

Description of a Proposed New Lunatic Asylum for 650 Patients on the Separate-Block System, for the County of Surrey.

THE advantages derivable from the separate-block system of asylum architecture, from simplicity of construction, facility of natural ventilation, and diminished risk from fire, great as they may be, are yet but small advantages in comparison with that afforded by avoiding the evil of concentrating vast numbers of insane persons within a limited space, so that each patient, to his great detriment, becomes, as it were, surrounded by a thick atmosphere of insanity.

The separate-block system diminishes this main evil of asylum architecture to the greatest practicable extent; while, if the decentralization of the buildings be kept within due limits, the advantage of economical management dependent upon the provision of easy communication between the separate blocks and the use of one set of offices may still be preserved.

We believe that in the plan submitted, the decentralization of the buildings is effected in the manner most consistent with simplicity of construction and facility of communication; and although it may be said that the difference between the ground plan and that of some other asylums is merely due to retiring the middle third of each wing, the result of this simple change is to give an arrangement entirely distinct and different from that of any asylum in existence.

The removal of the residence of the medical superintendent from the centre of the asylum has the sanction of experience at the Gloucester County Asylum and at Chester. A new residence for the medical superintendent is at the present time being built at some distance from the large Edinburgh asylum; and the same arrangement has been made at Broadmoor and at Inverness. By distributing the residences of the officers, their influence will be at least as much felt throughout the asylum as if, in the more usual manner, they were all placed in the centre of the buildings.

In the plans here set forth it is designed to describe a County Lunatic Asylum so constructed as to distribute the patients over the widest area which may be consistent with economical management and due supervision; and for this purpose to break up the buildings used for patients into blocks sufficiently separated to ensure the advantages of isolation and yet to provide ready means of communication with the kitchen and other central offices.

It is further intended so to place these separate blocks that the patients residing in them may enjoy the whole benefits of a southern aspect, of a front view, both for the buildings, and the courts and pleasure-ground devoted to their use.

It is further intended to make the internal arrangements of these separate blocks in such a manner as to avoid internal galleries and passages, and to provide for the day residence of the great majority of the inmates on the ground floor in spacious and well-proportioned rooms, and to provide for their sleeping accommodation on the upper floors; certain exceptions to these arrangements being made in favour of acute and infirm cases for whom large wards and the use of stairs would be objectionable.

In the construction of an asylum on this plan, it may be thought that the great length of covered ways will be a costly item; and to some extent this would be true. But those covered ways at the back of the blocks, and those at right angles to the front, would add little to the cost, since the walls of the buildings and of the airing courts would be made use of in their construction, and a wooden roof, which would last twenty years, might be added to these walls for 12s. the foot run. They would also prevent the need of erecting exercising sheds and sun-shades. The covered ways facing to the front would be more expensive, but their length is not great.

By avoiding all waste of room, the construction of the block buildings themselves would be exceedingly economical. The avoidance of internal passages rendered possible by the use of the external covered ways, would be one cause of this economy of room. The use of large rooms for the day accommodation of the patients would be another cause of it. Daily observation assures us that a number of patients will not distribute themselves over the long galleries in use in asylums, as they readily do over large day-rooms. The result is that half the space in long galleries is wasted space, and wasted space is the greatest and most common architectural extravagance. Let any one of our most costly public buildings, asylums, hospitals, or even prisons, be looked at with the desire to ascertain in what manner the money it has cost has been sunk, and it will probably be found that there is little enough to shew for it in ornamental extravagance: but this one thing will be apparent almost everywhere, namely, that there is abundance of wasted space, wide galleries only used as passages, wide well-staircases, and intervals of space used for nothing. It is by avoiding all waste of space that the buildings of the plan submitted would, as it is hoped, be equally economical and efficient.

Reference to Ground Plan. No. 1.

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| <p>A A. Large wards.
 B B. Small wards.
 C C. Covered ways.
 D. Chapel.
 E. Kitchen and scullery.
 F. Refectory and amusement room.
 G G. Washhouse and laundry.
 I J. Meat, bread, and cellar stores.
 K L. Bakehouse and brewhouse.
 M. Entrance gate.
 N. Kitchen court.
 O. Board room and office.</p> | <p>P. Reception and visiting rooms.
 Q. Matron and general servants.
 R. Steward and clerk with store-rooms.
 S. Workshops.
 T. Medical superintendent.
 V. Assistant medical officer and chaplain.
 W W. Workshop—yards, and courts.
 Y Y. Walled airing courts.
 Z Z. Patients' pleasure grounds.</p> |
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Reference to Plan of Block. No. 2.

First or day-room floor of a large ward.

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| <p>A. Large day-room.
 B B. Smaller day-rooms.
 C. Bath-room and lavatory.
 D. Entrance lobby and stairs.</p> | <p>E E. Single sleeping rooms.
 F F. Lobbies, with closets in recess.
 G. Water-closet.
 H. Scullery.</p> |
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Reference to Plan of Block. No. 3.

Ground floor of small ward for acute and infirm Cases.

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| <p>A. Large day-room.
 B. Smaller day-room.
 D. Dormitory.
 E E E. Single sleeping-rooms, opening into passage.
 F. Entrance lobby and stairs.</p> | <p>G. Water-closet.
 H. Scullery.
 K. Attendants' room.
 L. Lavatory.
 M. Dormitory.
 N. Passage.</p> |
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Ground Plan of the Buildings.

The buildings consist of six separate blocks, three for men, and three for women; four of the blocks are in alignment in the front; the second and fifth blocks are in retirement from the front to a distance of about sixty yards; they however face the front, so that the whole line of block buildings with the chapel occupying the central position between the men's and women's sides, forms one frontage, affording scope for architectural effect.

In the centre of the buildings and behind the chapel are the refectory, kitchen, and other domestic offices, constructions of one story, for which ample space is afforded.

The entrance of the asylum is from the back, and from the north, and on each side of the entrance are the board room and the visiting and reception rooms; and in immediate proximity the residences of the steward and of the matron. In the matron's house and under her control, the cooks and laundresses will reside.

The residence of the medical superintendent is a distinct building to the east of the front, and in connexion with the acute and infirmary wards for women.

The residence of the assistant medical officer and of the chaplain is to the west of the front, and in connexion with the acute and infirmary wards for men.

The different blocks are brought into connexion with each other, and with the chapel and domestic offices, by means of covered galleries; these galleries are intended to be open on the side facing the airing courts, so that they may serve as sun-shades, and as covered ways for exercise; they will also form the boundaries of the courts to prevent escape.

The inclination of the ground is supposed to be from the north to the south so that the lower windows of the blocks retired from the front will look over the covered ways connecting the front blocks.

The chapel is intended to be the only part of the building upon which architectural ornament will be displayed, and should perhaps be of light-coloured stone in contrast to the plain brick of the asylum buildings. The spire or tower will contain the bell or clock, and the chapel itself will mask from the front the low roofs of the domestic offices.

The stables and farm buildings will be placed at a convenient distance from the asylum, sufficiently remote to prevent the effluvia from a large piggery reaching the wards.

The gas works must be on the lower level. If facilities should be afforded it will be advisable to make a wharf and yard in connexion

with a creek of the neighbouring canal on the asylum property; and in this yard to place the gas works, the pump for raising water, sheds for coal and other bulky stores, a smith's forge, and the residence for the engineer. The water, for which a supply of not less than 25,000 gallons daily must be provided, should be pumped into cisterns placed in the central tower of each block. If the main water supply should be derived from the canal, two or three shallow wells with common hand pumps will be useful to supply water for drinking.

Construction of Blocks and Internal Arrangements.

The main building of each block is of two stories, but there are in connexion with each block three towers of three stories, the third story in each tower being used exclusively for small dormitories. These towers have high-pitch roofs and while they provide valuable accommodation, they will break the monotony of the line of building, and give an agreeable and effective outline to the structure. The towers at the end of each block are fifteen feet square within the walls; the central tower in each block is thirty feet by twenty-four feet and a half.

The blocks have single roofs, the span of which is thirty-three feet within the walls.

The span of the floors from the front wall to the walls of the single sleeping rooms is twenty-three feet within the walls.

The several blocks will not be of exactly the same length.

The blocks for the women should be longer than those for the men, to accommodate the larger number of female pauper lunatics which accumulate in all county asylums; but no block will exceed 180 feet from end to end of the main roof.

Each block has a partition wall in the centre which divides it into two or into three wards; the blocks nearest the centre are divided into two wards only; the four blocks furthest from the centre are divided into three wards each, namely, one large ward marked A, and two small wards, one on each story, marked B. Thus there are four large wards and four small wards on each side, sixteen in all. In each block the front or south side is occupied by living rooms and dormitories, and the back or north side is occupied by a range of small rooms, the front or south wall of which will support on that side the floors of the larger rooms. The corridor of communication will run at the back of each block, the windows of the lower range of single rooms being placed above its roof. Means of ingress and egress are provided at the extremity of each block. In the large wards there is only one internal wall running longitudinally,

but in the small wards there is a second wall running rather more than half the length of the ward and dividing off a passage leading to the dormitories and single sleeping-rooms. This is a passage of communication only, and is lighted by windows in the inner walls of the dormitories and by a glass door opposite to an end window. With the exception of these passages fifty feet in length in the small wards, there are no internal passages or corridors or galleries in the whole of the building.

Tranquil and healthy patients will be placed in the large wards which are nearest to the centre, in order that they may more readily dine together in the refectory, and that the women may be near to the laundry and kitchen, and the men to the workshops. Patients suffering from bodily disease and from acute mental disease will be placed in the smaller wards; the wards especially devoted to the use of the sick will be those which are close to the residences of the medical officers; the excited and dangerous will be placed in the small wards in the retired blocks.

Accommodation in the large wards will consist of one large day-room from fifty-five to sixty-five feet long within the towers, according to the size of the several blocks. The width is twenty-three feet, the height is fourteen feet.

In addition to this spacious living-room, there are two smaller sitting-rooms in the towers. Behind one of the sitting-rooms in the central tower is a bath-room common to the block; and the smaller sitting-room in front of this bath-room is to be used as the anteroom in connexion with it, when numbers of patients are being bathed.

Only four of the small rooms on the ground floor of the large wards are to be used as single sleeping-rooms by patients who would at night be liable to disturb the quietude of the dormitories in the second storey. Three of these single sleeping-rooms do not open directly into the large day-room, but into a small lobby between each pair of them; the lower part of which lobbies is utilised as store-closets. The water-closets are placed outside the blocks, and communicate with the entrance lobbies. They have opposite windows, external to the block buildings, to ensure thorough ventilation.

The second floor in each large ward, twelve feet high, is devoted entirely to dormitories and single sleeping-rooms. All the single sleeping-rooms open direct into the room which is placed over the large living-room in the floor below; a passage, however, five feet wide, into which these single sleeping-rooms open, is divided off from the large dormitory by a partition, only four feet six in height, however, so that any person on entering this floor would from the passage have an uninterrupted view of the dormitory. The dormitory inside this partition is eighteen feet wide, so that two rows of beds placed opposite to each other would leave a passage of six feet;

if the two rows of beds were placed facing the windows there would be a passage at the foot of each row of beds three feet wide, and each patient would have the sanitary advantage of facing the light, and no patient's head would be placed in the downward draught caused by a window. Between each two beds a seat or locker might be placed, and by this arrangement, without any second partition, the two rows of beds would be conveniently separated from each other.

The rooms in the towers at each end will form small dormitories of four beds, and the rooms in the central tower will form dormitories of seven beds; parts of these rooms must necessarily be occupied by stairs for access to the third stories of the towers, which will contain dormitories for the same number of beds. The upper stories of the towers in the whole asylum are thus good for the sleeping accommodation of 132 patients, namely twenty-two in each block.

Between the dormitory in the central tower and the large dormitory in the body of the block, an attendants' room is partitioned off fourteen feet by eighteen feet. This attendants' room communicates with the two dormitories between which it is placed, by means of doors whose upper panels are made of perforated zinc, so that the attendants may be able to hear any unusual noise that may take place in either of the dormitories. The large dormitory between the attendants' room and the projection of the end tower is fifty feet long, and allowing five feet for each bed and its interval, will give room to place twenty beds; an additional bed might be placed in the inner line, but it is better to keep this place free for washing-stands. No wall or partition is placed between the dormitories and this end of the building, in order that the light from the end windows may not be interrupted, the light of an end window having always great effect in promoting the cheerful appearance of the room. A water-closet and a lavatory are placed on this floor above those in the floor below.

The following sleeping accommodation is thus formed in one of these large wards—Large dormitory twenty beds, two dormitories in the central tower seven beds each, two dormitories in the end tower four beds each; four separate sleeping-rooms in the first floor, eight separate sleeping-rooms in the second floor = 54.

Arrangement of the smaller wards.—The half of the two blocks furthest from the centre on each side is arranged in quite a different manner from the large wards, so as to provide a ward on each floor. In these wards such patients will be placed as are suffering from acute mental disease or from bodily disease, or from the infirmities of old age, or who are suicidal or dangerous to others and cannot be associated in the large wards; all patients, in fact, who need special care and supervision. These wards in the front blocks will be generally devoted to the infirm, and those in the retired blocks

to the dangerous classes. The wards on the ground floor of the former will be used generally for that class of infirm patients whose condition will not prevent them from taking exercise in the open air. Aged and infirm people whose condition will prevent their taking open-air exercise will be placed in the small wards of the second floor; the complement for these wards being made up by patients in better health, to whom the use of the stairs will not be an objection.

The small wards in the retired blocks will contain what may be called the dangerous classes of the asylum community, and their classification in these wards will depend greatly upon their mental condition; practically, it has been found advantageous to separate the merely noisy and excitable patients from those patients who are apt to indulge in acts of violence, the refractory class properly so called. Epileptics will, as a rule, be placed on the ground floor and distributed according to their state of mental tranquillity between the small wards in the front and the retired blocks. Idiots and demented patients of good health will be placed in the large wards of the retired blocks.

The small wards on the ground floor and those on the upper floor resemble each other in their arrangements, except that those on the upper floor have the additional sleeping accommodation for eleven beds which is afforded in the third stories of the towers.

The construction of the building in the small wards differs from that in the large wards by the addition of a second internal wall running longitudinally, and extending to half the distance between the corner of the central large tower and the end of the block, and cutting off a dormitory and an attendants' room to the front of the block, and a passage of communication of five feet in width between these rooms and the single sleeping-rooms. This passage, used only for communication, will be lighted through windows in the wall of the passage by light transmitted through the dormitory and through the attendants' room. The dormitory, twenty-two feet by seventeen feet, will contain eight beds. The room in the central tower, twenty-four feet and a half by fourteen feet and a half, will also contain eight beds. The attendants' room placed between these two dormitories is arranged in a manner similar to that of the attendants' room in the dormitories of the large wards, affording an additional security to that of the night watch against nocturnal accidents. At the end of the block furthest removed from the centre of the building is the day-room, thirty-six feet by twenty-three feet, but encroached upon in one corner by the angle of the end tower. The room in this tower, fifteen feet by fifteen feet, is a second and smaller day-room for the separation or retirement of a few patients. There are seven single sleeping-rooms, five of which open direct into the passage of communication, and two of which open into the day-room. The

water-closet and lavatory are placed at the end of the ward nearest the centre of the block.

The accommodation of these small wards is, on the ground floor two dormitories of eight beds each and seven single sleeping-rooms = twenty-three beds. On the upper floor the same accommodation — one bed in the central dormitory and + eleven beds in the upper storey of the towers = thirty-three beds.

The whole sleeping accommodation provided, therefore, according to the proposed arrangement of beds, is in each of the eight large wards $54 \text{ beds} \times 8 = 432$. Small wards on ground floor $23 \text{ beds} \times 4 = 92$. Small wards on the upper floor $33 \text{ beds} \times 4 = 132$. Total 656.

Additional accommodation might conveniently be provided, by extending the central towers to the front. Breadth for one additional bed to the front would afford room for ten additional beds in each block, or 60 beds altogether.

NOTICES OF BOOKS are unavoidably postponed to our next Number.