THURSDAY, JANUARY 12, 1871

THE NEW HOSPITAL OF ST. THOMAS

FEW more marvellous creations of constructive art have burst in rapidly maturing beauty upon the eye than the noble *vis-à-vis* which now faces the Palace of Westminster, and looks across the Thames at it from the opposite stretch of Embankment, rendering the site which is centred by Mr. Page's graceful bridge, one of the most remarkable that is to be found in the chief cities of the world. The Hospital may possibly be held to be subordinate to the Palace in dignity and grandeur of external form; but in two particulars it must be admitted to be in no way inferior to its rival. It is dedicated to a purpose of highest and purest beneficence, the alleviation of human suffering, and to unceasing conflict with one of the most potent of the powers of physical evil; and it is a *chef-d'œuvre* of perfection and completeness for the accomplishment of the end to which it is destined. Within thirty-one short months this vast building has been so far advanced under the hands of a staff of nearly 900 workmen, that it is now quite possible to take a comprehensive view of the purpose and plan of its designers, and fairly to contemplate in its most advanced form the idea of what a public Hospital should be in these days of scientific development and conquest.

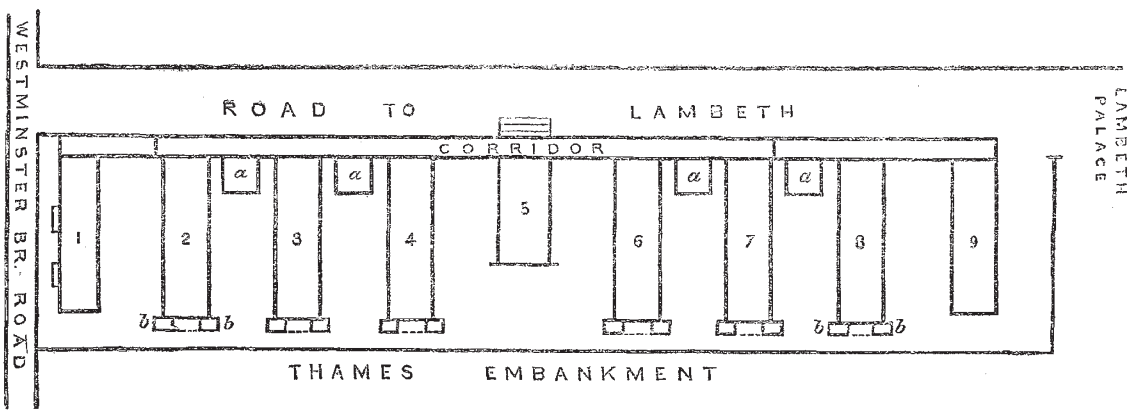
It is a matter of notoriety, that after a period of perplexity and doubt,—during which it seemed at least problematical whether the old Hospital of Edward VI., which had been ejected from its primary home near the southern end of London Bridge by the remorseless demands for increased railway access on that side of the metropolis might not be scattered into disjointed fragments for want of a sufficiently spacious central site, where its functions might be efficiently and conveniently resumed after the old fashion and upon the old scale,—it has been found practicable to give it a new habitation in Lambeth, in a position in no sense inferior in promise of direct usefulness to the one it previously occupied in the borough of Southwark, and in many particulars with a marked and unquestionable accession of advantages in the change. In accomplishing this task, it was wisely determined, after due deliberation upon all the interests involved, so to use the great opportunity as to show to the world what is required by the present conditions of sanitary and medical science in a Hospital erected for the study and cure of disease and casual injury. This, of course, could only be accomplished at some cost in the matter of money and space. But it was held that a very considerable measure of compensation might be at once effected by the adoption of very perfect organisation and very complete mechanical contrivance; and that beyond this any money outlay which establishes a model of perfection in Hospital construction and arrangements, must be admitted to be a wise and sound investment for the community on other grounds.

The most casual observer of the external aspects of this vast pile of building will at once perceive that the fundamental idea of the plan is the breaking up of the structure into a series of subordinate blocks, which must allow of the most thorough and ready permeation of fresh air to every part of the inhabited interior. The *beau ideal* of the ward of a Hospital is that it shall be a spacious room, constructed with due regard to the number of inmates it is allowed to accommodate, open on all sides to the fresh blasts of Heaven. The problem in this individual case has been to determine how several hundreds of inmates can be lodged in a building placed in a densely inhabited part of a great city, without violence being done to this fundamental necessity. In the new Hospital of St. Thomas nine distinct blocks of buildings have been spread along the immediate Embankment of the river, from the end of the bridge at Westminster to the Archbishop's Palace at Lambeth, in such a way that they have the open space overlooking the broad channel of the Thames at one side, and a roomy thoroughfare connecting the Westminster Bridge Road with Lambeth at the other. These blocks are of elongated form, their longest dimensions lying transversely to the course of the river, so that their ends look down upon the stream; their sides being severed by intermediate areas of clear space. Each block, in the main, is simply a stack of long single wards with windows at each side, placed one upon the other. But these wards are bulbous, or enlarged, at the river ends, for the sake of architectural effect, and for purposes of convenience which will be hereafter mentioned. But for almost the entire extent of their longest dimensions they are purely single long rooms pierced by spacious windows at both sides. On the ends opposite to the river these blocks are, in the lower flats, connected together by corridors contrived for the purpose of interior communication; but, throughout the upper flats the isolation of the blocks, and, therefore, the permeability to free air, is complete. Further reference will have presently to be made to the admirable way in which the work of necessary communication has been managed.

In broad outline the plan of the arrangement is, therefore, that which is presented to the eye in the sketch on the following page.

With respect to these blocks, it may be stated that No. 5 is the Central Hall, with entrance from the Lambeth Road, and the Chapel. No. 1 is the administrative block, consisting of the Governor's rooms and the Treasurer's residence, and No. 9 is the Museum and Medical School. The blocks 2, 3, 4, and 6, 7, 8, are, therefore, the Hospital proper. Each of these blocks consists of four flats, with an attic story above, and a basement story beneath. But the first floor in block 4 is appropriated to the accommodation of the linen and to the matron's use; and the corresponding floor in block 6 is absorbed by the kitchen and cooking apparatus. Block 8 is the compartment reserved apart for contagious and infectious diseases, and is differently arranged to the other Hospital blocks. There are therefore four large Hospital wards in blocks 2, 3, and 7, and three large Hospital wards in blocks 4 and 6. Each of these large wards in the three upper flats will accommodate 28 beds. The first floor wards in blocks 2, 3, and 7 are necessarily of somewhat smaller size, and are designed for 20 beds. All the patients' wards taken together, including those of block 8, and sundry small private wards scattered about the building, afford ample accommodation for six hundred indoor patients.

The principal channel of communication between the several blocks of the building is one long corridor on the ground flat or floor. This corridor runs the entire length from the administrative block (No. 1) to the block for contagious diseases (No. 8). But the portions of the corridor which lie between blocks 1 and 2, and between blocks 7 and 8, take the form of an open colonnade. For the rest of the distance, it is intrinsically an internal passage. The open, or colonnade, portion which leads to block 8, the assigned seat of infectious disorders, is carefully cut off from the rest of the corridor by closed glass doors, so that all contamination of the other blocks of the building by the infected air is simply impossible. The open air-space which intervenes is ample for the neutralisation and destruction of atmospheric infection of any kind. The marvellous extent of space covered by this hospital is perhaps best estimated by stating the actual length of this corridor. The continuous length of the spacious passage is 916 feet from end to end. A very pleasant and convenient communication between the several blocks is effected on the second floor by a casemented passage, which runs along the main corridor. The communication for the third floor is along the open flat roof of this casemented passage; and above this there is no communication at all between the blocks. The effect of the light and airy outlook, giving the impression of altogether unrestricted lightness and freshness, which is encountered in passing along these higher passages of communication, is very charming and agreeable. There is scarcely anything in the arrangements of the buildings which is more striking and pleasant to an observer upon a first visit. The open passage at the top is guarded by a balustrade, which is very profusely ornamented by large urns made of artificial stone; a material which has been largely employed in the ornamental parts of the structure. This compound, which is a special patent, is formed of dissolved flint mingled with sand, the material being then saturated with silicate of potash under exhaustion or pressure. It is expected that this artificial stone will possess very enduring qualities, but from the present aspect of these urns the



writer of these lines inclines to think that the material yet needs further evidence of endurance and success before it can be held to have established the character at which it aims.

In addition to these corridors of communication, there is a still longer passage in the basement, extending quite from the administrative block to the Museum and Schools at the farther end of the structure, and giving immediate access to the department for washing linen, and to the Anatomical Schools and mortuary receptacles which lie beyond under the shadow of the old walls of Lambeth. There is also a sunken but open-air way running from end to end of the building immediately within the parapet trenching upon the river-embankment, which gives still further facility for the transport of heavy material. This channel of communication is very ingeniously and completely masked from observation both from the building itself and from the external space.

The important and interesting details relating to the arrangements which have been made within the large wards themselves to fit them for their beneficent work, must be reserved for another article.

R. J. M.

THE COLLECTION OF INVERTEBRATE ANIMALS IN THE FREE PUBLIC MUSEUM, LIVERPOOL

IN October 1861, when the Natural History collections presented to the town of Liverpool by the grandfather of the present Earl of Derby were removed from Duke Street to the building which they now occupy, the question arose, how should the museum be made as fully as possible to answer the requirements of the population by whom it was to be supported under the provisions of the Library and Museum Act.

The Curator, Mr. Moore, whose invaluable services are too well known to require further notice on my part, having on his hands, besides the duties of general superintendence, the re-arrangement of the extensive series of Mammalia and Birds, together with preparations for the reception of a similar series of Fishes and Reptiles, availed himself of my offer of assistance in obtaining and arranging a collection of Invertebrate animals, our stock of which at that time included little beyond some corals and a few very miscellaneous specimens.

The accommodation available for the proposed collection consisted of the central areas of a suite of five rooms