North Elevation

automatic flush tank is made to discharge upon the roof at intervals so as to keep the room cool in summer. A considerable area of the roof of the central part of the building, which is quite screened from observation, is leaded and made to serve as a bleaching ground for bones. There is a lift from the basement to the dissecting room.

The museum, which communicates with the dissecting room by a doorway, is 30 ft. by 40 ft., with a gallery all round, and although already well equipped for work, has plenty of wall space for extension, as also has the upper portion of the vestibule. Old museums are apt to become stuffed with the accumulation of ages, but here we find just the essentials for study admirably displayed—bones, marked and plain, models and drawings of dissections, sections of the body at different levels, foetal and other wet preparations, including some good brains. The "pickles" show very well, being mounted in flat-sided rectangular jars, an immense improvement over the cylindrical ones still so common in most museums. The theatre, 30 ft. square, has 152 seats, and is lighted by a large window on the north side, opposite the lecturer and his battery of boards. There are seven tiers of seats, each provided with writing ledges; all the various steps from tier to tier are made use of as ventilating warm air inlets, the foul air being extracted above by tubes leading to a ventilating shaft. Behind the lecturer is an arrangement for a continuous roll of diagrams, on each side of which is a series of sliding blackboards, and above a white surface acting as a screen for the lantern opposite. By his side also is a washstand, with water laid on.

There can be no doubt that the buildings now opened will thoroughly serve their purpose as a place for the study of human anatomy. Mr. H. Wilkinson Moore is the architect, but we believe that Mr. Arthur Thomson, the lecturer on the subject, has co-operated with him throughout in planning the arrangements.

INFANT MORTALITY AT CAIRO AND DAMIETTA.

[Communicated by the Director-General of the Medical Department of the Navy.]

By GILBERT KIRKER,

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IN an editorial in the *BRITISH MEDICAL JOURNAL* of September 9th the infant mortality at Cairo and Damietta, two Lower Egyptian towns, is contrasted, and its excess in the former attributed to a more impure water supply. As it is of great importance to arrive at the true cause of any disease, I hope you will kindly give me space for a few remarks on the subject you have introduced.

Although, at the present time, anyone who ventures to oppose the ascription to the use of contaminated water of certain diseases must feel himself in the position of an *advocatus diaboli*, yet, in the spirit of fair play embodied in the saying "Give the devil his due," I wish to bring forward some facts in defence of the much incriminated Nile water. The increased infant mortality, both in Egypt and England during the hot season, is due mainly to disorders of the digestive tract, these being in the one place generally called gastro-enteritis, and in the other summer diarrhoea. Now Dr. Ballard has found that summer diarrhoea is most intimately related to ground temperature, that when the temperature of the soil at a depth of 4 feet reaches 56° diarrhoea prevails; but ground temperature depends on meteorological conditions, especially atmospheric temperature and wind—the higher the former and the less the latter the more quickly is the ground heated.

Let us now see if this theory may account for the different infant mortalities in Cairo and Damietta. These two towns, though both in Lower Egypt, have very different climates. Damietta stands at the broad base of the Delta on the seashore, while Cairo is at its apex, where the desert squeezes

the fertile land into a narrow track. The climate of Damietta has therefore mainly a marine character, while that of Cairo is continental.

It is the period of ten weeks ending from June 1st to August 3rd that you have taken for comparison. During the latter half of that time I was at Alexandria, and Damietta may be fairly assumed to have had the same climate, where I took regular meteorological observations on board, and I have also the reports of observations taken at Cairo by Lieutenant-Colonel Bateman, and published in the *Egyptian Gazette*.

Chart showing maximum and minimum temperatures at Cairo and Alexandria from July 3rd to 31st, 1893.

The accompanying chart shows the maximum and minimum temperature at Cairo and Alexandria respectively for the time that I am able to compare the daily observations at the two places, and this period may be taken as representative of the two months of June and July. It is seen at a glance that the temperature at Cairo was very much higher and its daily range much greater than at Alexandria. At the former town, the mean maximum was 97° and the mean minimum 74°, and at the latter 80° and 75° respectively. At Cairo, during July, there were ten days when the temperature reached 99° and upwards. In June at Cairo the mean maximum was 95°, and the mean minimum 67°, and in fourteen days the temperature reached 99° and upwards. At Alexandria in July, 81° was only reached on two occasions. I have no information with regard to the wind at Cairo, but at Alexandria during July there was an incessant sea breeze, strong during the day and falling off somewhat at night.

From the foregoing, I think it is evident that the influence of climate should not be ignored in comparing the infant mortalities of Cairo and Damietta: for, if diarrhoea in Egypt

holds the same relation to ground temperature that it does in England, it should be much greater in the former than in the latter. Again, at Cairo not only was the temperature high, but it had also a great daily variation, which is a condition very provocative of diarrhoea. Rosetta, which now uses Nile water in a more impure condition than Cairo, but has the same climate as Damietta, had, during the time under consideration, about the same infant mortality as the latter.

It should be remembered in this connection that Damietta with its water tanks, in 1883, at the time of low Nile, was the cradle of the Egyptian cholera epidemic. It has also the distinction of having been, longer ago, the favourite starting point of the plague, and this disease, like cholera, generally appeared at the time of low Nile. It is also curious that, still longer ago, it was at the same time of the year that the marvellous things were done "in the field of Zoan," close to where Damietta now stands.

After what I have said, one unacquainted with the climatology of Egypt might reasonably ask, why is it that, in June and July, Damietta is so much healthier than Cairo, while it has also the unenviable history to which I have referred? The answer is very simple. Often in April, May, and sometimes the early part of June, the climate of the Egyptian seaboard is very bad. That is a transitional period between the winter and summer climates. The winter winds have ceased, and though the summer sea breeze has not set in, the air is hot and moist. It was in such hot, moist stagnant weather that the cholera appeared in 1883; it was probably the same sort of weather which encouraged the plague, and, in the Hebrew description of the plagues of Egypt, there is strong evidence that such weather preceded the final calamity when the firstborn of the Egyptians were slain. The exodus took place at this time of the year, and the stagnant condition of the atmosphere engenders fogs and thunderstorms, which are on the whole rare in Egypt. This temporary condition of climate affects first, and most severely, the coast districts: further south, nearer the desert, the air is drier.

THE BERLIN INSTITUTE FOR INFECTIOUS DISEASES.—A report recently issued shows that the cost of the Institute for Infectious Diseases at Berlin so far has amounted to 744,505 marks 48 pfennige (about £37,225). Of this sum, 122,823 marks 25 pfennige (about £6,141) has been expended on the Research Department, 593,522 marks 48 pfennige (about £29,676) on the Hospital Department, and 28,159 marks 75 pfennige (about £1,408) for the management. The Research Department has been in working order since July 1st, 1891, the Hospital Department since August 17th of the same year. The staff of the establishment includes a director, a superintendent, four paid and three unpaid assistants, two laboratory assistants, and three assistant-surgeons told off from the Charité. Of 24 places provided for workers in the Research Department, 22 have been constantly filled either by members of the staff of the Institute or by independent investigators. The number of patients treated in the Hospital Department between August 27th, 1891, and February 28th, 1893, was 1,480 (745 males and 735 females).

MANCHESTER PATHOLOGICAL SOCIETY.—The annual meeting of the above Society was held at Owens College on Wednesday, October 11th, Dr. Judson Bury, the retiring President, in the chair. The following were elected as the officers for the ensuing session:—*President*: F. A. Southam, M.B. *Vice-Presidents*: W. Coates and H. R. Hutton, M.B. *Treasurer*: R. B. Wild, M.D. *Secretary*: T. Harris, M.D. *Committee*: T. N. Kelynack, M.D.; S. Moritz, M.D.; C. E. Richmond; E. Roberts; F. M. Godde Smith; W. Thorburn, B.S.; A. T. Wilkinson, M.D.; J. B. Wolstenholme, F.R.C.V.S. *Auditors*: A. T. Helme, M.D., and W. P. Stocks. After receiving and considering the reports of the Treasurer and Committee, the remainder of the evening was devoted to an examination of a large number of preparations exhibited as card specimens by Mr. Collier, Professor Sheridan Delépine, Dr. Harris, Dr. Kelynack, Mr. E. Roberts, Mr. Southam, and Dr. Symmers.

STILLBIRTHS IN VARIOUS COUNTRIES.—Statistics collected by M. Em. Levasseur show the proportion of stillbirths in various European countries to be as follows: France, 44 per 1,000 births; Belgium, 44; Germany, 39; Denmark, 36; Italy, 24; Austria, 24; and Hungary, 15.