

MISC 4/1

SUGGESTIONS AND INSTRUCTIONS

WITH REFERENCE TO

SITES :

GENERAL ARRANGEMENT OF BUILDINGS :

CONSTRUCTION OF BUILDINGS :

PLANS AND PARTICULARS :

ESTIMATES :

OF

LUNATIC ASYLUMS

ISSUED BY THE

COMMISSIONERS IN LUNACY,

1911.

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THE COMMISSIONERS ARE DESIROUS OF NOT IN ANY WAY DISCOURAGING THE EVOLUTION OF NEW DESIGNS FOR ASYLUMS, AND MANY OF THE FOLLOWING SUGGESTIONS AND INSTRUCTIONS ARE THEREFORE INTENDED TO APPLY ONLY TO THE FORMS OF BUILDING WHICH HAVE HITHERTO BEEN USUAL.

WHATEVER FORM OF BUILDING IS DECIDED ON, IT IS ESSENTIAL THAT THE STRICTEST ECONOMY, CONSISTENT WITH SUITABILITY FOR ITS PURPOSE AND GOOD WORKMANSHIP, SHOULD BE EXERCISED BOTH IN ITS CONSTRUCTION AND EQUIPMENT.

ELABORATION OF DESIGN FOR MERELY ARCHITECTURAL EFFECT WILL NOT BE SANCTIONED, AND DECORATIVE STONWORK OR OTHER EXPENSIVE MATERIAL INTRODUCED FOR THAT PURPOSE WILL PREJUDICE THE APPROVAL OF THE PLANS BY THE HOME SECRETARY.

SUGGESTIONS AND INSTRUCTIONS

WITH REFERENCE TO

Sites :

General Arrangement of Buildings :

Construction of Buildings :

Plans and Particulars :

Estimates :

OF

LUNATIC ASYLUMS.

SITES.

1. The land to be acquired for the site of an asylum should be of a healthy character, and offer facilities for the construction, where necessary, of a complete system of under drainage. A chalky, gravelly, or rocky subsoil is the most desirable. **Character of land.**

2. The quantity of land to be acquired should be liberal and, in view of enlargements, should allow the proportion of not less than one acre to every ten of the number of patients which the asylum will ultimately contain, and be adequate and suitable for the supply of farm and garden produce and for agricultural employment, as well as for exercise and recreation for the ultimate number. The site should offer facilities for any extension of the asylum which may become necessary at a future period, either by enlarging existing buildings or the erection of detached blocks or villas. It is undesirable that an asylum should, in any case, be built on an estate of less than 50 acres, whatever the number of patients for which it is intended. **Quantity of land.**

3. The site should be as central as possible to the mass of population in the county or district for which the asylum is to be erected, and should be easily accessible by railway, in order to facilitate the visits of patients' friends, and the supply of stores. It should be within a moderate distance of a town so as to afford facilities, if necessary, for the introduction of gas, electricity, and water, from the public works; and opportunities for amusement and relaxation to the officers, attendants, and servants. It should not be situated over mine workings of any kind, and the mineral rights should be acquired and reserved. It should not be near to any nuisances, such as steam engines, shafts of mines, noisy trades, or offensive manufactures; neither should it be intersected by public roads or footpaths. It should be elevated, as respects the surrounding country, undulating in its surface, cheerful in its position, and having a general fall to the **Situation.**

south or south-east, with, if possible, some sloping land towards the north, to which the sewerage can be applied by gravitation.

Water supply.

4. It is of the utmost importance that there should be a constant and ample supply of wholesome water, of which a careful chemical and bacteriological 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 obtainable, exclusive of rain water, should, at the driest season, be not less than 40 gallons per head per diem, and the amount available should be accurately gauged. The actual position of the well (if the supply is to be derived from one) should not be fixed until the position and general plan of the building on the site have been determined. Provision must be made for storing an adequate supply of water as a reserve and, for this purpose, when the levels of the site are favourable, a reservoir in the ground, from which the water will gravitate to any part of the building, is preferable to water towers.

Position of buildings.

5. Unless the site is unfavourable for it, the main asylum buildings should be placed on the northern portion of the land; but aspect, views, convenience of approach and the disposal of sewage must all be considered. It is important that the site should afford a plateau of sufficient extent for the main structure, which, when it can be conveniently arranged, should have a goods entrance approached from the north; the southern portion of the land being generally reserved for the use of patients. None of the new buildings should be erected on or near the site of any old farm buildings or yards where the subsoil may have become fouled by stock.

GENERAL ARRANGEMENT OF BUILDINGS.

General form.

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

Principal entrance.

7. The position of the principal entrance to the building, whether on the north or south side of the asylum, will probably be best determined by local conditions and the size of the asylum. Near to this entrance should be grouped the rooms for the committee and offices for the principal officers and clerks, together with reception and waiting rooms, all having proper lavatory and w.c. accommodation.

Separation of sexes and number and size of wards.

8. The accommodation for the male and female patients must be kept distinct; and the buildings should be so constructed as to admit of the separation of the male and female patients respectively into at least four classes. In larger asylums, where the number of wards is multiplied, a further sub-division is desirable. As female patients usually preponderate, the buildings should generally provide accommodation for more females than males. The size of the wards must necessarily vary with the mental and physical character of the patients, but no ward should be designed for a less number of patients than would ordinarily require the services of at least three attendants.

9. As an approximate rule, the provision in a new asylum for different classes of patients should be in the following proportions:—

Recent quiet cases	10
Sick and Infirm	25
Turbulent and Violent	15
Epileptic	15
Working and Quiet Chronic	35
	100

Classification.

This rule may require modification in certain localities, or in small asylums, and in those for special purposes.

10. When it is proposed to build an asylum for a less number of patients than the maximum number to be ultimately accommodated, the asylum should be designed in the first instance for that maximum number, both as regards the administrative departments and the wards, in the relative proportions as above; and the buildings which are intended to be ultimately erected to complete the scheme, should be indicated in outline on the plans.

Ultimate size of Asylum to be determined.

11. A principle of arrangement which has been adopted in several recently built asylums, and for which certain advantages are claimed, consists in the provision of:—

Principle of arrangement.

- (a.) A main building, comprising an administrative department with wards for troublesome and dangerous patients, epileptics, sick and infirm, and certain of the chronic classes.
- (b.) A detached hospital for both sexes, or separate hospitals, one on each side, for the admission and special treatment of recent cases, sometimes supplemented by small detached villas for patients in the convalescing stage.
- (c.) Special blocks, somewhat isolated from other buildings, for the separate treatment of cases of phthisis and dysentery, of a simple and inexpensive form of construction.
- (d.) Separate cottage blocks of homely design, for quiet chronic and working patients. In these blocks it is convenient to include a small kitchen and offices, where meals can be prepared independently of the main kitchen. In the male villas, rooms for a married couple should also be provided.
- (e.) An isolation hospital, *see* clause (42).
- (f.) In some cases a block for idiot children is a desirable adjunct.

12. Whatever principle of arrangement is adopted, it is desirable that for recent and acute cases, sick and infirm, and epileptics, the accommodation should be in buildings of two floors only, and that each ward should be self-contained, having on the same floor all the day and sleeping space required for the patients lodged in it. For quiet chronic patients, buildings of three floors may be designed, the top floor being appropriated to sleeping accommodation only. Turbulent, dangerous, epileptic, and very infirm patients should, if possible, be lodged entirely on the ground floor. For a certain proportion of working patients buildings of a simple description may be provided in convenient proximity to the laundry on

Number of storeys and description of wards.

the female side and to the workshops on the male side. Buildings of a similar description may be also erected at the farm, or in the gardens for workers in those places.

Reception wards.

13. Where the principle of a detached hospital is not adopted, it is desirable that there should be, in each division of the main asylum, a small ward in which newly admitted patients may be placed under special observation, with a view to classification; and in all asylums, one or more dormitories, with a few single rooms communicating, should be set apart and arranged for the continuous care and observation of suicidal and epileptic patients by special night attendants. The wards for recent and acute cases, and the dormitories last referred to, should be of moderate size. No dormitory should, even in the largest asylum, be designed for more than fifty patients.

Infirmaries.

14. Unless the scheme contemplates the provision of detached hospital accommodation, at least one suitable infirmary or hospital ward should be provided on each site of the building, containing a day dormitory, single rooms, day rooms, and a good scullery with a cooking range. One at least of these wards should be on the ground floor.

Verandahs.

15. Verandahs should be provided in connection with hospital wards, also in the admission hospital, and these should be wide enough to receive beds and protect them from the weather, and the doors opening from the ward large enough to allow of beds being wheeled through, the floors being at one level. Care must be taken in designing these verandahs to allow the upper portion of the ward windows to open above the roof of the verandah so as not to interfere with the ventilation of the ward. (*See drawing on page 20.*)

Day rooms.

16. The day room space in a ward may be arranged either in the form of one or more rooms, or, of a room, or rooms, combined with a gallery, the latter being not less than 10 feet wide. In each case the floor space must allow 40 feet superficial per patient for ordinary patients and 50 feet for noisy and turbulent cases. If provided by a room, or rooms, and gallery the space afforded by the gallery must not exceed 20 feet superficial per patient. A convenient arrangement is a gallery of adequate width with a room at one or both ends. The windows of the gallery should, if possible, have a southerly aspect. Mere corridors of communication or any space less than 10 feet in width are not to be reckoned as galleries.

Dormitories.

17. The associated dormitories for clean and healthy patients should allow a floor space of 50 feet superficial to each bed, and the single rooms 63 superficial feet. The space in the dormitories and single rooms of hospital wards should be not less than 67 and 84 feet respectively. No associated bedroom should be designed to contain less than three beds.

Height of storey.

18. The general height of each storey should not be less than 12 feet from floor to floor.

Single rooms.

19. The proportion of single rooms throughout the asylum should not exceed one-fourth. They 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, and, in particular, in the dormitories for epileptic cases. It is also convenient to have a few single rooms for noisy patients in a special corridor leading

out of the epileptic dormitory, and at least one opening out of the day-room of each epileptic ward.

20. Padded and half padded rooms should be provided, the former in wards devoted to troublesome and violent patients and the latter in those appropriated to the infirm.

Padded rooms.

21. In each ward there should be a ward scullery with a coal or gas stove which can be used for plate warming, also a wash-up sink, a dresser or cupboard for crockery, and a small larder adjoining. There should be also at least one storeroom for clothing, bedding, and other articles in use in the ward; also a boot and cloak room near the door leading to the grounds, where boots can be changed before entering the ward.

Ward sculleries, store and boot rooms.

22. One or more lavatories should be provided in each ward with basins in the proportion of one to six patients, the waste pipes discharging into an open channel in the floor carried through the wall. Each basin should have a spring or non-concussive tap for cold water, hot water being laid on to a single tap in the lavatory opened by a loose key. The lavatories should, as a rule, be arranged in a sanitary annexe, in which a comfortable temperature can be maintained, and be connected with the ward by a cross ventilated lobby not less than 5 feet wide. The sanitary annexe should also contain a bathroom with one, or, in some cases, two baths; water-closets in the proportion of one to twelve patients (no ward having less than three), with an additional separate closet for attendants; a slop room with sink, its waste being treated as a soil pipe, and space for brushes, etc., also a small room for soiled linen. A closet for coal should be provided either in the annexe, or in some other part of the ward.

Sanitary annexes, bathrooms, lavatories, water-closets, etc.

23. In addition to the baths in wards, general bath rooms conveniently placed, and containing from six to twelve baths according to the size of the asylum, with good-sized dressing room attached, will be found greatly to facilitate the bathing of the patients. Fixed divisions between the baths are not desirable, but provision may be made for curtains. The baths should be of Stourbridge ware, or specially thick vitreous enamelled iron, and should not be enclosed in wood-work but have a hard wood capping rounded and slightly projecting. They should be fixed with the head towards the centre of the room, and so that an attendant can stand on each side. The top of the bath itself should not exceed 26 inches from the floor. 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 that the supply and waste should be distinct. Taps for hot and cold water must be carefully distinguished, and provided with loose keys or enclosed in locked cupboards.

General bath-house, baths and fittings.

24. Separate bedrooms should be provided for one or two attendants in each ward, and each room should have an area of 100 feet superficial, and, whenever practicable, such rooms should adjoin dormitories. Double-bedded rooms for attendants are not desirable. Larger rooms may be provided in some of the male wards for the use of married men and their wives. The total accommodation for attendants should be sufficient to provide for one attendant to every $8\frac{1}{2}$ patients, inclusive of night attendants.

Attendants' bedrooms.

Attendants' blocks.

25. For the remainder of the attendants, separate blocks should be erected, with a bedroom for each attendant, and a general sitting room; also bathrooms and other conveniences, together with small kitchens for tea-making, mess-rooms being provided near the main kitchen in the asylum. Special care should be taken to locate the bedrooms for the night attendants by themselves in a quiet part of the building. Fewer rooms will be required for the male attendants, as some of them will be married and sleep out of the asylum. In large asylums it may be convenient to provide separate accommodation for sick attendants.

Staircases.

26. The staircases should be of such number, and be so placed, as to afford ready egress to patients, in case of fire, and to enable the medical officers, attendants, and others, to pass from one part to another without unnecessarily retracing their steps. Every dormitory should have two exits, and the exits of the dormitories not on the ground floor should lead to separate staircases.

Recreation hall.

27. A general recreation hall, which can also be used as a dining hall for patients of both sexes, of ample size and conveniently situated with reference to the kitchen, should be provided, with a stage at one end, and dressing rooms with lavatory accommodation. A scullery and serving room should be attached to the hall.

Staff mess and sitting rooms.

28. Mess rooms for the male and female attendants, capable of being used as sitting rooms in the evening, should be provided for the smaller asylums, and separate mess and sitting rooms, as before prescribed, for asylums of larger size; also mess rooms for sub-officers, all these near the main kitchen.

Visiting rooms.

29. Visiting rooms of sufficient size, with lavatory and w.c. accommodation attached, or conveniently near, should be provided, within convenient distance of the general entrance and of the patients' wards, and placed so as to minimise the opportunities of the sexes coming into contact.

Officers' quarters.

30. Suitable apartments should be provided for the assistant medical officers; and also for the steward or his clerk, matron, and chief attendants; but for these officers, except perhaps the assistant medical officers in large asylums, separate kitchens are not required. The apartments for assistant medical officers should, if possible, face the south and consist of a sitting and bed-room for each officer, a common dining-room, spare bed-rooms for visitors, and, possibly, a billiard room. They should be conveniently placed with regard to the wards occupied by the sick and recent cases, and, adjacent to these apartments, a room for pathological research and the storage of specimens should be provided. 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. If the employment of a married head male attendant is contemplated, a cottage in convenient proximity to the male division should be provided. Cottages will also be probably needed for married male attendants and artisans. (*See drawing on page 19.*) They should be so situated and arranged that the entrance to them will not be within the grounds of the asylum.

Servants' quarters.

31. There should also be suitable sleeping accommodation and a mess room for the laundry maids, and a servants' hall and bed-rooms for the domestic servants.

32. The various wards and apartments of the main building may be connected by covered ways or corridors of communication, not necessarily enclosed at the sides, which ought to be no wider than is necessary to give convenient access to the several parts of the building. The main corridors should in no case exceed 9 feet in width. Steps should be avoided in these corridors as far as possible, but no incline should exceed one in thirty. **Covered ways and corridors.**
33. The general stores, workshops, laundry, and similar offices should be on the north side, with entrances to them on that side, and be so arranged that there need not be more than one outer entrance to the steward's and workshops' courts, conveniently placed for control by the steward from his office. **Stores, shops and laundry.**
34. The workshops should comprise shops of ample size for carpenters, painters, plumbers, and engineers, with a smithy adjoining, and a shed for bricklayers and masons, all opening on to a courtyard, conveniently arranged for the delivery of materials. **Workshops.**
35. There should also be shops for upholsterers, tailors, and cobblers, in direct communication with the asylum and near to the working patients' wards. Part of the upholsterers' shop should be partitioned off by a glass screen as a room for hair-picking in winter, an adjacent open shed being provided for this purpose in summer. A room, with appliances for washing and drying horsehair, will be found useful.
36. It is convenient to associate with the cobblers' shop a central boot room with heated racks, where boots can be changed on returning from work on the land, and be dried and inspected for repairs.
37. Well arranged laundry buildings, with a sufficient drying ground, must be provided on the female side of the asylum. A separate washhouse for officers' and attendants' linen is desirable, and also a separate washhouse for soiled linen. The appliances for the drying of clothes should be of the most efficient description. **Laundry.**
38. A disinfectant should be provided in a room adjoining the laundry, with an approach from outside the laundry and drying ground. **Disinfectant.**
39. A good but not unduly large residence suitably and conveniently placed, not too far away from the asylum, but away from the sights and sounds of it, should be provided for the medical superintendent, with kitchen and other necessary domestic offices. **Superintendent's residence.**
40. A separate house, of moderate size, may need to be provided for the steward, if none is obtainable in the neighbourhood. **Steward's house.**
41. A chapel must be provided which should be easy of access, and capable of comfortably accommodating at least three-fifths of the patients. It should have the usual character and arrangement of a church, and contain no special or peculiar provision for the separation of the sexes, except distinct entrances. Small closed porches or lobbies should be conveniently placed, to which epileptic patients seized by fits during service may be removed. This building, while being designed on ecclesiastical lines, must not be ornate in detail, or constructed with elaborate stonework. **Chapel.**

- Isolation hospital.** 42. There should be a small detached hospital for not more than three patients of each sex for the isolation of infectious cases. It should include a kitchen, a room to be used as a washhouse, accommodation for a caretaker and his wife, as well as for day and night attendants. The cubic space in the patients' part of this building must not be less than 2,000 feet for each patient in dormitories and single rooms. The building may, if desired, be constructed of inexpensive but fire-resisting materials, the walls and ceilings being plastered, and the floors solid. (*See drawing on page 18.*)
- Mortuary.** 43. A mortuary, consisting of two rooms, together with a post-mortem room supplied with a washing-up sink, should be provided in a position easily accessible from, but as much as possible out of sight of, the wards. For large asylums, it should also have a waiting room for patients' friends, w.c. accommodation, and, possibly, a laboratory for pathological research. (*See drawing on page 19.*)
- Farm buildings.** 44. Farm buildings should be provided with adequate accommodation for stock and stabling for horses, including those of the visiting committee.

CONSTRUCTION OF BUILDINGS.

- Character of building.** 45. As the building is intended principally for the accommodation of pauper patients, all superfluous decoration must be avoided, both in the exterior and interior of the building, which however should be rendered as cheerful and attractive as due considerations of economy will permit. All unnecessary and undue expenditure upon official and administrative buildings must be carefully avoided both in their construction and fittings. Care should be taken to use materials which will prove durable and inexpensive in upkeep. Decorative woodwork should be avoided, and wood exposed to view be used as sparingly as possible, so as to render frequent re-painting unnecessary. Architraves and other mouldings should be of the simplest form and so as to prevent the accumulation of dust. Cement or one of the hard forms of plaster should be used for walls which are required to be smooth and which are not lined with glazed bricks or tiles.
- Walls damp proof.** 46. The walls must be so constructed as effectually to exclude wet. If built of brick with a cavity, the inner half should be at least one brick thick, as the weight of all floors will be mainly on the inner portion of the wall.
- Damp course.** 47. A damp course of some impervious and durable material must be introduced in all walls below the ground-floor level, including all boundary walls.
- Staircases.** 48. The stairs should be built of stone, concrete, teak, or other fire-resisting material, without winders or long straight flights, and with as shallow risers as possible. The well should be built up, and hand-rails provided on each side of the stairs, but no space should be left between the rail and the walls. Fixed gas brackets or other projections which might be used for suicide should not be attached to walls of staircases or corridors.
- Fire-resisting construction.** 49. Wherever practicable, horizontal and vertical fire-resisting construction should be adopted. The ceilings next below the roof, in all parts of the asylum of two or more storeys

occupied by patients, must be constructed throughout of incombustible materials, and it is very desirable that the walls dividing the various blocks of buildings should be carried up through the roof.

50. Hydrants, connected with a high reservoir, or tank in a water tower of considerable height, or with the public main in which there is a good pressure, should be placed in convenient positions on all the floors, and external mains with hydrants provided, by which water can be thrown over the building. The positions of these hydrants should be conspicuously indicated. **Hydrants.**

51. It is convenient to have the internal hydrants enclosed in cupboards, large enough to contain the hose, when attached to the hydrant and nozzle. The cupboard should open with the ordinary ward key.

52. In all cases, descending or horizontal smoke flues should, where practicable, be avoided; but when used, they should be constructed with iron pipes inclosed in covered brick channels; and flues from any close fire or furnace which are carried up in any of the walls, should be constructed of special non-conductive bricks or with a hollow space round them, to prevent the inconvenient transmission of heat into the building during the warmer periods of the year. **Smoke flues.**

53. All corridors, not being only passages of communication, also day and sleeping rooms, should have wooden floors; and it is desirable that where boards are used they should be grooved and tongued. Where oak is not used it is indispensable that the wood should be the best yellow deal, or pitch pine in boards of narrow width, or in blocks, and thoroughly well seasoned. All wooden floors should be prepared for dry rubbing. The floors of sculleries, lavatories, urinals, and waterclosets, should be of cement, tiles, or other non-absorbent material. Floors of corridors or passages of communication may be of wood blocks, granolithic, or some other hard, durable, and inexpensive material. A layer of cement-concrete, not less than 4 inches thick, should be laid under all boarded floors at the ground level. **Floors.**

54. No timber, inserted in any wall, should be placed within 9 inches of a smoke flue, and no plug should be driven within 6 inches of the inside of any flue.

55. On account of durability, cleanliness, and economy in maintenance, the walls of all kitchens, sculleries, larders, washhouses, and general bath-rooms, may be faced internally with glazed brickwork or tiles the whole height, and those of other bath-rooms, lavatories, w.c.'s slop-rooms, staircases and main corridors, to dado height with cement or some hard form of plaster above. **Wall finishings.**

56. The remaining walls generally should be plastered or cemented internally, but those of all single rooms must be cemented the full height without break or beadings. Walls of workshops and other similar buildings may be of fair faced brickwork colour-washed.

57. Windows should be of sufficient size and number, being, in the case of all habitable rooms, not less than one-tenth of the floor areas. **Size of windows.**

58. The lowest clear glass in day room windows should be not more than 2 feet 6 inches from the floor. They should have wood **Day room windows.**

sashes, double hung, and be made to open easily so as to allow a free circulation of air.

Single room windows.

59. The sills of single room windows should, as a general rule, be about 4 feet from the floor, and they should be splayed so as to prevent patients standing on them. (*See drawing on page 20.*)

Dormitory windows.

60. The sills of dormitory windows may be less than 4 feet from the floor.

Windows to be protected.

61. If not otherwise protected, the windows in all parts occupied by patients must be stopped so as to allow of being opened not more than 7 inches at the top and 5 inches at the bottom. The panes should be of moderate size, say 11 inches by 8 inches, and the sashes be hung with concealed cords.

Single room shutters.

62. Strong solid hinged shutters should be provided for a majority of the single rooms, and be so constructed as not to admit of being forced open, or afford opportunities of committing suicide by hanging. They should be made to lock with an ordinary ward key, and to lock flat back against the wall when not in use. Light and air may be admitted through the shutters by apertures in them about 9 inches square, filled in with three-sixteenths of an inch mesh "over and under" galvanized iron wire panels (galvanized after manufacture), No. 16 S.W.G. on No. 11 S.W.G. frames firmly fixed into the beaded rebates with strong iron-staples. (*See drawing on page 20.*)

Single room doors.

63. The doors of the single rooms should, as far as possible, be opposite the windows in the day rooms or corridors; they should open outwards, and be so hung that when open they will fold back close to the wall. Those for rooms occupied by excited patients should be especially strong, and those for rooms for epileptic patients should have an open panel $3\frac{1}{2}$ inches wide in the centre of the door, so high above the middle rail that the occupant of the room cannot reach the handle of the door. The locks for all single room doors should be dead locks, and contrived so as to open, when not doubly shot, by a handle on the outside.

Water-closets.

64. The w.c.'s should be of the wash-down type, with hinged hardwood seats, to lift up as urinals on the men's side, those in the sick and infirm and epileptic wards should occupy all the space between the divisions. Urinals should not be provided except in airing courts. Each closet should be flushed by a separate flushing cistern of not less than $2\frac{1}{2}$ gallons capacity. The pulls should be enclosed in tubes attached to the wall, or have concealed wires with flush slots. All cisterns and pipes should be carefully cased in or protected; and all gas brackets, or pendants, and partitions between the closets should be so constructed and fixed as to avoid facilities for suicide.

Warming.

65. All day rooms, corridors, and dormitories, should have open fireplaces in sufficient number. Additional means of warming upon an approved system should also be provided for all large spaces for which open fires would be insufficient, and also for the majority of the single rooms, and for lavatory and w.c. blocks. If radiators are introduced, they must be protected by galvanized iron guards made easily removable for cleansing.

Ventilation.

66. Every part of the building must be thoroughly ventilated, and particular attention must be paid to the night ventilation of

the dormitories and single rooms. As flues can be fouled by patients they are objectionable in single rooms.

67. Openings should be provided over all single room doors, filled in with wire gauze as described for the shutters (clause 62). Sliding shutters should be provided to a certain number of these openings. (See drawing on page 20.)

68. A safe and efficient mode of lighting the asylum must be provided. If gas or electricity be used care must be taken that all pipes, cables, wires, brackets, lamp fittings, taps and switches are so placed, and of such a description, as to be safe from interference by patients. **Lighting.**

69. Where possible, gas should be introduced to the general kitchen and the ward sculleries for cooking purposes. **Cooking.**

70. Lightning conductors should be placed on the most elevated parts of the building, and constructed upon approved principles. **Lightning conductors.**

71. The best and most approved system of pipe drainage must be adopted, and soil pipes must be placed outside the walls and be thoroughly ventilated. **Drainage.**

72. Rain water from the building should be collected in a tank or tanks, suitably placed, for use in the washhouse and steam boilers. **Rain water.**

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

74. There should be, both for the male and the female patients, at least four airing courts of ample size so that the infirm, the turbulent, the convalescent, and the epileptic and more demented cases may not be together when at exercise. They should be planted with trees and shrubs of a non-poisonous character, and any trees already within them should be preserved for shade. They should be enclosed by unclimable fencing (without spikes), preferably sunk in a ha-ha or ditch about 2 feet 6 inches deep with the ground gradually sloped thereto and protected therefrom by borders planted with low shrubs. The principal paths should be about 12 feet wide and all paths should be well paved and drained. Seats and properly constructed sunshades should be provided, and simple urinals and w.c.'s may be provided to a limited extent. **Airing courts.**

There should be no soil borders up to the patients' blocks, and all inner courts and recesses around the buildings should be paved.

PLANS AND PARTICULARS.

75. In the first instance designs must be submitted for the consideration of the Commissioners, comprising, in the case of new asylums, (1) an ordnance map of the estate, showing the proposed position of the buildings, and (2) a plan of each floor of the various buildings, to a scale of 16 feet to an inch in the case of small asylums, or 24 feet to an inch for large asylums, and having the sizes of all rooms clearly indicated by figures. **Preliminary designs.**

76. In the case of alterations or additions to existing buildings, the designs should comprise, (1) a block plan of the asylum showing

the position of the proposed alterations, with (2) plans showing in detail the proposed alterations and additions and the adjacent buildings.

Constructional drawings.

77. All preliminary drawings may be in pencil on drawing or tracing paper.

78. When the preliminary plans have been provisionally approved by the Commissioners, the following drawings will be required for submission to the Home Secretary, and these must be properly completed in ink and coloured and drawn on paper or tracing linen, and a copy of these, on linen, must be subsequently supplied free of charge to the Commissioners to be retained by them for reference.

- (1.) An ordnance map of the estate, to a scale of 25 inches to a mile, showing the buildings, roads, paths, airing courts, etc.
- (2.) Plans of each floor of every building, to a scale not less than 16 feet to an inch, indicating the character and area of each room, the class and number of patients to be accommodated, and the positions of the beds in the dormitories; also the positions of the fire hydrants, both inside and out, and, by distinctive colours, the character of the proposed floor pavings.
- (3.) A plan of the drains, both soil and rain water, drawn to a suitable scale, showing the floor levels of the buildings, the original and finished surface levels of the ground, the levels and gradients of the drains, also the intercepting traps, air inlets, ventilating shafts and other details.
- (4.) An elevation and section, to a scale not less than 8 feet to an inch, of each block or building in which there is material variation in character or construction.
- (5.) A section, to a scale not less than 4 feet to an inch, of a single room, day room, and dormitory, showing the method of warming and ventilating; also of a bathroom, lavatory and watercloset, with their apparatus. These drawings to be supplemented by detail drawings of the single room shutters, and w.c. divisions, also the arrangement of soil pipes to the sanitary annexes.

Figured dimensions.

79. The thicknesses of the walls, the scantlings of the timbers of the floors and roofs, and the dimensions of the iron girders, and roof trusses, if any, must be figured on the drawings.

Other particulars.

80. The following documents must also be submitted:—

1. The Building Schedule, issued by the Commissioners, with the requisite particulars, and detailed estimates of cost.
2. An outline specification, which will be retained for reference, of the building materials to be used throughout, particularly describing the floor and wall furnishings of each room.
3. A detailed description of the schemes for heating and ventilation, lighting, and electrical communications, to be supplemented by illustrations of the various appliances to be used.

81. By agreement with the Local Government Board, lunatic asylums of which plans are approved by the Secretary of State, are exempted from byelaws made by the Urban Sanitary Authority under s. 157 of *the Public Health Act, 1875*. In the case of most, if not all of the Rural Sanitary Authorities, their byelaws also exempt Lunatic Asylum Buildings. A report will therefore be required as to the conformity, or otherwise, of the plans to the local byelaws, showing whether they in any respect fail to comply with such byelaws, and if so, what is the justification for such non-compliance, and a copy of the byelaws of the district must be furnished with the report.

**Exemptions
from
byelaws.**

By Order,

B. T. HODGSON,

Secretary.

SANITARY CONVENIENCES.
REVISED STANDARDS—AUGUST, 1936.

The general effect of the revised standards relating to sanitary conveniences for patients' use in Mental Hospitals and Mental Deficiency Institutions is as follows:—

1. An increase in the proportion of w.c.'s for day use from 1 to 12 to 1 to 8 patients; also the provision of a lavatory basin and w.c. for staff in each unit.
2. The replacement of not more than 1 w.c. in each unit for male patients by 2 or more urinal stalls.
3. (a) The provision of a lavatory basin in each dormitory, except in units for reliable or active patients where the grouped basins are available for night use.
(b) The provision of a lavatory basin in each room where food is prepared, also in the painters shop.
4. The provision of (a) a slop sink in each unit where a Sluice Room is not required; (b) a cleaners room and sink in a situation removed from the Sanitary Annexe and (c) a compartment for foul linen off the Sluice or Sink Room.
5. In units where patients of defective habits are accommodated, e.g.
 - (i) The Admission and Sick Hospitals, the Closed Units and the Wards for Senile and Infirm, the Epileptic and other special wards in a Mental Hospital for patients of defective habits.
 - (ii) The Sick Hospital, the villas for cot and chair cases and for low grade active patients of a Mental Deficiency Institution.
 - (a) The provision of a Sluice Room, suitably fitted with a short bath and a hospital pattern combination sink and other necessary fittings.
 - (b) The provision of a specially wide w.c. in each unit, to permit of the attention of a nurse.
 - (c) The provision of a w.c., with an observation door, opening out of or adjoining each dormitory.