Lokoppa 65/1924

BOOK FILE.

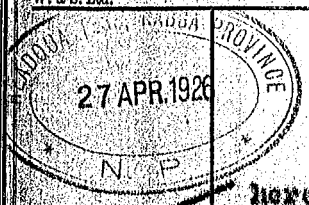
Number pages only at top outside corner. Don't number minutes. Write minutes on the last page if there is space and if the paper is not flimsy, otherwise write on a new sheet to be added as a new page. Index or endorse on the contents sheets as indicated thereon.

MEMORANDUM.

From SECRETARY, NORTHERN PROVINCES. *No.* 3361/1925/21

To RESIDENT K A B B A PROVINCE. Kaduna *Date* 19 April, 1926

W. & S. Ltd.



Sanitation of Native Towns

I am directed by the Lieutenant-Governor to forward herewith 10 copies of a print which contains advice on sanitation in Nigeria. His Honour thinks it may prove a useful guide to Native Administrations, towards such prophylactic measures as they may feel able to undertake.

F. W. Thompstone

Acting Secretary,
Northern Provinces.

Gov.

16 Koof 05/1926

1A

RULES FOR THE GUIDANCE OF NATIVE ADMINISTRATIONS

SECTION I.

The Native Authority may usefully prescribe and regulate:—

(1) The width of any new road or street;

(2) The " building line " on such roads and streets;

(3) The size of the plot or site to be built on;

(4) The maximum percentage area of the plot or site to be covered by buildings;

(5) The space on the sides of any new building between it and the boundary of the plot;

(6) The reserving of open spaces in any town or village;

(7) The site from which earth may be taken for building or other purposes;

(8) The method of nightsoil disposal to be adopted;

(9) The method of refuse disposal to be adopted;

(10) Measures for the fixing and protection of water supply for drinking and washing purposes;

(11) Measures for the prevention of mosquito breeding;

(12) Measures for destruction of rats and mice, rat holes and rat runs;

(13) The cleansing of streets and open spaces, markets, etc.;

(14) The sanitation of buildings both public and private;

(15) Measures for the storage of food supplies and their protection from rats;

(16) The keeping of domestic animals such as cattle, sheep, goats, pigs, etc.

(17) The establishment of cemeteries;

(18) The registration of births and deaths;

(19) Propaganda on personal cleanliness.

SECTION II.—*Rules.*

1. All persons residing in any town or village should keep clean and free of long grass, weeds and rubbish all land occupied by them in the town or village and all land within a distance of 20 feet of the boundaries of land so occupied.

2. All other land in a town or village should be kept free from all undergrowth, weeds, filth and refuse of any description by the inhabitants of the said town or village.

3. No person should throw any refuse or rubbish on any path, street or open space in a town or village unless it be a place provided for the purpose. All combustible refuse should be burned by inhabitants so far as possible.

4. (*a*) No borrow pit or excavation should be permitted on any plot or site in any town or village, and no borrow pit which cannot be effectively drained should be permitted within 400 yards of such town or village. The Native Authority should select a site or sites where borrow pits may be allowed.

(*b*) Steps should be taken for the filling up of all existing borrow pits in every town and village.

5. No person should permit water to remain on his premises for a period exceeding three days unless contained in a receptacle protected or screened so as to prevent access of mosquitoes.

6. No person should keep or permit water containing mosquito larvæ or pupæ to be on his premises.

7. No occupier should permit on his premises rat holes or rat runs or other similar holes which are infested with rats.

8. No newly constructed house should be permitted to be occupied until every room thereof shall have at least one window of reasonable size.

9. The Native Authority in any existing town and village should consider and formulate a plan for the widening and straightening of its streets, the proper alignment of the houses and compounds to such streets and the improvement of the type of house and compound.

10. Any house or compound which has been allowed to become so dilapidated as to require to be rebuilt should not be rebuilt without the permission of the Native Authority and the Native Authority in giving such permission should give due regard to the plans they have formulated for the improvement of the town.

11. The Native Authority should appoint a place which shall be a cemetery and no dead body of any person should be buried in any house or compound but should be buried in such place as shall be set apart by the Native Authority as a cemetery.

Section III.—*Explanatory Notes.*

It will be as well to mention certain definite figures to form guiding principles for the carrying into effect certain of the provisions scheduled under section I.

Sub-sections (1) and (2): The Building Lines Regulation applied, practically governs these two sections. Together with this memorandum is submitted a copy of a Block-plan suitable for the layout of any new town or extension of an existing town.

Sub-section (3): In the Block-plan of layout it will be seen that in one direction the 50-feet roads run parallel to each other. When making a practical layout on any site, if the site is a flat one or one with a slight fall only, the layout should be such that the direction of roads that run parallel to each other should run North-east and South-west in order to get the full advantage of the ventilating action of the prevailing breeze. The Block-plan shows the size of plots to be 50 feet by 100 feet and 50 feet by 60 feet but other suitable sizes may be adopted provided that no plot shall be less than 40 feet by 40 feet; the plots are in series of six after which there is a 50 feet cross road. This plan of layout should be adhered to where circumstances permit.

Sub-section (4): The total area of a plot that may be covered by buildings should not exceed 50 per cent. or half the area of the plot. This should be applied as a standing rule irrespective of whether the building is a grasshut, a mud house or a permanent building.

BLOCK PLAN

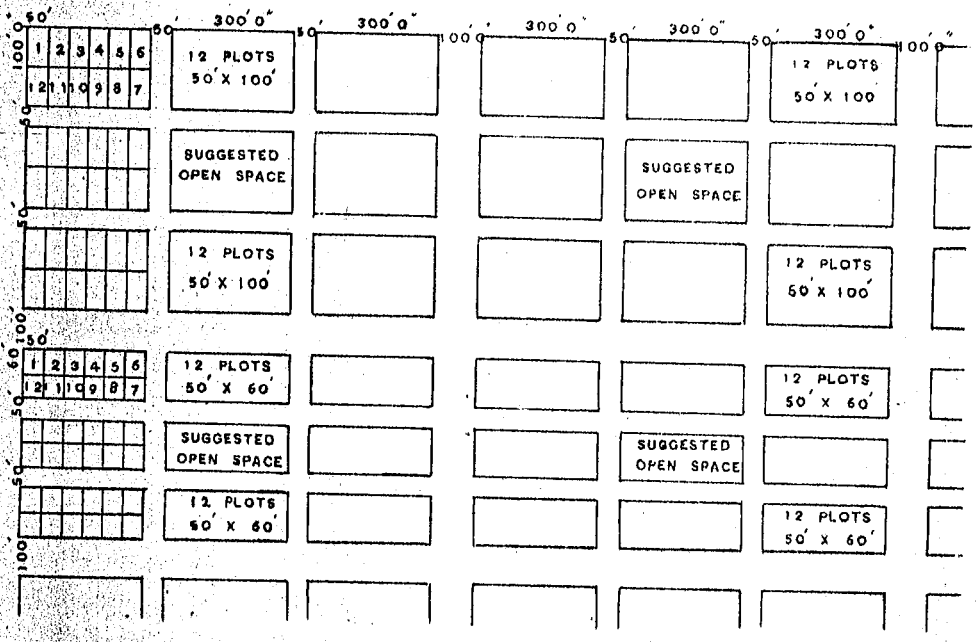
FOR THE

LAYOUT OF NEW NATIVE TOWNS

OR

EXTENSIONS OF OLD ONES.

Scale 400 Feet to an Inch.



Zincographed by Survey Dept., Nigeria.

Sub-section (5): In the erection of any new buildings the following conditions shall be observed:—

A clear space shall be left along any boundary of a plot contiguous with another plot; such space shall not be less than five feet in width in the case of buildings not exceeding twenty-five feet in height and ten feet in the case of buildings exceeding twenty-five feet in height. Provided that where any person holds two or more contiguous plots such plots shall for the purpose of these rules be deemed to be one plot.

Sub-section (6): In existing towns where groups of buildings have been abandoned and old houses have fallen into ruins and disuse, such areas, if in a congested part of the town, should be cleared, levelled and declared as open spaces in conformity with a scheme for improvement of the town.

In new lay-outs of town extensions or of new towns definite areas should be reserved as open spaces for use as public recreation grounds, markets, etc., and others for any public buildings as churches and courts, etc.

Sub-section (7): This is a very important section to prevent the making of endless borrow pits. Sites should be chosen and the taking of earth for building purposes should be limited to such sites, *e.g.*, the bank of a river or stream or rising ground that will permit of shelving excavations and free drainage.

Sub-section (8): In places where the water supply is from springs, streams or rivers, it should be made compulsory for each plot to have an efficiently housed salga. In an old town with numerous wells in existence salgas in proximity are dangerous to the water within the wells and should therefore be specially located on sites at least 100 yards or more remote from any wells.

In case of town extensions being laid out or of new towns each plot may have its salga within the compound, provided the source of water supply is remote, *e.g.*, wells and streams at a distance.

Sub-section (9): The occupier of every house or compound should incinerate as much of their domestic refuse as possible on their household fires. Refuse of every description should so far as possible be burnt. Where this is not practicable and the amount of refuse is not very great burial might be resorted to, otherwise dumping in a selected cleared space open to the sun should be adopted and burning conducted there whenever possible.

Sub-section (10): Mention of wells has been made under the preceding suggestions for sanitary arrangements, sub-section (8). In the case of wells, their protection by efficient copings to prevent surface drainage into them is essential. Where streams are used as a source of supply care should be taken in selecting a suitable place from which drinking water should be taken, and this place should be up-stream from the places selected for bathing and the washing of clothes.

These rules and guiding principles are put forward so as to permit of sanitary measures making a beginning on right lines and until such time as more definite regulations are adopted.

Item (19) of section I draws attention to the necessity for personal cleanliness, for example, delousing against Relapsing Fever.

H. ANDREW FOY,
Deputy Director of Sanitary Service.

18th September, 1925.

Printed by the Government Printer, Lagos. 13-2-26: 800 (19)

8

NIGERIA.

No. 24/1915

MEDICAL DEPARTMENT,

LAGOS, NIGERIA,

30

17th October, 19 29.

SIR,

I have the honour to forward for your information the documents noted in the subjoined Schedule.

2. Please distribute to Political Officers at stations which are not subject to regular inspection by Medical Officers.

3. The incinerator (a.below) & the salga (c.below) could be advantageously introduced into towns where the Native Administrations are desirous of improving sanitation. Copies are being sent to all Medical Officers.

I have the honour to be,

Sir,

Your obedient Servant,

for DIRECTOR OF MED: & SANY: SERVICE.

THE RESIDENT,

K A B B A,

SCHEDULE.

Date.	Number.	Subject.
		Four copies each of the following:- (a) A simple form of Incinerator (b) A Method of Night Soil Disposal in the Tropics which prevents Fly Breeding (c) West Africa Conservancy.

No. 65/1926/8.B.
Lokoja, 1st November, 1929

Copy to
D.O. Idah & Igbirra, A.D.O. K/K.

For information, and any action you may wish to take.

(Sgd) A. C. Amajie
for Acting Resident,
Kabba Province.

ARS: 3 enclosures.

Village Sanitation—A Simple form of Incinerator as introduced by Major Otway, R.A.M.C., at Sekondi, Gold Coast.

G. J. PIRIE, M.B., CH.B., D.P.H.

This simple form of incinerator was introduced by Major Otway, R.A.M.C., when he was Medical Officer of Health, Sekondi, Gold Coast.

Sekondi is a large port with a population of over 8,000. Incineration of refuse in tropical towns is of the greatest value in reducing the food available for rats and in checking fly breeding.

The incinerators are constructed of mud. They can be built by labourers working under an intelligent headman. Each incinerator is circular with an inside diameter of 3 feet and height of 4 feet 2 inches. Two ventilation openings on ground level one on each side, are made by inserting empty kerosene or petrol tins when constructing the incinerator and later removing them.

When the incinerator is in use one ventilating opening, usually the leeward one, is stopped by the simple expedient of inserting an empty kerosene tin. The grate consists of iron bars of a suitable size and shape placed 4 inches apart and one foot above the ground. The space of 4 inches between the bars is important for raking and cleaning. The walls of the incinerator are 7 to 10 inches thick. Inside, the walls are straight up and down, but outside, they taper from a thickness of about 10 inches in the lower part to 7 or 7½ inches above (see illustration).

The walls can be built in the same way as the walls of a native hut, namely, in layers, each layer being allowed to get dry before the next layer is put on. It will take about 3 days to build the walls. After the walls have dried, they should be tarred on the outside and the tar allowed to dry.

Cracks appearing on the walls can be patched with mud and tarred over. The dimensions given were found by Major Otway after experiment to be the best for incinerators of this type. In order to speed up and standardise the construction of the incinerators Major Otway had a wooden mould made in three sections—one for the bottom part of the incinerator up to the level of the bars, and two top sections.

The bottom section of the mould is first laid down and the mud wall built round it the first day and the mould withdrawn. The second day the fire bars are put in place and the next section of the mould placed in position on the top of the fire bars and the walls continued up to the top of the section. The mould is then withdrawn. On the third day the top section is completed in the same way. To facilitate withdrawal of the sections of the mould each should be oiled before beginning building operations.

Each two incinerators should be provided with a drying shed constructed of bush materials and sited 9 to 12 feet to windward of the incinerators. The approximate dimensions of the sheds are :—

Height to central ridge pole	11 feet.
Height from floor to eaves	8 „
Length	9½ „
Width	7½ „

The gable end on the rainy side is closed in and a screen door on this side should be provided to keep out driven rain. The floor of the shed should be raised 6 inches above ground level.

At night during the rainy season and when it is actually raining some form of protection for the top of the incinerator is required if the combustion is to be continuous. Major Otway devised a simple roof for his incinerators (see illustration). It consists of a framework of wood covered with 2 sheets of 32 gauge, 6 feet long sheets of corrugated iron, bent at an angle of 125 degrees. It will be seen in the illustration that the wooden frame fits outside the wall of the incinerator. The width of this cover may be increased by rivetting on an additional strip of corrugated iron.

The successful operation of the incinerators depends on the organisation of the labour staff actually employed at the incinerators. One boy takes charge of two incinerators and one drying shed and each boy should be provided with a digging fork, a rake and a shovel solely for his own use. It is essential that there should be no borrowing of these implements by other boys.

One barrow boy is required for every 3 or 4 incinerators. With his barrow he removes the non-combustible materials such as tins and bottles, etc.

The refuse brought from the dustbins by lorry or head loads is dumped into the drying shed. The incinerator boy picks out of the refuse all tins, bottles and non-combustible materials and places them to one side. The combustible refuse is lifted with the fork and is put in baskets and emptied into the incinerator. In doing this there is a considerable amount of small stuff such as sand, palm nuts, small stones, etc., including fly larvae which falls from the fork on to the ground and in time a small heap of this small stuff accumulates and is dealt with in the following manner. A layer of the small stuff is put down and on top of this is spread a layer of hot burning ashes, taken from below the incinerator grate with the shovel. Alternate layers of small stuff and hot ash are so treated and fly larvae destroyed. This is then taken away by the barrow boy (every 3 or 4 incinerators require a barrow boy in addition to the incinerator boy) and dumped on the top of the bottles, tins (flattened out) and other non-combustible materials which have already been removed by the barrow boy and laid down in the dumping area in a layer 1 to 1½ feet in depth.

The treating of the small stuff with the hot ash kills fly larvae and very little fly breeding takes place in the dumping ground of refuse treated in this way.