

COCONUT RESEARCH BOARD



LEAFLET No. 20

HOW TO MAKE A BARBECUE

Leaflet No. 15 of this series of pamphlets gives the plan, description and details for constructing a copra kiln on 3,000 coconut capacity on a coconut estate. A barbecue is part and parcel of a copra kiln. The split nuts before going into the kiln have to be spread out for a few hours for sun-drying. The absence of a barbecue to lay out the nuts tends to increase the percentage of grade 2 and grade 3 copra.

Details of construction

A sketch of a barbecue is given overleaf. The normal width of the barbecue is 30 feet. The length varies according to the size of the kiln and the maximum quantity of nuts intended to be split per day. For smaller kilns the length of the barbecue is normally the same as the length of the kiln and is situated in front of same.

The arrangement of retaining wall, drain, surrounding wall etc. are shown in the sketch. The top of the wearing surface at centre is 16 inches above ground level and the edges 12 inches above ground level. Water flows along the sloped surface to the openings shown on either side and enter the drain which leads the water away from the barbecue through a catch pit for disposal.

On determination of the length of the barbecue the foundation is marked on the ground with a width of 30 ft. internally. Trenches for foundation are cut along the edge of the area thus marked. The depth and width of the foundation depends on the soil at site. An average depth of 18" and width of 18" are sufficient for hard soil. An 18" wide wall is built above the foundation up to a height of 6" above ground level. Retaining wall and surrounding wall $4\frac{1}{2}$ " wide each are constructed above the 18" wall on either side of same leaving room at the centre to form the drain. The drain should be sloped to carry water and is 6" deep at the end where the catch pit is to be situated. The enclosure thus constructed is filled with earth in 3" layers up to the height shown in sketch. The earth must be wetted with water while filling and well rammed. It is sloped from the centre to the 2 edges, the height at centre being 4" above the edges. The surface of the barbecue is laid above the consolidated filling and may be made with concrete 4" thick, or brick-paved 3" thick and cement-rendered or rubble-paved and cement-rendered depending on availability and economical purchase of these materials at a given site. It is preferable to use rubble (granite blocks) and even the side walls may be constructed with rubble if available locally. The top wearing surface should be finished rough with cement sand mortar 1:3 and should be at least 1" thick in case of brick or rubble paving. Expansion joints are laid as shown in sketch and should be filled with bitumen. A 4" wide layer of cement and sand 1:4 should be laid below the expansion joints before paving, to prevent coconut water seeping through and fermenting under the paving. The edges of the drain and floor are rounded off for smooth flow of water.

An estimate for construction of a barbecue as shown in sketch at Bandirippuwa Estate is as follows. This estimate may vary according to the prices of materials and rates for labour at other sites.

MATERIALS

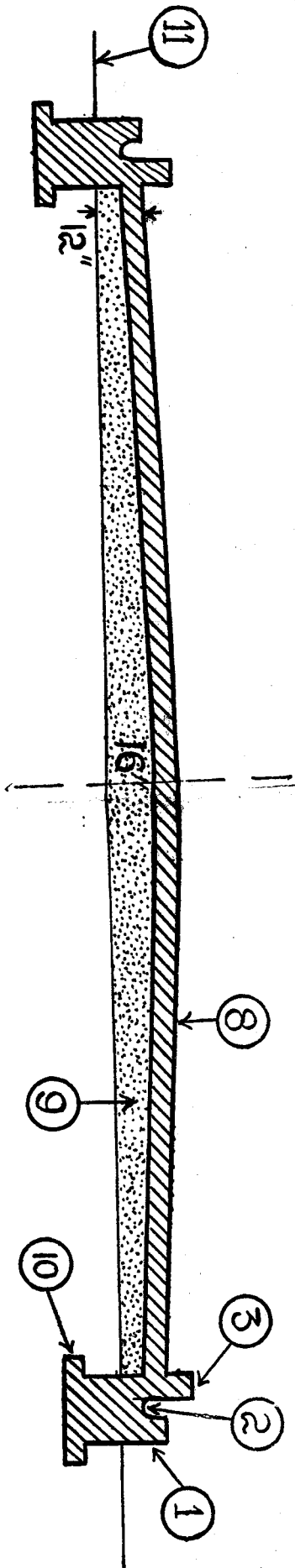
9500 nos. bricks	at 60/-	570.00	
$4\frac{1}{2}$ cubes river sand	„ 18/-	81.00	
28 bags Portland cement	„ 12/-	336.00	
1 gl. bitumen (or plastic asphalt A)	„ 2/-	2.00	989.00
			<hr/>

LABOUR

3.6 cubes 18" brickwork in cement mortar		
1:4 at 30/-	78.00	
1.5 sqrs., 4½" brickwork as above ,,	20/-	30.00
10.6 cubes filling underfloor in 3" layers watered and well rammed. ,,	7/-	74.20
9.0 sqrs. 3" brick-paved and cement-rendered floor ,,	18/-	162.00
125.0 L.ft. plastering and forming drain,,	50/-	62.50
Contingencies for clearing site, cutting foundation etc.	54.30	461.00
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Cost of material	989.00	
Cost of labour	461.00	
Total cost		<hr/> <hr/>
		1,450.00

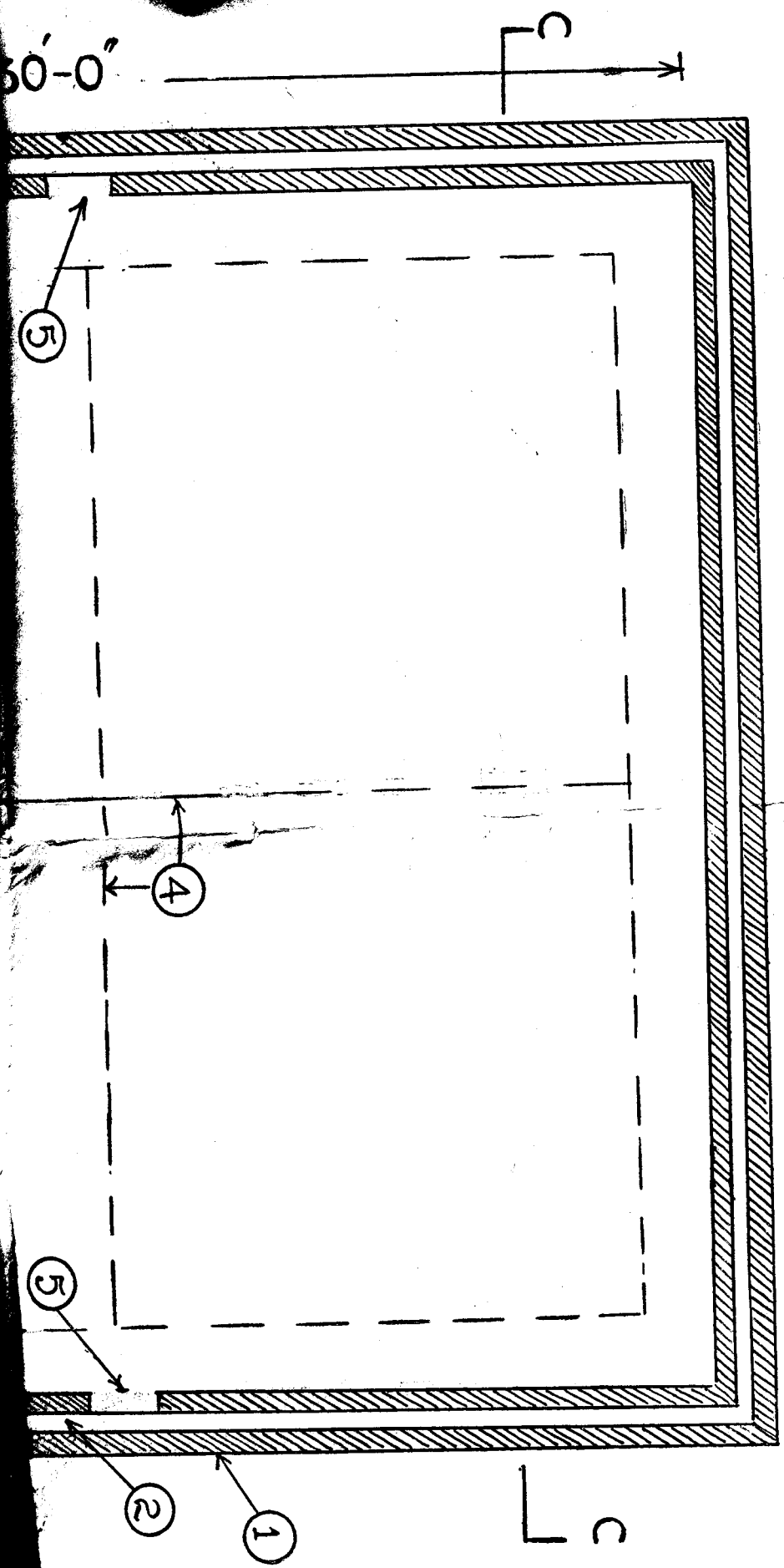
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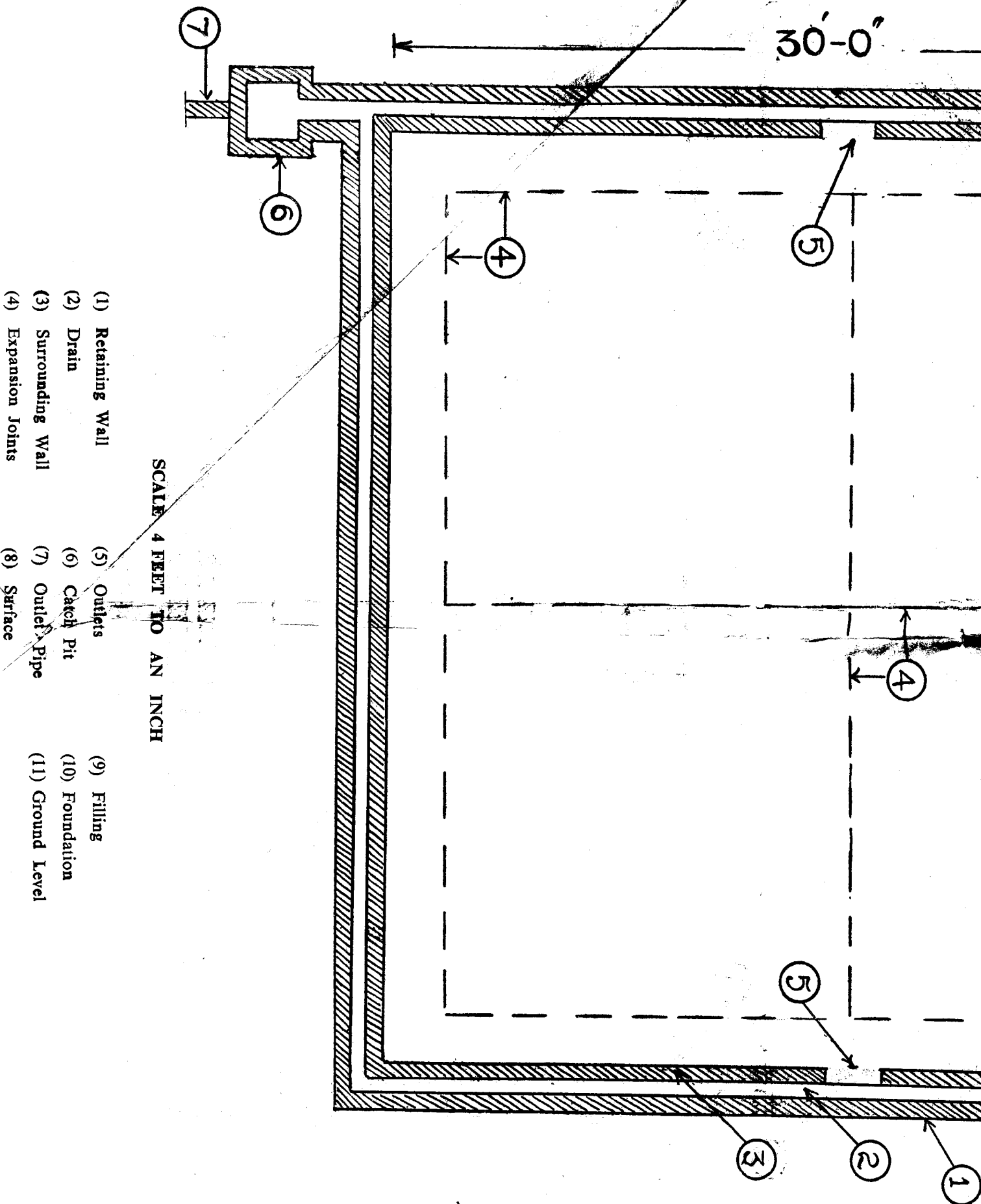
PLAN OF A BARBECUE



CROSS SECTION C. C.

30-0





SCALE 4 FEET TO AN INCH

- (1) Retaining Wall
- (2) Drain
- (3) Surrounding Wall
- (4) Expansion Joints
- (5) Outlets
- (6) Catch Pit
- (7) Outlet Pipe
- (8) Surface
- (9) Filling
- (10) Foundation
- (11) Ground Level