Suggestions and instructions in reference to (1) sites (2) construction and arrangement of buildings (3) plans of lunatic asylums / issued by the Commissioners in Lunacy.

#### Contributors

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## SUGGESTIONS AND INSTRUCTIONS

IN REFERENCE TO

(1.)-SITES:

(2.)-CONSTRUCTION AND ARRANGEMENT OF BUILDINGS:

(3.)-PLANS:

OF

# LUNATIC ASYLUMS,

ISSUED BY

THE COMMISSIONERS IN LUNACY.



#### LONDON:

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,
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### SUGGESTIONS AND INSTRUCTIONS

IN REFERENCE TO

(1.)-Sites.

(2.)-Construction and Arrangement of Buildings:

(3.)-Plans:

## LUNATIC ASYLUMS.

#### No. 1 .- Sites.

1. The site of an asylum should be of a perfectly healthy General. character, and offer facilities for obtaining a complete system of sub-soil drainage. A chalky, gravelly, or rocky subsoil is most desirable. An elevated position is indispensable, admitting of direct application of the sewage by gravitation to the land.

The site should not be near to any nuisances, such as steam The Site. engines, shafts of mines, noisy trades, or offensive manufactures; neither should it be surrounded, or overlooked, or intersected, by public roads or footpaths. It should be elevated, as respects Form of the surrounding country, and (if to be obtained) undulating in ground. its surface, cheerful in its position, and having a fall to the south.

2. The land belonging to the asylum should, when practicable, Proportion of be in proportion of not less than one acre to four patients, so as to afford ample means for agricultural employment, exercise, and recreation; and should be so situated as to offer facilities for any extension of the asylum which may become necessary at a future period.

3. The principal buildings should be placed near the northern Position and boundary of the land; and it is important that the site should aspect of building. afford a plateau of sufficient extent for the main structure, readily accessible from the north; the whole of the southern portion of the land being available for the undisturbed use of the patients.

4. The asylum should be as central as possible to the mass of Locality. population in the county or district for which it is to be erected, and should be convenient with respect to its easy access by railway or other public conveyance, in order to facilitate the visits of friends and the supply of stores. It should be within a moderate distance of a town (not exceeding three miles, unless there is convenient railway communication) so as to afford facilities, if necessary, for the introduction of gas and water from the public

works, and opportunities for amusement and relaxation to the officers, attendants, and patients.

Supply and quality of water. 5. It is of the utmost importance that there should be a constant and ample supply of good water, of which a careful analysis should be made, as well to ascertain its fitness for the purposes of drinking and washing, as to determine the proper materials for pipes and cisterns. The quantity, exclusive of rain water, should, at the driest season, be not less than forty gallons per patient, per diem, and the amount should be accurately gauged. The actual position of the well should not be fixed until the position and general plan of the building on the site is determined upon.

## No. 2.—Construction and Arrangements of Buildings.

1. As an approximate rule, the provision in a new asylum for the different classes of patients may be in the following proportion:

Sick - - - - 15
Recent and acute cases - 20
Working, quiet, and chronic cases - 65

In all large asylums it is desirable that there should be a small reception ward in both divisions in which patients, upon admission, should be placed for a certain period under special observation; and also that dormitories, with a few single rooms adjoining, should be set apart and arranged for the care and supervision, during the night by special night attendants, of suicidal and epileptic patients.

General form.

2. The general form of an asylum should be such as to afford an uninterrupted view of the surrounding country, and the free access of sun and air; and so arranged as to give the principal rooms a southern or south-eastern aspect.

Entrance and offices to the north.

3. Roads of approach or public entrances on the south side of the asylum should as far as possible be avoided.

The general entrance, the porter's room, the reception and visitors' rooms, the committee room, the clerk and steward's office, store rooms, and other offices, should be placed on the north side of the building.

Character of building. 4. As the building is intended for the accommodation of pauper patients, all superfluous external decoration should be avoided; at the same time it should be rendered as cheerful and attractive as due considerations of economy will permit.

Separation of sexes, and classification.

5. The accommodation for the male and female patients should be kept distinct on either side of the centre; and the building should be so constructed as to admit of the separation of the male and female patients respectively into at least three classes. The numbers in each ward should be such as to require the services of not less than two attendants.

- 6. The building may consist of three stories, provided the Stories. uppermost story be devoted to sleeping accommodation. As far as possible, all living rooms should be on the ground floor.
- 7. Cottages or buildings of a cheap and simple character, con- Buildings for sisting merely of associated dayrooms and dormitories, without working patients. long corridors or other expensive arrangements, should be provided for the use of working patients. These buildings should be placed in connexion with the wash-house and laundry on the female side, and be conveniently situated in reference to the workshops and farm buildings on the male side.

Provision of an equally simple and inexpensive description For idiotic should also be made for a portion of the idiotic and epileptic and epileptic patients.

patients, and also for chronic cases.

8. The chapel, dining hall, and all offices and parts of the Size of chapel building common to the establishment, such as the kitchen and and offices. scullery, the wash-house and laundry, the workshops and store rooms, should be sufficiently spacious to meet the prospective wants of the asylum in case of an increase in the number of patients.

9. The chapel should not be placed over the kitchen. It Position of should be of easy access, and capable of comfortably accommodating at least three fourths of the patients. It should have the usual character and arrangement of a church, contain no special or peculiar provision for the separation of the sexes, and, if possible, be detached from the asylum.

10. A general dining hall for patients of both sexes of ample General dining size, conveniently situated with reference to the kitchen, and hall. capable of being made available for the purposes of recreation, should be provided, and a scullery and other requisite offices should be attached to it.

11. A good residence in or immediately connected with the Officers' asylum by a covered way, and in a central position, should be residences. provided for the medical superintendent, with kitchen and other necessary domestic offices.

Suitable apartments of moderate extent should be provided for the assistant medical officer; and also for the steward, the matron, and chief attendants; but for these officers a separate kitchen is not required.

Those for the assistant medical officer should be conveniently placed with regard to the wards occupied by the sick and recent cases. The rooms for the matron and chief attendants should be in or close to the wards, and those for the steward near the north entrance.

There should also be sleeping accommodation for the domestic Domestic servants of the institution, with whom might conveniently be servants. associated those patients who habitually work in the kitchen.

A 3

Proportion of single rooms.

12. The proportion of single rooms throughout the asylum need not exceed one fourth. The single rooms should be chiefly in the wards appropriated to the excited and the sick, but a few should be available for special cases in the other wards.

Arrangement of apper stories.

Passages and corridors. 13. In the upper stories, passages of communication of moderate width should be adopted where practicable, in lieu of wide corridors, and the dormitories should be placed to the south. Generally, long, wide, and expensive corridors should not be constructed, but only so much passage or corridor provided as may be absolutely necessary to connect the several parts of the building. It would, however, be of advantage to have on each side of the building one good corridor to the south, with a large bay window; and these corridors should not be less than 12 or 14 feet in width, the space on the upper floors being thus made available for dormitories. The dormitories should be so arranged as to admit of the beds being placed against the internal or cross walls.

Stairs.

14. The stairs should be built of stone, without winders or long straight flights. The well should be built up, and hand-rails should be provided.

Staircases.

15. The staircases should be so arranged that the medical officer, attendants, and others, may pass through from one part to another without unnecessarily retracing their steps.

Material for floors. 16. All the corridors, and day and sleeping rooms, should have boarded floors; and it is desirable that the boards should be tongued. Oak floors, capable of being cleaned by dry rubbing, are preferable for the corridors and dayrooms, and for the single rooms occupied by dirty patients. Where oak is not used it is indispensable that they should be of the best yellow deal, and thoroughly well seasoned. At each end of a corridor the continuity of the timber floor should be broken by fireproof construction, so as to prevent the spread of fire beyond the corridor in which it may occur. The floors of the sculleries, lavatories, and waterclosets need not be of wood. No timber inserted in any wall should be placed within nine inches of any smoke flue, and no plug should be driven within six inches of the inside of any flue.

Provision against fire.

Wherever practicable horizontal and lateral fire-proof construction should be adopted. The floors next below the roof, in all parts of the asylum occupied by patients should be constructed throughout of incombustible materials. Hydrants connected with the cisterns in the roof should be placed in convenient positions on all the floors, and also a main externally, by which water could be thrown over the building.

Ceilings.

- Plastering.
- The walls of the galleries and rooms generally should be plastered, unless lined with pressed bricks.

Number of beds in dormitories. 17. No associated bedrooms should be designed to contain less than three beds.

18. The general height of each story should not be less than Height of each story and ditwelve feet.

The associated dormitories for clean and healthy patients should rooms. not contain less than fifty feet superficial to each bed or patient.

The separate sleeping rooms generally should be of not less Dormitories. than sixty-three superficial feet. Those appropriated to sick or bed-ridden patients should be of larger dimensions, with extra means of ventilation, and should be provided with a fireplace. If detached hospitals are erected for fever or contagious cases, the cubical space should not be less than 1,500 feet per head.

19. The day rooms, of which there should be at least one in Size of dayeach ward, should not be less than 40 feet superficial for each patient where there are no corridors of the minimum width of 10 feet. Where corridors of that or any greater width exist, the day rooms may afford only 20 feet superficial for each patient, it being understood that a space equal to 40 feet superficial be provided for each patient in day rooms and corridors combined. Mere passages of communication are not to be considered as corridors.

- 20. The day rooms should be so arranged as to afford ready Position of communication with the grounds, and it is essential that those day rooms. appropriated to the aged, infirm, and excited patients should be on the ground floor.
- 21. Rooms should be provided for two or more attendants to Attendants' each ward, single attendant's rooms not being of less dimen-rooms. sions than 100 feet superficial; and, whenever practicable, such rooms should be placed between two dormitories, with glazed doors of communication. Larger rooms should also be provided in some of the male wards for the use of married men and their

22. The windows of the day rooms and corridors should be Windows. large; having oak sashes, double hung, with wrought iron sash bars, not more than 3 feet 6 inches from the ground, and made to open easily and so as to allow a free circulation of air, but not so far as to expose patients to danger.

The wall below should not be sloped or splayed, but recessed,

to admit, if requisite, of a seat.

In the dormitories and single rooms the windows should, as a general rule, not be placed more than four feet from the floor.

Strong solid shutters should be provided for a majority of the Shutters. single sleeping rooms.

- 23. The doors of the single rooms should open outwards, and Doors. be so hung, that when open they will fold back close to the wall.
- 24. In each ward there should be conveniences for washing Lavatories, the person, a sloproom containing a sink, a storeroom or closet, baths, and waterclosets in the proportion of one for ten patients, and a bath. waterclosets.

It is very desirable that all waterclosets, lavatories, &c. should be placed in projections, and where practicable, a lobby not less than 5 feet wide with cross ventilation should separate the ward from the waterclosets. In some instances the bath room may be so arranged as to be available for two wards. For the majority of the inmates, however, a general bath room conveniently placed will be found greatly to facilitate the bathing of the patients; and it is of great importance that the taps, as well as the supply and waste pipes, should be of large size, so as to admit of the ready change of water for each patient, and further that the supply and waste should be distinct.

Infirmaries.

25. Saitable infirmaries, in the proportion of at least one seventh of the whole, should be provided, in which the cubical contents of the sleeping rooms should be one-third more than in other parts of the building; and every room, including the single rooms, should have an open fireplace.

A day room in each infirmary is necessary, and also a small

kitchen with a cooking stove.

A mortuary consisting of two rooms should be provided for each division in a position easily accessible from the infirmaries.

Warming.

26. All the day rooms and galleries should be warmed by means of open fireplaces, or open firestoves; and in large rooms two fires should be provided. Fireplaces should also be built in all associated dormitories. In large rooms, such as the chapel or general dining hall, and in the corridors, further provision for warming may be necessary, by means of some approved and recognized principle of artificial warming.

Ventilation.

27. The ventilation generally should be provided for by means of flues, taken from the various rooms and corridors into horizontal channels communicating with a perpendicular shaft, in which means of rarefaction should be placed for the purpose of extracting the foul air. The rarefying chamber for ventilation, when fire heat is used, must be entirely fireproof. Particular attention should be paid to the night ventilation of the dormitories, which would be promoted if gas burners were placed under properly protected ventilators in the ceiling.

Smoke flues.

28. In all cases descending or horizontal smoke flues should, where practicable, be avoided; but when used, they should be entirely constructed of brickwork, rendered or pargetted, inside and out; and flues from any of the heating or other furnaces, which are carried up through any of the main walls, should be constructed with a hollow space round them, to prevent the inconvenient transmission of heat into the building during the warmer periods of the year.

Ventilating flues.

29. Whenever ventilating flues are constructed of inflammable materials, such as quartering lathed and plastered, a distance of at least twenty feet from their point of connexion with any furnace, rarefying chamber in which fire heat is used, smoke flue, or shaft, must be constructed entirely of brick, stone, or other fireproof material.

30. The best and most approved system of pipe or tubular Drainage. drainage should be adopted, with an adequate fall, so as effectually to distribute the sewage by gravitation in a fresh state over the land.

Means of flushing should be provided and the drains and sewers

properly ventilated.

This is a subject of the greatest importance; and in connection with it, at our request, Mr. Rawlinson, the Government Engineer, has drawn up a series of practical suggestions which will be issued uniformly with the present paper, and to which we desire to direct especial attention.

- 31. The enclosed airing courts need not be more than two in Airing courts. number on each side. They should be of ample extent, so as to afford proper means for healthful exercise, and should have a southern aspect. They should all be planted with trees and shrubs, and any trees already within them should be preserved for shade. Where walls are required they should be sunk in a ha-ha. Earth closets may be used in the airing courts with means for removing the pans from the outside.
- 32. The whole of the rain water from the building should be Rain water. collected in tanks, suitably placed, for the purposes of the washhouse.

The material used for pipes and cisterns should depend upon the quality of the water as ascertained by analysis.

- 33. Lightning conductors should be placed on the most ele-Lightning vated parts of the building, and constructed upon approved conductors. principles.
- 34. Farm buildings, with stables, &c. for visitors' horses, Farm buildings, should be provided; and there should be suitable workshops for tailors, shoemakers, carpenters, blacksmiths, painters, &c.

## No. 3.—Plans required.

- 1. One or more sheets of the Ordnance map, containing the county, borough, or district in respect to which the asylum is to be erected; or some other large map in which the situation of the proposed asylum, and all the public roads and footpaths in the vicinity thereof, are clearly and fully defined.
- 2. A general plan of the land (with the block of the buildings and offices), and of the exercise grounds, garden, and road of approach, with the levels of the surface of the ground at the quoins of the building, offices, and fence walls, figured thereon.
- 3. Plans of the basement and drains, the ground, and each other floor of the building and offices; also of the so is a so of the roofs and elevations of the fronts.

4. Elevation of portions of the principal front, and also of any other parts, in which any variation therefrom takes place.

- 5. Transverse and longitudinal sections, or sufficient portions thereof to show the construction of every portion of the building.
- 6. Plan and section of one separate sleeping-room, dormitory, and eating or day room respectively, or of part of the same, showing the method of warming and ventilating each; also of the baths and washing rooms, and waterclosets; and drawings and description of the windows and shutters.
- 7. A specification giving a concise description of the whole of the intended works, and an estimate of the cost of the building.
- 8. The thicknesses of the walls, and the scantlings of the timbers of the floors and roofs, to be figured.
- 9. The general system of heating and ventilation, proposed to be adopted throughout the asylum, to be fully described in the drawings and specifications.
- 10. Each plan to show the several classes and numbers of patients to be accommodated, in the wards, day rooms, dormitories, single rooms, galleries, and airing courts, respectively, to which such plan relates.

By order, CHARLES PALMER PHILLIPS, Secretary.

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