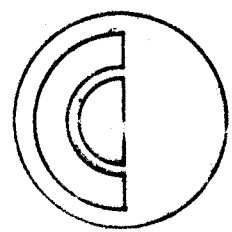
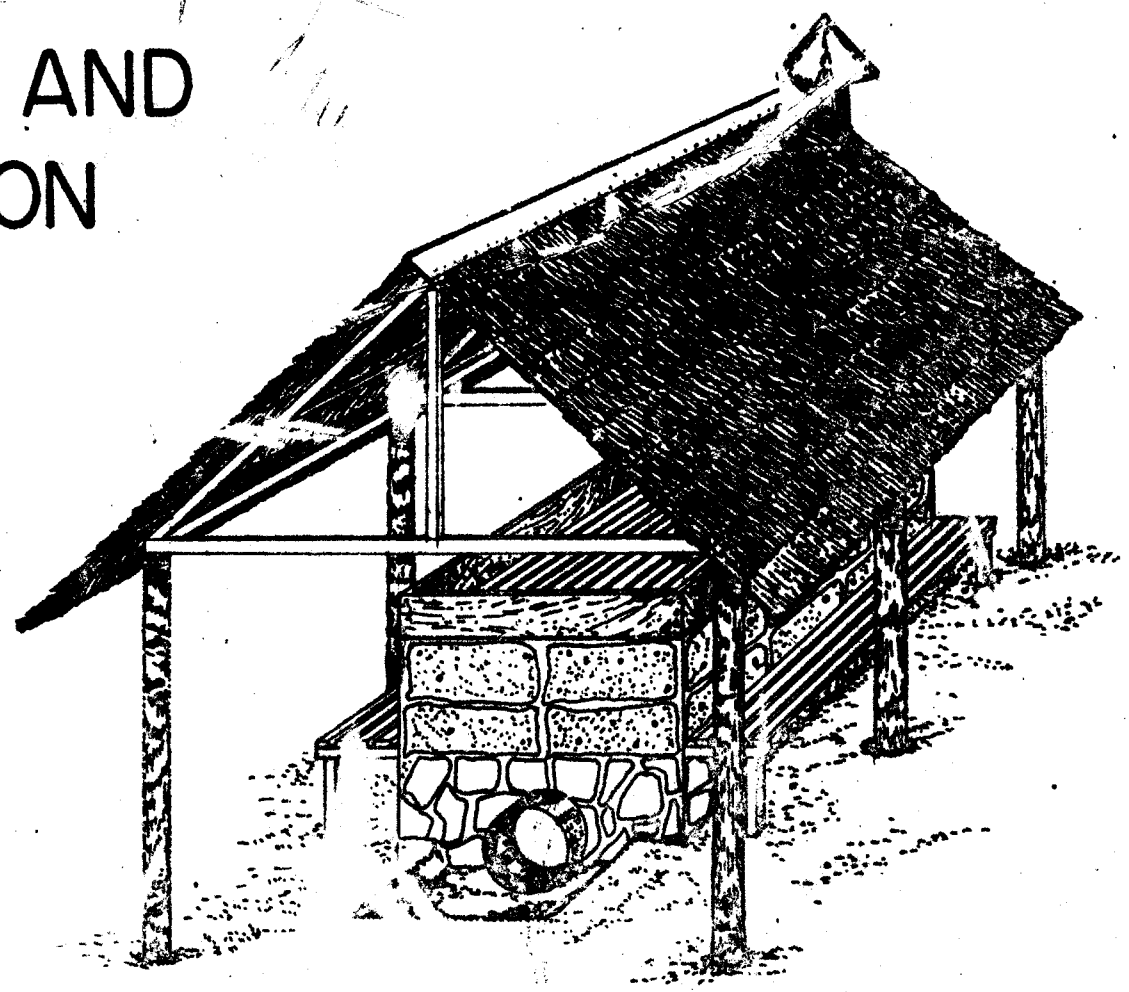


LIBRARY,  
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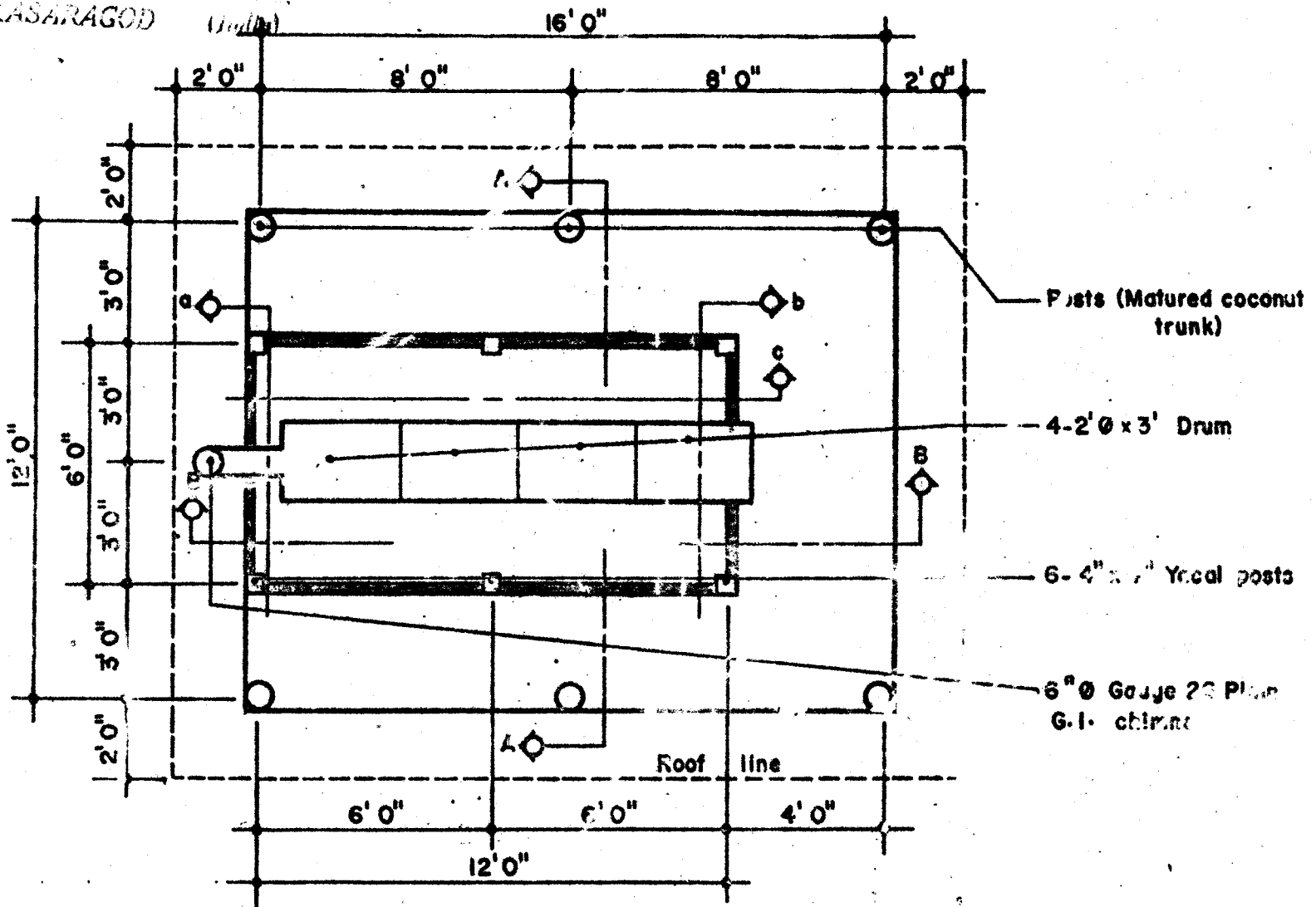
RP 422

# SKETCHES AND CONSTRUCTION PLAN OF AN IMPROVED COPRA DRYER

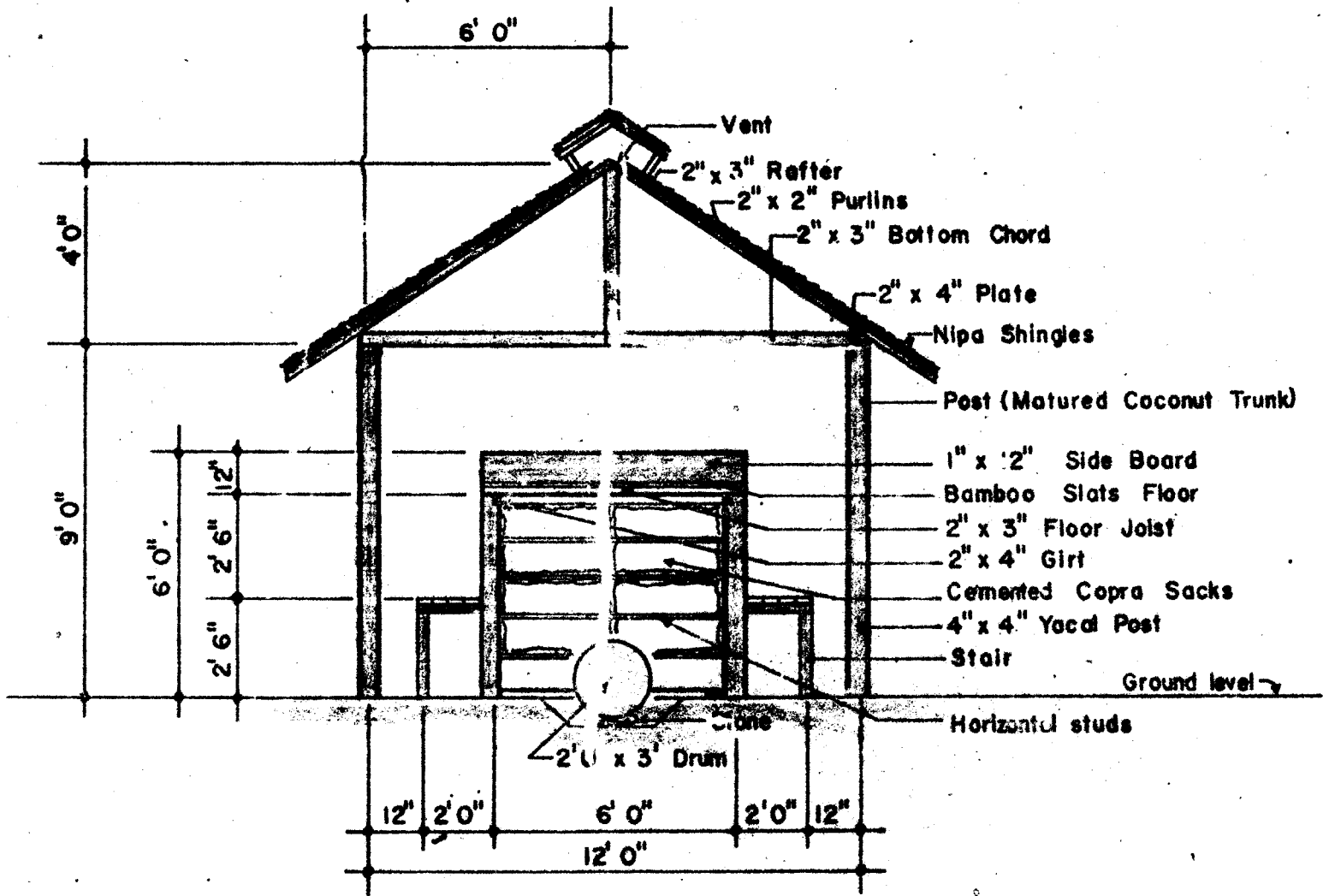


PHILIPPINE COCONUT AUTHORITY  
AGRICULTURAL RESEARCH BRANCH  
Bago Street, Davao City  
P. O. Box 295

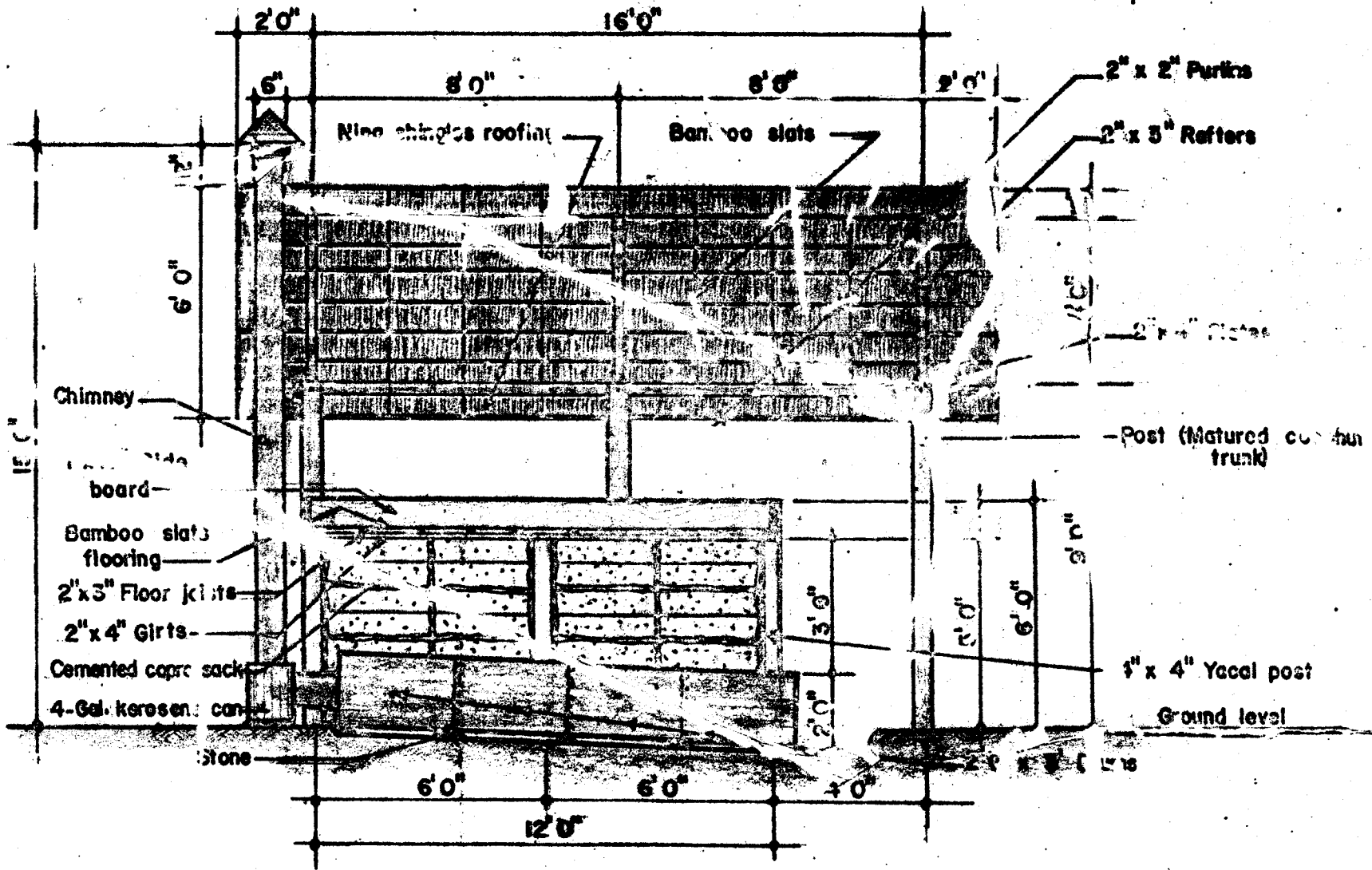
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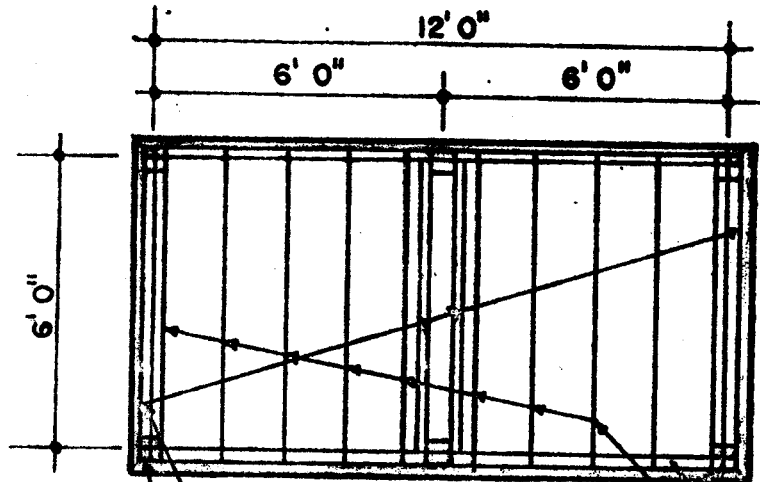
**FOUNDATION & FLOOR PLAN**  
 Scale 1/4" = 1'



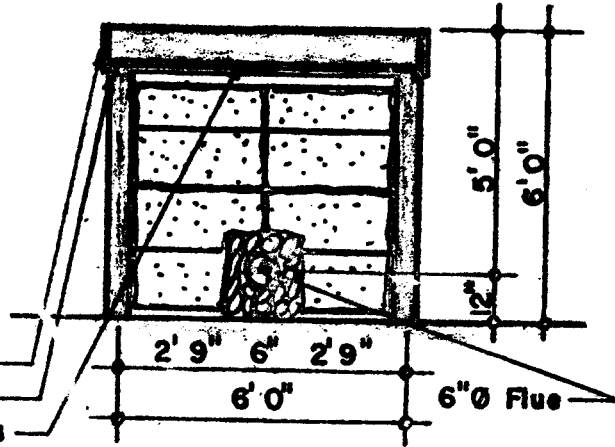
SECTION A-A  
Scale 1/4" = 1'



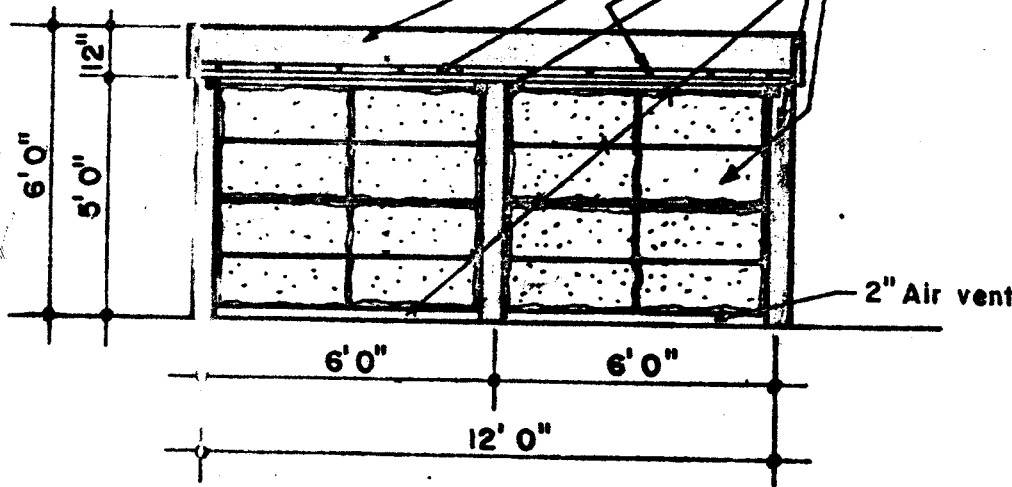
SECTION B-B  
 Scale 1/4"=1'



FLOOR FRAMING PLAN  
Scale 1/4" = 1'

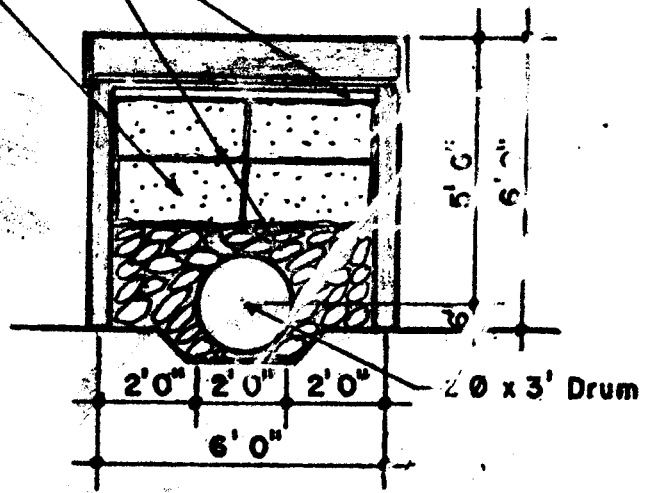


SECTION a  
Scale 1/4" = 1'

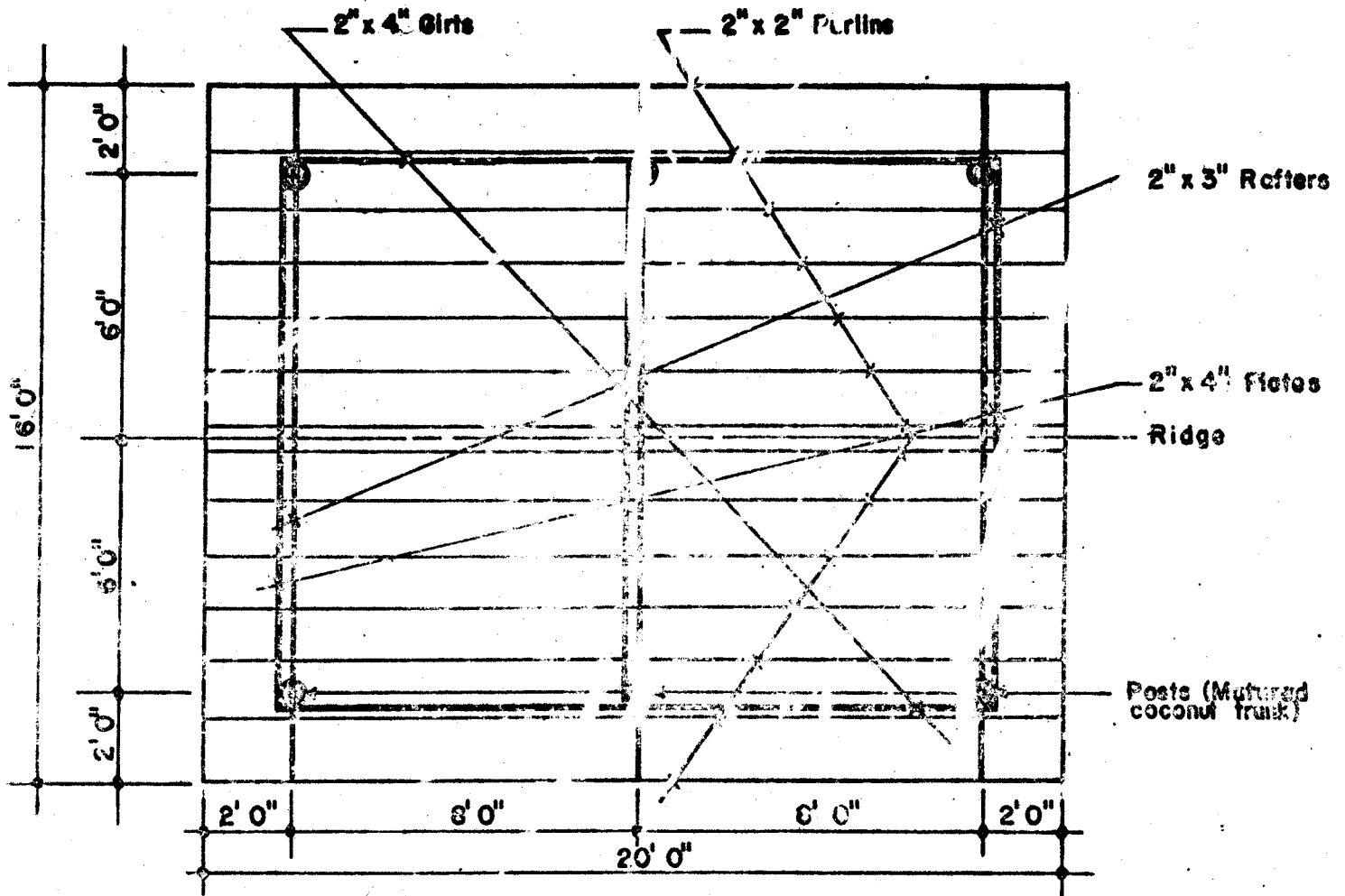


SECTION c  
Scale 1/4" = 1'

- 1" x 12" Side board
- 2" x 4" Girts
- 2" x 3" Floor joists
- 2" x 4" Plates
- 4" x 4" Yocal posts
- Bamboo slats studding
- Copra sacks



SECTION b  
Scale 1/4" = 1'



ROOF FRAMING PLAN  
 Scale 1/4" = 1'

## OPERATING PROCEDURE

### A. NUT PREPARATION:

1. Husk fully matured nuts only
2. Split dehusked nuts into halves and drained completely of nut water
3. Arrange the split nuts in the drying platform, so that the first two bottom layers have the meat facing up
4. The succeeding layers are placed with the meat facing down in a brick formation until it reaches the height of the drying platform
5. Cover the entire top portion of the drying platform with knitted jute/copra sacks

### B. FIRING:

1. Start firing right after the covering of the knitted jute/copra sacks
2. Use readily available, inexpensive or less valuable fuel i. e. coconut husk, dry firewoods, coconut shell
3. Place the lighted fuel inside the flue or fire tunnel and continue firing until the desired dryness of the product is attained usually after 10 - 20 hours

## CONSTRUCTION NOTES

- The dryer is generally erected on a fairly elevated place where water may not stagnate during flood and rains
- The sidings of the drying platform may be increased to a total height of 1½ feet to accommodate a maximum capacity of 2,000 nuts
- The dryer can still be modified to some extent to suit local conditions and using locally available construction materials

## ESTIMATED BILL OF MATERIALS

"LAUAN-HOT-AIR DRYER

1,000 NUTS CAPACITY

DESCRIPTION OF MATERIALS

<u>DESCRIPTION OF MATERIALS</u>		<u>DRIER (QTY)</u>	<u>SHED (QTY)</u>
1. Posts	8" $\emptyset$ x 12' matured coconut trunk/rough poles		6 pcs
	4" x 4" x 8' Yacal	6 pcs.	
2. Plates	2" x 4" x 6' Apitong	3 pcs.	
	2" x 4" x 12' Apitong		3 pcs.
3. Girts	2" x 4" x 12' Apitong	2 pcs.	
	2" x 4" x 16' Apitong		2 pcs.
4. Roofing:	42" long Nipa shingles		384 pcs.
	4" $\emptyset$ size bamboo		5 pcs.
	Long size rattan		4 bundles
5. Floor joists	2" x 3" x 6' Apitong	10 pcs.	
6. Side board	1" x 12" x 12' Apitong	2 pcs.	
	1" x 12" x 6' Apitong	2 pcs.	
7. Studdings	4" $\emptyset$ bamboo	3 pcs.	
8. Flooring	4" $\emptyset$ bamboo	4 pcs.	
9. Stair: Posts	4" $\emptyset$ x 4' round poles	6 pcs.	
Joists	2" x 3" x 16' Apitong	1 pc.	
Floor	2" x 4" x 12' Apitong	8 pcs.	
10. Rafter & cross bracing for top roof	2" x 3" x 12' Apitong		4 pcs.
11. Rafter	2" x 3" x 10' Apitong		6 pcs.
12. Purlins	2" x 2" x 10' Lauan		32 pcs.
13. Bottom chord	2" x 3" x 12' Apitong		3 pcs.
14. King posts	2" x 3" x 12' Apitong		1 pc.
15. Cross bracing	2" x 3" x 12' Apitong		1 pc.
16. Chimney	# 26 x 8' Plain G. I. Sheets	3 pcs.	
17. Rivets (Aluminum)	3/16 $\emptyset$	1/4 kg.	
18. Gasoline Drum	2' $\emptyset$ x 3'	4 pcs.	
19. Cement		4 bags	
20. Jute sacks *	25 gantas capacity	50 pcs.	
21. Common wire nails	4" long	1 kg.	1 kg.
	3" long	1 kg.	1 kg.
	2" long	1 kg.	
	1-1/2" long	1/2 kg.	1/2 kg.
22. Form Lumber	1" x 10" x 12'	3 pcs.	

\* 16 pcs. for covering the entire top portion of the drying platform (See operating procedures, No. 5)