

thalmos in any of them, the effect on this could not be assessed. The results Mr. Thurstan Holland had described were not what would be regarded as striking from the point of view of histrionic demonstration, but were none the less very real, and satisfactory from the patient's point of view, and in restoring the capacity for work and averting the fatal issue. The last case he described was as clear a case of the saving of life and the restoration to comparative health by treatment as could be desired. The case for the value of this treatment rested upon sound pathology. Of all the many theories of the etiology of this disease, there were none that now held the ground except that of toxæmia from increased activity of the thyroid, and the outpouring into the blood of an increased and undue supply of its internal secretion. If x rays could reduce the size of the organ, reduce the bulk of its secreting tissue, or lower the secretory activity of the epithelium without diminishing its quantity, they were on the way towards restoring the normal balance between Graves's disease on the one hand and myxoedema on the other hand. And then the erethism, which was after all the sting of the disease, was dulled or destroyed, and the tendency of the disease to incapacitate or kill was removed. It had been held that thyroidectomy proved more effectual, but whether this were so or not, the Graves's patient was the worst type of patient for a general anaesthetic. There was another line of argument bearing upon this subject which was worthy of careful attention and experimental work. Senile enlargement of the prostate was dependent on the internal secretion of the testicle, some perversion of it either in its quantity or character. When the testicles were removed, the prostatic symptoms cleared up. When the vas was removed, the symptoms did not alter, so it would appear that it was the internal rather than the external secretion that was affected. They had seen that the unprotected radiographer, by getting frequent minute doses of x rays, suffered in his external secretion without the internal secretion being affected. If, however, a more intensive application were made with the x rays to the testes, although with a smaller total dose than the unprotected radiographer received, was there not a reasonable chance that the internal secretion might be affected so as to destroy its toxic effects without destroying virility, just as they could modify the toxic influence of the thyroid secretion in Graves's disease without going to the other extreme of producing myxoedema? He thought there was a very reasonable chance of this proposal having within it the elements of success. He had just had his attention drawn to an article in the *Lancet*, by Dr. Joseph Bolton of Nottingham, on this point. He at first raised the question of the treatment of enlarged prostate by the application of x rays to the testes and to the prostate itself directly or indirectly, but finally decided that the best method was to treat the prostate directly with high-frequency currents. He then described two cases in which he had used this method with the thoughtfulness and accuracy which he always used, and certainly the results were very good and striking. His method certainly ought to be well tried. But Dr. Codd's own feeling from *prima facie* considerations was that in treating the prostate directly they were treating the effect and not the cause, and that by using high-frequency instead of x rays they were using the much weaker agent. It was thus seen that all these gland affections were amenable to some extent to x -ray therapy, and in some cases complete cures had been wrought which appeared to be very permanent in their effect. He therefore suggested that the inevitable appeal to the knife in some of these cases should be reconsidered, and due care should be given to a consideration of the chance of x rays effecting the result desired in a more satisfactory manner.

A NUMBER of the members of the medical profession in Moscow have formed an association for the establishment of a private institute for the medical education of women.

THE British Balneological and Climatological Society held a very successful provincial meeting at Torquay on May 8th. The Fellows were received on their arrival by Dr. Horton, President of the Torquay Medical Society, and other medical men resident in the district. In the evening there was a dinner, followed by a concert and conversation. The proceedings included the reading of a paper on the climate of Torquay, by Dr. Thomas Dunlop, its medical officer.

Reports of Societies.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.

Wednesday, May 12th, 1909.

Dr. MICHELL CLARKE, President, in the Chair.

Ionic Medication.

DR. H. P. TAYLER gave an account of ionic medication in general practice, quoting eight cases of rodent ulcer which he had treated by the introduction of zinc ions with most encouraging results; he also mentioned other conditions which had benefited by similar treatment, among these being granular lids, neuralgia, and diphtheritic ulcer of the external ear. Dr. LEWIS JONES described the theory of the treatment and demonstrated the migration of ions in an electrolytic solution. In a solution of sodium sulphate particles of copper from a copper electrode penetrated into a pad of porous paper from the positive electrode, while the hydroxyl group was collected at the negative. He concluded his demonstrations by instances of the applicability of specific ions to diseased conditions. Mr. J. W. MCBAIN said that ionization had led already to valuable results. Both theoretically and practically it was possible to introduce metals and salts into the tissues of the body in this way. Dr. KENNETH WILLS said that ionic treatment of rodent ulcer had given him excellent results. Not much success had been obtained in treating ulcers where cartilage and bone were involved. Mr. J. TAYLOR mentioned the benefit derived in ozaena by the use of magnesium and copper ions; he had met with a case where a child's deafness had incidentally improved while undergoing ionization of the naso-pharynx for ozaena. Dr. G. PARKER inquired whether the combination of Bier's hyperæmic treatment with ionization enhanced the local effect of the ions. Dr. ROXBURGH quoted an instance of the value of zinc ions in healing a fistula in ano which had obstinately refused to heal under surgical treatment. Mr. HAY GROVES preferred surgical measures in rodent ulcer. Dr. WATSON WILLIAMS discussed the treatment of latent diphtheritic infection by ionization, mentioning the accessory sinuses of the nose. Dr. VICKERY said he had experienced the disappointing results of ionization in cutaneous epithelioma as contrasted with its success in rodent ulcer. Dr. BOWKER gave his experience with chlorine ions in Dupuytren's contraction and the improvement resulting. Dr. NIXON described some results of treatment of papillomata and warts, saying that the naked electrode had advantages over the lint pads upon small areas. The President thanked Drs. Tayler and Lewis Jones for opening so instructive a discussion. He would be sorry to think with some speakers that the character of the ions used made no difference. Electro-therapeutics had suffered from the vague way in which it had sometimes been handled; in ionization exactness was possible and should be aimed at. For instance, salicylate ions introduced into the tissues should be recognizable in the urine. Drs. TAYLER and LEWIS JONES replied.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Tuesday, May 18th, 1909.

Dr. WARD-SMITH, Vice-President, in the Chair.

Tuberculous Skin Diseases.

DR. MITCHELL, in a paper on some tuberculous skin diseases, said tuberculosis cutis vera was rare, and simply an infection from within, at the orifice of a mucous outlet. Treatment was not of much use, as constant reinfection occurred. Tuberculosis verrucosa was due to infection from without, and was somewhat rare. Treatment consisted in applying salicylic acid or pyrogallol preparations, curetting, and treating with Finsen light or x rays. Scrofuloderma was not, strictly speaking, a primary disease of the skin, but arose from a caseating gland or bone lesion in the subcutaneous tissues. Treatment consisted in removing the original focus of the disease, thorough curetting of the sinuses and ulcers, and antiseptic dressings, together with general constitutional treatment. Occasionally x rays might be useful. Lupus vulgaris was a chronic cellular overgrowth due to the invasion of the skin by the tubercle bacillus. Treatment must be both constitutional and local. Given a small patch on some part where

cosmetic effect was of little importance, the quickest and easiest treatment was that of complete excision. In cases where this was not practicable, Hebra's arsenical paste or Unna's salicylic acid and creosote plasters might be used. Curetting was practically useless as a cure, and should never be employed about the face. The *x*-ray treatment was the most successful of all. Dr. LANKESTER thought that the treatment of lupus by zinc ionization was very effective. Dr. EURICH suggested that in cases which did not yield readily to *x*-ray treatment tuberculin should be tried as well. Very often the combination succeeded where either treatment separately was ineffectual. Mr. GOYDER agreed with the last speaker. He was also greatly in favour of excision where possible, and thought that scraping in many cases was distinctly useful. Dr. WARD-SMITH compared the treatment now with that of five years ago, when he was in charge of the *x*-ray department. Dr. LOCKERIE asked if *x*-ray treatment ever caused epithelioma. Dr. BRONNER said he had been very successful with scraping combined with the application of pure formalin.

The Uses of Alcohol.

Dr. CAMPBELL, in a paper on the therapeutic uses of alcohol, said alcohol should be avoided in all cases of deficient elimination—for example, kidney disease; in all cases where a pernicious habit was likely to be acquired, as in neurasthenics and women at the climacteric; in all cases of chronic nervous depression; in all conditions where prolonged mental or muscular strain had to be undertaken; and in all cases where there was a condition likely to recur. The drug was useful when associated with food and given in small quantities (not more than 5 per cent. of the total food taken) in certain cases of anorexia, especially when connected with or caused by overfatigue—in these cases the alcohol was best taken a few minutes before food; in moderate doses, as a cardiac and respiratory stimulant, as in heart disease and bronchopneumonia; in single full doses—best given hot with a diffusible stimulant, as ammonia—very useful in late stages of pneumonia, followed by digitalis; in cases of failing compensation of the heart where digitalis was ineffectual; in full doses to produce quiet and sleep in cases of excitement, as in the delirium of pneumonia; in full doses with plenty of water, and perhaps followed by digitalis, to increase the flow of urine (only if the kidneys were healthy).

GLASGOW SOUTHERN MEDICAL SOCIETY.

Thursday, May 13th, 1909.

Mr. GRANT ANDREW, President, in the Chair.

Lymphadenoma.

Dr. JOHN ANDERSON introduced a discussion on lymphadenoma, showing by the epidiascope that the gland lesions presented a distinct histological picture. In the earlier stages there was proliferation of the lymphoid cells, increased vascularity, and proliferation of the reticular epithelium, while the lymph sinuses were somewhat dilated, and showed the presence of small and large lymphocytes, epithelioid cells and eosinophiles. In the more advanced stages the reticulum was coarser in character and increased in amount. Bands of fibrous tissue were seen traversing the gland in an irregular manner, while varying amounts of small and large lymphocytes, plasma cells, large uninuclear and multinuclear giant cells completed the picture. He regarded the lesion as of the nature of a chronic inflammation of unknown etiology.

Dr. T. K. MUNRO dealt with the history, symptoms, diagnosis, and treatment of the disease. Its duration varied considerably, from weeks to many years. Diagnosis in the early stage might be impossible. Examination of the blood was valuable in excluding leukaemia, but as the composition of the blood varied, a diagnosis could not be based upon this alone. As regards treatment, when the glandular enlargement was localized, surgical treatment was rational, though frequently recurrence took place. In many cases surgical treatment was necessary from the complications produced by the pressure of the enlarged glands. He believed arsenic to be the most reliable internal remedy, and had seen much benefit from its use. He had also used *x*-ray treatment in addition for some time, and had sometimes seen an enormous improvement in the size of the glands after a few applications.

Professor STOCKMAN considered that the glandular enlargement was only a symptom, and that there was some underlying condition which would probably be discovered. He used arsenic for treatment with considerable benefit at times. He instanced a case of the disease which had lasted for twenty years, and the patient was still alive and in good health.

SOCIETY OF TROPICAL MEDICINE AND HYGIENE.

Friday, May 21st, 1909.

Sir PATRICK MANSON, President, in the Chair.

Adjourned Discussion on Beri-beri.

Dr. C. W. DANIELS said that Dr. Braddon, whose theory they were discussing, had rightly laid much stress on the fact that in the Malay States there were several rice-eating races, and that one of these—one which prepared its rice in a different way from the others—was immune from beri-beri. The question of the preparation of rice had been prejudiced by the use of inexact terms; there was, for instance, a great difference between fresh rice and freshly-husked rice. The so-called Indian rice eaten in Malaya did not grow in India, nor was it prepared or "cured"—to use Braddon's term—in the same way as rice was in India. It was mostly grown in Siam, and was cured in Penang by being steamed or heated for seven or eight minutes; it was not boiled until the grains split, and during the whole process it was never warmer than a hot poultice; this alleged sterilization was carried out after a lengthened soaking in water, during which the grain often sprouted. The result was anything but sterilization. So-called Indian rice not only looked dirty, but was dirty and mouldy; it was full of dust, and he himself had cultivated innumerable moulds and bacteria from it. The Chinese said that it gave them dysentery, and that they could not eat it on that account. On the other hand, the uncured rice which the Chinese used looked, smelt, and tasted excellently, and appeared to be wholesome and appetizing. With regard to statistics, there had been variations in prevalence quite as great before the cured-rice days as there had been since. In Penang Gaol Rangoon rice was used for many years without beri-beri; suddenly, in one month, 35 cases occurred, most of them fatal. Why did the rice, alleged to be unwholesome by Braddon, take years to affect the prisoners? Again, cases originated in gaols almost immediately after admission of the prisoners; these could not be due to chronic poisoning. With regard to beri-beri in ships, he was quite unconvinced by Professor Holst's arguments that it was a form of scurvy. Uncured rice, which Braddon alleged to be the cause of the disease, was used everywhere—in England, on board ship, and all over the world—and if Braddon's views were true, it ought to be excluded from our households. Sir WILLIAM TREACHER, K.C.M.G., said that his somewhat extensive experience as a layman left him with an open mind on the subject. The feeding experiments certainly supported the rice theory, but most of them would remember instances in which beri-beri affected only one class of a community, all of which ate the same food. He recollected that in Labuan a company of Mohammedans (Malays from Ceylon) were stationed as a guard, and that they were attacked by virulent beri-beri, and almost the whole of them died. None of the other inhabitants had the disease, although all ate the same rice, which was brought from Singapore in a sailing ship. Mr. T. P. BEDDOES said that on the Amazon, where no rice was eaten, beri-beri was prevalent, and that the type was malignant. The principal food was cassava, prepared from the root from which tapioca was derived. Dr. HARTIGAN said that in different schools in Hong Kong in which the food was exactly the same, there had been a wide variation in the incidence of beri-beri. Some schools were badly affected; others were not. Dr. H. MACFARLANE said that at St. Paul's College, Hong Kong, there were outbreaks of beri-beri among the students every year, and that all sorts of rice had been tried without effect. Change of place, and not of diet, had arrested the disease. Professor RONALD ROSS, C.B., said that it was most important that the question should be taken up in earnest now that a *prima facie* case had been made out, and that further feeding experiments conducted

on more exact and searching lines should be initiated. Sir PATRICK MANSON said that the weight of opinion amongst those who had spoken in the discussion was opposed to the rice theory of the origin of beri-beri. Still, many capable observers had deliberately adopted the hypothesis after having opposed it. The society would hesitate to say definitely that these men were wrong; but until they had more facts at their disposal, his own position was one of suspended judgement. Dr. F. M. SANDWICH afterwards called attention to a paper forwarded by Dr. Stanton of Kuala Lumpur, which was written by J. Bontius of Batavia in 1624, and in which the disease was fully described. Bontius's volume, *De Medicina Indorum*, lent by the Royal College of Physicians, was also shown.

Pneumonic Plague.

A paper on the epidemiology of pneumonic plague was read for Captain Gill, I.M.S., Assistant Plague Officer, Lahore. It stated that pneumonic plague in all its stages was intimately connected with the bubonic variety of the disease, but that it had definite and well-marked epidemiological characters. When it occurred as an original infection it was associated with a preceding rat epizootic in the same way as bubonic plague. Further, an outbreak of pneumonic plague tended to die out quickly; sometimes it was succeeded by a bubonic epidemic, but at other times no bubonic plague appeared. The mode of spread was direct from man to man, but rats were extremely easily infected by human patients, and a rat epizootic was started, which in turn gave rise to an epidemic of bubonic plague. Pneumonic plague was, further, only seen at the commencement of the epidemic season of plague, and in almost every outbreak there had been pneumonic plague at the beginning. In estimating its effects it should be remembered that it was liable to start bubonic epidemics, and that it was in all probability the expression of an unusual or exalted degree of virulence of the plague bacillus. If any variety of plague ever again prevailed in Great Britain it would be the pneumonic form. A decrease in the prevalence of pneumonic plague was likely to be one of the earliest signs of the decline and final disappearance of plague epidemics in India.

Reviews.

PSYCHOLOGICAL MEDICINE.

SOME years ago, in 1902, Dr. Paul Kronthal wrote a book upon nerve cells and cells in general,¹ which, by the novelty of the views therein expressed—views in direct conflict with the neuron theory which at that time was almost universally accepted—and also by the amount of evidence adduced in support of his contention that the nerve cell, so-called, was not a true cell, but a composite structure or agglomeration of fibrillae and wandering cells indistinguishable from leucocytes, attracted considerable attention. Since this much of the internal structure of nerve tissues has been laid bare by Apáthy, Bethe, Ramon y Cajal, and others, and a new work by Dr. KRONTHAL on nerves and mind² will probably encounter less opposition, even if all of the author's views are not likely to be accepted. The book is divided into two parts, the first containing a description of the minute anatomy of nervous tissues with his interpretation of their origin and internal relations; and the second part treating of mind—or, as the author would say, "the sum of reflexes"—viewed in the light of his anatomical explanations. It would be impossible to give in brief space an adequate account of Dr. Kronthal's carefully thought out analysis of nervous structures, but it may be said that, according to his exposition, the conducting paths or fibrillae constitute the only true and essential nervous mass, and that the remaining parts of the nerve cell—that is, the protoplasmic and chromatin masses, nucleus and nucleolus—belong to the wandering or neutral cell, which bears the same relation to the neuro-fibrillae that a drop of oil does to a number of threads at whose intersecting point the drop has become entangled. There is, according to the author, only this difference: that inside the cell the insulation

of fibril from fibril is removed, the cell thus forming a switch or communication between the fibrillae. For the author's interesting demonstration of how cell form is determined absolutely by the number and direction of the fibrils meeting at that point; for his captivating elucidation of Wallerian degeneration; and for his destructive criticism of the theory of the dominance of the nerve cell we must refer readers to the book itself. Obviously Dr. Kronthal's main tenets, if true—indeed, the main facts only, if true—involve the death of the neuron theory, a conclusion to which neuro-histologists generally appear to be leaning. The limits of space prevent at the moment any further discussion of Dr. Kronthal's eminently logical and searching treatment of the later part of his subject, or of the classifications and analyses of types of nervous disorder—using the term in its widest significance as including mental diseases. We need only say that Dr. Kronthal marshals a very great amount of evidence in support of his original views, which he expresses throughout with admirable clearness and definition, with a thorough grasp of his subject, and with unusual width of philosophical outlook.

A paper on the methods of examination of the intelligence, which was read by Professor ZIEHEN of Berlin at the International Congress for Psychiatry two years ago at Amsterdam, has been enlarged, and is now separately published, its subject being defined as the principles and methods of testing the intelligence.³ The monograph is limited to a discussion of the methods of proving in any individual case the normal or abnormal capacity for ideal presentations, their associations and elaborations. Professor Ziehen treats of his subject under the headings of: (1) Retention or deposition; (2) development and differentiation of ideas; (3) reproduction; and (4) combination. The whole paper covers only 61 pages, and is throughout simple and practical. Under "retention" Professor Ziehen alludes to the scanty value of school knowledge, such as the answers to questions in geography, etc., as a means of testing the stock of ideas, for what is required of man is a knowledge of those facts which are of value to him in his daily life; but, since these facts vary with each individual, the examination of the individual should be conducted along the lines of ascertained information concerning him. A uniform method of examination, therefore, is undesirable and likely to give inaccurate results. Professor Ziehen, however, gives a few examples of methods of testing the retention of number, form, narrative, etc., which are, in his opinion, free from the errors which lurk in most. In treating of the development and differentiation of ideas the author outlines and illustrates the processes he has called isolation, complexio, and generalization. These three processes have been explained by Professor Ziehen elsewhere (*Leitf. d. phys. Psychol.* 7 Aufl., 1906), and he therefore contents himself in the present paper with examples. A child, for example, who out of the idea-complex of the touched, tasted and seen sugar draws the idea of "sweet," offers an illustration of isolation; one who from the thunder, lightning, and rain obtains the idea of "storm" shows complexio; and one who from many single sweet tastes obtains the idea of "sweet," or from many repeated storms derives the idea "storm" gives an example of generalization. Professor Ziehen then gives examples of the questions which may be addressed to the patients to disclose which of these processes may be defective, all of which, though simple, have been carefully selected for the particular end in view. In speaking of reproduction he draws a distinction between two groups of ideas and associations; (1) those which always are at disposal, like current coin, and (2) those which are only reproducible in particularly favourable circumstances or with definite constellations of ideas, the bills and banknotes of thought. He attaches considerable importance to this distinction in diagnosis; for instance, epileptic dementia affords a distinguished example of special defect in the first group, thinking becoming monotonous and limited by its restriction to the nearest and most trivial associations. To the last and most important process of combination, by which new series of associations are produced, most space is properly given,

¹ *Von der Nervenzelle und der Zelle im Allgemeinen.* Jena: Gustav Fischer. Berlin, 1902. (M. 16.)

² *Nerven und Seele.* By Dr. Paul Kronthal. Jena: Gustav Fischer. 1908. (Roy. 8vo, pp. 432, 139 figures in the text. M. 10.)

³ *Die Prinzipien und Methoden der Intelligenzprüfung.* By Professor Dr. Th. Ziehen. Berlin: S. Karger. 1908. (Dbl. post 8vo, pp. 61. M. 1.20.)