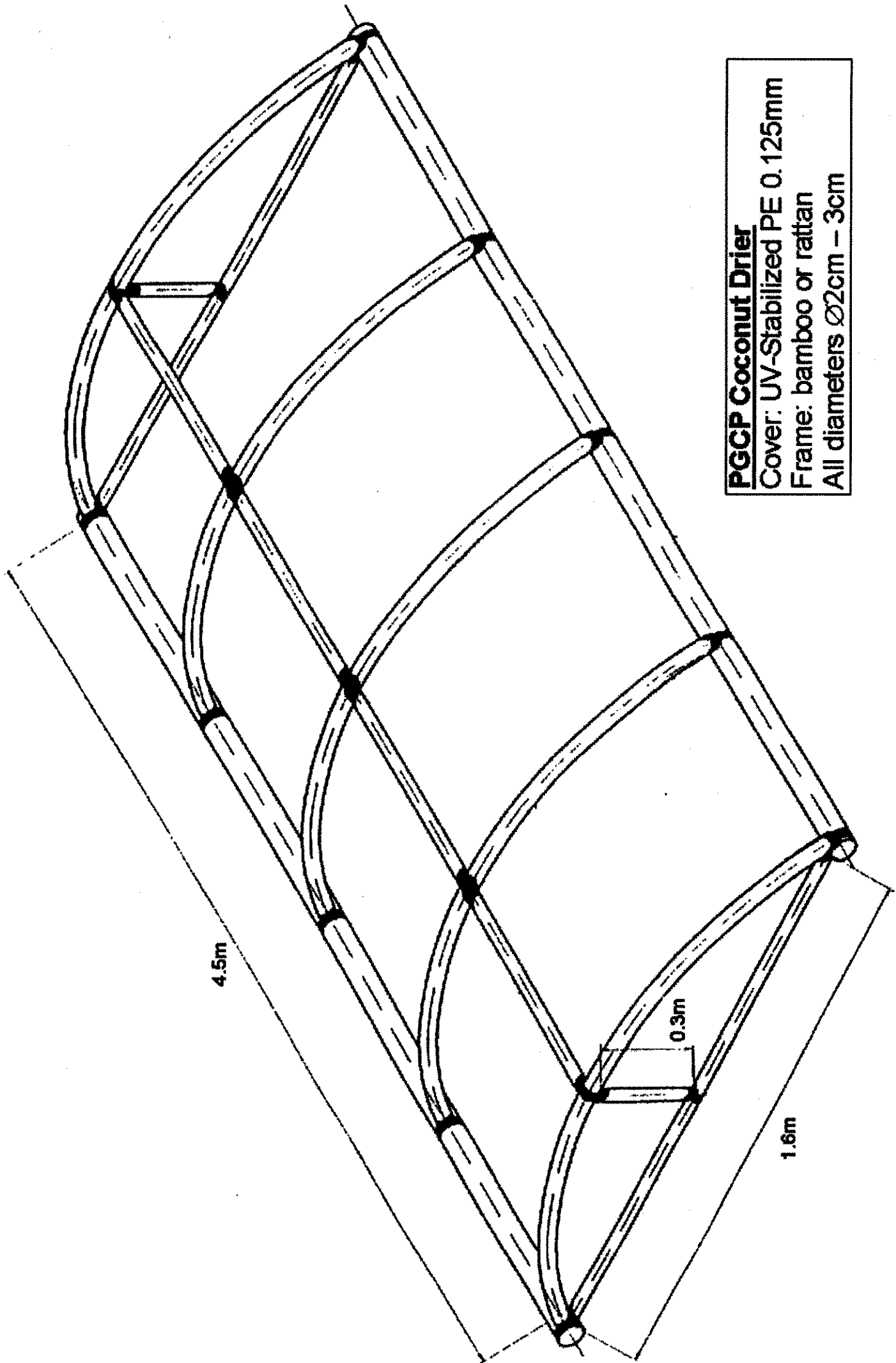


# Solar Drier Plans: Kenya Black Box Drier and PGCP Coconut Drier

Compiled by **Matthew G. Green & Dishna Schwarz (2001)**

Technical Field:	
<input checked="" type="checkbox"/>	Energy / Environment (E)
<input type="checkbox"/>	Water / Sanitation (W)
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Note: For the operating characteristics of these driers, please refer to GATE Technical Information E15e, "Solar Drying Equipment: Notes on Three Driers" by the same authors.



**PGCP Coconut Drier**  
Cover: UV-Stabilized PE 0.125mm  
Frame: bamboo or rattan  
All diameters  $\varnothing$ 2cm – 3cm

# Construction Notes for the PGCP Coconut Drier

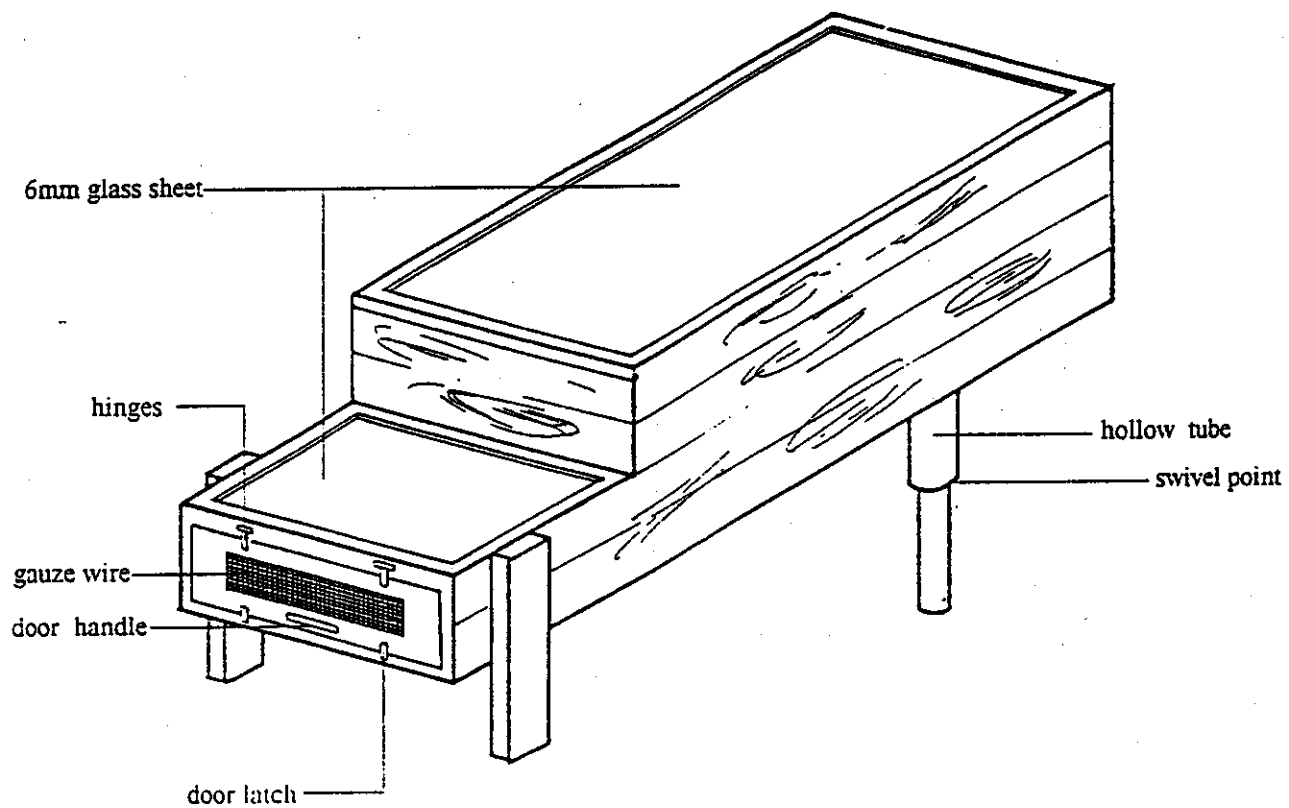
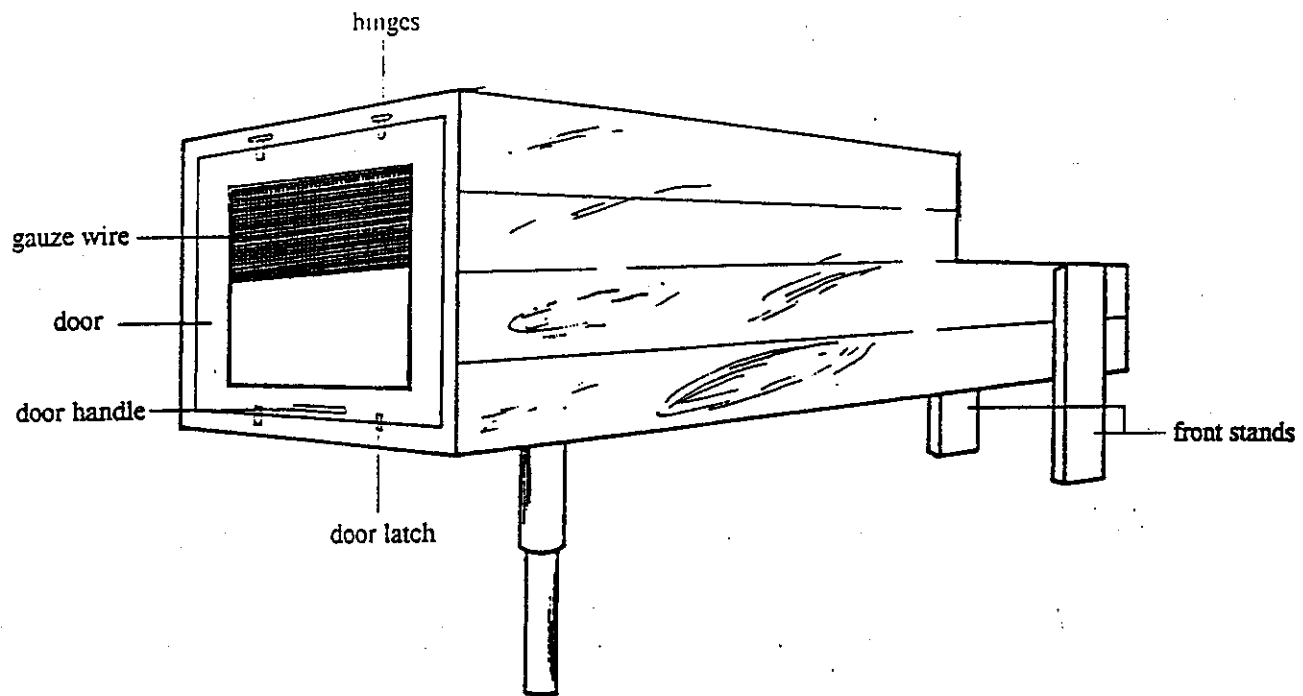
*Frame.* Bamboo was the least expensive material for the frame in the Philippine project. With bamboo, the slats comprising the arcs are attached to the horizontal frame by cutting a slit just large enough to insert the slats. With rattan, this is done by making splits and ties.

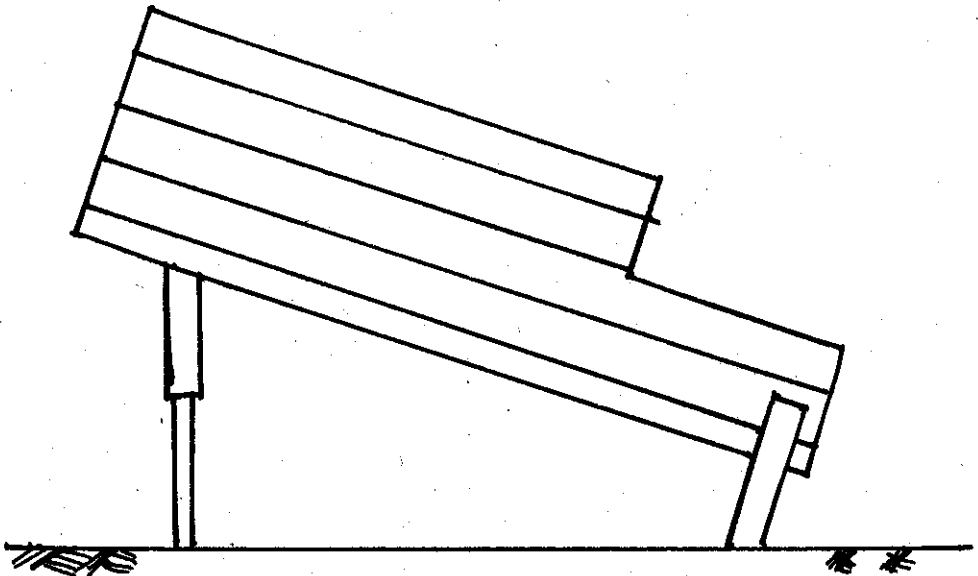
*Cover.* UV-protected polyethylene (PE) sheets are recommended for the cover. The study conducted showed that PE sheets accumulated less dust and stayed serviceable even after 31 months of use.

*Materials.* Note that the materials list in Table 1 is for a 68" X 120" X 12" drier.

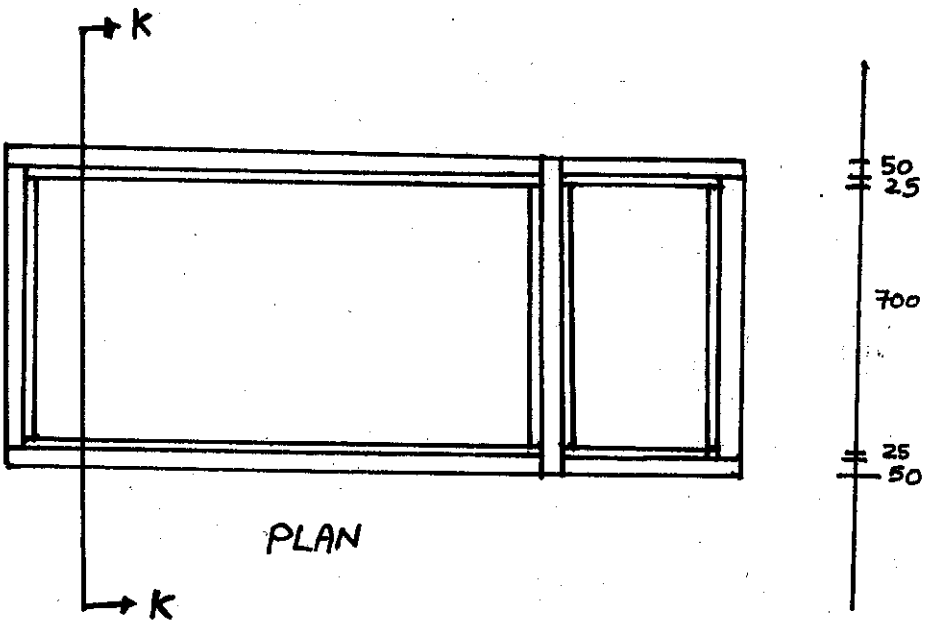
**Table 1: Materials for a 68" X 120" X 12" drier.**

<b>Quantity</b>	<b>Item</b>
1 pc	Bamboo pole - 7.5' long, 3" diam.
3 pcs	Bamboo pole - 10' long, 3" diam.
1 pc	Bamboo pole - 6' long, 2" diam.
3.25 m	0.125mm X 240 cm UV-protected PE sheet
0.25 Kg	1" common wood nails
0.25 Kg	2" common wood nails
165 sq. in.	Canvas strip ( 0.45 mm t )
85 pcs	0.5" X 10 mm staple wires

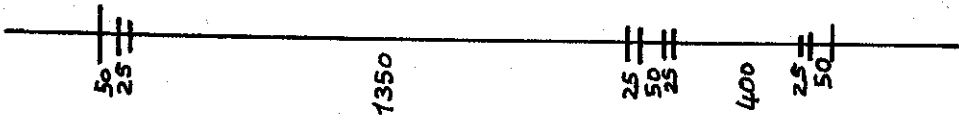


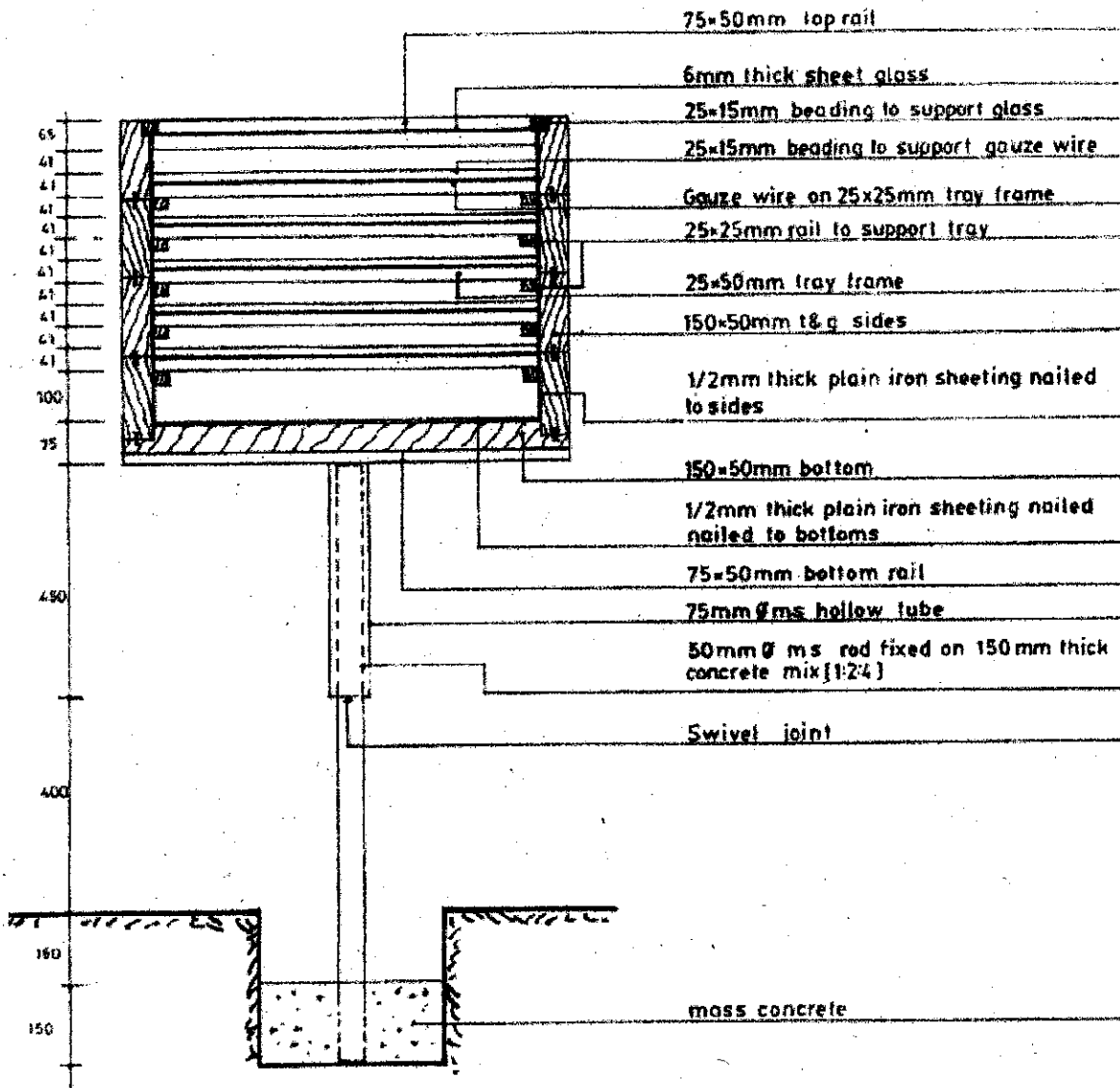


SIDE ELEVATION

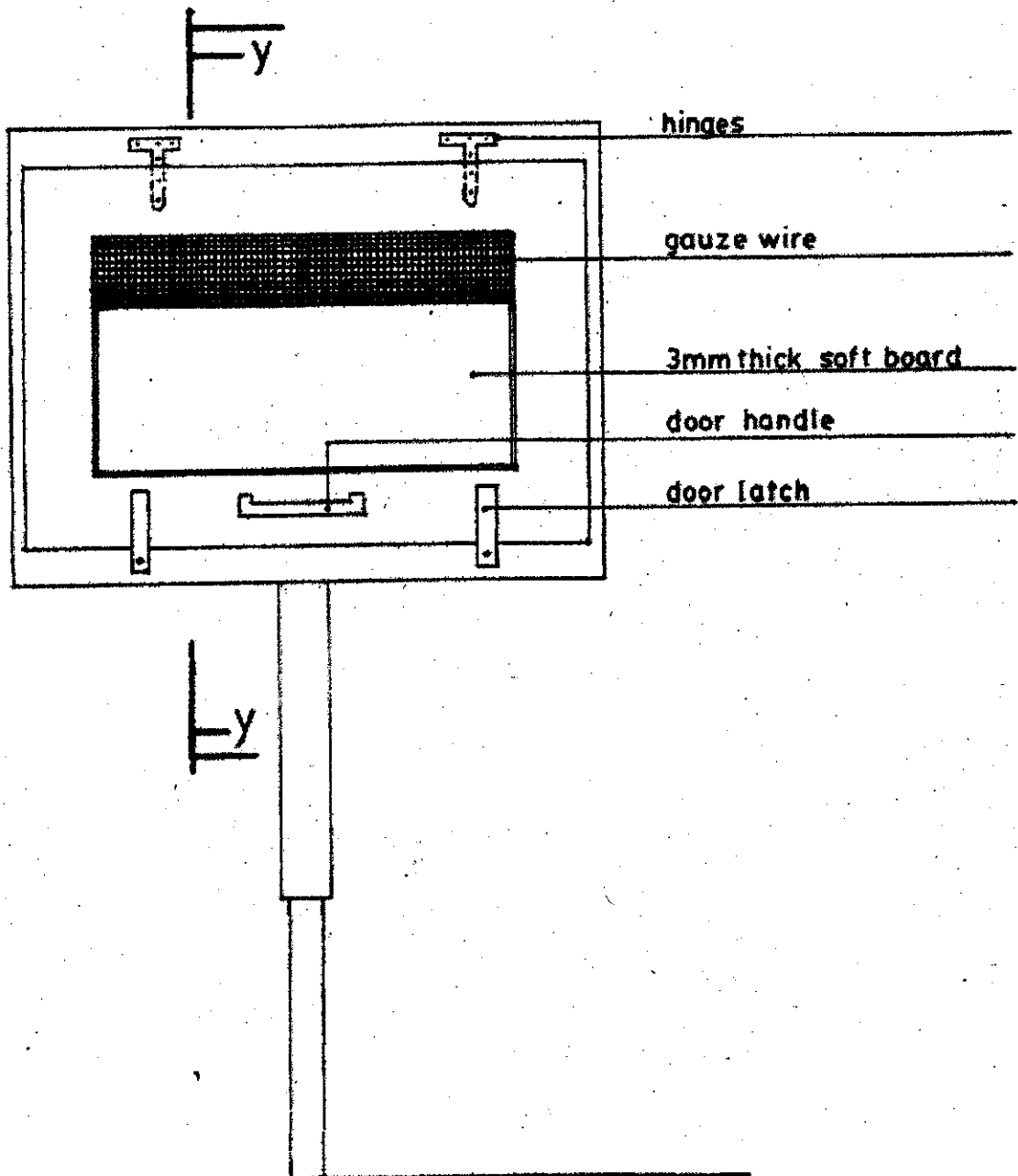


PLAN

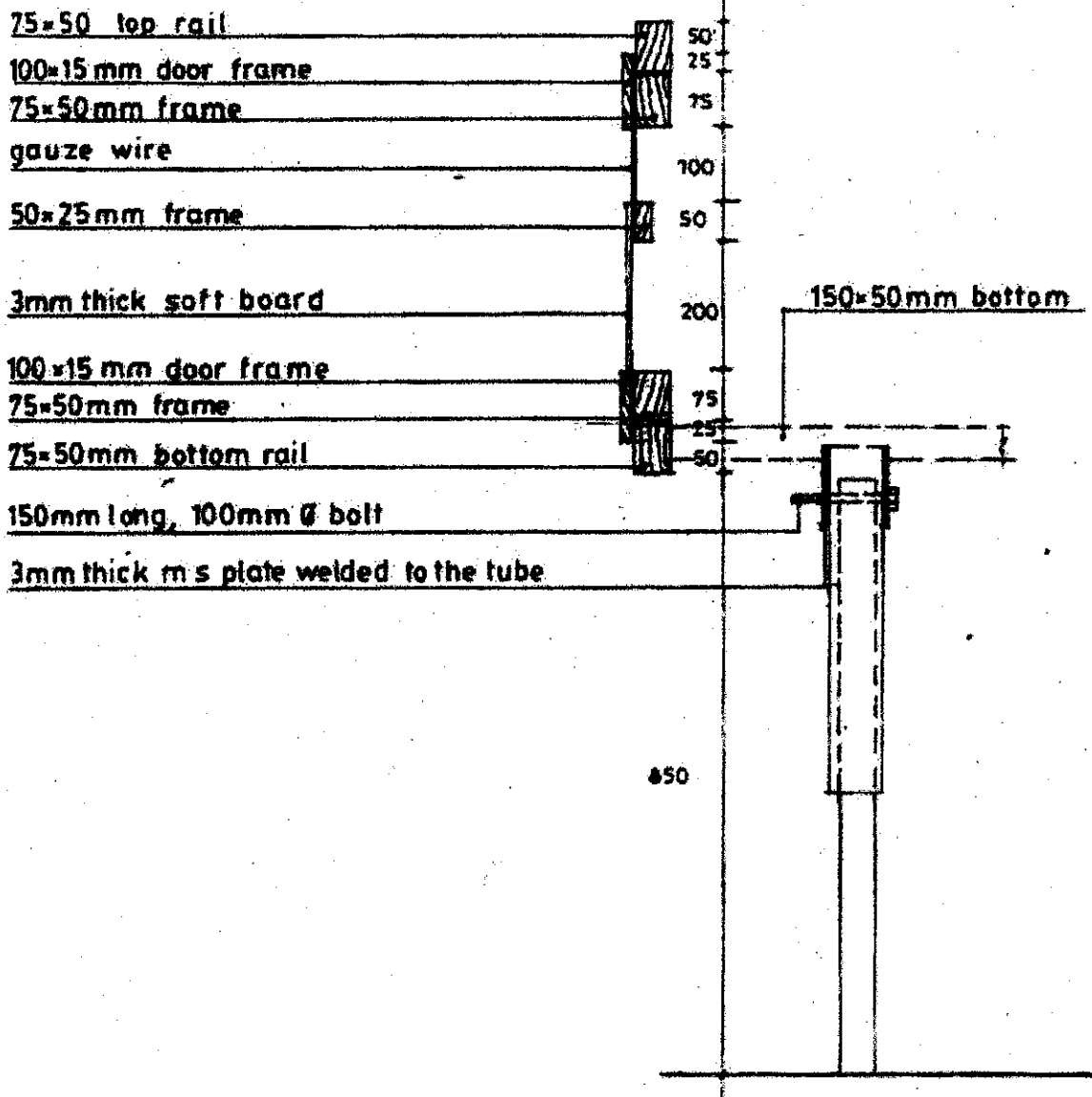




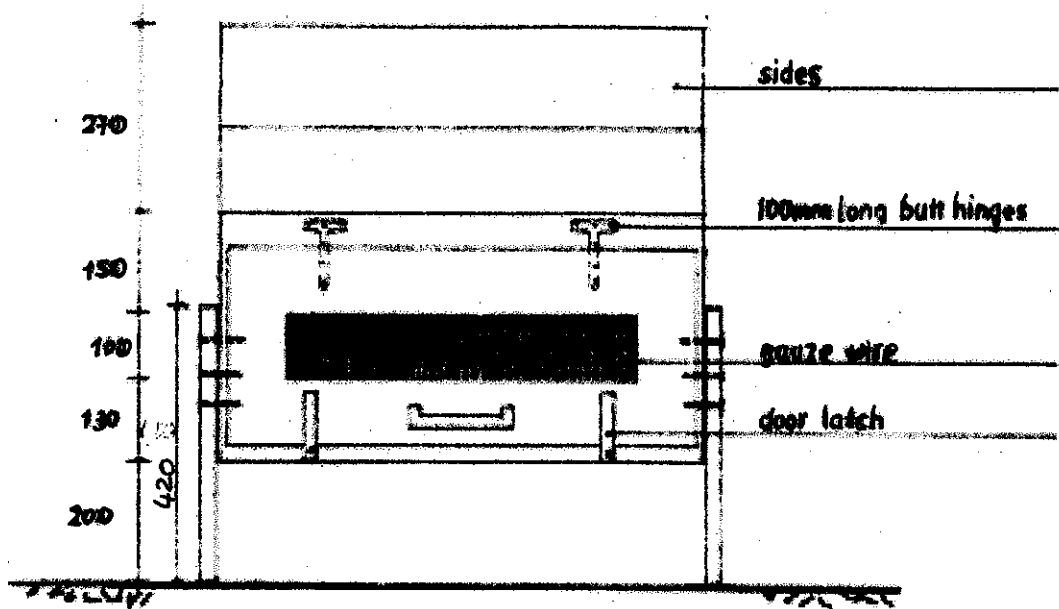
Section K-K



Front Elevation

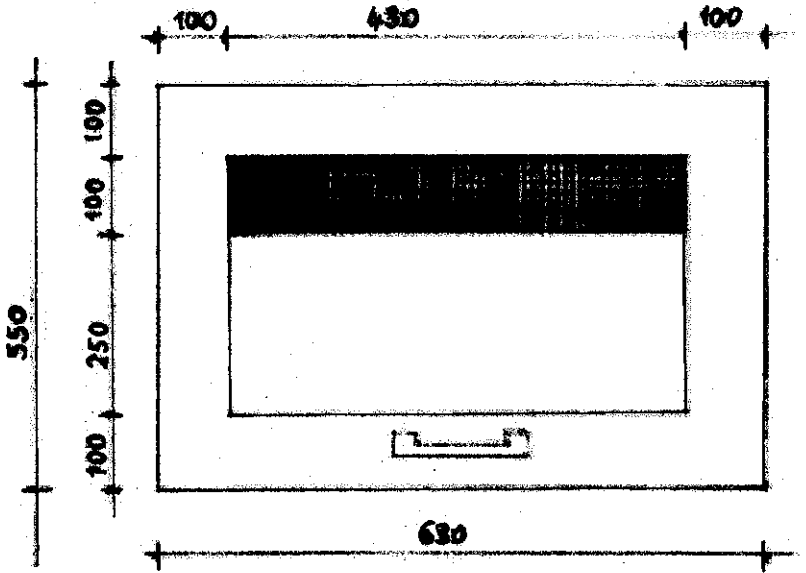


Section thr'o y-y

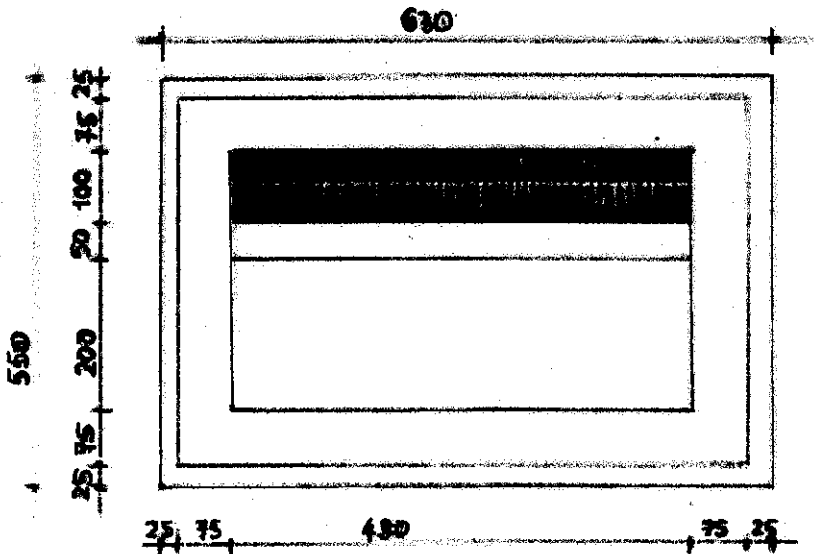


Back Elevation

# front door details



## elevation from outside



## elevation from inside