more frequently than it is. It is in strict accordance with the spirit and letter of the regulations ; it would act as a stimulus for exertion, help to do away with the existing dead-level condition of affairs, and tend to give a longer tenure of office in the administrative ranks by the promotion of officers who had a longer time to serve before they were compelled by age to retire. This would prevent to some extent those constant changes which are now the subject of frequent complaint. The system of selection is said to facilitate favouritism and to be attended in practice with no end of difficulty in the way of opposition on the part of all officers who are passed over for promotion. Still, we do not think that a pure system of seniority is consistent with either efficiency or the intention of those who framed the warrants. Seniority is one of the factors to be considered, no doubt, but it should not be the only or always the dominating one. We cannot take up all the other points at present, but we should like to add that, in regard to one—viz., a charge pay to medical officers in charge of large station hospitals in India—we are of opinion that it should be granted. The introduction of the station hospital system into India saved the Government of that country a very large sum of money, and the head of the British Medical Service is stated to have put this forward very strongly at that time. The work and responsibility connected with the care and management of a large station hospital in India are very great, and the officers filling such posts certainly deserve to be rewarded for their services, which are of a special kind.

INDIAN FINANCE, SANITARY WORKS, AND MILITARY PAY.

In the Indian Budget discussion at Calcutta on March 26th East General Brackenbury, the Military Member of Council, entered very fully into the subject of military expenditure in India under the three heads of Indian budget estimates, military works, and special defence estimates. The point of interest to medical and other officers and Government officials generally is in regard to exchange compensation allowance. General Brackenbury thought it absolutely necessary that it should be given to all the officers of the army. On the days of the Honourable East India Company the British pay was converted into Indian currency at the rate of 2s. 6d. to the rupee. With the rupee at or below 1s. 3d., as at present, he pointed out that the rate of pay had fallen 50 per cent. and that of allowances upwards of 37 per cent. So great was the hardship from which officers were suffering that some measure of relief had become, not only an act of elementary justice, but of absolute necessity. The cost also of living in India to a British officer had risen rather than fallen. As everyone knows, India is at the present time in a state of great financial depression, and the most rigid system of economy must be the policy of the Indian Government for some time to come. There is a great reduction in the estimate for military works; but there are certain things which must, nevertheless, be done. The more urgent demands of sanitary science will have to be met somehow if the health of troops, native and European, is to be conserved. Suitable accommodation in the way of barracks and huts and a pure water-supply are essentially necessary. Practically no new works can be undertaken, and there will be an almost complete stoppage of sanitary improvements that are not very pressing until the financial difficulties of India are relieved or removed.

SCALE OF INVALID PENSIONS.

The *Times of India* of the 7th inst. publishes the scale of invalid pensions for the Indian Staff Corps and Indian Medical Service. We are only concerned, however, with the latter. An officer who has become invalided for further service in India on account of unfitness caused by duty may, after he has been two years on the temporary half-pay list, be granted an invalid pension according to the following scale :

				Per annum.
After 12 years' pensionable service	...	...	£192.	
" 13 "	"	"	212.	
" 14 "	"	"	232.	
" 15 "	"	"	252.	
" 16 "	"	"	272.	

LAHORE MEDICAL COLLEGE.

It is stated that Surgeon-Major F. F. Perry, Professor of Surgery, and Surgeon-Captain R. H. Charles, Professor of Anatomy, in this college, are about to vacate their present appointments for others in the Calcutta Medical College.

THE MEDICAL STAFF CORPS AND ARMY MOBILISATION.

Our readers will have seen that Mr. Campbell-Bannerman, in reply to a question by Mr. Arnold Forster in the House of Commons, stated that arrangements had been made for four field hospitals and four bearer companies at Aldershot this summer, which were to be on a war footing, except in regard to the number of horses. The War Minister added that this would be as much as could be done, and as near an approach to mobilisation as could be under existing conditions. This is unquestionably a step in the right direction. The acquisition of experience in the working of field hospitals is an essential matter.

Surgeon-Major-General John Pinkerton, M.D., Bombay Retired List, has been appointed Honorary Physician to the Queen, in the place of the late Deputy Surgeon-General W. Walker, M.D.

Two field hospitals and two bearer companies will train at Aldershot during the latter half of next month, and a similar training will take place in the first half of June. This measure is specially designed to meet the long-felt want of practising medical officers in the duties that would be required of them on mobilisation.

Correspondence.

"Audi alteram partem."

ORGANS OF ANIMALS IN THE TREATMENT OF DISEASE.

To the Editors of THE LANCET.

SIRS,—In the admirable lecture on pharmacology by my friend Professor Stokvis, published in THE LANCET of April 21st, he observes that ten years ago it was not “imagined that the essential extracts of the organs of animals, of which the late Professor Brown-Séguard and M. C. Paul were the earliest to explain the therapeutic value, would find a place in *materia medica* nor cultures of microbes.” I think that Professor Stokvis would not have made this statement in so unqualified a form had he been acquainted with some observations that I made in 1873.¹ Professor Stokvis is so well read in medical literature that if he is not acquainted with my observations I may take it for granted that no one else is, and I may therefore be excused for bringing them forward again, especially as I believe the attempts I then made to treat diabetes were the first in which the cure of a disease was sought to be effected by the administration of ferments or, as they would now be called, enzymes, derived from solid organs and not from glands connected with the digestive canal. After giving my reasons for believing that diabetes is due in some cases to the non-decomposition of sugar in the body from the want of a ferment, I shortly stated my observations and the result in the following passage: “Several months ago I attempted to increase the decomposition of sugar in diabetics by supplying the ferment which I supposed to be wanting. Since sugar is probably decomposed chiefly in the muscles, the ferment which splits it up is probably contained to a much greater extent in them than in any other part of the body. By giving the patient raw meat we may hope that the ferment contained in it will be absorbed from the intestine into the blood and there act on the sugar. It is necessary that the meat be given raw, for the heat to which meat is exposed in cooking completely destroys all ferments. The patients on whom I tried this plan of treatment were under the care of Drs. Black, Andrew, and Duckworth, and I take this opportunity of expressing my thanks to these gentlemen for the readiness with which they afforded me the means of making observations and their kindness in supplying me with every facility, as well as to Messrs. Russell and Sawtell for the assistance they rendered me. The meat was finely chopped up in a sausage-machine, mixed with pepper and salt, and was either spread on bread and butter, German fashion, or was made into a paste with bread and milk. Shortly after I began the treatment of one case I learned from Dr. Duckworth that it had been tried empirically with complete success by the captain of a merchant

¹ Brit. Med. Journ., Jan. 3rd and 10th and Feb. 21st, 1874.

vessel who had prescribed for himself. In the cases treated in the hospital, however, no cure was effected, although in certain of them there was some temporary benefit."² I considered that the benefit obtained in these cases was slight because the ferment contained in the muscle was probably destroyed in the digestive canal, in the same way that trypsin is destroyed by pepsin. I attempted to make a glycerine extract of muscle and to obtain from it a glycolytic ferment which might be injected subcutaneously, but as my attempts to isolate one were not successful, and there were difficulties in the way of carrying on treatment by subcutaneous injections, I did not pursue the subject further. The treatment which has lately come so much in vogue in treating diseases by giving the thyroid, pancreas, bone marrow, testicles, or supra-renal capsules, either in the form of the raw organs or of extracts made from them is, I think, essentially the same as that which I tried twenty years ago in the treatment of diabetes, and in all cases the action of the remedy probably depends upon the presence of a ferment, or, as it is now called, an enzyme. I am, Sirs, yours faithfully,

Stratford-place, W., April 24th, 1894. T. LAUDER BRUNTON.

"THE ACTION OF ASPARAGUS ON THE KIDNEY."

To the Editors of THE LANCET.

SIRS,—Three years ago I sent a short communication to THE LANCET³ requesting the opinion of the profession on this subject. I therein stated that in spite of books declaring asparagus to be a diuretic I had observed that the very contrary was its action. Four letters came in reply, written by medical men. Three of them stated that from direct observation they had ascertained the inhibitory action of asparagus on the function of the kidneys, so that frequently only a third of the normal quantity of urine was secreted after eating this vegetable. The fourth gentleman said he had no knowledge of his own, but believed asparagus to be a diuretic, as he had always understood it to be so. I am reminded of the subject by hearing once more this vegetable recommended to a patient as a diuretic. The question of its action in the economy is of little importance when it is so universally eaten and approved of, but it is one of interest in connexion with the history of medicine as a science and art. In other sciences knowledge has grown from small beginnings, so that they have a solid foundation and superstructure; but the practice of medicine has existed from the remotest ages and was born of superstition. Consequently a large part of our advance has been by getting rid of and overthrowing error. I have on my shelves a "herbal," published about a hundred years ago, describing the value of a vast number of plants which are now discarded as useless; but that a positive error, and one the very reverse of the truth, as regards the action of a well-known vegetable should still be propagated in books is a most remarkable fact, and, as regards the whole subject of therapeutics, a very sad one.

I am, Sirs, yours truly,

Grosvenor-street, April 23rd, 1894.

SAMUEL WILKS.

"PERIPHERAL NEURITIS."

To the Editors of THE LANCET.

SIRS,—In the "Mirror of Hospital Practice," published on March 31st, a case is reported from the Middlesex Hospital as one of "Peripheral Neuritis of the Sensory Nerves," in which the condition of anæsthesia is quite exactly described as affecting the posterior internal surface of both thighs from the ham and gluteal fold, an area comprising both buttocks and sacrum, the scrotum and penis, the upper part of the calf, and the outer part of the foot. There was also an inability to empty the bladder. In an article published in June, 1892, in the *American Journal of Medical Sciences*, and fully reproduced in the editorial columns of THE LANCET soon after, the diagrams of which have also recently been reproduced in *Brain* (winter number, 1893), I believe I proved conclusively that anæsthesia distributed in this manner was absolutely diagnostic of disease, involving either the cauda equina or the spinal cord at and below the level of the fifth lumbar segment of the cord, and that it was *never* due to lesions of the sciatic nerve,

which is rarely bilateral, or to multiple neuritis, which uniformly attacks the peripheral parts of the extremities and does not select strips of skin such as described in this case. If the reporter had also considered the fact that in peripheral neuritis, even of very extreme type, there is no affection of the action of the bladder and rectum, while such affection always accompanies lesions of the lower cord and cauda, he would also have hesitated to make such a diagnosis. It was the object of the paper cited to show that by the peculiar distribution of anæsthesia the differential diagnosis between cord and nerve lesions was to be made, and the conclusions reached have been amply confirmed by more recent observations by Head and Thorburn, published in the last three numbers of *Brain*. These observations must have escaped the notice of the reporter of this case, and I take the liberty of calling his attention as well as that of your readers to them and to their diagnostic importance.

I am, Sirs, yours truly,

M. ALLEN STARR, M.D.

University Club, Madison-square, New York, April 11th.

"THE PROPOSED NILE RESERVOIR."

To the Editors of THE LANCET.

SIRS,—Being greatly interested in Egypt and its sanitary prospects, I rejoice to see THE LANCET directing public attention to the proposed Nile reservoir in such an able and impressive manner. The question is without doubt the most important which England has as yet brought forward during her occupation of that country, and it is absolutely incumbent on the authorities that, as you say, the scheme which will, sanitarily speaking, prove the best for the welfare of the inhabitants should be selected. Having some knowledge of Egypt, acquired during a residence of seven years, I venture to offer a few observations, trusting that you will be able to find room for them. The writer of your review of the reports submitted by Mr. Willcocks and Dr. Rogers is, I think, mistaken on one point of cardinal importance. He says: "Moreover, the water in the reservoir will be stored at a time when it is perfectly pure." Now, as I understand the matter, the sluices in the dam of a river-bed reservoir could not possibly be closed before January in each year, by which time all the pure Abyssinian water would long since have passed away towards the Mediterranean. The stock ponded up would necessarily and unavoidably be furnished by the White Nile and be derived from the pestilential regions of Central Africa, the home of the bilharzia hæmatoba, and many more zooparasites, to say nothing of such diseases as dysentery, typhoid fever, and what are commonly called "fevers." I presume I may take it for granted that I am the "medical writer" alluded to by your reviewer, for I am not aware that anybody else has written recently on the subject. If so, I hope he will pardon me for saying that I did not, as he alleges, utilise Dr. Engel Bey's statistics for the purpose of "making a comparison of the mortality of the various towns." I am perfectly well aware that the Egyptian census of 1882 is untrustworthy, and that comparison of the death-rate between any two towns would be misleading. In the tables which I constructed (of which some little time ago I sent you copies) the death-rate is quite immaterial; whether it appear as 5 per 1000 or 50 per 1000 in no wise affects the point which I am seeking to establish. My object is to show that the death-rate (whatever it may be) rises regularly in all towns that use Low Nile water, and that it is entirely unaffected in towns that depend for their supply during the Low Nile season on water previously stored in cisterns. In Table A I noted the number of deaths by periods of four weeks for twelve of the principal towns in Lower Egypt during the five years from 1886 to 1890 inclusive. In Damietta and Rosetta alone out of these twelve towns there was never a rise of mortality during the Low Nile season, whereas in the other ten towns the enhancement of the death-rate took place to a marked degree every year in four towns, four times out of the five years in four more, and three times in the remaining two, which were Alexandria and Damanhour, both fed by the Mahmoudieh Canal. In the aggregate, an increase of mortality equal on the average to 53 per cent. occurred in the ten towns forty-two times out of a possible fifty. It is also a remarkable fact that during the same period the deaths exceeded the births thirty-eight times in the ten towns, but not once in either Damietta or Rosetta. The air temperature, on which your reviewer relies, being practically the same in all the twelve towns, the

² Ibid., Feb. 21st, 1874, p. 223.

³ THE LANCET, June 6th, 1891.