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(12) **United States Design Patent**  
**Hoover**

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(45) **Date of Patent:** **\*\* Apr. 21, 2015**

(54) **TRIANGULAR SPHERICAL ELEMENT  
SOLAR CELL, PANEL, AND ARRAY**

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(US)

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

(21) Appl. No.: **29/395,505**

(22) Filed: **Feb. 3, 2012**

(51) **LOC (10) Cl.** ..... **13-02**

(52) **U.S. Cl.**  
USPC ..... **D13/102**

(58) **Field of Classification Search**

CPC ..... H01L 31/18; H01L 31/042; H01L 31/048;  
H01L 31/052; H01L 31/058; H01L 31/0522;  
H01L 31/0525; B32B 3/28; B32B 37/12;  
B32B 37/14; F24J 2/04; F24J 2/12; F24J  
2/24; F24J 2/38; F24J 2/54  
USPC ..... D13/102, 101, 184, 199; 52/173.3;  
126/569–578, 580, 609–612, 634, 640,  
126/643, 652, 658, 680, 682, 683, 685, 689,  
126/699; 136/206, 244–251, 256, 291, 292  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

4,057,048	A *	11/1977	Maine	126/648
4,491,727	A *	1/1985	Appelbaum et al.	356/222
4,537,180	A *	8/1985	Minor	126/640
4,594,470	A *	6/1986	Headrick	136/246
D288,089	S *	2/1987	Headrick	D13/102
D288,593	S *	3/1987	Campbell	D13/102
D577,332	S *	9/2008	Moore	D13/102
D600,200	S *	9/2009	Dimov et al.	D13/102
D601,087	S *	9/2009	Feng et al.	D13/102
D610,535	S *	2/2010	Lu et al.	D13/102
7,870,855	B2 *	1/2011	Flaherty	126/651
2010/0326426	A1 *	12/2010	Gonzalez Moreno	126/600

\* cited by examiner

*Primary Examiner* — Derrick Holland

(57) **CLAIM**

The ornamental design for a triangular spherical element solar cell, panel, and array, as shown and described.

**DESCRIPTION**

FIG. 1 is a front elevation view of an embodiment of a triangular spherical element solar cell, panel, and array showing my new design;

FIG. 2 is a top plan view thereof;

FIG. 3 is a top perspective view thereof;

FIG. 4 is a front elevation view of a triangular spherical element solar cell panel shown separated for ease of illustration;

FIG. 5 is a front and right side perspective view of that shown in FIG. 4. The front and left side perspective view being a mirror image;

FIG. 6 is a front elevation view of another triangular spherical element solar cell panel shown separated for ease of illustration;

FIG. 7 is a front and right side perspective view of that shown in FIG. 6. The front and left side perspective view being a mirror image;

FIG. 8 is a front elevation view of another triangular spherical element solar cell panel shown separated for ease of illustration;

FIG. 9 is a front and right side perspective view of that shown in FIG. 8. The front and left side perspective view being a mirror image;

FIG. 10 is a front elevation view of another triangular spherical element solar cell panel shown separated for ease of illustration;

FIG. 11 is a front and right perspective view of that shown in FIG. 10. The front and left side perspective view being a mirror image;

FIG. 12 is a front elevation view of another triangular spherical element solar cell panel shown separated for ease of illustration;

FIG. 13 is a front and right perspective view of that shown in FIG. 12. The front and left side perspective view being a mirror image;

FIG. 14 is a front elevation view of a second embodiment of a triangular spherical element solar cell, panel, and array showing my new design;

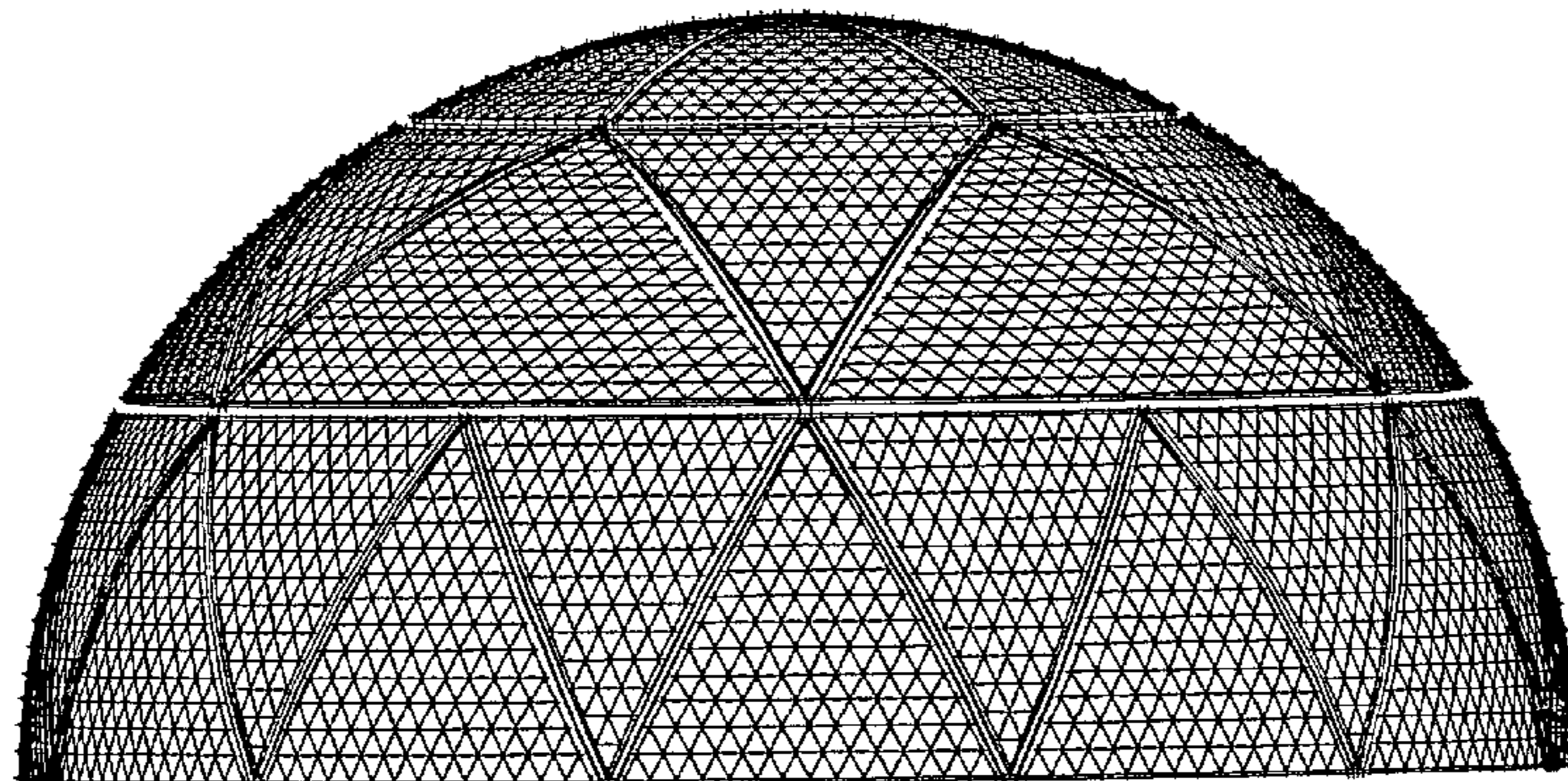


FIG. **15** is a top plan view thereof;

FIG. **16** is a front elevation view of a triangular spherical element solar cell panel shown separated for ease of illustration;

FIG. **17** is a front elevation view of another triangular spherical element solar cell panel shown separated for ease of illustration;

FIG. **18** is a front elevation view of another triangular spherical element solar cell panel shown separated for ease of illustration;

FIG. **19** is a front elevation view of another triangular spherical element solar cell panel shown separated for ease of illustration; and,

FIG. **20** is a front elevation view of another triangular spherical element solar cell panel shown separated for ease of illustration.

The triangular spherical element solar cell, panel, and array composes a hemispherical (half-spherical) solar array in which rounded triangular shaped solar cells are interconnected into rounded triangular solar panels. A triangular spherical element solar array is a an array used to shape the interconnection of triangular spherical element solar cells and panels into a hemispherical shaped (half-sphere) solar array as shown by FIG. **1**.

**1 Claim, 20 Drawing Sheets**

FIG 1

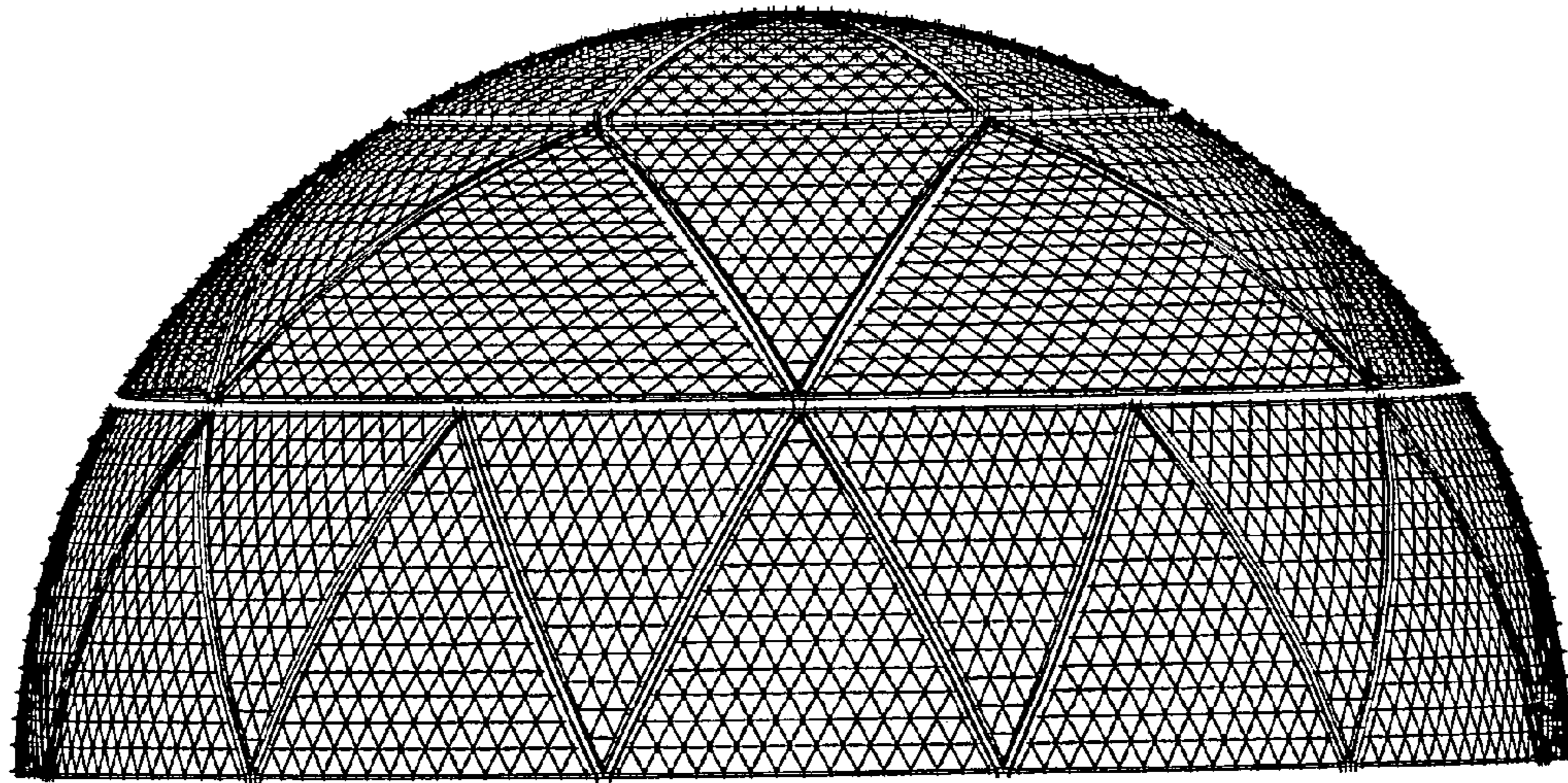


FIG 2

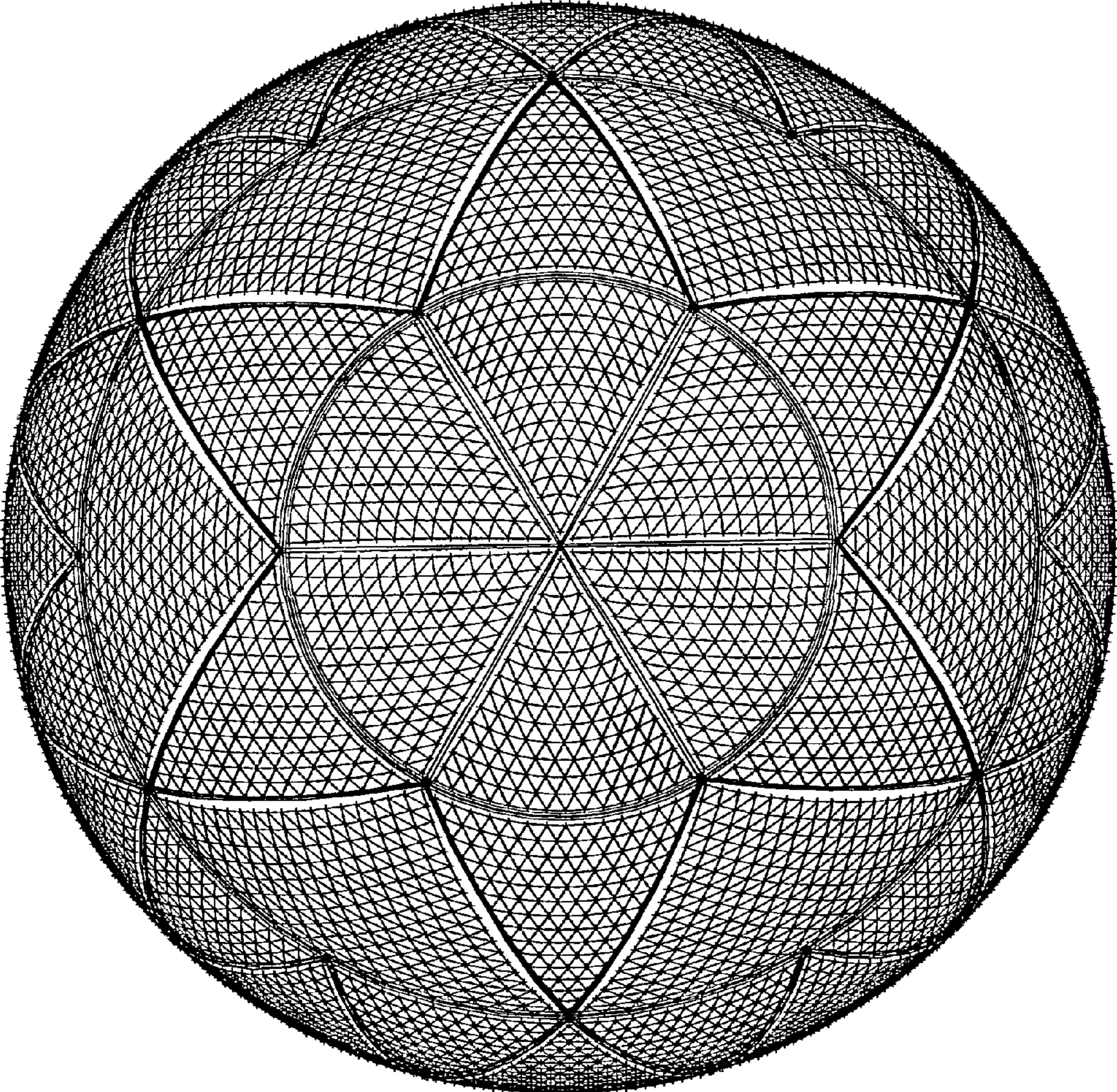


FIG 3

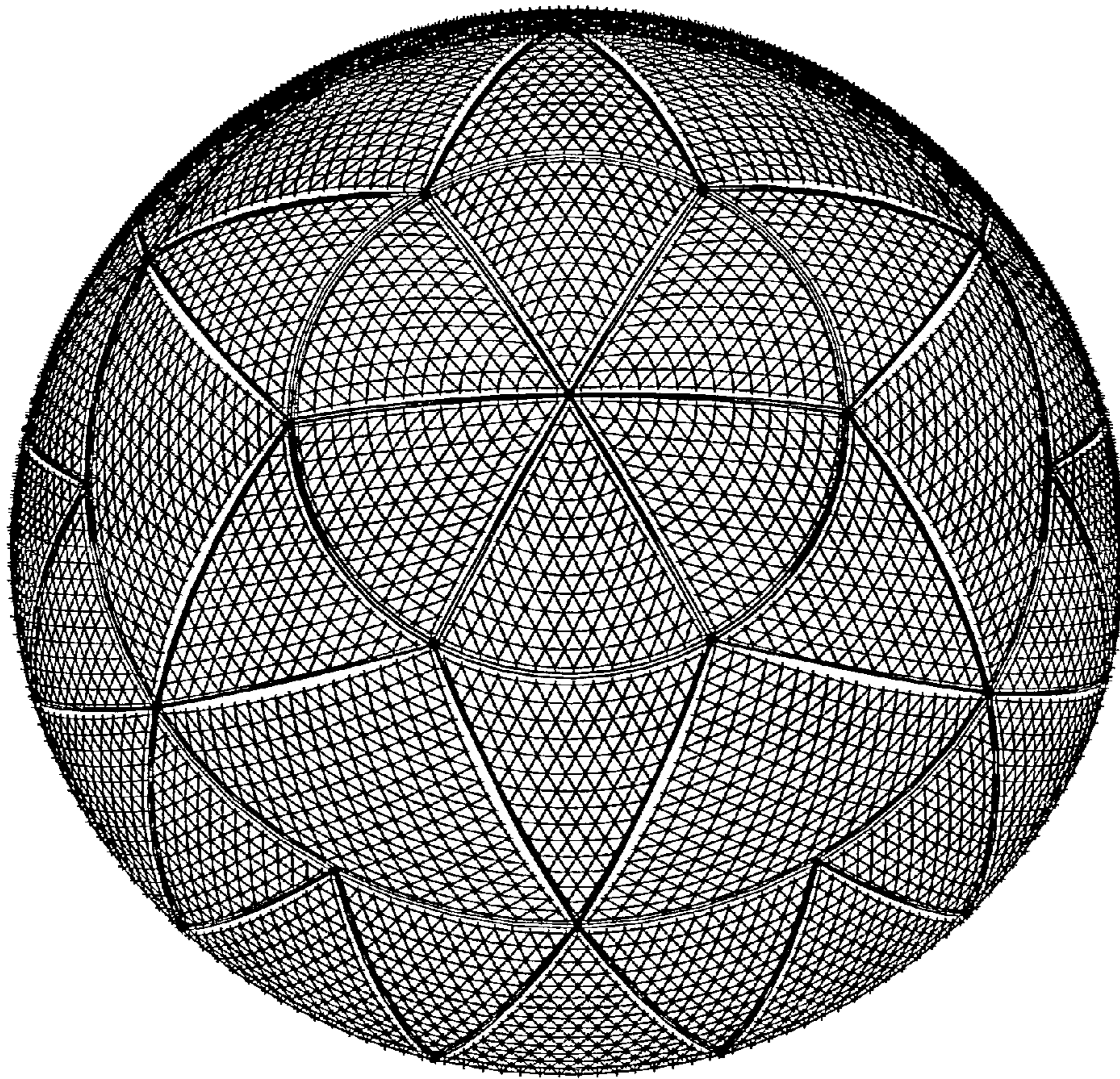


FIG 4

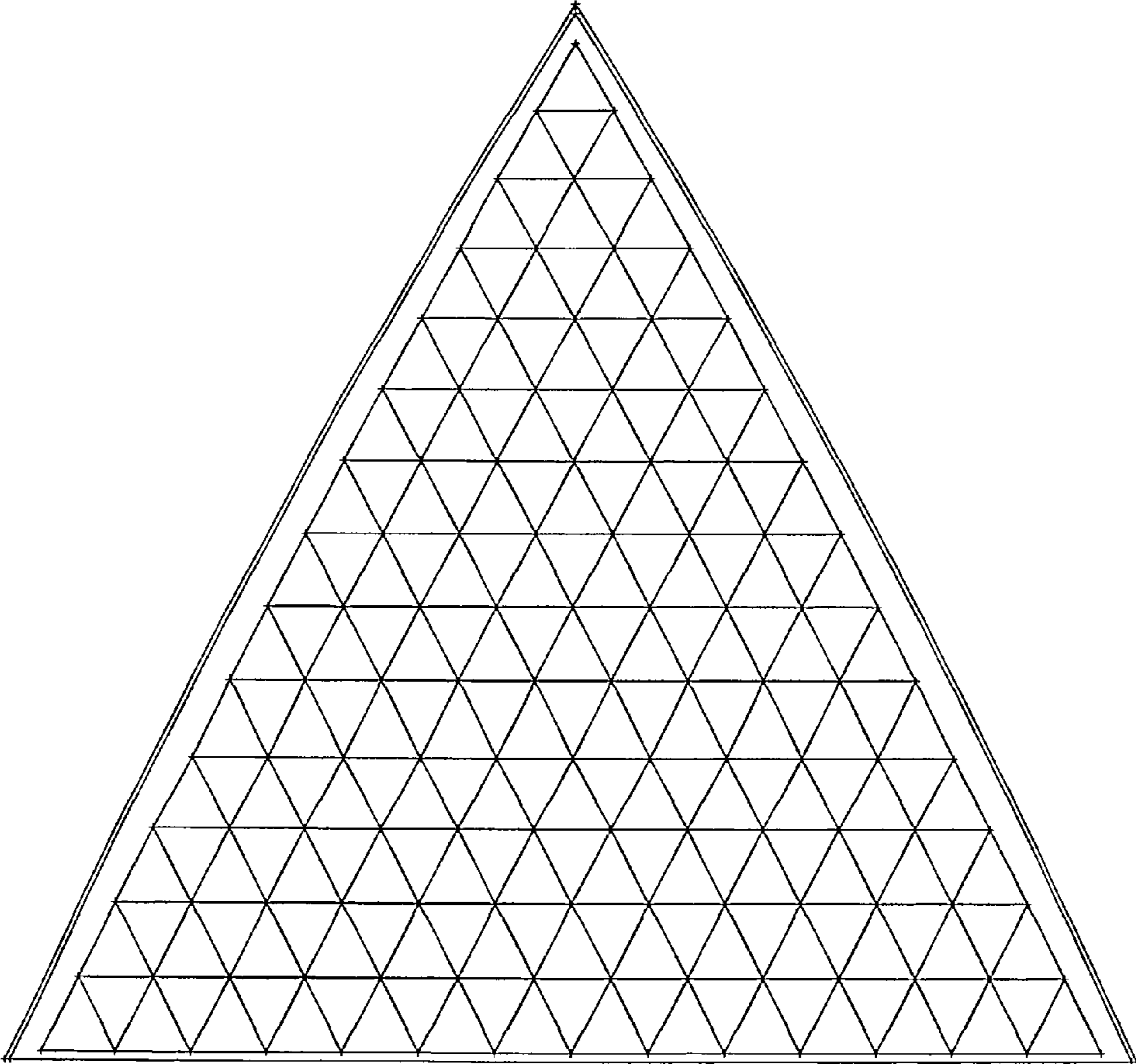


FIG 5

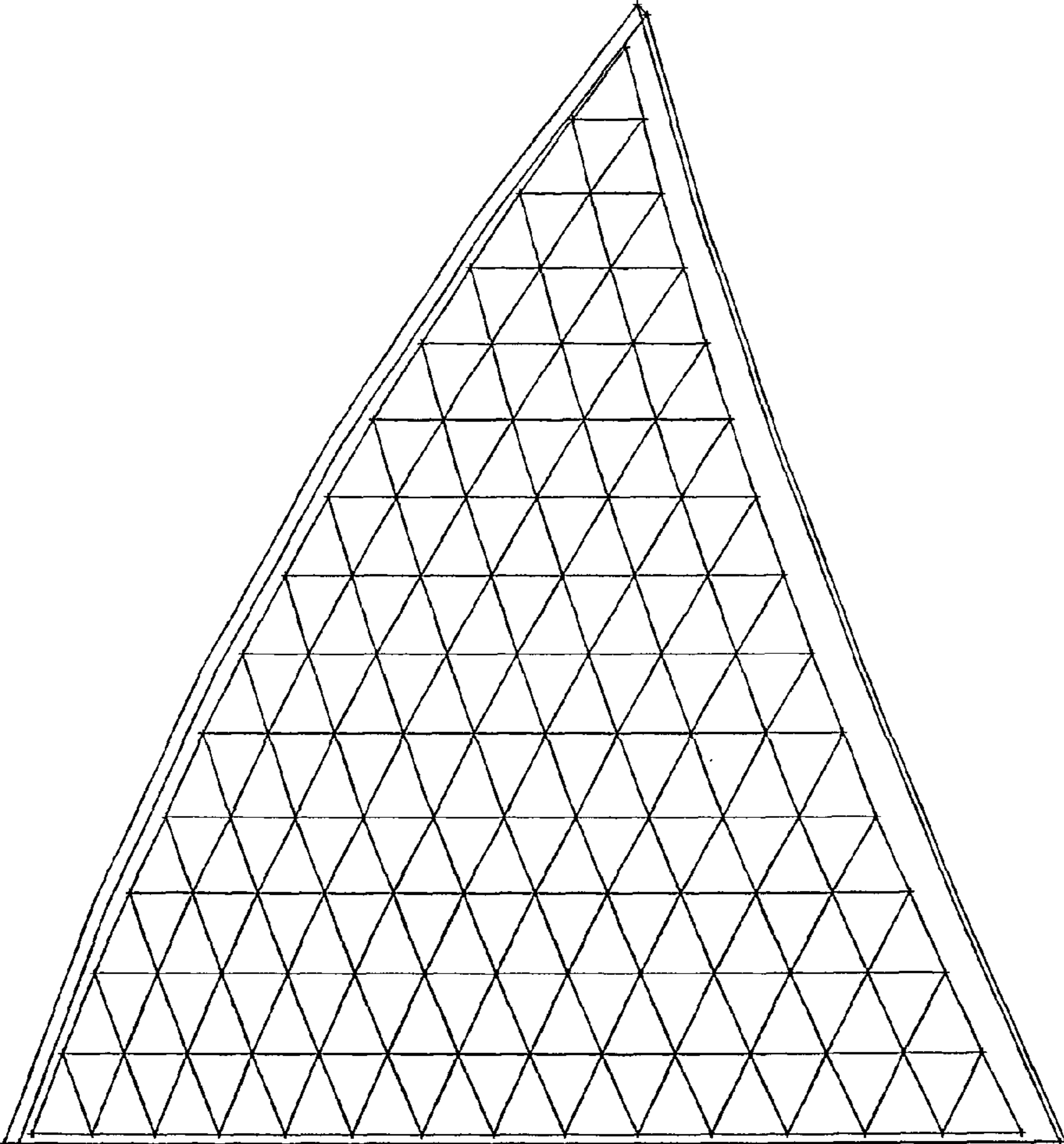


FIG 6

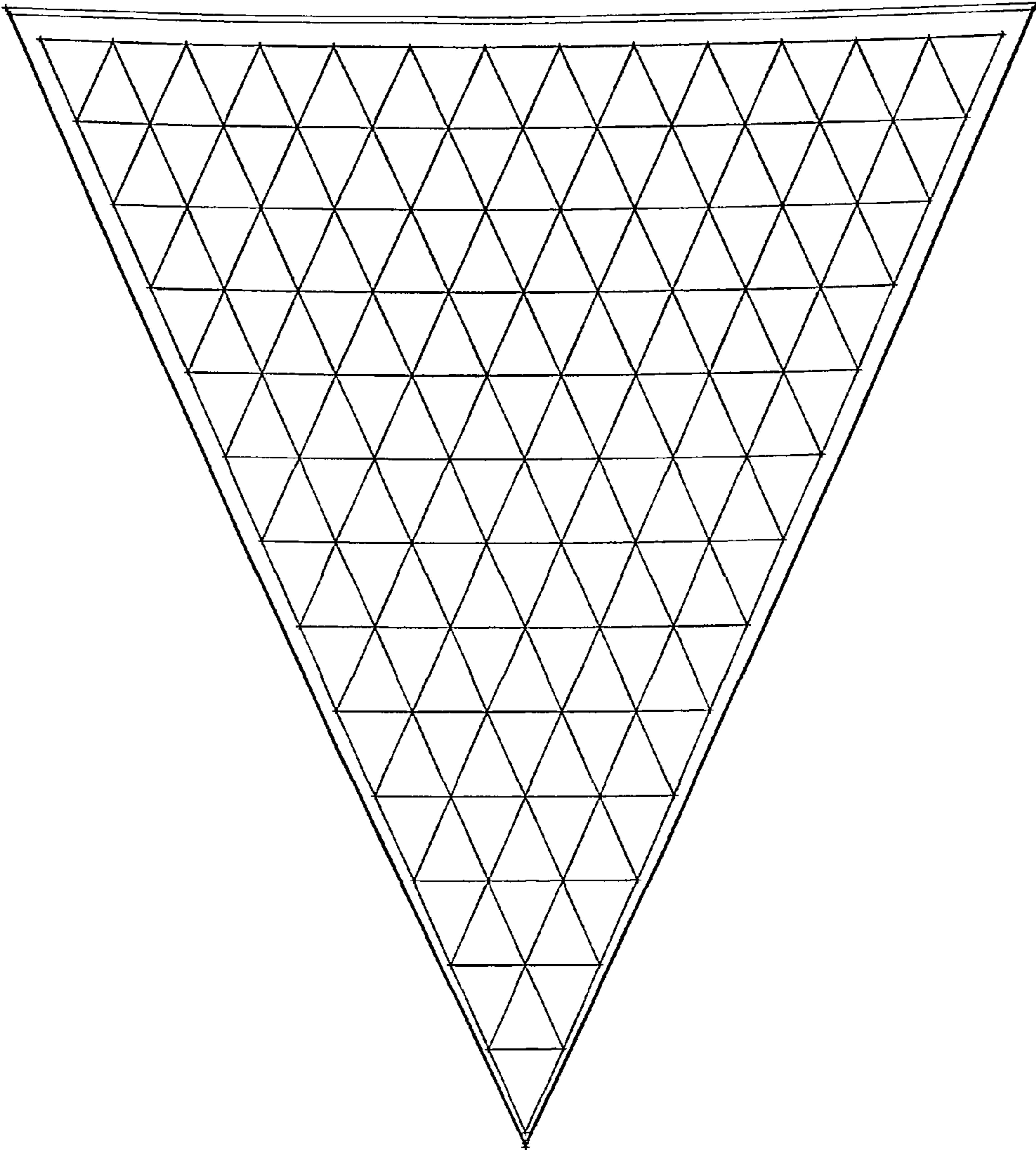




FIG 7

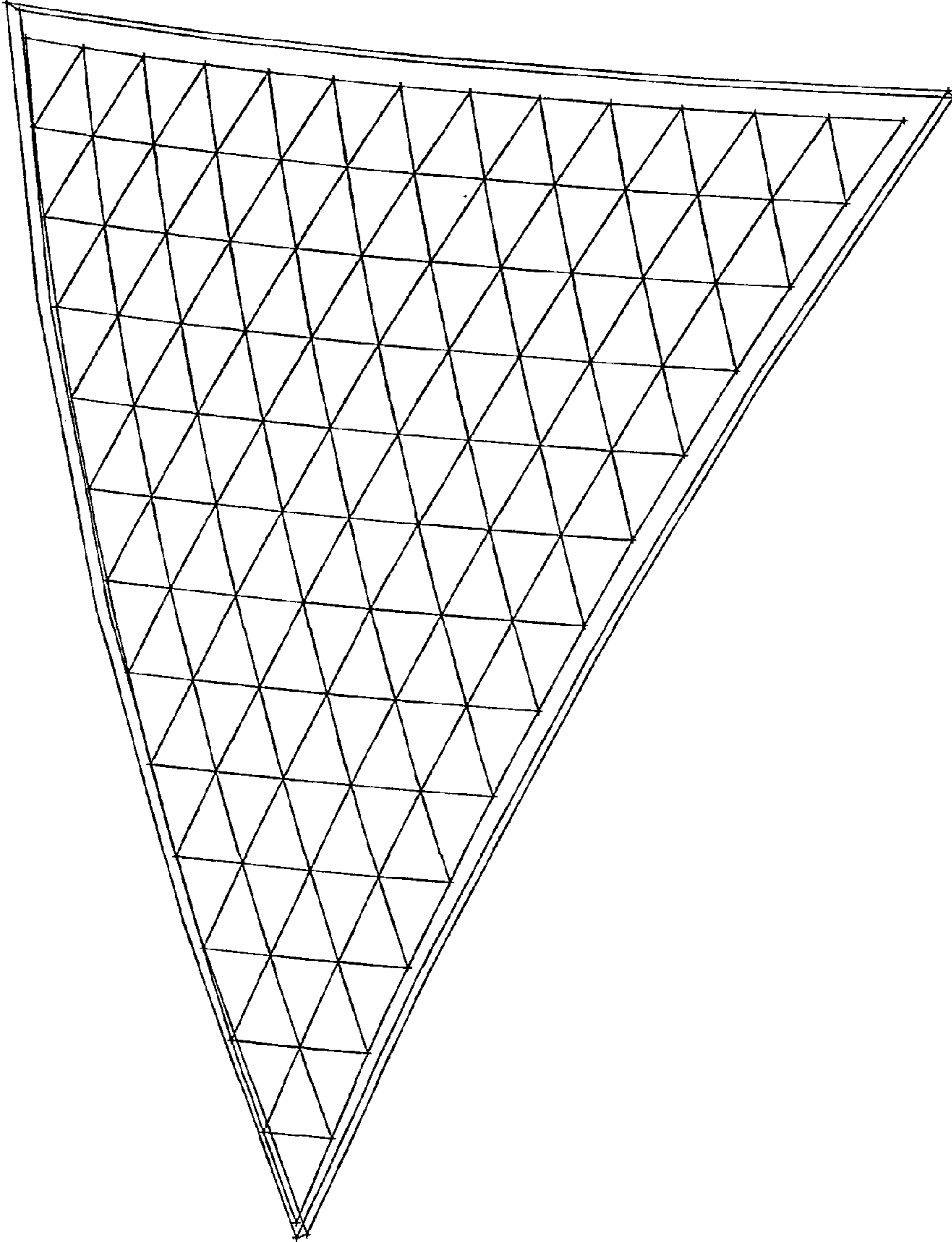


FIG 8

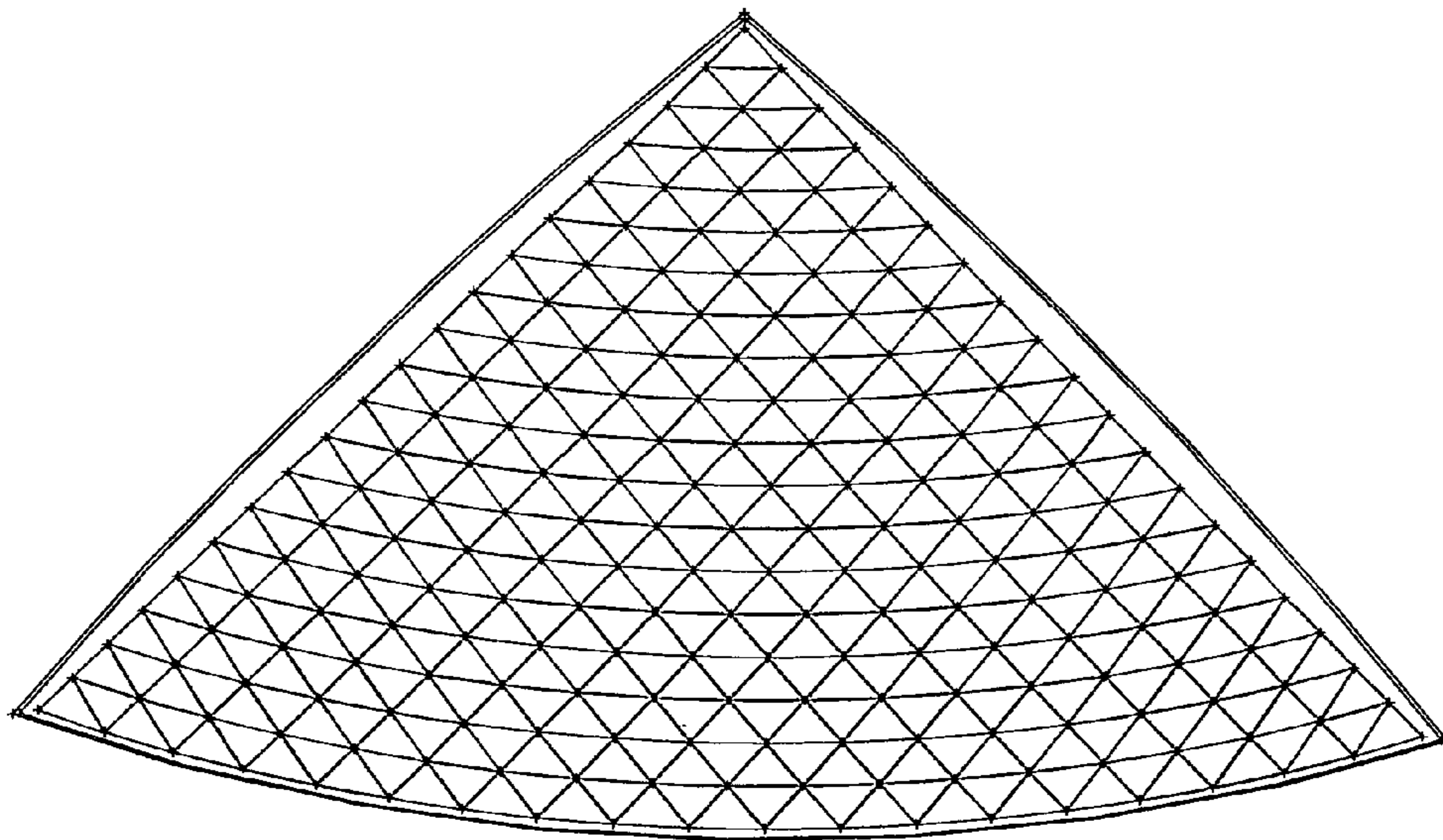


FIG 9

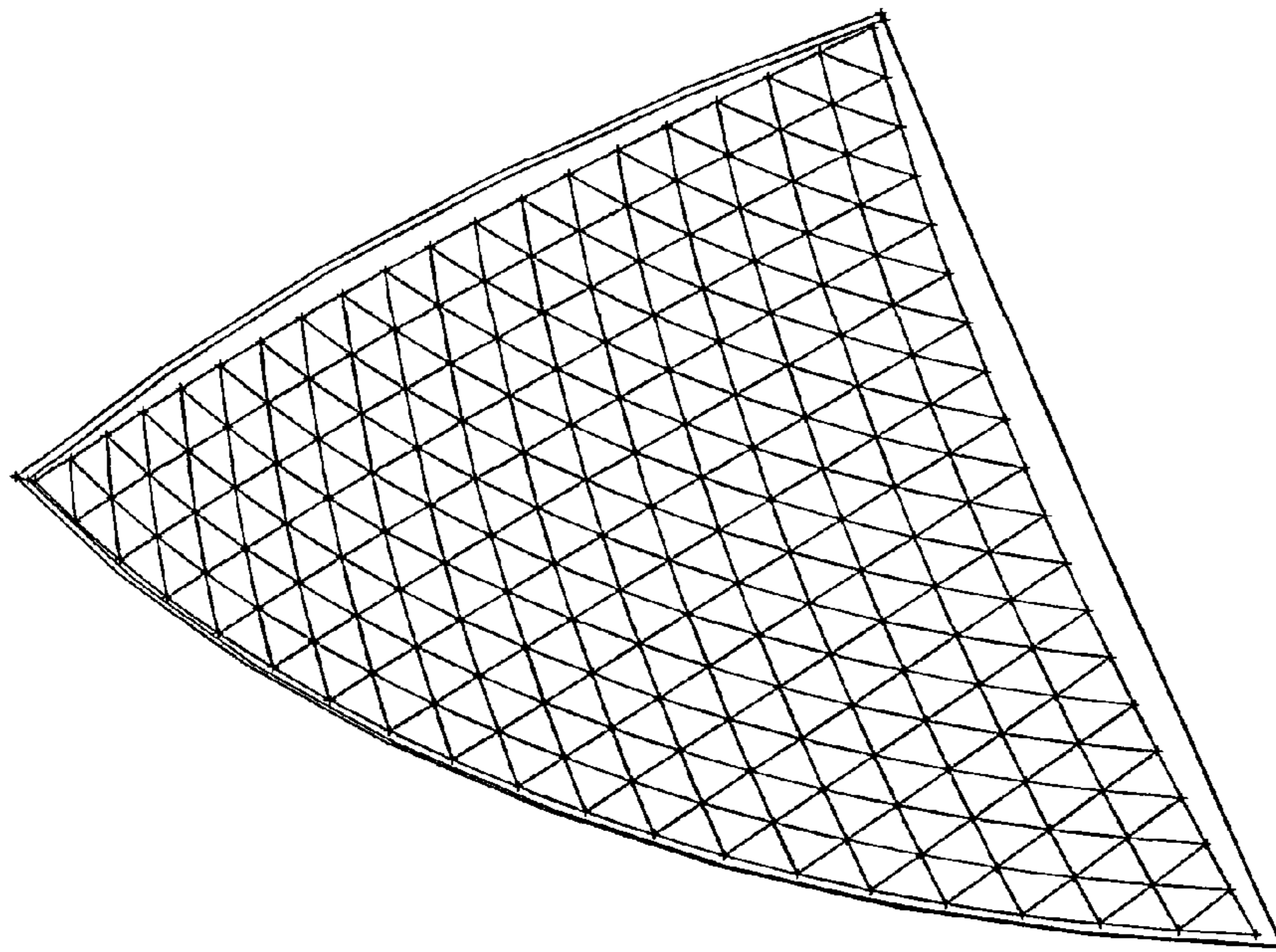


FIG 10

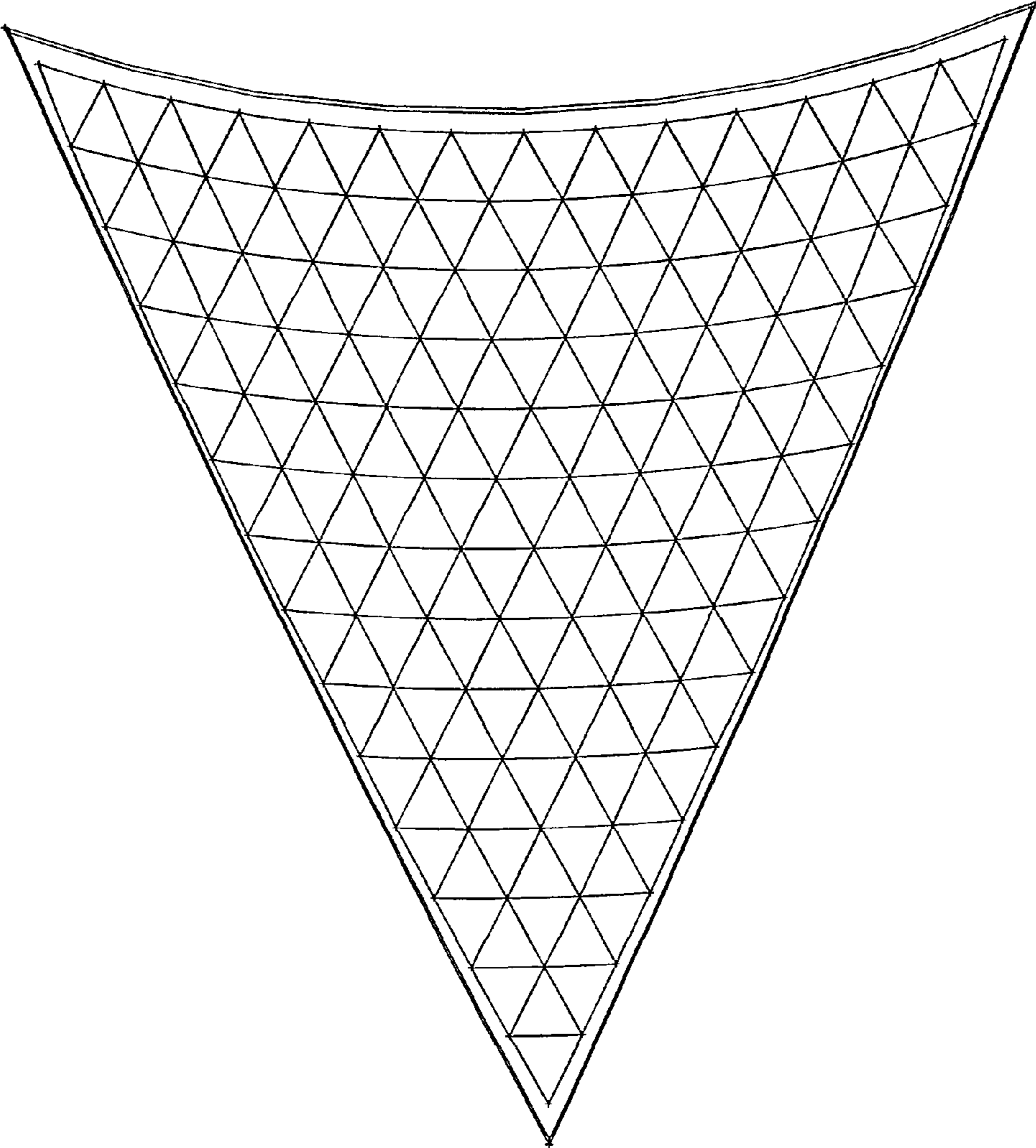


FIG 11

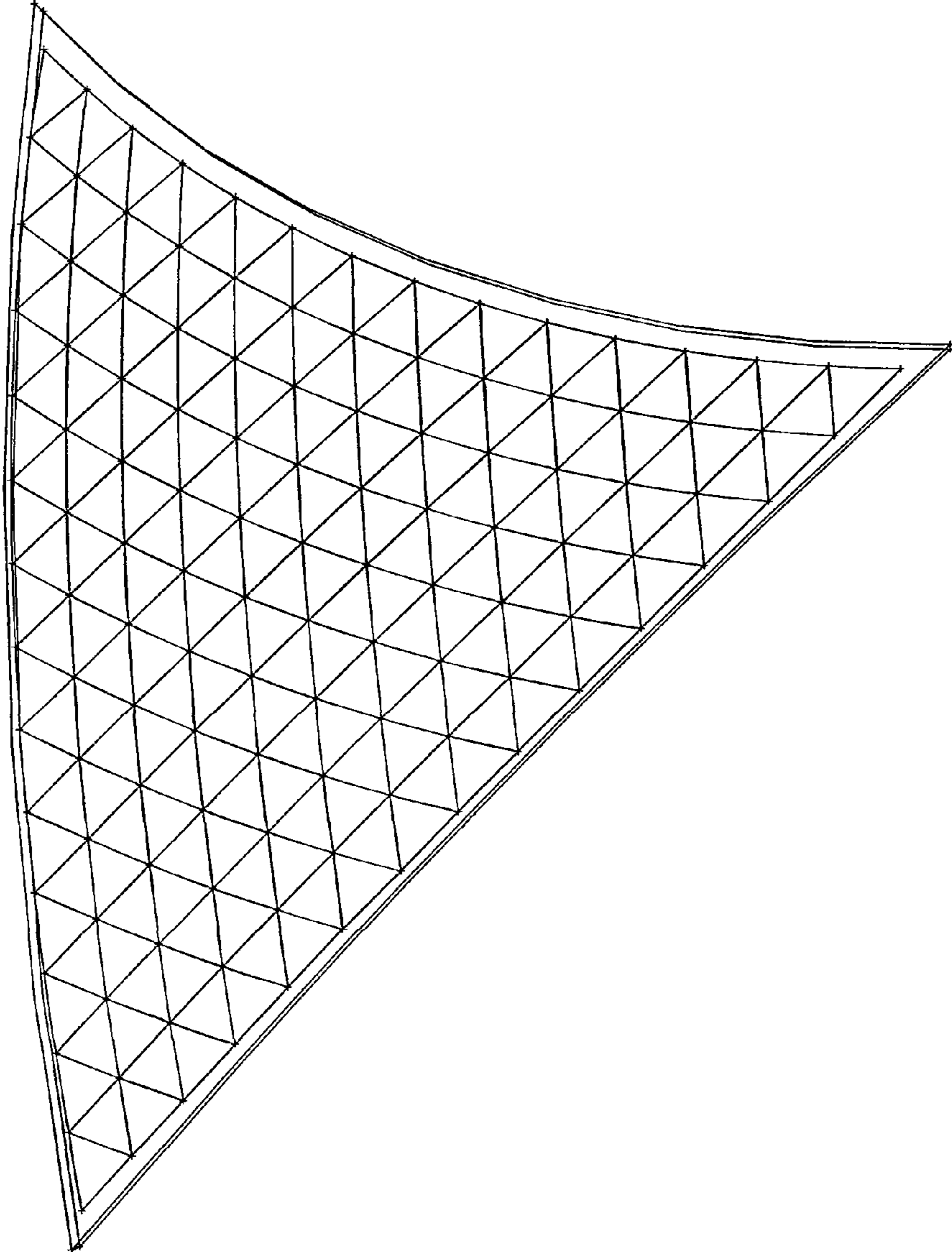


FIG 12

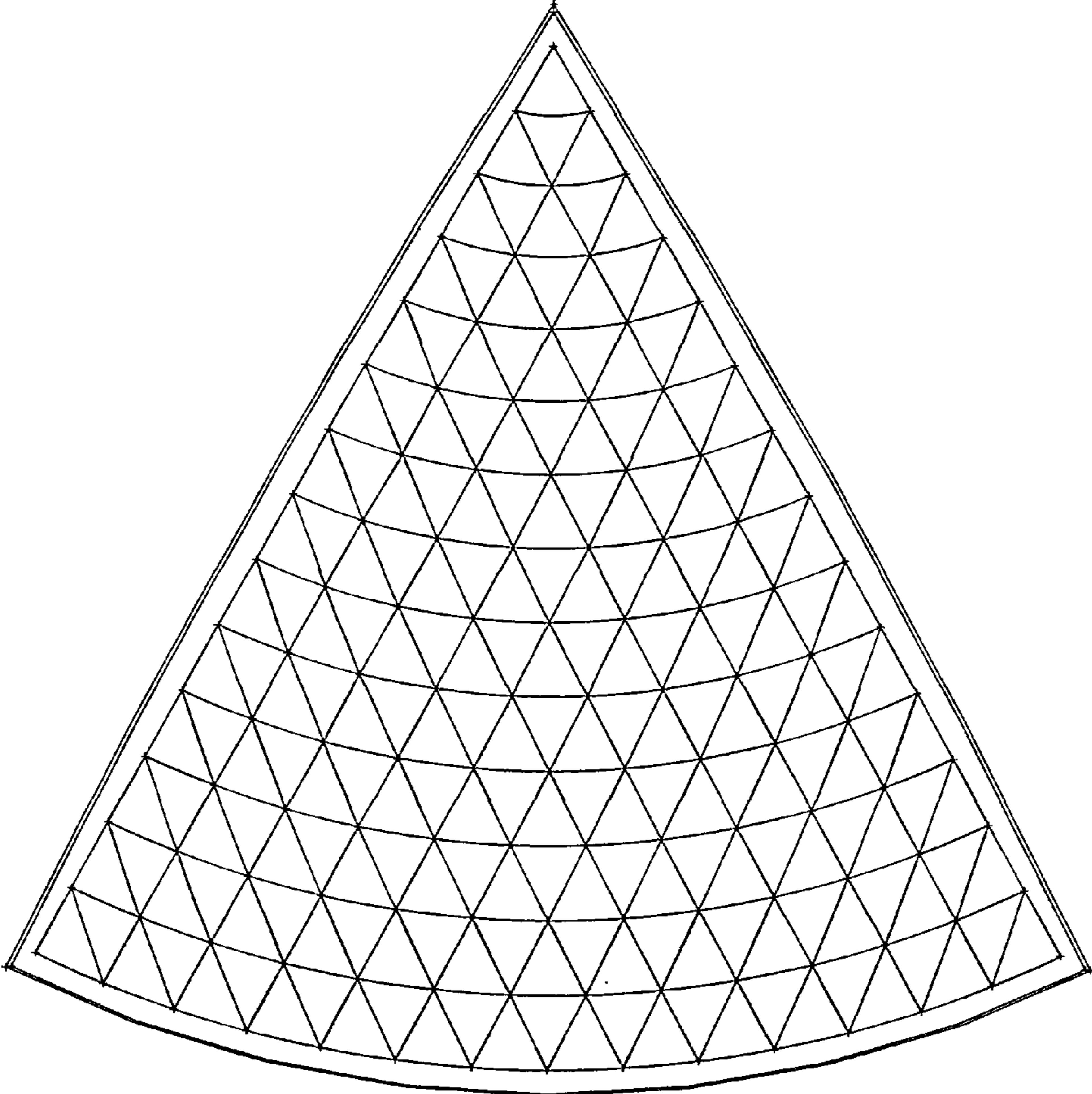


FIG 13

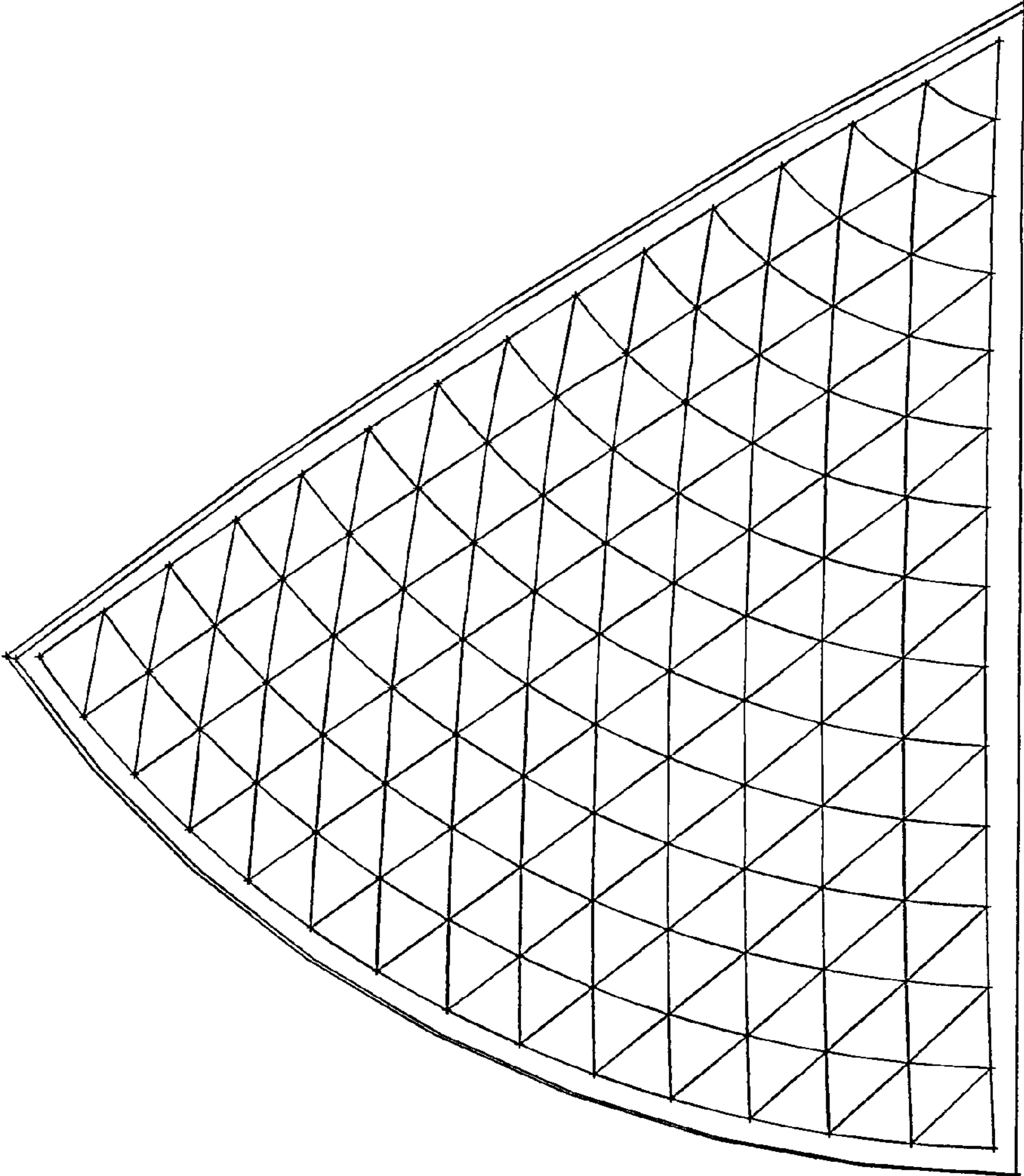


FIG 14

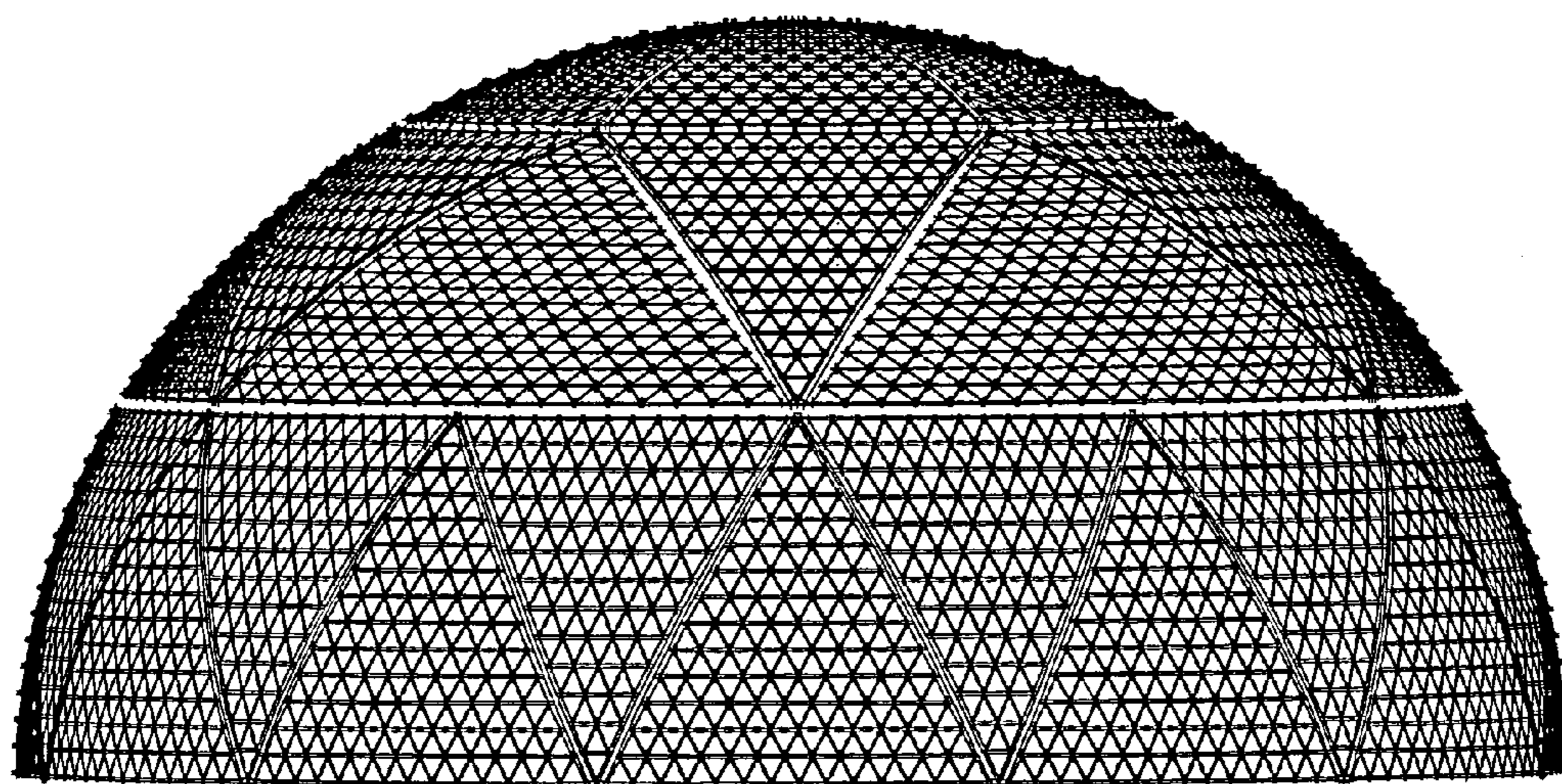




FIG 15

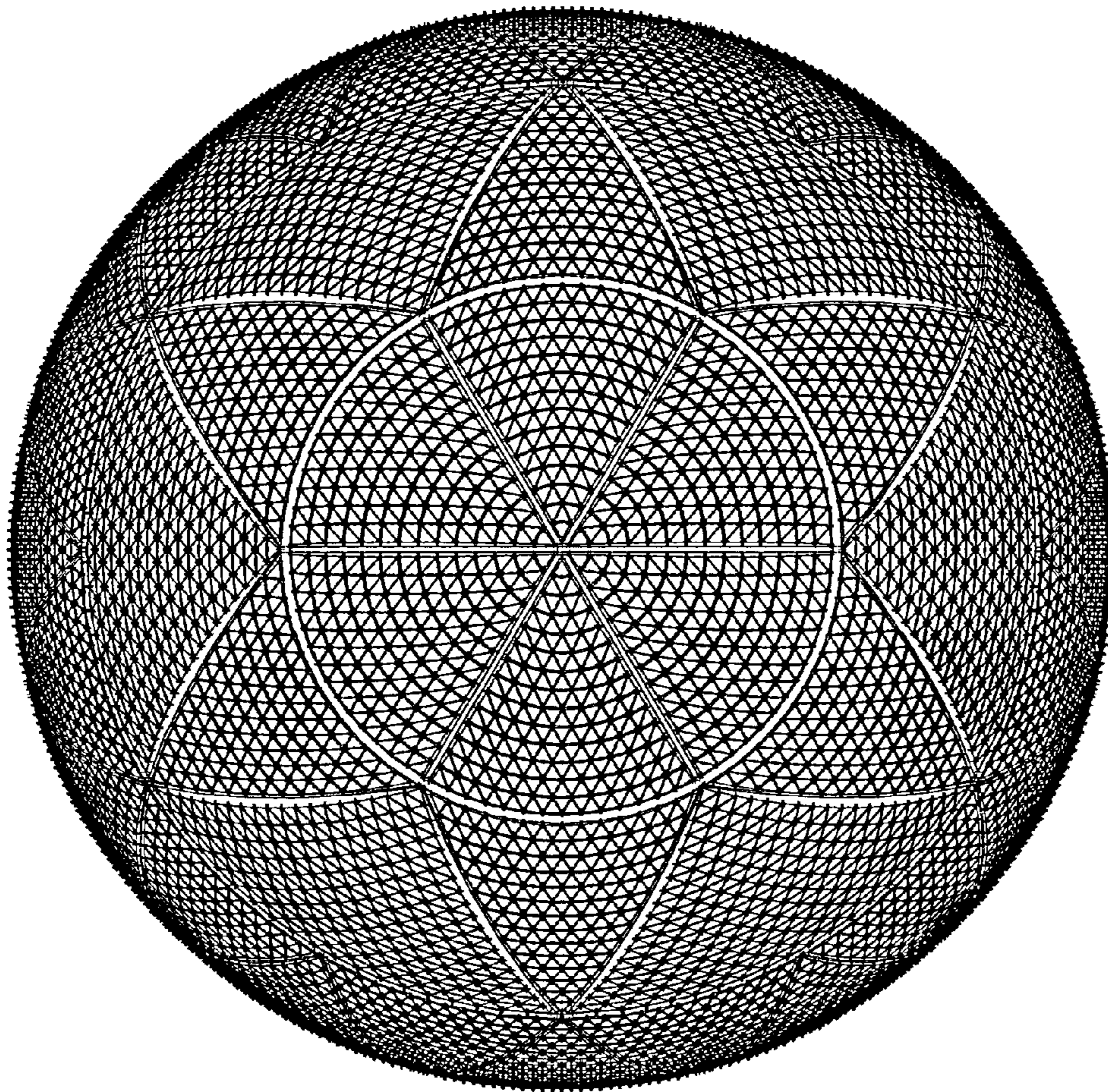


FIG 16

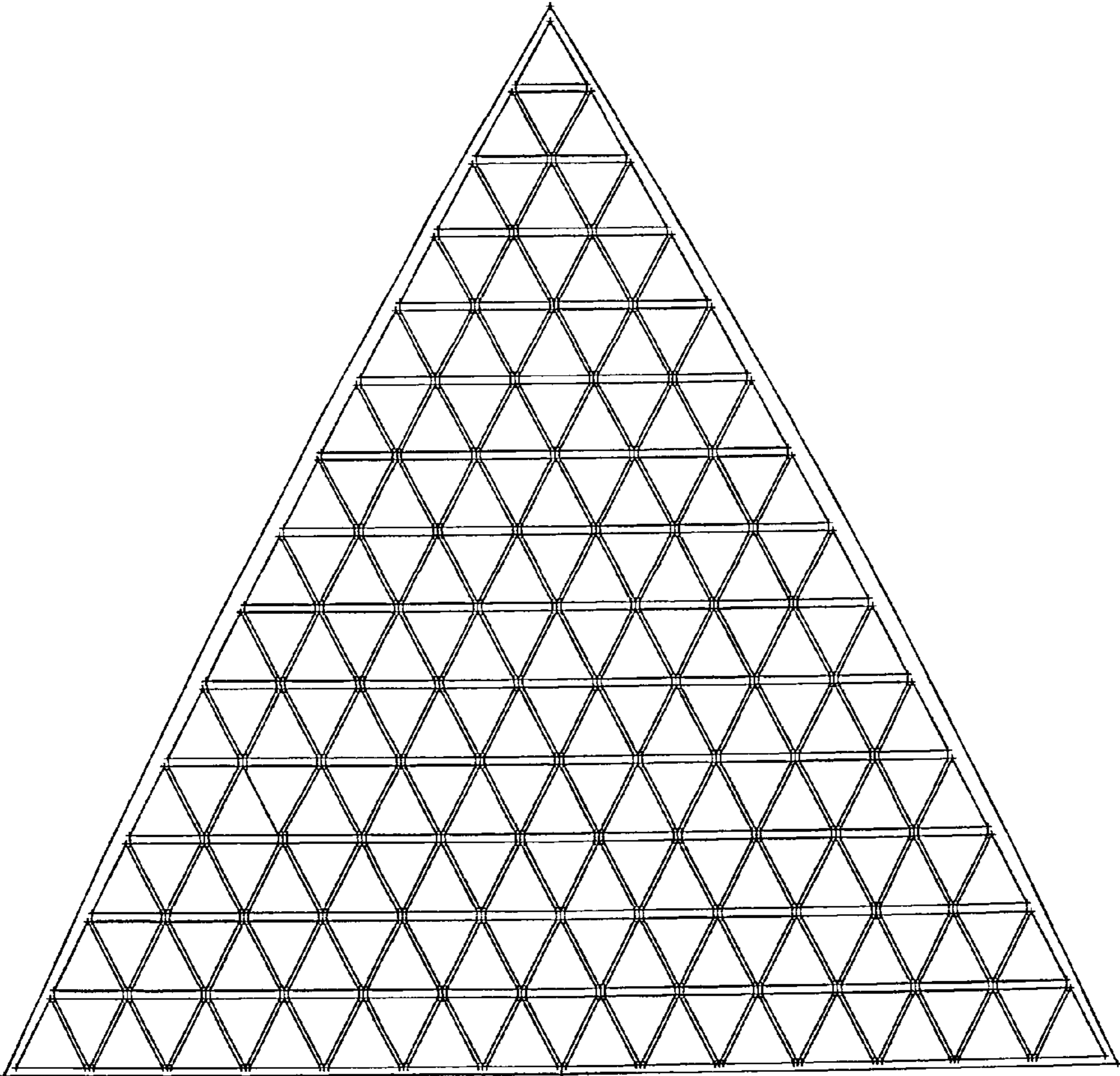


FIG 17

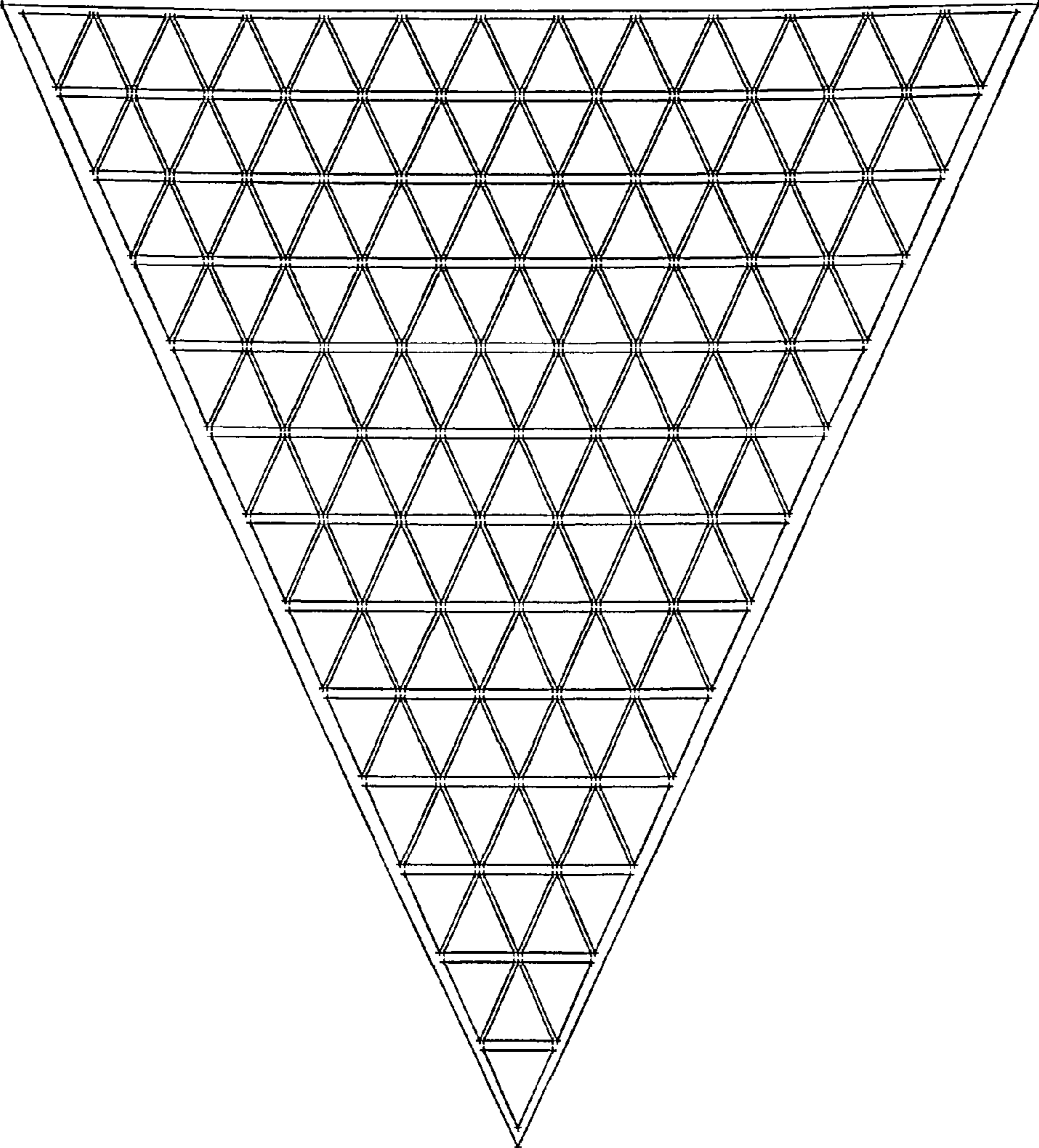


FIG 18

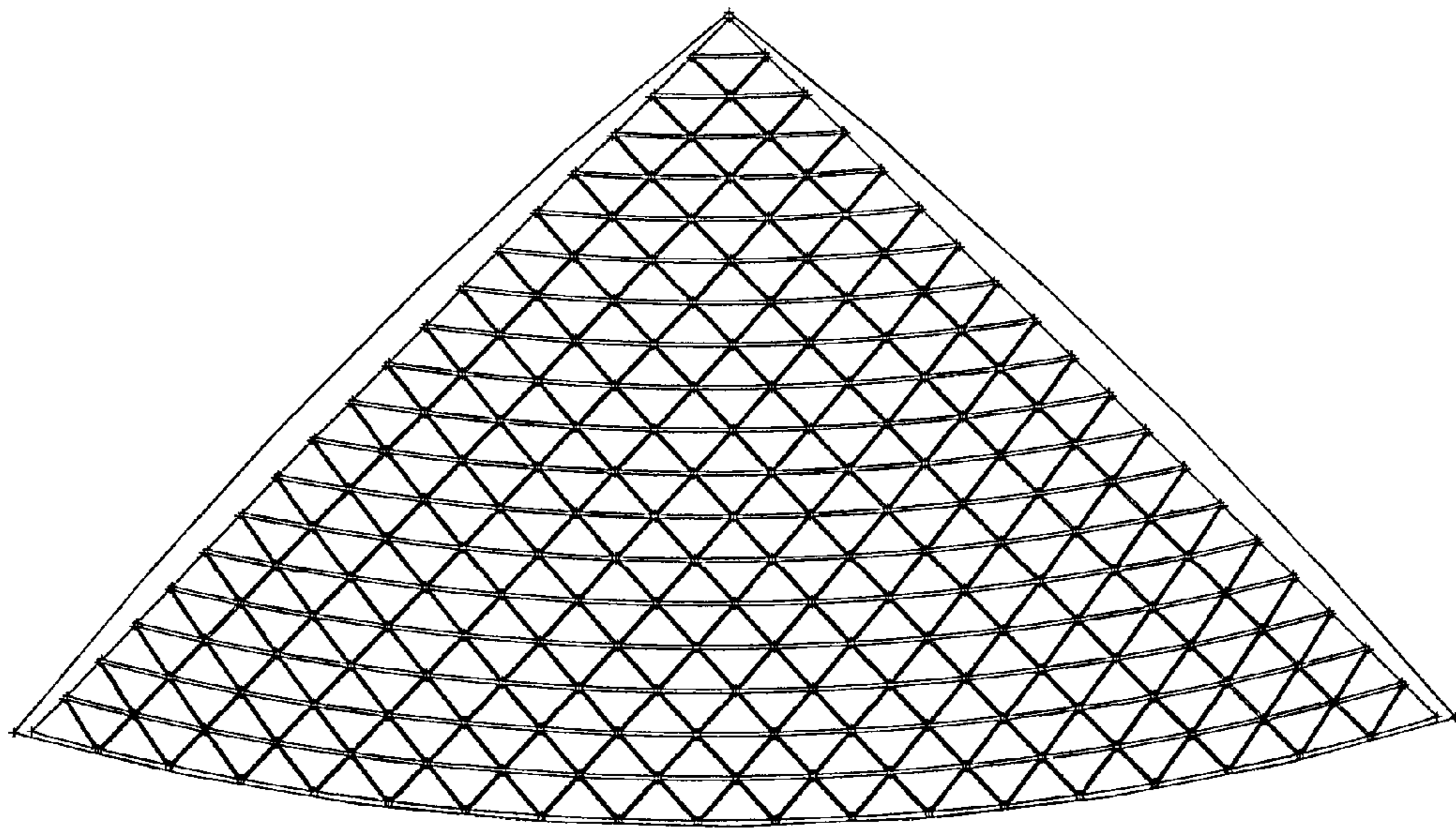


FIG 19

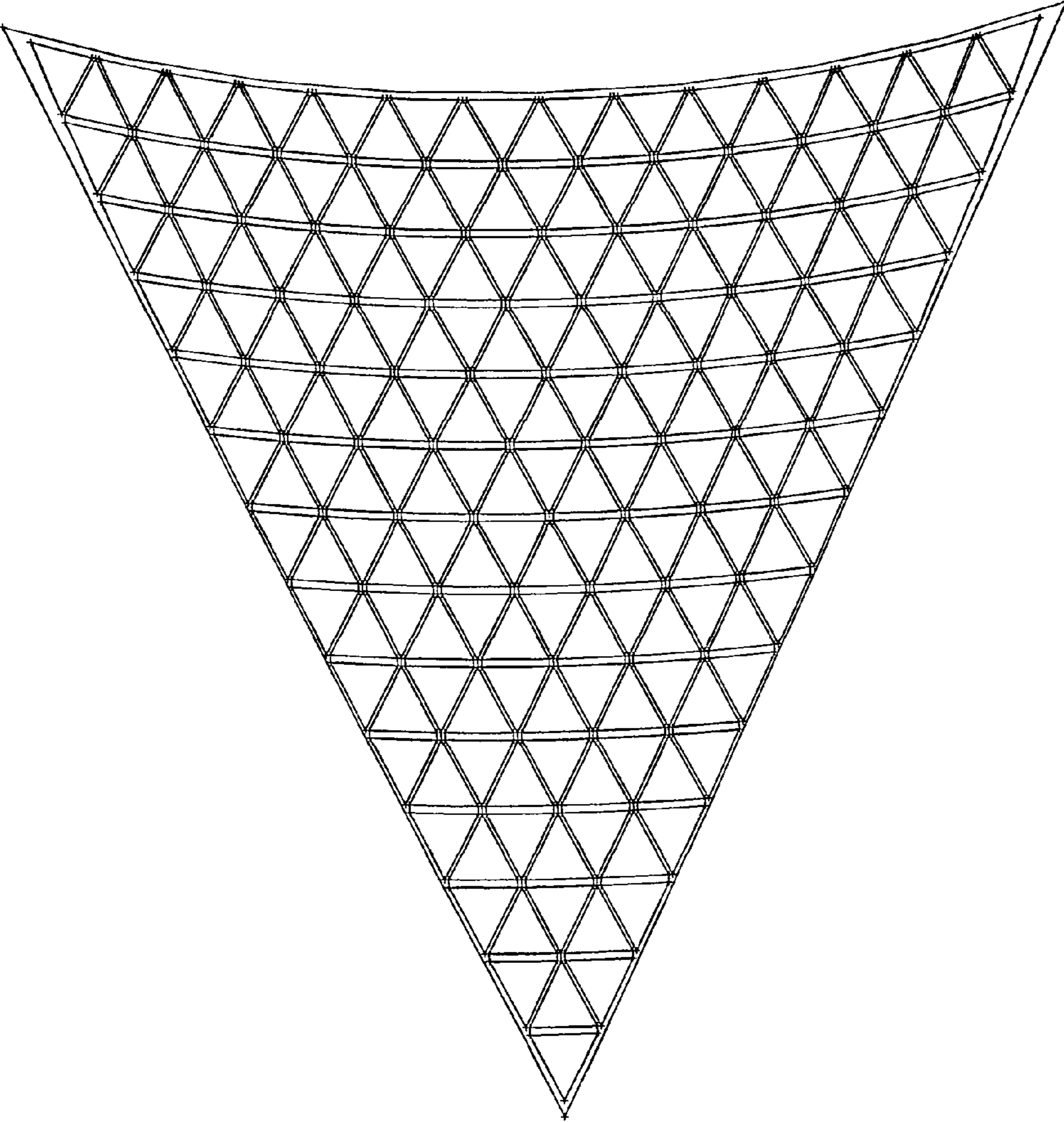


FIG 20

