THE METROPOLITAN HOSPITALS.

II.-THE WESTMINSTER HOSPITAL.

THE Westminster Hospital is one of the older hospitals in London, situated in a poor and densely peopled district, comprising the united parishes of St. Margaret and St. John the Evangelist, and part of the parishes of Lambeth and St. George's Hanover Square, with an aggregate population of about one hundred thousand. The old hospital was built in 1819, and the present hospital in 1834. From its commencement up to December 31st, 1867, it has relieved about 750,000 patients, and the number appears to be rapidly on the increase.

The hospital faces Westminster Abbey. The building forms three The hospital taces Westminster Abbey. The building forms three sides of a square; the wings, one on each side of the central block, running back and enclosing the Medical School. The hospital is entered by a handsome portico in the centre of the building; and the hall is large, and well ventilated. The wards are situated in the wings, the central part of the building being mostly occupied by the other departments. The out-patient rooms, which we first visited, are in the cellars of the hospital, and adjoin the large and excellent kitchen and steward's department. They are small and dingy rooms, poorly furnished, but clean. There is but one entrance to the hospital: so that furnished, but clean. There is but one entrance to the hospital; so that all out-patients enter and pass through the hall—a plan which is, for apparent reasons, a bad one, and which, by having an out-patient entrance, might be easily obviated. But the evil is rendered greater by the system of out-patient one day relief in vogue at the hospital. Out-patients, without a letter of recommendation must, to obtain relief for one day, attend in the entrance-hall (which is thus made a waiting-room) between twelve and one, for a letter to the assistant-physician or asbetween tweive and one, for a fetter to the assistant physical of the patient sistant-surgeon of the day, when the name and address of the patient are entered in a book kept for the purpose by the librarian. This system of one-day letters is, we believe, peculiar to the Westminster Hospital; but it fails in its purpose. The mere fact of entering the patient's name one day is practically little check to his return next day, and the same nation may thus swell the list of natients relieved. day; and the same patient may thus swell the list of patients relieved, in a manner unfavourably to the returns of other hospitals, go the round several times of the different assistant-physicians or assistant-surgeons, and probably obtain little advantage from the variety of treatment he has to undergo; and, besides, the officers' time and energy are wasted. The assistant-physicians and assistant-surgeons are allowed, within certain limits, to make the more serious cases regular out-patients; and, as a large proportion of the cases most likely to be benefited are obtained from these casual patients, it is to be regretted, if this system is continued, that fuller powers are not given to the staff in this matter. There is no regular obstetric out-patient practice; and those cases requiring the advice of the obstetric physician have to attend in his ward until his arrival. The prescriptions for the regular out-patients are written on the governors' letters; and on these letters are the names and addresses of the staff of the hospital. We have frequently given our reasons for objecting to the addresses of the members of the staff appearing thus, and we merely now state that this custom is carried out at the Westminster Hos-We may mention that one member of the staff told us that he had been frequently annoyed by patients coming to his house instead of to the hospital. There are no out-patient instruments, and no arrangement, we believe, for ophthalmoscopical investigation. The diseases of the regular out-patients are, we understand, not registered. The letters

are, however, we understand, kept for reference. We next visited the *post mortem* room. It lies behind the hospital, forming part of the Medical School. It is badly found, and not supplied as it ought to be with the necessaries for conducting autopsies properly. The *post mortem* examinations are performed by the medical registrar; and the out-patient porter assists—an arrangement obviously a bad one, but which, we believe, is to be changed. We were frequently informed that several of the managers discountenanced *post mortem* examinations, and put difficulties in the way of performing them. If this is correct, they cannot fail to see the damaging effect it must have on the medical school attached to the hospital.

The dispensary adjoining the out-patient rooms is dark, small, and with far too little room for the ordinary purposes of a hospital with so large a number of patients. It is, however, kept in good order; and the dispenser, with his two assistants, manages to make on the premises most preparations in use at the hospital.

The surgery is on the ground-floor. It opens off the lobby; it is of fair size, and lofty, but looks as if it had not been cleaned out for a considerable time. The furniture is of the poorest and most antiquated description, and much of it in want of repair. A quantity of rubbish, broken brushes, etc., lay in one corner; and, in a sort of cupboard, the dirty cast-off bandages, which are removed only once a week. There is a very insufficient attempt to keep the place tidy. Cases of diarrhœa, accidents, and other urgent cases, are seen here by the house-physician, house-surgeon, or assistant house-surgeon, as the case mey be. These cases are entered by the porter, much at his discretion, apparently, as may be seen by the following extracts, which we found within a few pages. We are sorry however, to say, that a similar plan is adopted at King's College Hospital. It is certainly not creditable to the hospital that the casual book, shown to strangers for reference, should contain such an exhibition :— "Ingery to sholder," "Ann temp to drown," 'Cherey stone in noss," "Reptured case," "Broken coler bon," "Steal in the eye," "Bursed a veien," "Brused hipp," "Swaled a pine," "Ingery to thye," "Tow out." "D", we were informed, meant diarrheea; and tye,""'Tow out." "D", we were informed, mean diameter, 'C", casualty; but the nature of the casualty depended, apparently, pon the porter and his memory. The names were frequently entered, but not the disease; and some of the cases, we were led to believe, were in the disease; and some of the cases, we were led to believe, were tot entered at all. A second register, however, is kept by the houseurgeon; but, so far as we could ascertain, it appears to be a modified ppy of the porter's book. It is not likely to be correct, especially as it filled up periodically. We were unable to gather certain statistics which we wished to obtain from the book. It would surely save touble, and ensure correctness, if the house-physician or house-surgeon tho saw the case immediately entered it in the surgery book, as is done at most well-managed hospitals.

The wards are situated in the wings-the male on one side, and the emale on the other. They are nineteen in number; five on the groundoor, six on the first floor, and seven on the second floor—eight medi-el, and ten surgical. The wards vary in size, and are smaller than hose in most large London hospitals. They are lofty, not overcrowded, and are thoroughly well ventilated. Indeed, the ventilation throughout he whole hospital is as perfect as any in London. The excellence of he ventilation is largely due to the use of warm air-currents, passing tpwards, and carrying the close air of the wards through ventilators in he ceiling. The wards are clean and well arranged, with one or two exceptions. They are, however, much in want of fresh paint; as is, inleed, the whole hospital, which has not seen the paint-brush for twenty years. The most glaring fault is the water-closet being *in* the ward. It is simply a large closed box, built in one corner, against one of the windows. Were it not for the excellent ventilation, these closets would be an intolerable nuisance. As it is, they did not appear to us at the time of our visits, in warm weather, when every window was open, to aint the air. They must, however, be at times offensive, as they were leprecated by every one. A small scullery for each ward is built slongside the closet. The governors, we are told, have frequently poken of building proper water-closets, but grudge the expense. With these exceptions, the wards are clean and well found; and the linen is good, and kept in excellent repair. A neat box is supplied to each atient, to contain his clothes; and shelves above each bed, for crockery, etc. Pictures adorn the walls; and there is an air of comfort in all, but nore especially in the ward for incurables. There are two special wards, male and female, on the ground-floor, capable of containing two beds each, for cases of delirium tremens, small-pox, etc.

There is no garden or ground for patients. Those attached to the hospital requiring exercise are allowed, however, to walk in St. James's Park.

There are no bath-rooms for the wards. Patients, unless very ill, have to descend to the cellars, where a dark, dismal, and most uncomfortable place, a mere apology for a bath-room, has been furnished with a plunge- and shower-bath. For those too ill to visit this place, portable baths are wheeled into the wards; and there is a good supply of hot and cold water to each floor.

The sisters or head nurses are untidy, and their dresses often shabby and torn. There is no regulation as to dress. Some of the sisters are excellent; others inferior to the usual class of paid sisters in London. They have each a small day-room boarded off from the ward, in which they take their meals. They sleep in dormitories in another part of the building. These dormitories are certainly not so comfortable as the wards; they are poorly furnished, and supplied with only bare necessaries, many of which are in want of renewal or repair. Each sister has charge of several wards, containing together from twenty-two to thirtyfive beds (with one exception, forty-three beds); and is responsible for the management of the wards and care of the patients under her. The ordinary or under nurses are still more untidy, and shabbily dressed, and are in too many cases ignorant of what real nursing is. There are

no probationers, and many of those appointed to full duty in the wards are persons who know nothing whatever of nursing. They dine and cook in the wards; and their sleeping accommodation is similar to, but worse than, that of the sisters. The rooms are bare; the furniture very shabby, and in want of repair. On ascending the flight of stairs to the nurses' dormitories on the top floor, we passed, half-way up, the water-closets for the use of the sisters and nurses. They are open at the top, and there is no window or other ventilator in their neighbourhood. The work of the nurses is too great, and is incompatible with good nursing. Each sister, with twenty-two to thirty-three beds under her There is one charge, has only one day- and one night-nurse to assist. exception to this, as, on the top floor of forty-three beds, there are two day- and two night-nurses; but this is not sufficient. Although a woman scrubs the wards once a week, the nurse has to wash then, the sculleries, closets, clothes-boxes, lockers, etc., and keep the fire-places clean. In urgent cases, special nurses are, of course, provided, and, we understand, always when ordered by the medical officers. In addition to these, there is usually one lady nurse during the day in the hospital, or perhaps more (there was one at our visits). These ladies belong to societies, and have permission from the Weekly Board b assist and gain what experience they can in the wards, and under the superintendence of the matron. They generally remain three months and are willing to render any aid in their power. There is no night superintendent of nursing, and therefore no means of knowing whether the night nurses attend to their duties or not.

If we compare the nursing at this hospital with that at some of the other London hospitals, we find, by reference to an admirable table recently prepared by Dr. Gibb of the Newcastle Infirmary, that the nure at Westminster has a larger number of patients under her charge than at any other hospital. At the Middlesex Hospital, there is I nurse b every $3\frac{3}{30}$ patients; at King's College Hospital, I to $4\frac{4}{3}$; at the London, I to $4\frac{1}{3}$; at Charing Cross, I to 5; at St Mary's, I to $5\frac{1}{3}\frac{2}{3}$; at Guy's, I to $5\frac{2}{3}\frac{2}{3}$; whereas at Westminster thee is only I nurse to $7\frac{4}{3}$ patients, or double that of Middlesex Hospital. In addition to the unusually large number of patients under ther charge, the nurses here, as we just noticed, have to give a considerable

In addition to the unusually large number of patients under ther charge, the nurses here, as we just noticed, have to give a considerable amount of their time to cleansing the wards; for, although there is a special scrubber, still they have to wask the wards and keep them clean at other times, which is not the rule in the hospitals we have mentioned at least to the same extent, except at Guy's, where the under nurses de most of the scrubbing, but where, again, each nurse has fewer patients to attend to.

The expenditure on nursing at the Westminster Hospital is, therefore, necessarily lower than at other hospitals of the same or even smaller size. The total cost, including extra nurses, servants, scourer, porters, etc., is $\pounds 945:6:7$; whereas at Charing Cross Hospital, with only about two-thirds of the number of patients, and excluding the board of servants, it amounts to $\pounds 955:14:3$. At King's College Hospital and St. Mary's Hospital, with about the same daily average of patients, it amounts to $\pounds 2,684$ in the former, and $\pounds 2,177:2:1$ in the latter. It will thus be seen that the cost of nursing at the Westminster Hospital must, under any circumstances, be inferior to what is recognised by other hospitals to be sufficient; and, from what we have stated as to their education and treatment, it is not surprising.

The regulation diet-table is not on so liberal a scale as usual in London hospitals. This is especially noticeable as regards "extras", which should be ordered with full and middle diets, if required, and not restricted to particular diets, as at this hospital. We believe, however, there are exceptions to this rule. Of course, beer, wine and spirits can be ordered with any diet.

The hospital is managed by Governors at the Quarterly or Special Boards, by a House Committee, a Medical Committee, and an Estates Committee. The House Committee consists of the President, Vice-Presidents, and Treasurers, ex officio, with thirty to forty Governors. Amongst these are six members of the medical staff of the hospital. This Committee meets weekly. The Medical Committee consists of "the medical officers ex officio," and several other medical gentlemen connected with or interested in the hospital. When this important Committee meets, we cannot say. We were unable to ascertain when it had last met, but certainly not within the remembrance of several members of the staff. Why this state of things? It is needless to say that this explains much that is defective in the hospital management. We understand that a Provisional Committee of the medical staff have of late met frequently and suggested numerous improvements which are likely to be adopted by the Governors. The Medical Committee is supposed to supervise and inspect the drug department; but its meetings, as we have said, are few and far between. Still, we are informed, that members of the House Committee inspect the drug book and the dispensary. There is, in addition, an excellent dispenser, a qualified medical

man, who appears to manage this department in a satisfactory manner. The resident medical staff consists of a house-physician and house-surgeon, both qualified. An assistant house-surgeon, a senior student, remains in the hospital from IO A.M. to 7 P.M., and assists the house-surgeon in the wards and surgery. There is no resident apothecary or medical officer to superintent the medical management of the hospital. The resident officers are, we are sure, not sufficiently numerous to do the work of the hospital allotted to them satisfactorily. We failed to discover that rules for their general course of duty are printed. The residents are chosen by examination from among the qualified students, and are supplied with excellent rooms and commons free of expense.

As to the general financial management, we will merely add a few words. It seems to be most economical—we may say, almost parsimonious; for nearly every item of the expenditure of the Westminster Hospital is much below that in other London hospitals equally well managed, and of the same or even smaller size. In the aggregate, this is fairly shown by a comparison of the average cost of each bed actually occupied in the various other hospitals, which we obtained from the admirable table of hospital statistics, prepared with a commentary, and presented to the Weekly Board of Governors of St. Mary's Hospital, by Mr. J. G. Wilkinson, secretary to that hospital. It varies from $\pounds 62:4:11$ at the London Hospital, to $\pounds 46:2:9$ at Guy's Hospital; whereas at Westminster it only amounts to $\pounds 39:12:6$. If, again, we take the average cost of each in-patient, we find a similar state of matters. It varies from $\pounds 6:7:4$ at the Middlesex Hospital, to $\pounds 4:1:2$ at St. George's Hospital; whereas at Westminster each patient costs only $\pounds 3:8:5$. The general deduction from the inspection which we have made of

The general deduction from the inspection which we have made of the hospital is, that it is doing a great work, and doing it in a manner worthy of admiration, but with insufficient funds. The medical staff and paid officers are, we believe, themselves fully conscious of the deficiencies which we have pointed out. We have done so with a desire to be useful. It ought certainly to be known to the public that, at the Westminster Hospital, economy is strained to the extent of mischievous parsimony, from the want of funds. The beds are nominally 191; actually, the daily average of patients is at least forty less; but even for these the income is inadequate to afford that liberal dietary, that perfect nursing and completeness of accessory arrangements, which it is the pride of our London hospitals to aim at supplying, and the glory of our nation to support by the efforts of voluntary charity.

MODERN ANÆSTHETICS.

Dr. Evans on Nitrous Oxide.

SIR,—When in London early in April last, I spoke to several dentists and surgeons of the anæsthetic properties of nitrous oxide gas, and of some of the advantages which it possessed over all the anæsthetics now in general use. I subsequently personally administered the gas at the London Dental and Ophthalmic Hospitals. The results then obtained were satisfactory to myself, and I believe all who were present when the gas was given, were convinced that every thing which I had claimed for it, was established so far as it could be by a limited number of exhibitions.

Returning, however, to Paris almost immediately, I was unaware until quite recently of the very extended discussion to which these experimental trials had given rise in English medical and surgical journals. I shall simply present in this communication a few essential facts, with a brief reply to two or three *ex cathedrâ* assertions.

It is now five years since the revival in the United States of the use of protoxide of nitrogen as an anæsthetic especially advantageous in dental operations. Slowly it not only established for itself a place among recognised anæsthetics, but has more recently been generally accepted by the dentists throughout that country, as the most available and safest known anæsthetic. Many of those dentists show lists containing from ten to twenty-five thousand names of persons who have been rendered insensible to pain by the inhalation of this gas. I furthermore possess evidence, which warrants me in asserting that at the present time protoxide of nitrogen is employed in the United States more extensively as an anæsthetic than any other agent whatsoever.

The reasons for this very general favour are: --1. As compared with other anæsthetics, its inhalation is more easily accomplished, and is less disagreeable to the patient. 2. Its effects are obtained most rapidly. 3. The insensibility to pain produced by it is complete. 4. The subject returns to his normal condition with the greatest rapidity, with seldom or never any unpleasant after-consequences. 5. After more than one