served by Dr. Angus Smith; and third, the occurrence of nitrates in the chalk wells at Watford, mentioned by Dr. W. A. Miller. Upon the first of these facts Dr. Frankland remarks that he always makes a correction for the nitrates and ammonia found in rain water, and that he pronounces no water guilty of previous sewage contamination unless it contains more nitrogen in the shape of nitrates, nitrites, and ammonia, than that contained in rain water under those forms. In reference to yeast we are reminded that it occupies a position on that border-land where the animal and vegetable kingdoms meet; that putrid yeast not unfrequently contains grubs; and lastly, that yeast, under any circumstances, can hardly play any important part in the contribution of nitrates to Thames water. As to the nitrates in the Watford chalk wells, Dr. Frankland observes that they arise from drainage of water into the wells from manured land or from the cesspools and dumb wells which absorb into the chalk the excrements of the people of Watford and St. Albans. The case of an experimental field at Rothampstead is referred to in illustration of the fact that little reliance can be placed upon the assumption that separate samples of water taken as the resultant drainage from contiguous areas really represent that distinct drainage alone. The Commissioners are clearly feeble antagonists; they are encountered with a firm, unhesitating belief in the teachings of chemical science, against which they have little but probabilities and doubts to oppose.

"Up to the present moment," says Dr. Frankland, "there is no evidence whatever of the innocence of any sample of water which has been found guilty of previous sewage or manure contamination on analytical grounds. I have now examined upwards of 1000 samples from all parts of the United Kingdom, and have not yet met with a single case of clear analytical guilt which has not been sustained on further investigation. It is true that my verdict has repeatedly been met with vehement protestations of innocence, but further investigation always proved that these could not be sustained. The other day a gentleman brought to me two samples of well water for examination; I reported both as exhibiting great previous sewage contamination. He protested that it was impossible, as the waters were bright and sparkling, and enjoyed a high reputation; a week later he informed me that the sources of contamination had been discovered. One of the wells was situated close to a large cesspool, the other received the drainage from a dog kennel."

So much for the purely chemical questions involved in the dispute; enough at any rate to show that the conclusions of the Commission on that head must be taken *cum grano salis*. Dr. Frankland adverts to the statement of the Commissioners, that "in the present state of chemical science analysis fails to discover in properly filtered Thames water anything positively deleterious to health." The answer to this is that the same is equally true of London sewage, or the dejections of persons suffering from cholera or typhoid fever. "Chemical analysis has failed to discover anything positively deleterious to health in these matters in their most concentrated condition, and it is not therefore likely that analytical research will be more successful when applied to them after dilution with the water of the Thames."

But to ignore the danger of drinking water containing such matters only because chemical analysis fails to discover their injurious properties, is to disregard entirely the suggestive evidence given by Mr. Simon, Dr. Parkes, and others, before the same Commission, which takes for gospel, and lays great stress upon, the astounding statement that because a sample of sewage of average strength, flowing into the Thames, contained only 56 grains of solid matter per gallon—being "a very weak solution of carbonate and sulphate of ammonia, with a little calcareous and organic matter, and common salt"—therefore it was "perfectly harmless to animal and vegetable life." Dr. Frankland's view of the true function and value of chemistry as an ally of preventive medicine opens up a subject too important to be dealt with now.

TROPICAL DISEASES.

To the Editor of THE LANCET.

SIR,—It is somewhat unfortunate that, owing to my distance from England, I am unable to reply sooner to Professor Maclean's criticisms in THE LANCET of the 8th of May, of the first part of my essay on the Treatment of Tropical Diseases. At the risk of appearing to attach undue importance to that essay, I cannot allow his letter to pass without notice, lest my silence should be misunderstood. If Professor Maclean had waited till the conclusion of my paper, he would have seen that at any rate my "acquaintance with the literature of modern tropical medicine" is not "confined to the author quoted;" that, in fact, my strictures were mainly directed against the practice enjoined in some of the best known recent works on Indian diseases, whilst at the same time I admitted that the actual practice of the writers was often better than their creed. It is manifest, also, that Professor Maclean must have merely glanced over my article, or he would have seen that the quotation was taken from a work published less than eight years ago, and not from the antiquated James Johnson. Can it be that Professor Maclean has been so much engaged upon the natural history of tropical invalids since his return to England, that he is unacquainted with the contents of a book which is still generally recommended as *the* book to be procured on going to India?

The expression "natural history of disease" is perhaps a bad one; and it is quite possible that Professor Maclean attaches to it a meaning different from the one I apply. If, however, the term "natural history of disease" implies observations on the course of diseases *when not interfered with by treatment*, I can only say that I do not know where the records are to be found with reference to tropical diseases. Isolated cases may be met with, but I am not aware of any connected series of, e.g., thermometrical and sphygmographical observations of untreated cases of remittent fever in India.

As to the metaphor about "slaying the slain," can it be that Professor Maclean is unacquainted with the fact that lately—since he left India—the question of the "revival of bloodletting" has been brought prominently forward by one who is justly considered one of the most brilliant and accomplished physicians of the day? I know that depletory measures are not generally carried out to the same extent as formerly; but profuse leeching, especially in hepatitis, I also know is still practised frequently in the Bombay Presidency. Within the last year I have met with a case where a man was bled to a dangerous extent, by a qualified surgeon, for ague! The hydra is not dead yet.

I am sorry to have drawn forth what I cannot but consider the sneering disapproval of Professor Maclean, for I always considered him to be one of the best exponents of the best style of practice, *versus* the majority of the books. If he thinks that surgeons in the Peninsular and Oriental Company's service are in the habit of reading only old books, he is very much mistaken. I can further assure him, from my knowledge as a teacher in a London medical school for several years, and from subsequent experience, that the class of men who enter the Company's service as surgeons, is at least equal, if not superior, to that which supplies the Army and Navy with medical recruits; though of course outsiders have not the splendid advantages of a course at Netley.

I am, Sir, your obedient servant,

Bombay, June 18th, 1869.

J. TEMPERLEY GRAY.

THE NATIONAL COTTAGE HOSPITAL AT VENTNOR.—

The foundation-stone of the second pair of buildings designed to form a part of what will be hereafter known as "The National Cottage Hospital for Consumption and Diseases of the Chest" was laid on Wednesday in a beautifully situated spot on the Undercliff, about a mile west of Ventnor, Isle of Wight, by the Princess Louise, who acted on the occasion as the representative of the Queen. An interesting feature in connexion with this hospital is that, on the recommendation of Dr. Arthur Hill Hassall, separate cottages are substituted for the conventional large palatial buildings hitherto erected for such purposes.