

COPRA DRYING—CEYLON DRIERS.

The type of hot air copra drier in general use in this Territory, and known as the New Guinea drier, consists of a large chamber containing a series of relatively shallow trays heated from beneath by a system of flues.

Such a system of drying, besides being costly, is scientifically unsound as there is no escape of moisture from the lower trays except through those above, with the result that the copra from the latter is partly steamed, and yet copra is supposed to be cured by such method in 20 to 24 hours.

In many cases where the owner gives careful personal supervision to his drier the product is clean when it leaves the drier, but even the best samples have the outside of many pieces case-hardened, and nearly always tinged with brown or oven-scorched, while the inside usually shows a waterline, a sure indication of imperfectly cured copra.

Owing largely to the work of the copra inspectors, the copra from this territory has been improved and maintained at a higher standard than that from neighbouring countries, with the result that it is known on the European market as Rabaul Hot Air obtaining 15s. to £1 5s. per ton more than South Sea.

This, however, is not enough, and there is no reason why planters here should not produce copra equal to the best from other parts of the world, but this can only be done by abandoning the rapid methods of drying long favoured in this territory.

First-class copra can only be cured by slow even heat, as free from draught as possible, and provided due care and supervision is given, such copra can be produced in driers of the attached plan,* one of the types, in common use in Ceylon.

On a compact plantation with good transport facilities it is advisable to bring the coco-nuts to a central depot adjoining the barbecue for husking and splitting, as the labourers are then under closer supervision than when such work is done in the field.

The nuts should be split into halves as early in the day as possible, and placed on the barbecue concave side up, providing, of course, that the weather is not wet or showery. If the weather is dry, an extra day in the sun is a great advantage, but in that case the half nuts should be covered at night with sheets of iron or other suitable material.

In the evening or the late afternoon of the first or second day as the case may be, the copra (half nuts) should be placed on the first day table of the drier.

Special half nut arrangement on the platform or table, although not absolutely necessary, is advisable. The bed of copra (half nuts) should consist of as few layers as possible for the first and second days, but on subsequent days it can be as much as 18 inches in depth, every precaution, however, being taken to prevent half nuts cupping one within the other.

Every day the copra should be transferred from one table to the adjoining, so that on the second day the copra that formed the top layer on the first day table will be at the bottom layer on the second table, a daily reversal which proceeds until the copra has reached the last table.

* See pages 35-36.

In the plan shown on pages 35-36 only four tables are given, but where any district is subject to much wet weather so that the barbecues are not in use as much as could be wished, it would be necessary to have five or even six such tables.

In using this type of drier, firing is most important, and those who have not seen one in use before will need to watch the process very carefully at first, as a thorough knowledge of the right quantity of fuel and time required to cure the copra satisfactorily, can only be acquired by personal experience.

The fuel (coco-nut shells, *not* husks), should be stored at least three days in the verandah of the drier so as to be absolutely dry before use, and no more should be used than is absolutely necessary to produce an even steady heat. Too much fuel will be apt to scorch the copra and produce over-much smoke.

The object of this drier is to obtain a clean heat like that from a charcoal brazier, consequently it is necessary to give personal supervision to the work.

In wet weather it is sometimes advisable to use double rows of shell fuel, and in exceptional weather when the atmosphere is supercharged with moisture, drying may be suspended and only resumed when relatively dry again. It is, therefore, advisable to have an extra drier to deal with an accumulation of nuts after an unusually long spell of very wet weather. Considering, however, that the drier can be erected cheaply of native material, this is not a serious matter.

In very dry weather the shells will soon come away freely from the "meat", but in any case they will do so after a couple of days in the drier.

The fuel consisting of half shells, should be lined or cupped together on the floor of the fire pit in lines 2 feet apart across the pit, the concave sides facing alternate directions.

Under the first day table the shells should be laid in single lines 4 to 6 feet apart, so that the temperature will be approximately 122° Fahr.

Under the second and third day tables double firing should be adopted, i.e., two lines of shell 2 feet apart.

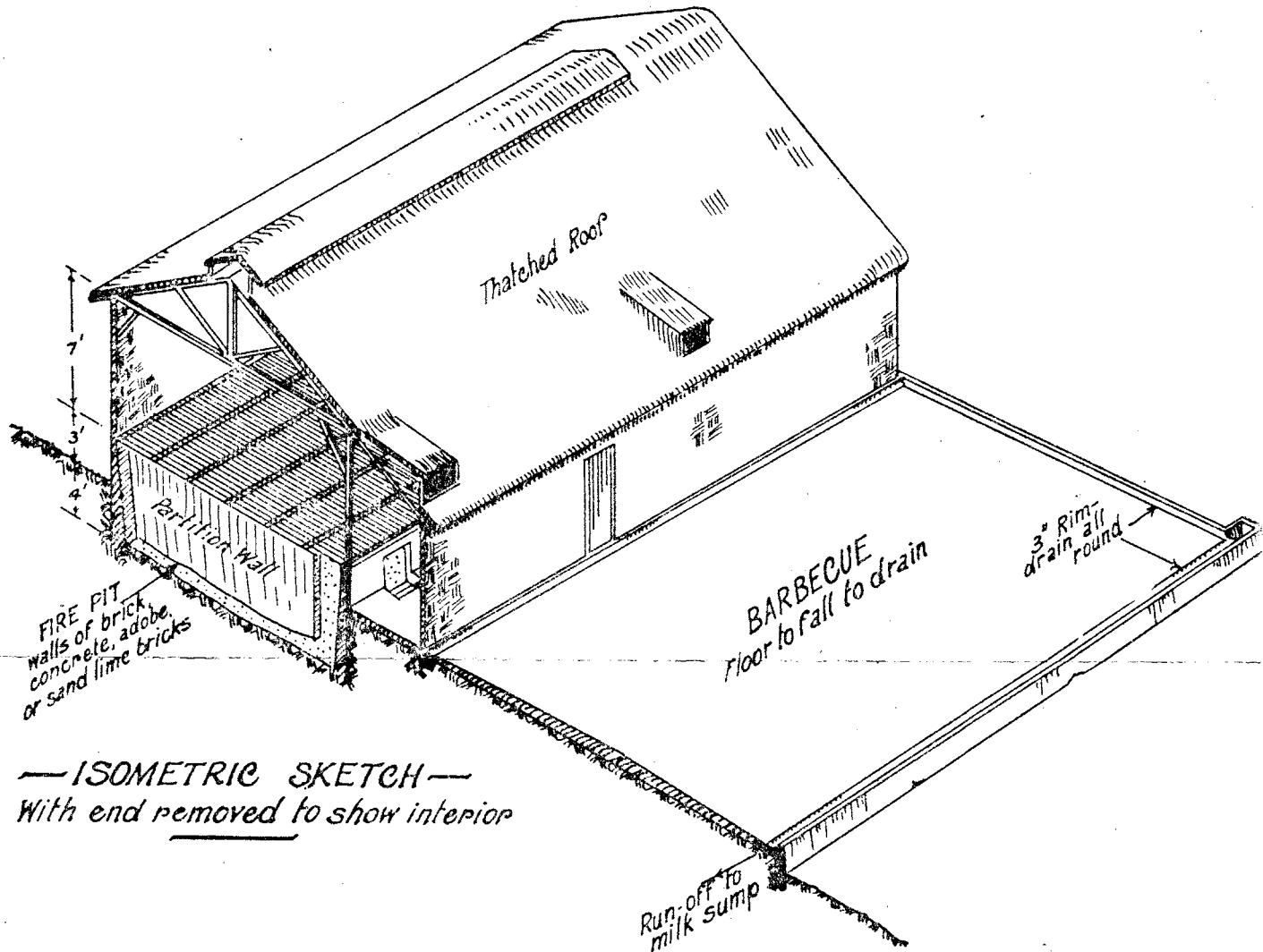
On the fourth day drying should be so far advanced that the wider single row firing should be sufficient, and due care must be taken at this stage as over firing will result in scorching or discolouration of the copra.

In starting the fires, every alternate line of fuel should be lighted at opposite ends, and they should, of course, be started before placing copra on the tables.

For several years past the Department of Agriculture had advocated the Ceylon method of copra production. Several planters erected driers according to plan, and turned out first-class copra, but discontinued the process on the grounds that the labour involved was too costly.

It should be remembered, however, that the process was entirely new, not only to the planter himself, but to the labourers, and it could not be expected, therefore, that they could produce copra at a minimum cost until they had had considerable practice.

Apparently the main objection was the cost of husking the nuts, but it must be remembered that it takes a native about two or three months to be sufficiently expert to husk 1,200 nuts per day. It has been proved in the territory, however, that our labourers can husk this number, if provided with suitable husking iron or strong sharpened stake firmly fixed on a solid foundation.



—ISOMETRIC SKETCH—
With end removed to show interior

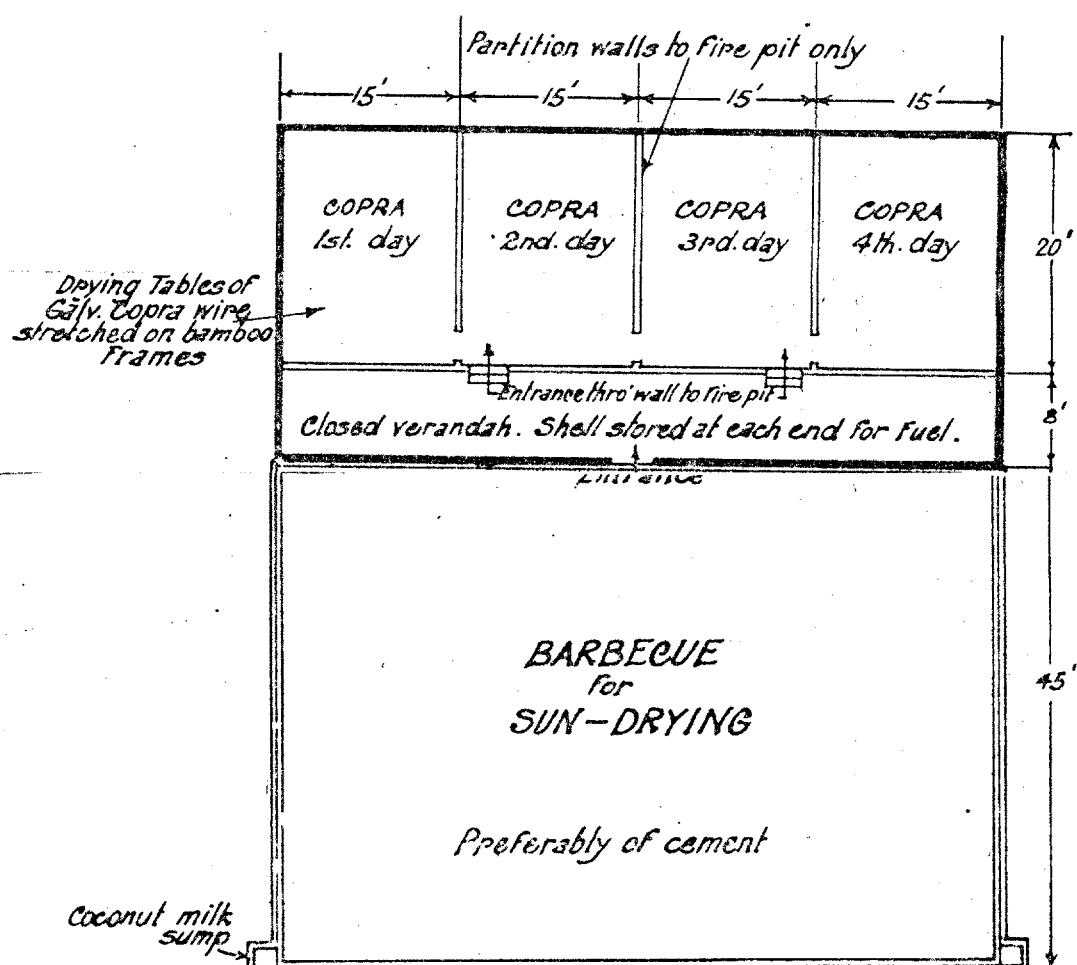


DIAGRAM OF ONE TYPE OF CEYLON COPRA DRIER