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

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(45) **Date of Patent:** **\*\* May 1, 2012**

(54) **TRI-PLANE ANTENNA**

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

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(51) **LOC (9) Cl.** ..... **14-03**

(52) **U.S. Cl.** ..... **D14/230**

(58) **Field of Classification Search** ..... D14/138, D14/230-238, 299, 358; D12/42, 43; 343/700 MS, 343/700 R-705, 711-713, 735, 736, 741, 343/748, 767, 795, 819, 840, 846, 866, 871-908; 455/90.2, 90.3, 91, 128, 269, 344, 347, 562.1; 333/193, 195

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D401,243 S *	11/1998	Guttadauro	.....	D14/230
D427,183 S	6/2000	Chrisey et al.		
D440,960 S	4/2001	Barber		
6,404,394 B1 *	6/2002	Hill	.....	343/702
D492,671 S *	7/2004	Shibano et al.	.....	D14/230
6,946,997 B2 *	9/2005	Yuanzhu	.....	343/700 MS
7,148,851 B2 *	12/2006	Takaki et al.	.....	343/702
D570,800 S	6/2008	Chen et al.		
D581,912 S	12/2008	Blair, Jr.		

7,564,424 B2 *	7/2009	Umehara	.....	343/895
2007/0109203 A1 *	5/2007	Park et al.	.....	343/702
2009/0051596 A1 *	2/2009	Wen et al.	.....	343/700 MS
2009/0051615 A1 *	2/2009	Wen et al.	.....	343/860

\* cited by examiner

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(57) **CLAIM**

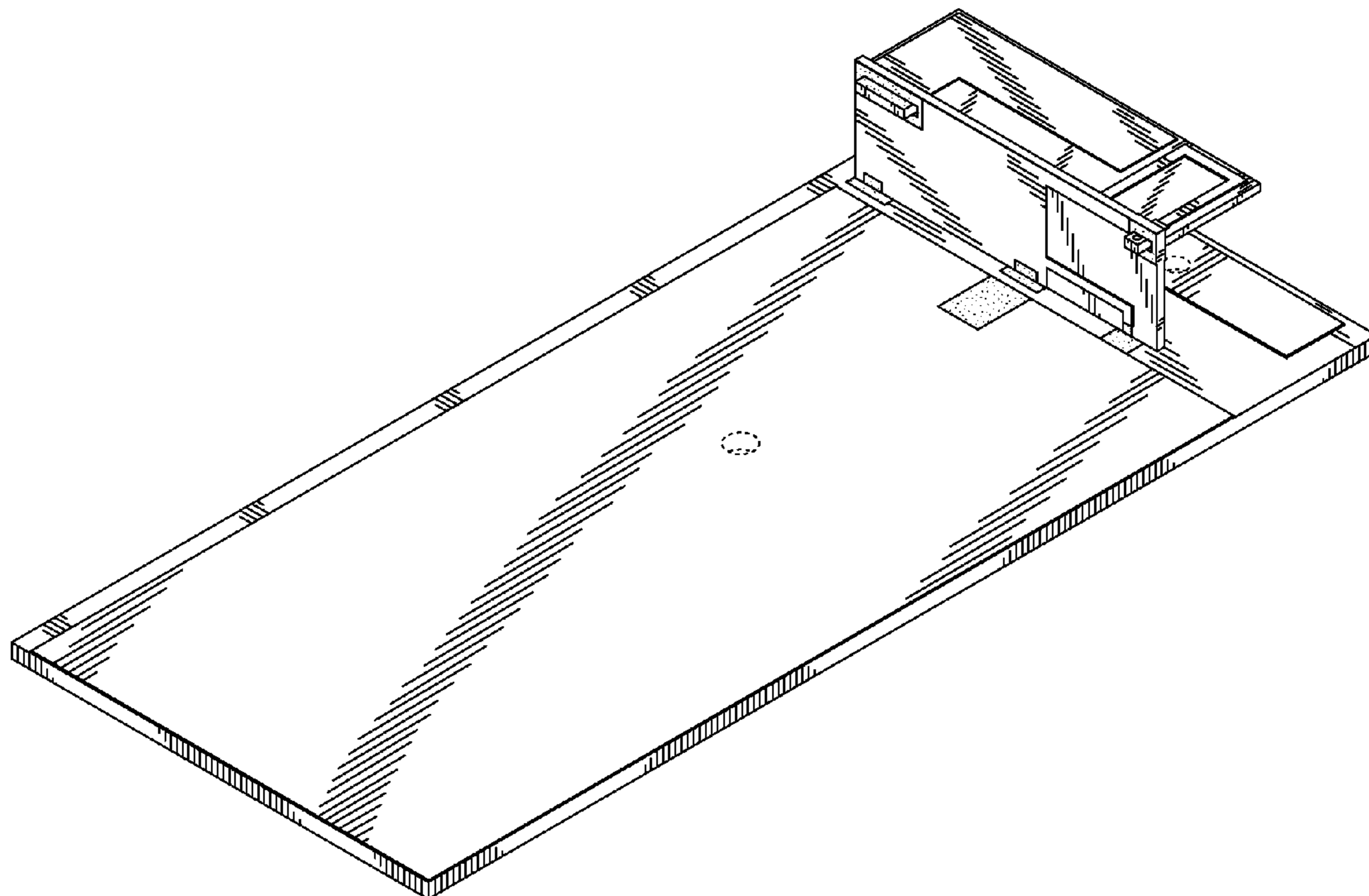
I claim the ornamental design for a tri-plane antenna, as shown.

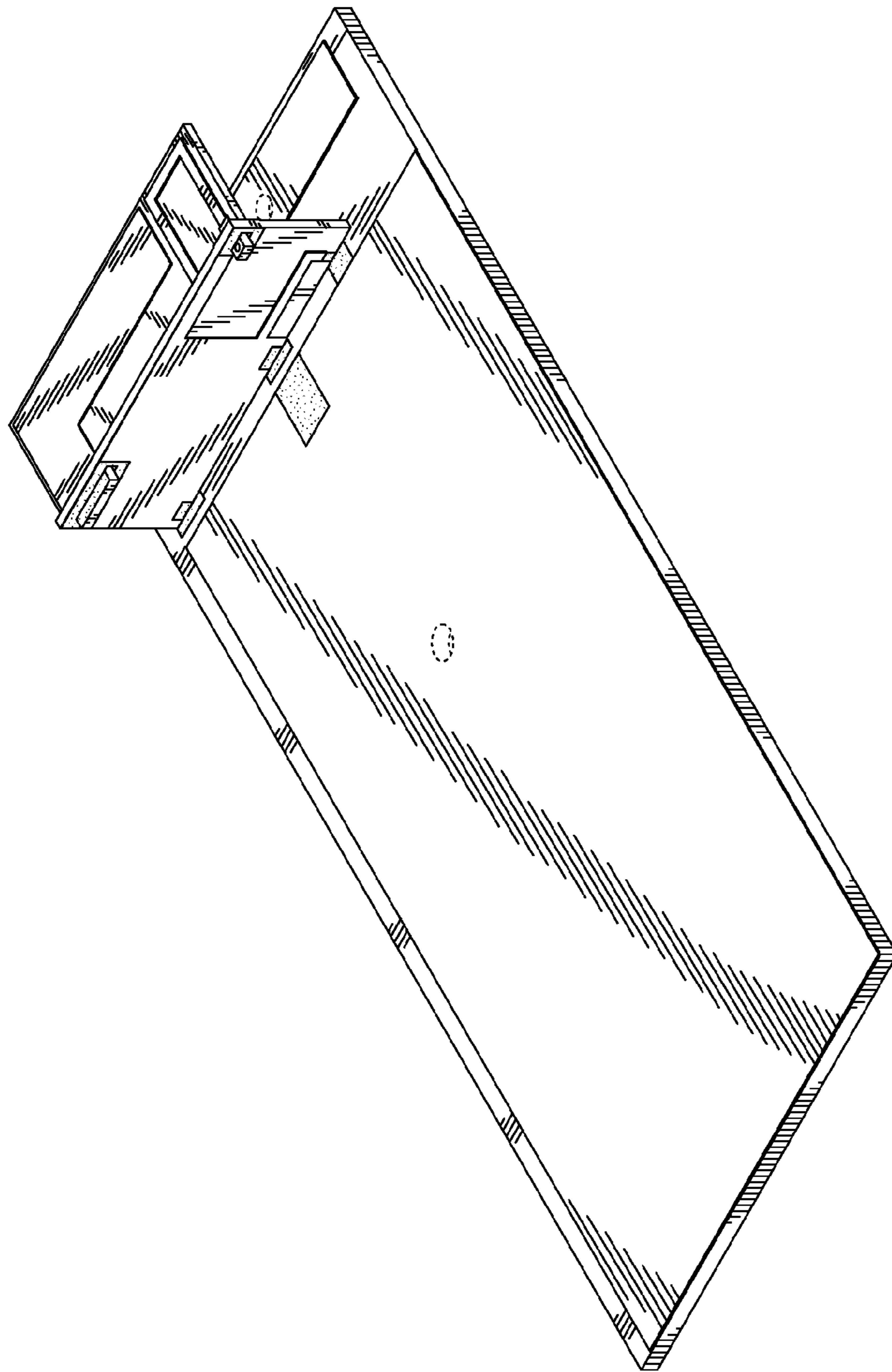
**DESCRIPTION**

FIG. 1 is a front perspective view of a tri-plane antenna depicting my new design;  
 FIG. 2 is a right-side elevation view of the tri-plane antenna of FIG. 1;  
 FIG. 3 is a front elevation view of the tri-plane antenna of FIG. 1;  
 FIG. 4 is a top plan view of the tri-plane antenna of FIG. 1;  
 FIG. 5 is a bottom plan view of the tri-plane antenna of FIG. 1;  
 FIG. 6 is a rear elevation view of the tri-plane antenna of FIG. 1; and,  
 FIG. 7 is a left-side elevation view of the tri-plane antenna of FIG. 1.

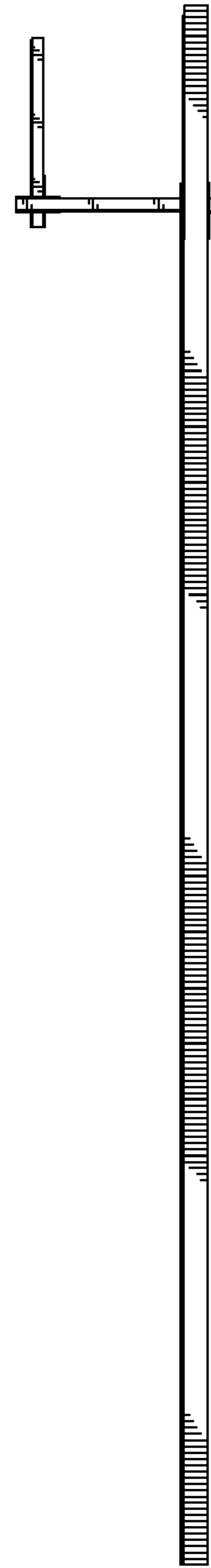
The stippling in the figures indicates a contrasting material.

**1 Claim, 4 Drawing Sheets**

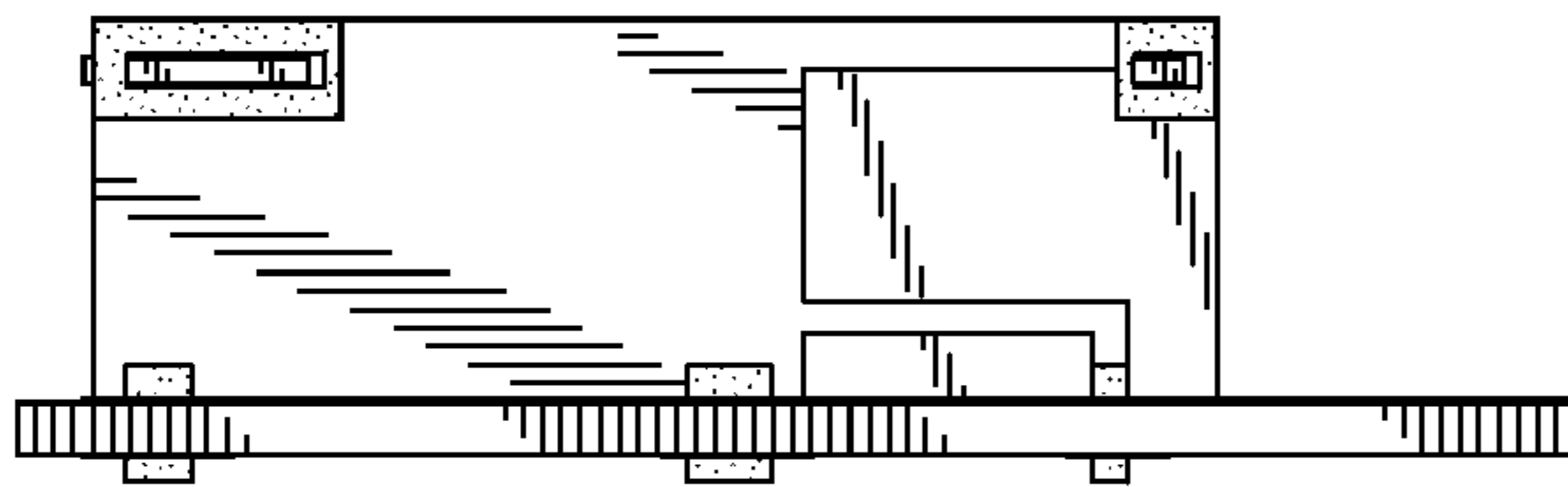




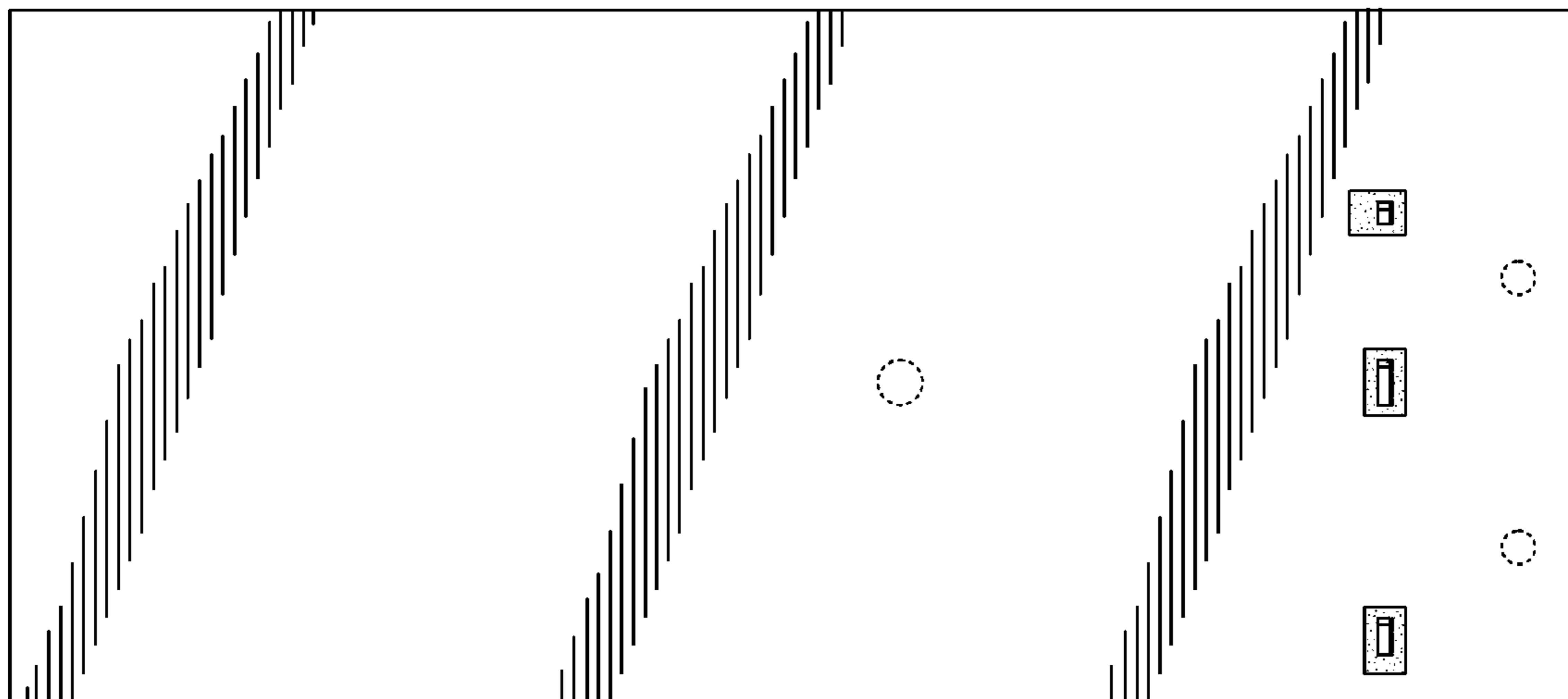
*Fig. 1*



*Fig. 2*

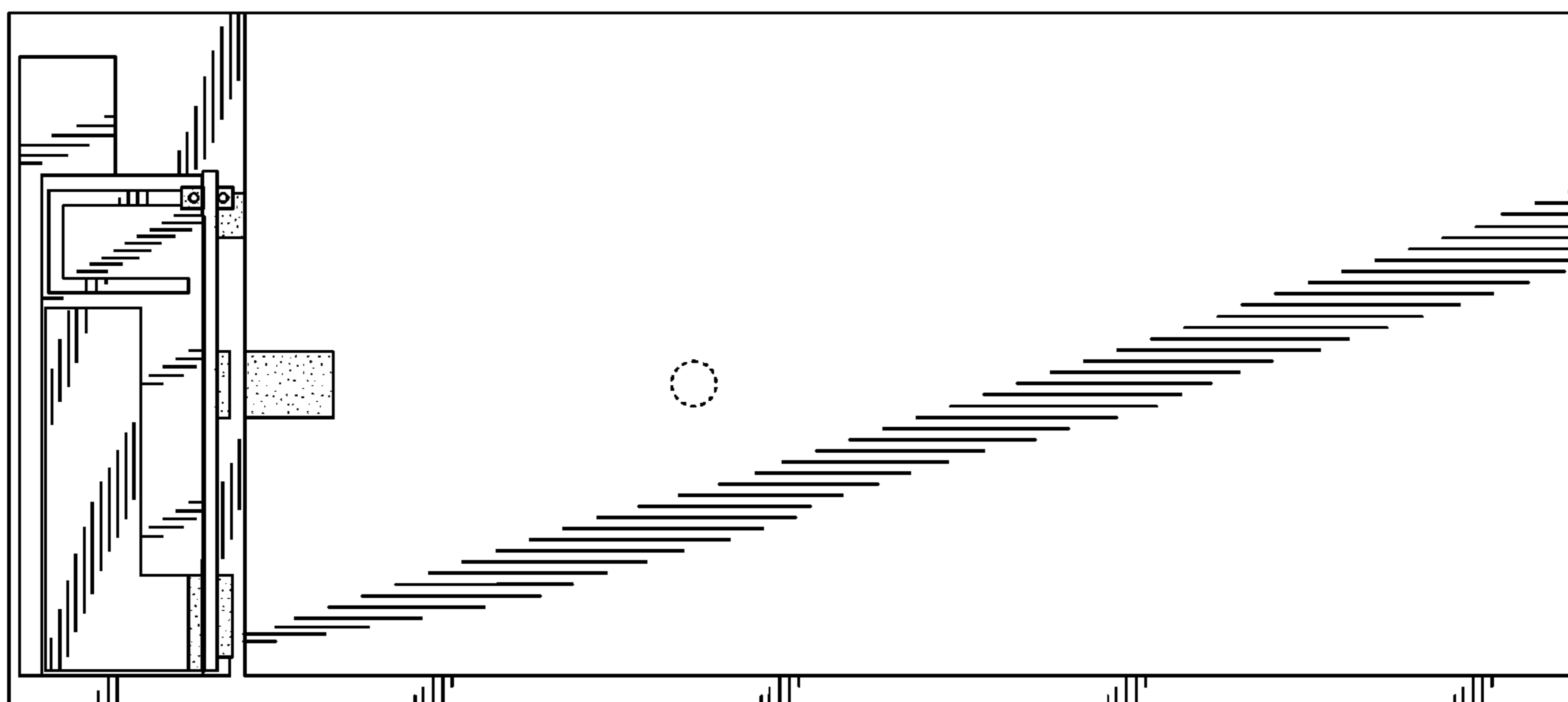


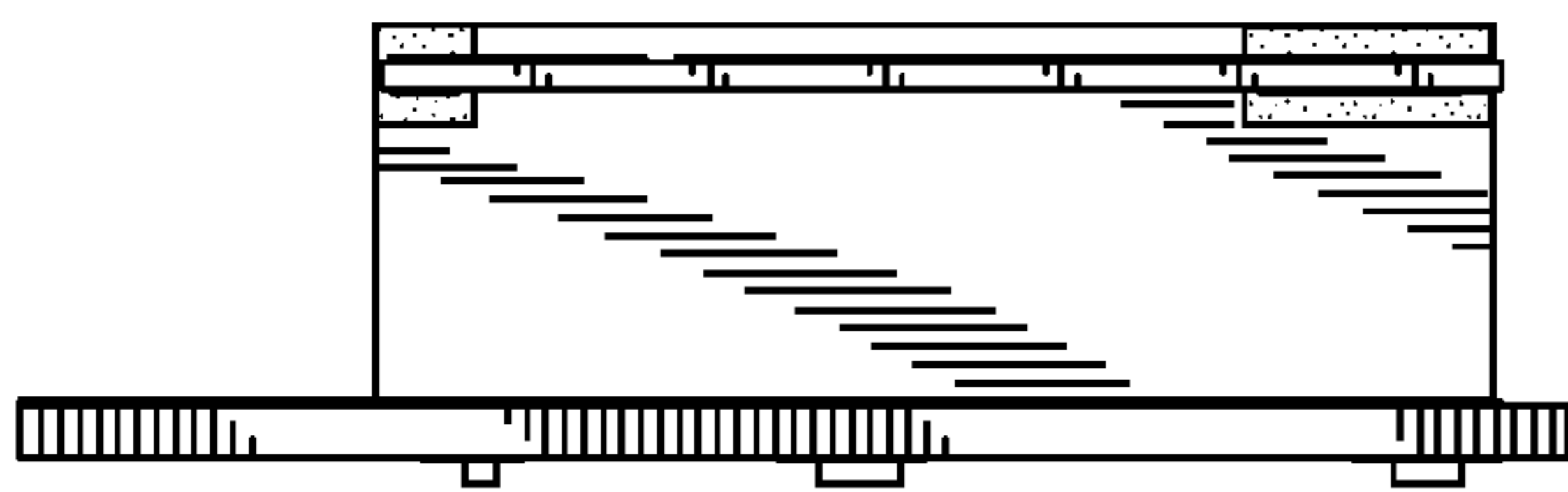
*Fig. 3*



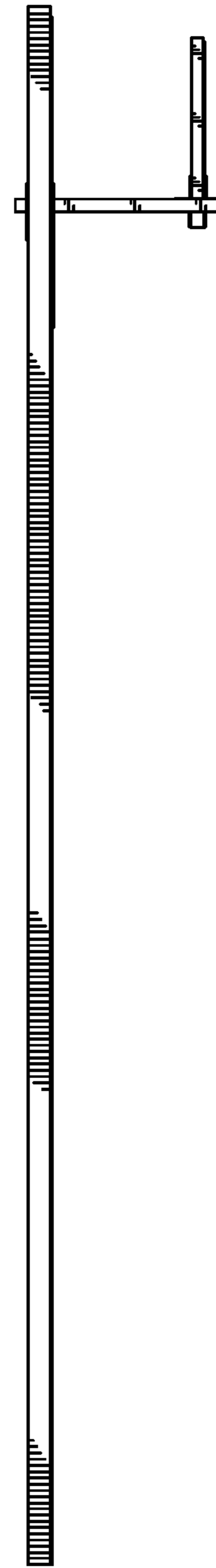
*Fig. 5*

*Fig. 4*





*Fig. 6*



*Fig. 7*