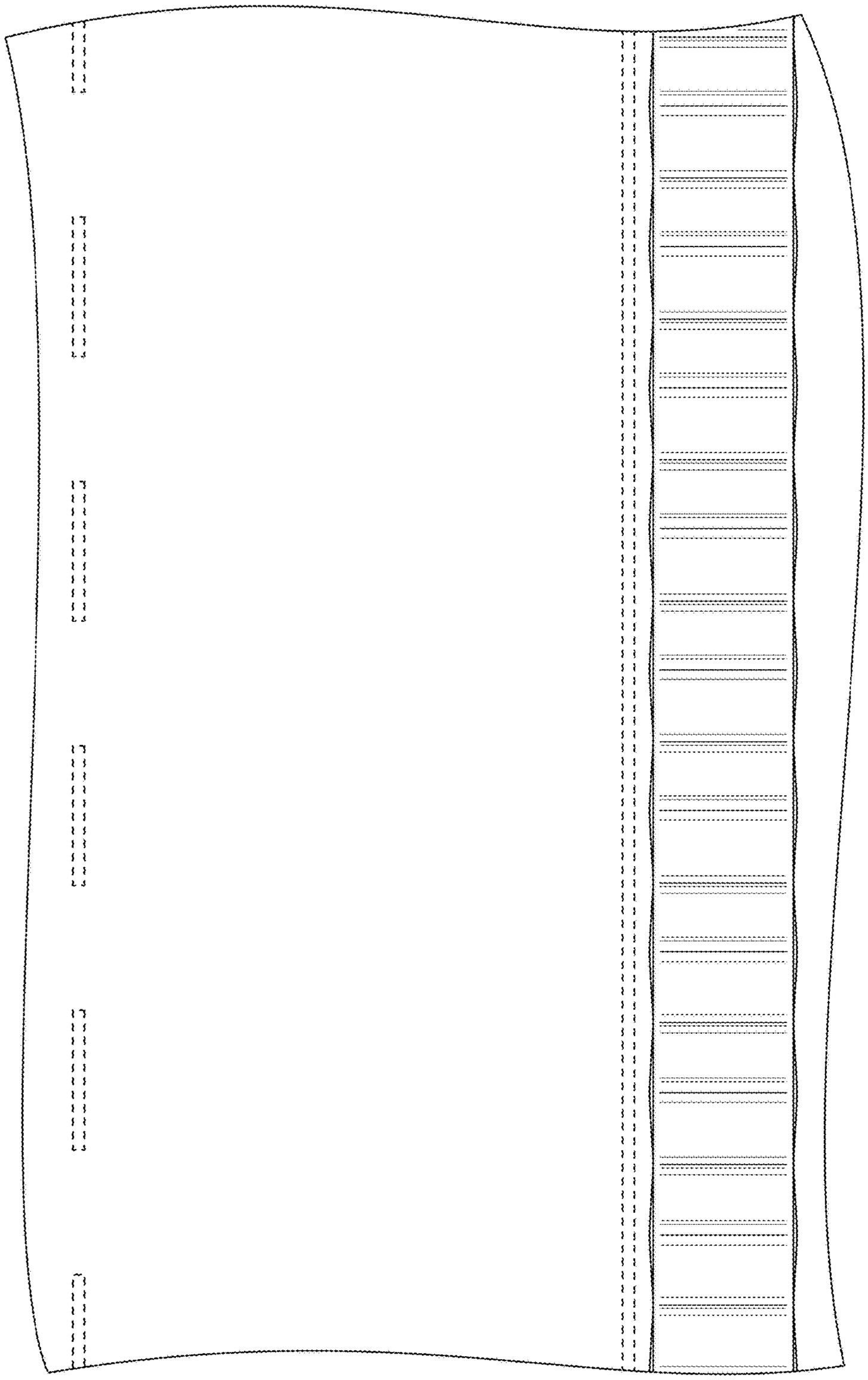

FIG. 63