

later paper³ (page 2), in commenting upon the symmetry observed in certain epidemic curves, he says that "The deduction from this phenomenon is direct and complete—namely, that the want of persons liable to infection is not the cause of the decay of the epidemic. On no law of infection which I have been able to devise would such a cause permit of epidemic symmetry." I have not seen his studies referred to in this last sentence, but may point out that my equation (10) gives an almost completely symmetrical curve if P is nearly constant and L approximates to unity; that is, when N and r are small and c is large; that is, when the epidemic is short and sharp—just in such cases as those which Dr. Brownlee refers to. I am also inclined to doubt on biological grounds whether infectivity can be increased and diminished by any act, so to speak, of the infecting organism itself, but am much more disposed to think that the infection rate may be altered by local conditions, such as those of environment and climate. It seems also likely that epidemics in certain diseases may be due to a previous lowering by chance of the constant of endemicity in the population concerned, followed by a chance increase of affected immigration. I am, however, by no means prepared to contest Dr. Brownlee's very valuable results until some attempt has been made to fit my curves to known cases. The whole subject appears to me to be of such interest and importance that I have ventured to write a somewhat long letter upon it.

REFERENCES.

¹ See *Prevention of Malaria*, p. 658 et seq. ² *Proceedings of the Royal Society of Edinburgh*, 1907, vol. xxvi, Part VI. ³ *Proceedings of the Royal Society of Medicine*, June, 1909.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A NOTE ON THE BACTERIOLOGY OF TWO CASES OF ULCERATIVE STOMATITIS.

ALTHOUGH the infectious nature of ulcerative stomatitis in children has been recognized for a long time, little as to the nature of the organisms causing the disease has been published. Bernheim and Popischill¹ described a diphtheroid bacillus and a spirochaete in 30 cases examined; but J. G. Turner,² writing on the subject more recently, states that the nature of the causative micro-organism is uncertain.

In view of the scanty information available, it has been thought worth while, therefore, to record the bacteriological findings in two cases lately examined. The patients were two boys, both aged 8 years, who sat near one another in the boys' department of a London elementary school. Both children were fairly well nourished, and were apparently in good health prior to the attack of stomatitis. In the first case there was severe ulceration of the gums on both sides of the lower jaw, and of the adjacent inner surface of the cheeks. The ulceration was accompanied by the usual fetor of the breath, enlarged glands, and considerable constitutional disturbance. Shortly after the first boy was seen, the second was found to be similarly affected; but in his case the ulceration was confined to the left side of the mouth, and neither the local condition nor the general symptoms were as severe as in the other case. Swabs were taken from the deepest parts of the ulcerated surface in the side of the cheek, and in each case a streptococcus was obtained in pure culture, except for one or two colonies of *Staphylococcus albus*. The streptococcus corresponded in its morphological and cultural characteristics with *Streptococcus pyogenes*, cultural characters differentiating it clearly from *Streptococcus salivarius* of the healthy mouth. Broth cultures showed long chains of cocci, with branching arrangement; there was slight growth on gelatine at 22° C.; milk was rendered acid, but was not curdled. Animal inoculation tests were carried out, unfortunately, only after the two strains had been subcultured repeatedly. Two rabbits were apparently unaffected after intraperitoneal injection with three days old broth cultures.

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¹ Bernheim and Popischill, *Jahrbuch f. Kinderheilk.*, vol. xlii, p. 434.

² Turner, *Science and Practice of Dental Surgery*, chap. xlii, 1914.

SERUM SICKNESS AND ANAPHYLAXIS.
I HAD occasion recently to give a prophylactic injection of diphtheria antitoxin to a healthy man, aged 35. He had never had any previous inoculation in the accepted sense of the word, but ten years ago he had been revaccinated during an epidemic of small-pox. The serum used was one of the well-known brands, the dose the ordinary prophylactic one of 1,000 units, and the injection was given under strictly aseptic conditions.

Immediately after withdrawing the needle, I was proceeding to apply a dressing to the site of the puncture when the patient became very pale and fell forward out of his chair, uttering a groan not unlike the epileptic cry. There were convulsive movements of the face and jaw, slightly stertorous breathing, complete loss of consciousness, with widely dilated pupils, livid complexion, and cyanosis of the ears and finger tips. After a few seconds he partially regained consciousness, and showed signs of becoming rather volatile, trying to talk and laugh loudly; then he quickly relapsed into a state resembling that of severe shock, with a profuse perspiration and a pulse-rate of only 20. At one time the radial pulse was quite imperceptible. After energetic treatment, persisted in for an hour or more, he at length began to respond, and eventually became more or less himself again, though naturally rather shaky.

All he remembered of the early stage was a feeling of annoyance at being roused out of pleasant dreams. There were no local signs such as oedema at the site of inoculation.

Is one to conclude that this alarming train of symptoms was due merely to nervous shock in a possibly "highly strung" subject, or should one regard it as a case of true anaphylaxis? If the latter, then is it possible that ordinary vaccination with calf lymph may in certain individuals have a similar effect to that of horse serum in inducing a condition of hypersensitivity to any future inoculation?

Hale, Cheshire.

W. TURNER, M.B.

Reports of Societies.

THE ROYAL SOCIETY.

Thursday, March 11th, 1915.

SIR WILLIAM CROOKES, O.M., President, in the Chair.
Restoration of Paralysed Muscles by Means of Nerve Anastomosis.

PROFESSOR R. KENNEDY's third contribution on this subject dealt with the anastomosis of the brachial plexus, and included a consideration of the distribution of its roots. The experiments recorded consisted of division of one or more roots of the brachial plexus, and anastomosis of the divided root or roots either to another part of the plexus or to the spinal accessory. Restoration of function took place, and physiological examinations showed that this was due to the nerve which was substituted for the severed roots. When less than two roots were divided restoration of function took place much earlier, and was shown to be a spontaneous recovery due to the affected muscles being each supplied through more than one root. The distribution of the roots of the plexus was also considered, and the results of the stimulations of six plexuses in man were compared with the same number of examinations in Macacus, the comparison showing a close similarity between the two.

Mechanism of the Cardiac Valves.

Professor A. F. S. KENT presented a preliminary communication dealing with the structure and mode of action of the auriculo-ventricular valves of the mammalian heart. Muscular tissue derived from the auricular wall ran for a considerable distance into the substance of the valve flaps, being situated principally towards their auricular surfaces. It was permissible to conclude that this muscle exercised an important function in connexion with the closure of the valves. Receiving its stimulus from the base of the auricle, of which it was indeed an extension and with which it was directly connected, it came into action at the appropriate moment in the cardiac circle, and contracted (and remained contracted) last of all the auricular muscle.

The Services.

TERRITORIAL FORCE.

EXCHANGES OF MEDICAL OFFICERS.

The British Medical Association, being anxious to assist in facilitating exchanges between medical officers of the Territorial Force in accordance with the War Office letter of December 10th (BRITISH MEDICAL JOURNAL, February 27th, p. 402), is prepared to publish in the JOURNAL applications for exchange. In all cases officers desiring exchange should furnish information on the following points:

1. Rank and name
2. Regiment or medical unit
3. At present stationed at
4. For home or for foreign service
5. Amount and nature of work, special allowances drawn, and living conditions generally
6. Home address to which it is desired to exchange
7. Terms offered
8. Whether a junior medical officer with temporary commission would be accepted

Present address and date

Surgeon-Captain James W. Cook, M.B., of the 25th Battalion of the Lancashire Fusiliers, stationed at Southport, desires to exchange. The unit is expected to move to near Malvern in the middle of April as part of the East Lancashire Division, T.F. Surgeon-Captain Cook resides at Bury, Lancs. A junior medical officer with a temporary commission for the period of the war would be accepted; he should engage for general service. The work consists of medical attendance on the sick, training stretcher bearers, supervision of sanitary squads, and the usual duties of a regimental medical officer. Allowances, while in billets, 4s. 9d.; in camp, field and ration allowances will be allowed. Surgeon-Captain Cook would be willing to make up any mess expenses other than beverages over and above allowances, or would consider any other terms in reason.

ROYAL NAVY.

DEPUTY INSPECTOR-GENERAL JAMES L. SWEETNAM has been awarded a Greenwich Hospital pension of £50 a year in the vacancy caused by the death of Deputy Inspector-General W. G. Ridings.

Universities and Colleges.

UNIVERSITY OF DURHAM.

THE following candidates have been approved at the examination indicated:

SECOND M.B. (*Anatomy and Physiology*).—*E. G. Anderson, *J. A. Perry, J. S. Clark, L. W. Hearn, G. M. Kerr, W. McD. Pettigrew, W. A. Tweddle. *Honours, second class.

UNIVERSITY OF SHEFFIELD.

THE following candidates have been approved at the examination indicated:

SECOND M.B., CH.B.—Annie Clark, W. Collins, Ethel Mary Matthews, Winifred Hannah Wells.

*With distinction in Anatomy and Physiology.

UNIVERSITY OF BRISTOL.

MR. F. P. MACKIE has taken the degree of M.D. with honours.

SOCIETY OF APOTHECARIES OF LONDON.

THE following candidates have been approved in the subjects indicated:

SURGERY.—*J. R. Crolius, *S. C. Dyke, *L. A. J. Graham, *R. A. Holmes, *S. B. King, *N. W. Rawlings, *H. B. Taylor, *A. K. S. Wyborn.

PHARMACEUTICAL.—*C. D. Banes, *A. U. L. Bennett, *S. C. Dyke, *J. D. Ferguson, *R. A. Holmes, *S. B. King, *H. B. Padwick, *R. Quesada-Jiménez, *N. W. Rawlings, *W. H. Rhys-Jones, *H. B. Taylor.

FORENSIC MEDICINE.—B. A. Bull, J. E. Cheesman, S. C. Dyke, J. L. Hamilton, S. B. King, H. B. Padwick, R. Quesada-Jiménez, W. H. Rhys-Jones, H. B. Taylor.

MIDWIFERY.—B. A. Bull, S. C. Dyke, H. B. Taylor.

*Section I. +Section II.

The diploma of the society was granted to Messrs. J. R. Crolius, S. C. Dyke, R. A. Holmes, S. B. King, N. W. Rawlings, H. B. Taylor, and A. K. S. Wyborn.

THE Royal Dental Hospital, Leicester Square, has received a donation of £100 from the Worshipful Company of Grocers.

Medical News.

THE library and offices of the Royal Society of Medicine will be closed for the Easter holidays from Thursday, April 1st, to Tuesday, April 6th, both days inclusive. The meeting of the Section of Pathology announced for March 30th will not be held.

THE Italian Red Cross Society has decided to build several two-story houses in the regions lately devastated by earthquake for the accommodation of *medici condotti*, who correspond to our Poor Law medical officers. Funds to the amount of nearly £5,000 have already been subscribed for the purpose.

DR. A. G. SOUTHCOTME, a Representative of the City Division, and one of the party who after the annual meeting at Aberdeen accepted the invitation of Captain George Smith to visit his residence, Pittodrie House, and afterwards climbed the hill of Bennachie to see the prehistoric vitrified fort at the summit, writes to express the grief with which he has read that Captain Smith was killed during the recent operations at Neuve Chapelle.

DR. F. J. WALDO, H.M. Coroner for the City of London, was President of the Coroners' Society of England and Wales at the annual meeting of the society on March 23rd. In thanking the society for his election, Dr. Waldo said that the founder and first president (forty-six years) was Mr. Serjeant Payne, who introduced many reforms, and the first secretary was Mr. Langham, both predecessors of his as coroner for the City. Succeeding presidents were Sir John Humphreys and Dr. Danford Thomas, coroners for Middlesex. The object of the society was to encourage co-operation among coroners with a view to the effective discharge of their duties, and the maintenance of the privileges and rights of the coroner.

A BILL dealing with quack medicines and doctors who lend their names and influence to the sale of such remedies, as well as those who unduly advertise themselves, has, says the *New York Medical Journal*, been introduced in the New York State Senate by Senator George H. Whitney, of Saratoga, at the instance of the State Department of Education. The bill defines as "unprofessional conduct" the advertising of services or remedies in any manner previously challenged by the State Board of Medical Examiners and disapproved by vote of the Regents. It also declares it "unprofessional" for a practitioner to continue in the employ of any person, firm, or corporation whose advertising has been similarly challenged, or to make a practice of writing letters or sending out circulars or employing touts to get patients. The wilful betrayal of professional secrets, habitual drunkenness or addiction to drugs, or the division or promise to divide a fee with another doctor, or accepting a divided fee without the knowledge of the person paying such fee, are also to be declared "unprofessional."

SOME useful recipes of dishes for infants and children under school age were given by Miss Florence Petty in a lecture delivered under the auspices of the National Association for the Prevention of Infant Mortality and for the Welfare of Infancy, at the Royal Society of Medicine, Wimpole Street, on March 22nd. With regard to cooking of food intended for children, one important point was, she said, to teach them to masticate. For this purpose, pulled bread was excellent, and had the additional advantage of being very easily made. Eggs, also, could be made to answer the same purpose. They were usually one of the first solid foods to be given to children, and in most cases were so soft that they were swallowed without any attempt at mastication. To avoid this, the egg, instead of being lightly boiled, should be put for a few moments into a saucepan of boiling water, the heat of which would quickly coagulate the outside. The saucepan should then be covered with a lid and drawn to the side of the fire, where the egg should be allowed to cook slowly for ten or fifteen minutes. Eggs cooked in this fashion were more difficult to swallow in large pieces than the ordinary soft-boiled egg, and his efforts to deal with its unexpected resistance would teach the child the elements of mastication. Vegetables should be cooked in a very small quantity of water, and any water remaining should be kept for stock, or even for drinking. More than one working-class mother, said Miss Petty, had found this water an excellent substitute for tea at the evening meal, and it possessed, in addition, very useful medicinal properties. Two great rules that should be observed in cooking were to waste nothing and to cook slowly.