

birth-rate was 18.3; the death-rate 9.2; the infant mortality-rate 50.9; and the diarrhoea-rate under 2 years 6.0. Dr. A. H. G. Burton says he will be satisfied if these figures can be maintained, and thinks the infant mortality-rate has probably reached the lowest possible point considering our present knowledge of the problems involved. In this connexion we note that 36 of the 76 infant deaths are ascribed to congenital debility. The favourable infant mortality-rate is all the more remarkable when we realise that 38 illegitimate infants provided 10 of the deaths, giving an infant mortality-rate of 263 for illegitimate infants. The Ilford council has now made a satisfactory arrangement for linking up the work of the infant life protection visitor of the Romford board of guardians. Houses accommodating foster-children are visited by the sanitary inspectors, and the foster-children are to be brought to the nearest infant welfare centre. The Essex County Council has terminated the agreement for treating small-pox cases from Ilford and this action necessitates a new arrangement; this council conducts a tuberculosis dispensary at Ilford and arrangements have been made for dental treatment. A local V.D. propaganda committee, supported by small grants from the county council and Ilford council, has arranged lectures during the year to both men and women, and also film exhibitions. A satisfactory start has now been made in the provision of home nursing for Ilford, but the district is badly off for midwives. There is still a good deal of pressure on housing accommodation, a local census showing that 1123 houses contained two or more families. 275 houses of the Ilford council scheme have been occupied during the year, and 62 houses have been privately built. The school report shows that of 6486 children inspected by the dentist, 66 per cent. were found to require treatment, and that only 50 per cent. of these accepted it. There is an interesting report by the area organiser of physical training, which records the good effect of remedial exercises in some cases of lateral curvature.

## The Services.

### ROYAL NAVAL MEDICAL SERVICE.

Surg. Commdr. J. E. H. Phillips is placed on Retd. List with the rank of Surg. Capt.

### ROYAL ARMY MEDICAL CORPS.

Lt.-Col. and Bt. Col. R. S. Hannay relinquishes the temp. rank of Col.

Lt. Col. E. W. Siberry and Maj. M. F. Foulds retire on ret. pay.

Capt. H. R. L'Estrange is placed on the half-pay list on account of ill-health.

### TERRITORIAL FORCE.

Capt. C. Webb-Johnson to be Maj.

The following officers relinquish their commns. and retain their rank except where otherwise stated: Capt. S. R. Foster, H. A. Macmillan (granted the rank of Maj.), A. S. Hebblethwaite, and W. J. F. Craig.

The undermentioned officers, having attained the age limit, are retired and retain their rank except where otherwise stated: Lt.-Col. C. Douglas; Maj. J. McD. Nicoll, J. P. Milne, and F. J. Warwick; Capt. T. Graham (granted the rank of Maj.), G. H. Spencer (granted the rank of Lt.-Col.), E. B. B. Landon, W. Smith, H. Stonehouse, and W. T. Harkness (granted the rank of Maj.).

### ROYAL AIR FORCE.

*Medical Branch.*—The undermentioned are granted permanent commns.: A. Briscoe, T. Montgomery, G. H. H. Maxwell, and S. E. Elphick to be Flight Lts.

R. Boog Watson to be Flying Officer (since promoted).

The undermentioned Flight Lts. are transferred to the Reserve, Class D. 2: W. A. Malone, J. P. Wells, and C. H. Young.

### THE ROYAL VICTORIAN ORDER.

Surg. Commdr. A. C. W. Newport, R.N., H.M.S. *Renown*, has been promoted to Commdr.; and Surg. Lt.-Commadr. H. E. Y. White, R.N., H.M.S. *Renown*, has been appointed a Member of the Fourth Class of the Royal Victorian Order.

## Correspondence.

"Audi alteram partem."

### SOME LESS KNOWN METHODS OF ARSENICAL POISONING.

To the Editor of THE LANCET.

SIR,—When associated for a period with the office of the chemical examiner to the Government of India, Madras Presidency, as pharmacologist and physio-dynamical expert, I had occasion to trace the manner of administration of arsenic in 11 obscure cases, in which the presence of the drug was established in organs submitted for chemical analysis. Nine of these deaths proved to be due to koyahism, and only the discovery of the death-lamp of the Pshaloos furnished the clue to the solution of the other two remaining cases. The ancient belief in arsenic as a sustainer of the failing powers of sexual virility is well known; in the East the drug is still called "kalidhan yeevah" (i.e., the elixir of life), and the invasion of Europe by the Saracens and Moors bore fruit in the spread of this belief in the Western world. The belief in amulets, charms, and philtres found a large currency in mediæval times, and most of the love-philtres were undoubtedly compounded of arsenic. It behoves us, therefore, to extend our acquaintance with koyahism, which in the majority of cases is not resorted to until after the forty-seventh year of life, although deaths from koyahism have been noticed at earlier ages. Mogul historians tell us that Phshoraub, the Kurdo-Turanean invader of Persia, mythologically slain by the Persian chief Rusthom, died at the early age of 24 years from Pshaloan koyahism; so likewise koyahism accounted for the death of "Zhenish Khan, the slave-favourite and General of Tamur Lenk," who died at the age of 37 years, 18 months after he had built his famous pyramid of skulls at Ghazi. The death of Alexander the Great has likewise been attributed to koyahism, and he died at the age of 23 years.

The two forms of koyahism current in Eastern lands are:—

(a) *Koyah dhaurwah*, or graduated administration of arsenic mixed with the chlorophyll of plants in dry powder form. This use of chlorophyll as an antidote to arsenical poisoning deserves to be further studied and elaborated. Among the Pshawallee tribes that inhabit the Dhaulean Terai, the koyah dhaurwah contains another ingredient—namely, goats' blood.

(b) *Koyah petharah*, or yeast-arsenic. The development of a strain of yeast plant by Faex-culture upon a medium composed of palmera juice (toddy) mixed with arsenic is a trade followed only by the Dravidian priesthood; these Dravs have the monopoly of the production of this form of koyah.

It is singular that the number of deaths due to genuine koyahism is extremely small. Only when amateurs in this line attempt to concoct their own potions of arsenic from the crude drug itself that such deaths attain to prominent notice. It is, therefore, advisable that the genuine methods of "koyah" manufacture be investigated; for "koyah dhaurwah" and "koyah petharah" have been of great value in malarial regions.

*Peedhal* is another organo-therapeutical product of arsenic, in which the aspergillus is used in place of the yeast plant. These spores are cultivated upon a mixture of goats' milk, toddy, and arsenic. They are much more sought after in cases of amœbic dysentery than in genuine malaria, and I have hopes that the judicious use of peedhal may yet prove beneficial in giving its quietus to the "white plague" of our mining camps.

*Pshaloism* is very rarely met with; its employment is distinctly homicidal or suicidal. The metal

"death-lamp of the Pshaloos" has three wick channels, into which are placed cotton feeds which convey arsenic-impregnated oil from the reservoir; when ignited this lamp fills the death-chamber with arsenical fumes which are toxic to animal life. The composition of the oil shows it to be a compound of dammar, frankincense, white arsenic, and cocoanut oil. Originally intended to protect the "tomb-temples" "Pthoi" of the Pshaloos from the ravaging hand of "grave-snatchers," it gradually passed over to more murderous uses. The idea that "East is East and West is West, and never the twain shall meet" is a mere poetical flight of fancy.

In these days of rapid transit and racial intermixture, the possibility of destroying life by little-known methods must be borne in mind.

I am, Sir, yours faithfully,

CLARENCE WRIGHT, F.R.C.S. Edin.

Leytonstone, July 10th, 1922.

## THE SKULL OF SIR THOMAS BROWNE.

To the Editor of THE LANCET.

SIR,—It may be known to some of your readers that the skull of Sir Thomas Browne has recently been reinterred at Norwich, but that previously it came up to London, where careful measurements, drawings, and tracings of it were made. It is proposed to publish a full account of the skull in *Biometrika*, but it would much add to the interest of the proposed monograph if it were accompanied by a series of reproductions of the portraits and engravings of one of the most noteworthy of Englishmen who have combined the study of medicine with the pursuit of literature.

The large number of plates required to illustrate adequately the relation of the skull to the portraits renders—under the present conditions of both printing and illustrative work—the appearance of a complete monograph, such as we desire to see issued, very difficult. We propose, therefore, to issue one hundred copies of the monograph at the price of one guinea each, if lovers of Sir Thomas Browne can be found in adequate numbers to subscribe for copies. Will you kindly permit us to appeal through your columns for the names of those who are willing to aid in this scheme for putting on permanent record the physical aspect of the author of the "Religio Medici," who, by that and his other works, has won a unique position in the heart as well as in the mind of every cultured Englishman? Willingness to subscribe may be notified to either of the undersigned.

We are, Sir, yours faithfully,

ARTHUR KEITH.

KARL PEARSON.

London, July 12th, 1922.

## NEGLECTIBLE GLYCOSURIA.

To the Editor of THE LANCET.

SIR,—All agree that no case of glycosuria should be treated as neglectible glycosuria until that diagnosis is fully established. About other matters there is a diversity of opinion to a great extent because there is no agreement upon definition. Who can define glycosuria? If one were to assert that glycosuria existed when the urine contained more than  $x$  per cent. of dextrose, another would say: "No, not until it contained  $(x+y)$  per cent."; whilst yet another would say " $(x-z)$  per cent. is the limit of normal." The same applies to maximum normal blood sugar, low renal threshold, early mild diabetes, and many of the matters referred to by Dr. P. J. Cammidge and Dr. George Graham in their letters of July 15th. For the moment let us set aside these academic questions, which cannot be decided by mere assertion however dictatorially expressed, but only by vote at an International Congress. "Normal" means "average," and it is a matter of convention as to what variation from the average is to be included in arriving at an average. All have

recognised that some glycosurics enjoy perfect health whilst not restricting their diet in any way, and that the condition may persist for 20 years or more. Upon examining some number of these with long histories of glycosuria I found—as others had found—that they possess one peculiarity—namely, that of low renal threshold for dextrose, and no hyperglycemia. I concluded that anyway some of the individuals with this peculiarity had a neglectible glycosuria. It remains to be seen whether the peculiarity predisposes to diabetes mellitus. I am of the opinion that it does not.

Dr. Cammidge writes (THE LANCET, July 15th, p. 150): "Neglectible glycosuria, if it is truly neglectible, never turns into diabetes." If Dr. Cammidge worked at a large hospital he would know how ill-advised it is to use the word "never" when referring to any medical matter, but on this occasion he is simply uttering a platitude. I venture to think that if any useful purpose is to arise from debate great care must be taken in the choice of terms and accuracy of quotations. My assertion was that neglectible glycosuria did not protect from diabetes mellitus, which is quite different. If Dr. Cammidge's scorn about this means anything, it must mean that he has discovered some form of glycosuria which does protect from diabetes mellitus. I trust that his evidence of this will be more convincing than the single case which he records at the end of his letter—a case of glycosuria without hyperglycemia, which he asserts was a diabetic. He admits that it can be interpreted in two ways and is only evidence in favour of his view because he thinks it is. I do not admit that I have written anything which justifies him in concluding that I divide all glycosurias into neglectible glycosuria and diabetes mellitus; but he may conclude that I divide glycosurias into glycosurias with hyperglycemia and glycosurias without hyperglycemia.

Dr. Graham says that according to my definition he would be a case of diabetes mellitus because his blood sugar rises to 0.19 per cent. I did not mean to convey that impression. The limit of blood sugar after a meal containing a fair amount of carbohydrate (75 g.) to 0.15 per cent. was made only for the diagnosis of glycosuria without hyperglycemia, in order to be on the safe side, and was admittedly arbitrary. When a congress agrees upon the maximum normal blood sugar, many factors will have to be defined. For instance, the form of carbohydrate in the preceding meal; the ratio of dose to the weight of the individual; the ratio of the dose to the surface of the individual; the state of mind of the individual during the test; the volume of fluid; muscular activity, &c. It is because there are so many factors that it is my view at present that the usual meal is better than a definite weight of dextrose.

Dr. Graham raises a question which did not occur to me—namely, that some mild cases of glycosuria with hyperglycemia are neglectible. Probably there are some, but since I am not acquainted with the means he uses for recognising that the disease would not progress even if hyperglycemia were allowed to persist I should at present advise a diet to prevent hyperglycemia, and therefore not term the condition "neglectible," perhaps through ignorance.

I am, Sir, yours faithfully,

Portland-place, W., July 17th, 1922.

O. LEYTON.

## THE "RADIOLOGIST" AND THE "RADIOGRAPHER."

To the Editor of THE LANCET.

SIR,—In your issue of July 8th you print an editorial article under the heading of the Radiographer on Trial. I turned to it, expecting to find some remarks upon those responsible for carrying out the purely technical side of X ray work, but found that the medical expert and not the technician was referred to. I feel sure, Sir, that this is a slip on your part