

## SEVENTY-SEVENTH ANNUAL MEETING

OF THE

**British Medical Association.**

Held at Belfast on July 23rd, 24th, 26th, 27th, 28th,  
29th, 30th, and 31st.

## THE SECTIONS.

## BRIEF SUMMARY OF PROCEEDINGS.

## SECTION OF ANATOMY AND PHYSIOLOGY.

Thursday, July 29th, 1909.

THE proceedings began with a paper on the development of the epithelial elements of the ovary by Dr. H. Louise McIlroy, the meeting being held jointly with the Section of Obstetrics. Miss McIlroy, from observations on the puppy, kitten, pig, and the human species in the early fetal condition, had concluded that the embryonic germ cells growing from the surface of the ovary into the deeper parts formed two distinct cellular structures, and that Pflüger's tubules, which had been a considerable source of worry to workers in this field, were nothing more than tubules of follicle cells from which the oocyte had fallen out. Dr. Waterston pointed out that practically all the stages of ovum formation could be found in sections of the adult ovary. Oogenesis was not confined to embryonic life, but was continued during a long period. He had made a number of observations upon the later stages of oogenesis in a number of different mammals, and traced the history of the follicle cells onwards to the final stages, and showed their nutritive character and the part which they played in the formation of the zona pellucida. In opening the discussion on the deep afferents, their function and distribution, Professor C. S. Sherrington, in an admirably lucid address, said it would be necessary to limit his observations to two main groups of afferents—(1) visceral and (2) somatic or muscular. He referred at the outset to the fact that when food is swallowed there is a point in the fauces beyond which, under normal conditions, no field of consciousness exists. The mouth is the intermediary zone between the external areas of sensation and the "blank inside." Therefore, in this portal of entry to the alimentary canal certain striking features were found, namely, that chemical agents were able to stimulate the appropriate nerves and produce sensations. Beyond this point sensations did not arise. Co-ordinating factors did exist, however, between the various parts of the alimentary canal, their action being exerted, according to modern researches, through the medium of the blood, any nervous adjustment being doubtful. From this point Professor Sherrington passed to the consideration of pain in viscera, and explained how the views of Lennander and Meltzer were diametrically opposed. He himself was inclined to believe that there must be some sensation, since reactions could be obtained by acting on the sympathetic system going to viscera. There resulted vaso-motor reactions—a rise of blood pressure—and it was difficult to believe that there was no sensation associated with this phenomenon. But the animals being anaesthetized, it was impossible to be certain about this. The views of Head and Mackenzie were then considered, and again there was a wide divergence of opinion on visceral pain. Professor Sherrington next passed to the consideration of deep afferents which are not visceral, but are deep, that is, "deep touches." These deep touches were registered by muscular nerves. Nerve fibres going to muscle were heavily laden with afferent fibres—more than half. Where the muscles passed into the tendon, was a regular nest of afferent fibres, and in tendons, Golgi's organ was present—which again was an afferent structure. Tonus occurred in extensor muscles; it might occur in the

flexors, too, but there was no proof of this. Briefly, tonus was present in those muscles which antagonized gravity. In conclusion, Professor Sherrington observed that the whole system of afferents formed an important group, for a study of which clinicians, physiologists, and anatomists might combine and attack certain problems, such as (1) the distribution of afferent nerves in muscles of different type and shape; and (2) the distribution of visceral afferents, concerning which there were so many discrepancies. In the subsequent discussion Professor Milroy, Professor Dixon, Professor Macdonald, Dr. Haddon, Dr. Graham-Brown, Dr. R. J. Anderson, and Dr. Rutherford took part. Professor Sherrington briefly replied. Dr. Waterston demonstrated some reconstruction models of the fetal pelvis, which had been built under his supervision by Dr. Pattie. He also showed Lissauer's instrument for taking outline tracings of the skull in various planes; also Martin's instrument and an improved form of Matthews's periglyph. A paper was read by Dr. Milroy from Dr. Leonard Hill, which was of the nature of a reply to Haldane and Douglas, who, in the *Proceedings of the Physiological Society*, June 26th, 1909, have stated that "Hill's recent observations as to the effects of previous inhalation of oxygen in diminishing distress caused by muscular exertion can be explained as a result of the deep breathing which is apt to occur in persons to whom oxygen is administered."

Friday, July 30th, 1909.

Dr. J. S. Goodall and Mr. H. G. Earle (Middlesex Hospital, London) read a paper, illustrated by lantern slides, on the structure of the pancreas in relation to function. The three essential points which they brought forward were (1) that the structure of the elasmobranch pancreas is the same as that of other vertebrates; (2) that in the elasmobranch pancreas structures are found which only exist in other vertebrates in an embryonic condition; (3) that there is continuity between the zymogenous tissue, islet tissue, and the duct. Professor B. Moore (Liverpool), in a communication on the biochemistry of haemolysis, pointed out that the red blood corpuscles contained lecithin, which was of the nature of a membrane or cement, and that all haemolytics had the property of dissolving lecithin membrane and the fats of fatty acids. Haemolytics might be classified in three groups: (1) Fatty acids and their soaps; (2) bile salts and their derivatives; (3) glucosides of the saponin-digitalin group. On introduction into the circulation they caused slowing of the heart, and stoppage in a condition of systole. Another property which these bodies possessed was that of causing conjugation with other substances to form more complex molecules. The latter part of the communication dealt with the "balancing" action of haemolytic bodies, an action which, in certain cases of combination, resulted in failure to act on the red blood corpuscles, whilst in other combinations union took place, the "balancing" action was lost, and both attacked the corpuscles. Dr. H. M. Johnston read a paper on the distribution of the intercostal nerves, from which it was apparent that these nerves give off many branches to the pleura and subpleural tissue, whilst others arising from the white rami communicantes of the lower thoracic nerves proceed to supply the diaphragm. Professor Peter Thompson gave a demonstration of the development of the human heart in the first month. He showed three models of reconstructed hearts from human embryos of 2.5 mm., 3 mm., and 7 mm. A special feature which they illustrated was the changes in position of the U-shaped ventricular loop in the third and fourth weeks of intrauterine life. Other points dealt with were the fate of the sinus venosus, the formation of the right and left venous valves, and the appearance of the aortic end of the heart-tube. Dr. Dickey gave a lantern demonstration on the cervical pleura. He had dissected it in thirteen adults with a view to determining its surface relationships to the clavicles and sternomastoids, etc. He had taken measurements of the

thoracic inlet and the mean breadth of the sternomastoids from a topographical point of view. In his research he had utilized eight male and five female subjects. Mr. Norman Rutherford (Edinburgh) demonstrated an excellent model, reconstructed from wax plates, of the chondro-cranium of the trout at the time of hatching. The model included also the brain, cranial nerves, and sense organs, the whole forming a complete picture of the anatomy of the head region. It was probably unique in combining so many structures in the one model. As far as the chondro-cranium was concerned, it took an almost exactly intermediate position between the models made by Stöhr in 1882 of the earliest stages and that made by Gaupp of the Stadium Optimum of the teleostean primordial cranium. The last two papers were communicated by Professor R. J. Anderson (Galway), and proved to be most interesting both to the anatomist and physiologist. The first dealt with some results of the uniformity of action and habit; and the second with characters that make for persistence, particularly as regards the skeleton. Many suggestive points were raised, but the lateness of the hour prevented any adequate discussion.

#### SECTION OF DERMATOLOGY AND ELECTRO-THERAPEUTICS.

Thursday, July 30th, 1909.

AFTER the exhibition of some cases of skin affections—including one case of acanthosis nigricans—by various members, Sir Malcolm Morris (London) opened a discussion on mucous membrane lesions. He dealt separately with a great number of these, as seen in practice associated with the principal kinds of skin affections. In urticaria the mucous membranes of eyelids, lips, mouth, tongue, pharynx, and vulva might be the seat of wheals. In lichen planus the mucous membrane of the mouth was not infrequently attacked, and the condition was sometimes diagnosed as leukoplakia. Among the manifestations of tuberculosis on the mucous membrane, the most important was lupus vulgaris. In a large proportion of cases the starting point of the disease was certainly in the nose, from which it spread to the face. In leprosy, he said, the disease probably showed itself first on the mucous membrane of the throat and upper air passages; it might also begin in inflammation of the mucous lining of the nose. The speaker urged the importance in all cases of skin disease of examining the mucous membrane of the mouth and nose; but since lesions situated there were seldom sufficiently characteristic to form the basis of a diagnosis, the recognition of their true nature, in the absence of any dermal affection which might throw light upon the case, presented enormous difficulty. When the mucous membranes alone were the seat of lesions, syphilis was always the first thing to be thought of, but it was most important to remember that there were conditions not commonly met with—notably, herpes of the prepuce or vagina, lupus, and true leukoplakia—which were wholly independent of syphilis. Dr. Louis Wickham (Paris) and Dr. R. B. Wild (Manchester) also laid emphasis on the need for making thorough examination of the mucous membranes in all cases of skin disease. The latter said that lupus vulgaris, which by all outward appearance, was limited to a few spots, was sometimes found on deeper examination to have involved unnoticed a large portion of the mucous membrane of the nose. Dr. Sequeira (London) had also been impressed by the importance of early diagnosis of lupus of the nose. He thought that a large number of such cases had been overlooked, even by the specialist. Dr. Goodwin Tomkinson (Glasgow), in a paper on the etiology and treatment of pruritus ani, spoke highly of the benefits to be derived from spa treatment in this distressing condition. He had observed marked amelioration follow a course of Harrogate strong sulphur water. Among the various things suggested for local application, he inclined to the use of tar preparations, and also counselled for temporary relief the use of water as hot as could be borne. Dr. Humphris (London) advocated static electricity for

this condition, and Dr. Metcalfe (Bradford) pointed out that a frequently unrecognized cause of pruritus ani was the *Oxyuris vermicularis*, and that many persons suffered from the irritation of this parasite during the whole of their lives. Two cases of acanthosis nigricans were described in separate papers, the one by Dr. R. B. Wild (Manchester) and the other by Dr. St. George (Lisburn). Dr. Wild noted the occurrence of this disease among persons who were subjected to great heat in the course of their work; his own case was that of a sugar-boiler. Dr. St. George said that no drug or combination of drugs could be depended on for a cure in this condition, and all that could be done was to make the patient observe hygienic principles and have plenty of open air.

Friday, July 30th, 1909.

The greater part of the sitting was devoted to a discussion of the supposed risks attending the  $x$ -ray treatment of ringworm. The subject was opened by Mr. R. Higham Cooper (University College, London). Speaking of brain injury, he noted the total absence of authoritative records of its occurrence among the many thousands of cases which had been treated. He was of opinion that with the most ordinary care such injuries were not possible; but, granting the possibility of their occurrence, he would limit them to cases in which a hard tube was employed, and would consider all risk absolutely avoided when the patient was treated with a moderately soft one. Dr. Margaret Dobson (Bradford) said that during the past four or five months she had treated 270 ringworm patches by means of the  $x$  rays, and in the 3 cases out of that number in which the disease was due to the *Megalosporon endothrix* the patches, in one case after twenty-four hours and in a second after ten days, swelled up, the skin becoming raised, oedematous, and glossy, and the hairs loose. In such cases, she thought, there was a greater risk of burning the scalp and producing permanent baldness. Professor Wild (Manchester) thought that it was easy to exaggerate the importance of scalp ringworm, which in itself was rarely serious, and he condemned the proposed compulsory treatment by the  $x$  rays. Dr. Sequeira (London Hospital) said that the risk of injury to the brain was purely imaginary, but he suggested that no child under 3 years of age should have its scalp irradiated. He had followed up 267 of his patients who had been inmates of orphan asylums and the like, and who, after treatment, had been under the expert observation of the medical officers and teachers, and not a single case of mental abnormality following  $x$ -ray treatment had been observed. He was of opinion that with proper apparatus used with sufficient care, and according to Sabouraud's instructions, the  $x$ -ray treatment was efficient, rapid, and safe. But, as a precautionary measure, he personally insisted on the parents and guardians understanding the nature of the treatment, and giving a written guarantee that no liability was incurred. Dr. Goodwin Tomkinson (Glasgow) also believed that the possibility of cerebral injury was entirely chimerical, as was proved by the vast number of cases successfully treated, not only in this country but also in Paris. Dr. R. W. MacKenna (Liverpool) suggested raising the age-limit under which the scalp of no child should be subjected to irradiation to 5 years. Dr. Howard Pirie (London) related an instance in which an overdose was given, resulting in permanent baldness over a patch of the scalp and temporary weakness of health and skin eruption. The child made an excellent recovery, however, and no brain symptoms were noted. Dr. Ernest Dore (London) referred to the fact that the smaller doses of  $x$  rays had a temporary stimulating effect, and suggested that if overdoses were making "idiots wholesale," it was reasonable to assume that they were also making statesmen, poets, artists, and the like by stimulating doses! Dr. Metcalfe (Bradford), Dr. Howell (Middlesbrough), and Dr. Humphris (London) also took part in the discussion, and at the close, in another paper, Dr. Hall-Edwards (Birmingham) dealt with the cognate subject of special

susceptibility to  $x$  rays, and said that, apart from the allaying of pain, he had failed to note any effect upon the nervous system, except in very advanced cases of chronic  $x$ -ray dermatitis such as his own. In the course of short papers, Dr. Howard Humphris dealt with the subject of static electricity; Dr. Hazleton, with the  $x$  rays in gynaecology; and Dr. S. W. Allworthy, with a case of cutaneous actinomycosis.

## SECTION OF DISEASES OF CHILDREN.

Thursday, July 29th, 1909.

THE most important item in the day's programme in this Section was a discussion on functional neuroses in children, opened by Dr. J. A. Coutts, of London. After dealing with faulty deglutition and congenital dyspnoea, he passed on to pyloric stenosis, of which he had some doubt as to whether it could fairly be classed as a purely functional neurosis, seeing there was some difference of opinion as to whether it really originated solely in gastric spasm. Dr. Robert Hutchison's views as to its frequency and its invariable curability by medical treatment alone, were, he thought, contrary to the experience of some other observers. The speaker also pointed out the relation between cyclic vomiting and migraine, and dealt briefly with incontinence of urine and faeces, with night-terrors, nightmare, tic, chorea, hysteria, and habit-spasm. Dr. G. E. Shuttleworth (London) drew attention to the close interdependence of neurotic conditions in children on one another, and criticized the romantic character of the picture-books now in vogue for children. He showed also how readily morbid fancies passed into permanent obsessions. Mr. Sydney Stephenson (London) remarked on the necessity for correcting errors of refraction, the relief of which often had a magical effect in removing blinking and similar functional neuroses in children. Dr. George Carpenter (London) enlarged on the difficulty of separating purely functional cases from those which ultimately proved to have an organic lesion underlying them. Dr. Essex Wynter (London) insisted on the much more rapid cure of acute cases of chorea with chloretone, the average duration being reduced to nine days. At the same time the drug might produce peeling of the hands and feet or erythematous rashes. Dr. J. W. Simpson (Edinburgh) stated clearly the divergence of opinion prevailing with regard to pyloric stenosis, its frequency, its pathology, and treatment, whether operative or medical. Dr. R. W. Leslie (Belfast) confirmed the value of chloretone in chorea, and described *Rhus aromatica* as a useful remedy for enuresis. Dr. McCaw (Belfast) described a fatal case of pyloric hypertrophy where the redundant gastric mucous membrane formed a valve impermeable to fluids. The President (Mr. H. J. Stiles of Edinburgh) was convinced that genuine cases of pyloric stenosis were amenable to nothing short of surgical measures. The condition might sometimes be traced to intestinal disturbance, apart from gastric troubles. Dr. Coutts, replying, thought chloretone should be used with caution, especially in private practice. He had limited the carbohydrates in enuresis without any apparent benefit. Mr. Alexander MacLennan (Glasgow), read a paper on Madelung's subluxation of the wrists, illustrated by photographs and skiagrams of cases before and after cuneiform osteotomy. He also exhibited a series of stereoscopic pictures of various interesting conditions in infancy and childhood. Dr. A. Dingwall Fordyce (Edinburgh) contributed an analysis of 137 cases of abdominal tuberculosis in young children, where the abdominal condition was uncomplicated by lesions elsewhere. The rôle of diet was considered, and the vagaries of the temperature in these cases discussed.

Friday, July 30th, 1909.

The last day's programme in this Section included a paper by Mr. E. Scott Carmichael (Edinburgh) on pneumococcal peritonitis in children. Twenty cases of this nature observed by the author had been divided by him into three classes, according as the main channel of infection was genital, haemic, or

gastro-intestinal. On laparotomy the absence of odour about the peritoneal fluid and its other characteristics, according to the stage of the disease, afforded valuable diagnostic evidence. In spite of the bad prognosis 13 out of the 20 cases recovered. Free drainage of the abdomen was the first essential. The paper was discussed by Mr. D'Arcy Power, Dr. J. McCaw, and Dr. John Campbell. Mr. G. H. Edington (Glasgow) narrated a case of prostatic sarcoma in a boy of 21 months at first presenting only comparatively trivial urinary symptoms. On *post-mortem* examination a spindle-celled sarcoma undergoing myxomatous degeneration was found, the same change being noted in the pelvic lymph glands, while the kidneys were cirrhotic. Mr. D'Arcy Power pointed out the frequency of similar polypoid sarcoma in girls, in whom they originated near the neck of the bladder. Mr. Carmichael, Dr. J. Campbell, and Mr. Stiles described similar cases, and Mr. A. Fullerton urged the value of cystoscopic examination by perineal urethrotomy. Mr. J. H. Nicoll (Glasgow) read a paper on the surgery of infancy, being a review of twenty years' work at a children's hospital. He felt that the resources of the hospital as regards operations on infants might be greatly extended by making the children out-patients rather than in-patients. Mr. Stiles, Dr. J. Campbell, Dr. J. W. Simpson, Mr. A. Fullerton, Mr. E. S. Carmichael, Mr. R. C. Dun, Mr. A. MacLennan, and Mr. G. H. Edington criticized and supported Mr. Nicoll's main conclusions. Mr. D'Arcy Power contributed a paper on the value of new tuberculin (T.R.) in surgical tuberculosis, which was discussed by several speakers. Mr. R. C. Dun (Liverpool) read a communication on the association of a patent funicular process with certain forms of hydrocele, and described two cases of median hare-lip, while Mr. Maynard Smith (London) read a paper on exomphalos. This brought the proceedings to a close.

## SECTION OF HAEMATOLOGY AND VACCINE THERAPY.

Friday, July 30th, 1909.

WORK began with the reading of a paper on the micro-organism of whooping-cough by Dr. Bordet of the Institut Pasteur du Brabant, Brussels. Working with Dr. Gengou in 1906, a small cocco-bacillus, non-motile, Gram-negative, and staining feebly, was isolated, which they regarded as the cause of whooping-cough. The organism was found in large numbers, often in almost pure culture, in the exudate at the beginning of the period of cough. The pure cultures were difficult to obtain, and required a special medium. The best medium for their isolation was agar mixed with defibrinated blood, and even with this isolation was difficult if the exudate contained many contaminating organisms. The organism resembled in certain respects the cocco-bacillus of influenza (Pfeiffer), but it was readily distinguished from it by the appearance of the culture and by the reaction of immune serums. The filtrate of liquid cultures did not appear to possess any very evident toxic properties, but by Besredka's method for obtaining endotoxins a very active toxin could be obtained. The serum of children lately recovered from whooping-cough conferred upon the organism the power of absorbing complement with great vigour, and this was an additional proof that the organism was specific. Dr. Fleming replied and discussed the extreme difficulty of isolating the organism described by Bordet, and described its characters more fully. He became convinced of the specificity of Bordet's bacillus when he found that cultures obtained from M. Bordet in Brussels were specifically agglutinated by the serum of children in London, and would also defect complement with such serums. He pointed out that the agglutinating reaction of the serum was not strong; complete agglutination in sixty-fold dilution was about the highest found. The agglutination did not always take place, failure often seeming to depend on the bacterial emulsion employed. He considered a convincing proof of the specificity of the organism was

found in the results obtained by vaccine-therapy, and judging from the clinical results he had obtained by the use of a vaccine he thought the evidence was in favour of the use of a vaccine in whooping-cough. Drs. Willcox and Morgan read a paper on the treatment of pneumonia by inoculation, giving the results obtained in the treatment of 24 cases of pneumonia, either lobar or lobular. In all cases the organism present was the pneumococcus; in two cases this was combined with a streptococcus and the influenza bacillus respectively. The inoculations were not controlled by the opsonic index on account of difficulties in its use which the author described, and clinical symptoms were therefore taken as a guide to the dose. The authors claimed to have obtained distinctly good results by the inoculation of from 20 million to 50 million of pneumococci. Dr. Benham read a paper on the bacteriology and vaccine-therapy of the common cold. He described several organisms which he considered of importance in the etiology of a common cold and held out a hope that vaccine-therapy might eventually be a successful method of treating this unpleasant and sometimes dangerous condition. Dr. W. Carmalt-Jones read a paper on the treatment of bronchial asthma by a vaccine; he suggested that one cause of spasmodic dyspnoea was a specific bacterial toxin, the result of a definite infection and amenable to treatment by the corresponding vaccine. Dr. Fleming discussed the bacteriology and vaccine-therapy of acne vulgaris, and pointed out the importance of distinguishing acne vulgaris very carefully from other diseases to which the name of acne has been applied, and especially from acne rosacea.

## SECTION OF HYGIENE AND PUBLIC HEALTH.

Thursday, July 29th, 1909.

THE meeting of the Section of Hygiene and Public Health was held in conjunction with the Laryngological Section, the subject for discussion being latent infections by the diphtheria bacillus and the administrative measures required for dealing with contacts. The discussion was opened by Dr. Watson Williams of Bristol, who treated it from the clinical standpoint. His remarks are reported under the proceedings of the Laryngological Section. Dr. R. M. Buchanan of Glasgow dealt with the subject from the bacteriological standpoint. He stated that the clinical significance of the distribution of diphtheria bacilli was very indefinite, and rendered the diagnosis of the disease apart from bacteriological methods difficult and uncertain. The difficulty of classification of different types of the bacillus was very great, owing to the personal equation of different observers. The diphtheria bacillus was most tenacious of its virulence. The speaker considered that systematic examination of contacts was a recognized preventive measure in public health administration. During the last three years there had been 2,305 such examinations in Glasgow, with a positive result in 211, or a little over 9 per cent. The experience of the fever hospitals in Glasgow showed that spread of infection by return cases was very limited, the average having been 8.5 per annum in three and a half years. In his opinion, infection by contacts occurred much seldomer than might have been anticipated. This paper was illustrated by several lantern slides of different types of diphtheria bacilli and by statistical charts. Dr. Forbes (M.O.H., Brighton), in a paper on the administrative measures required for dealing with diphtheria contacts, said that in future legislation dealing with infectious disease it would be advisable to substitute the words "persons in an infective condition" for "persons suffering from an infectious disease." This would give the necessary discretionary power to the medical officer of health and clear away the present ambiguity. He pointed out the importance of taking swabs from both the throat and nose in dealing with contacts, and outlined the administrative measures which he recommended in order to check the spread of disease by contacts. He considered that prophylactic injections of antitoxin for contacts were as a

rule inadvisable. Dr. R. V. Clark (Assistant M.O.H., Leeds) dealt with latent diphtheria in schools and institutions. He considered that the incidence of cases of latent diphtheria was greatest when personal contact was closest. In his opinion the only thoroughly efficient procedure was to examine bacteriologically the throats of every member of a family when diphtheria occurred, and to isolate those from whom a positive result was obtained. This isolation should be carried out for from one to seven weeks. After a few remarks by Dr. Renshaw and Dr. McKenzie, Dr. E. W. Goodall (London) remarked that return cases of diphtheria were not worth talking about. In the treatment of convalescents he did not think it mattered a bit whether swabs were taken or not. He only did it himself in order to comply with the requests of the medical officer of health. He considered it unnecessary to empty and disinfect wards in general hospitals when an accidental case of diphtheria occurred. He considered prophylactic injections of antitoxin quite unnecessary and sometimes dangerous. Dr. Herbert Jones (Hereford) said that his experience in Herefordshire led him to agree with Drs. Davies and Heaven, of Bristol, that in the presence of an outbreak of diphtheria Hoffmann's bacilli must not be ignored. Drs. StClair Thomson, Clements, Spicer, Williams, Wyllie, and Mowbray also spoke. The President, in closing the discussion, said that he agreed with Dr. Goodall's views as to administrative methods, and that it was not justifiable to send contacts to diphtheria wards. The diphtheria bacillus was much more virulent in times of epidemic prevalence of the disease than under ordinary conditions, and while special measures might be required to cope with an epidemic, in ordinary circumstances he did not consider that either isolation of contacts or systematic swabbing of throats was necessary. Dr. Watson Williams, Dr. Buchanan, and Dr. Forbes, having briefly replied, the meeting adjourned.

Friday, July 30th, 1909.

The Section was mainly occupied with a discussion on the discharge of sewage effluents into tidal waters. This was opened by Dr. Henry O'Neill, member of the City Council, Belfast, who pointed out that the problem of sewage purification in Belfast was one of more than ordinary difficulty, owing to the sluggish tides and large areas of shallow water in the upper reaches of Belfast Lough; they favoured the growth of *Ulva latissima*, a green seaweed which, according to the investigations of Professor Letts, is an indication of sewage pollution. Dr. O'Neill gave a most interesting account of the Belfast sewage purification works, illustrated by photographs of the various processes. The great difficulty was getting rid of the *Ulva latissima*, which object must be attained by depriving it of its pabulum. By mixing the effluent from percolating filters with an equal quantity of septic sewage and treating the mixture in contact beds, the organic matter was oxidized at the expense of the nitrates in the filter effluent, and the total quantity of *ulva pabulum* reduced. Two methods of disposal of the sludge were proposed: (1) At the main outfall works it would be conveyed to sea by steamer; (2) at the Sydenham outfall, as shallow water rendered steamer disposal expensive and inconvenient, Dibdin's slate beds, which converted the sludge into an inoffensive humus, would be installed. An effort to deal with the *ulva* nuisance had been made by the formation of a joint board of the Belfast, Holywood, and Castlereagh authorities, who had been expending £2,000 a year on the collection of the weed from the foreshore, some 20,000 tons having been removed last year. Professor Letts of Belfast read a paper dealing with the nuisance caused by certain green seaweeds due to the discharge of sewage into tidal waters. He related his experiments dealing with the chemistry of these seaweeds, and outlined in detail the scheme of sewage treatment which he had suggested in order to prevent the green seaweed nuisance. Dr. R. J. Ewart, Assistant Medical Officer of Health for Middlesbrough, dealt with the sewage pollution of the Tees estuary,

especially with regard to pollution of mussels. He came to the conclusion that it was possible to obtain mussels free from all evidence of sewage pollution, and that there was a close relationship between size, number, and sewage pollution, for it appeared that when the mussels were of sufficient size to be marketable and in sufficient quantities to be worth gathering, evidence of pollution was marked. He considered that mussels could not be looked on as safe, especially as they were apt to die in transit to inland towns, when the bacterial contents would rise by millions. Professor Dunbar, of Hamburg, expressed his high appreciation of Professor Letts's work. He pointed out that it was only lately that the difficulty of dealing with sewage effluents in tidal waters had been thoroughly realized. After the cholera epidemic in Hamburg in 1892 experiments had been made with various disinfectants with a view to sterilizing the sewage. Milk of lime was found too costly, and the most satisfactory disinfectant was found to be hypochlorite of lime, but as its penetrating power was only  $\frac{1}{4}$  mm. for crude sewage, it was necessary first to purify the sewage by means of septic tanks before trying to disinfect it. In Hamburg the question of shellfish pollution was not important, and their experience had led them to discard the purification of sewage, except that from hospitals, from emigrant stations where so many Russian emigrants congregated, and the waste water from the Hygienic Institute. Dr. Wilson demonstrated an apparatus for the isolation of the *Bacillus typhosus* from drinking water. Sir Peter O'Connell alluded to the peculiar difficulties of the sewage problem as it affected Belfast. The President assured Professor Dunbar that the difficulties of disinfecting crude sewage were fully realized in this country. He was glad to hear the Professor saying that Germany had learnt lessons from England about sewage purification, as he thought it was often the other way about. After some remarks from Dr. Carnwath (Manchester) on the relation of mussels to sewage, the President proposed a vote of thanks to the writers of papers. This was seconded by Dr. Cowan, Chief Engineer, Local Government Board, Ireland, and passed unanimously. Dr. Patterson (Assistant M.O.H., St. Helens), read a paper on measles in schools, which was discussed by Drs. Mackenzie, Brook-Fox, H. Jones, and A. Walker. Dr. Gilchrist, of Nice, read a paper on the endemicity of influenza. He considered that we must recognize a chronic and permanent form of this disease. Dr. J. B. Story (Dublin) read a paper on the neglect of physical education in primary and secondary schools. The proceedings of the Section then closed with the usual votes of thanks.

## SECTION OF LARYNGOLOGY, OTOTOLOGY, AND RHINOLOGY.

*Thursday, July 29th, 1909.*

THE Section combined with that of Hygiene to discuss latent infections by the diphtheria bacillus. It was introduced by Dr. Watson Williams (Bristol), who laid stress on the difficulty of recognizing such cases by clinical signs. It was necessary, he considered, to depend on the aid of the bacteriologist. He then instanced clinical phases of later infection, leaving the bacteriological diagnosis to the next speaker. The phases he grouped under three headings: First, those with no definite clinical symptom, but who are not well, and who present the bacillus; secondly, those with local lesions, but not ill; thirdly, those presenting bacillus and yet are quite well and have no local lesions. He gave many instances of these groups, and concluded by advocating a virulence test rather than a morphological one. He was followed by Dr. R. Buchanan (Glasgow), who read a paper illustrated by lantern slides, dealing with the subject from a purely bacteriological point of view. He laid stress on the difficulty of demarcation between latent infection and latent disease, the former being the presence of an infective agent bacteriologically unaccompanied by any obvious pathological change. He showed that the clinical evidences were indefinite, as of the swabs sent in for bacteriological examination

only 31 per cent. showed positive results, and of those taken from cases admitted to hospital from 71 to 76 per cent. He recognized that morphology alone was not sufficient for true recognition of bacillus, and that inoculation was necessary. He considered that the virulence of bacilli from apparently healthy subjects was only slightly less than that from infected cases. Dr. Duncan Forbes (Brighton), read a paper dealing with the same subject from an administrative standpoint and its relationship to the medical practitioner. The latter he urged always to take a swab from the nose after its examination, and make a note as to the clinical appearances. He was followed by Dr. Clarke (Assistant M.O.H., Leeds) upon somewhat similar lines. There was an interesting discussion in which widely divergent views were expressed as to the importance of bacteriological examination of swabs from the throat and nose, and isolation of infected patients and of contacts. Views ranged from uniform swabbing of contact carriers, with isolation in certain cases, together with the virulence test, to allowing Nature to exterminate the susceptible by epidemics, which then practically died out. This last view, however, did not meet with general acceptance, which lay rather on the side of bacteriological diagnosis and virulence tests. This was the line taken by Drs. Knowles Renshaw and Dan McKenzie, while Drs. Goodall and Herbert Jones rather doubted its value, the former thinking prophylaxis of little importance. Dr. St. Clair Thomson referred to the practical difficulties from the laryngologist's point of view. The value or otherwise of the presence of the Hoffmann type of bacillus was discussed by succeeding speakers, among whom were Drs. Clements, Scanes-Spicer, Wyllie, Mowbray, and the President of the Public Health Section (Dr. Louis Parkes). Drs. Watson Williams, Buchanan, and Clarke briefly replied.

*Friday, July 30th, 1909.*

Dr. Lack, in a paper on the treatment of cicatricial stenosis of the larynx and trachea following diphtheritic tracheotomy cases, held that the disease had no direct connexion with the subsequent stenosis, which was due to the tracheotomy. In cases of a genuine low tracheotomy he had never known any laryngeal stenosis follow. Where there had been no sloughing or necrosis of the cartilages he thought that his objection to interference with the larynx itself extended to intubation. Dr. Delavan of New York, in an interesting paper, spoke of O'Dwyer in eulogistic terms, and referred to the methods of treatment prior to his time. There were three essential objects in a case: (1) Relief of the stricture; (2) permanence of result; (3) as little injury to the parts as possible. He gave a summary of various cases, and referred to certain anatomical conditions upon which the principles of intubation were based, and believed that prolonged stretching of scar tissue finally resulted in its giving. For this purpose each case should have its own tube made to suit the special conditions present, and no tension should be made for at least one month. The paper was illustrated by the passing round of the various kinds of instruments used. A spasm of the adductors after removal of the tube was mentioned, and its diagnosis, whether due to nervous elements or otherwise, was pointed out. He finally referred to the latest form of laryngo-fissure, but considered that it was too early as yet to be definite upon its results. Dr. Delsaux then described the operation of laryngo-tracheostomy, and the conditions in which it was indicated. Some of the tubes employed were passed round for inspection. The operation was divided into its various stages, and he spoke of the length of continuance of treatment which might extend beyond twelve months. The methods of removal of the tube and the teaching of the patient to breathe in a normal way was then indicated. Dr. Emil Mayer gave a history of 3 cases, a traumatic, an inflammatory, and a neoplastic stenosis treated by intubation, and passed round for inspection his special hollow instrument for a slow insertion of the tube, which enabled the patient to breathe through it during its introduction. Dr. Hill made remarks upon a special

case, for which he had devised an intralaryngeal splint, of the prevention of cicatricial formation in the larynx after the division of transverse webs and the like. Drs. Logan Turner, Barnett, and Scanes-Spicer joined in the discussion which followed, and the President summed up in a few remarks. Drs. Delavan and Delsaux replied. Dr. Scanes-Spicer, in a paper on the relationships of cancer of the larynx, laid stress upon the effect of various physical forces upon the body generally and their reaction upon the vocal organs, illustrating it by means of a model. He considered that the position of and pressure upon the larynx during abdominal and thoracic respiration was a possible factor in cancer growth. Dr. Woods showed a patient whose larynx he had extirpated, and explained a vocalizing apparatus he had devised. The proceedings terminated with the reading of a paper on the surgical anatomy of the tonsils in the absence of the author, Dr. Neil (New Zealand), by Dr. J. S. Barr.

SECTION OF MEDICINE.  
*Thursday, July 29th, 1909.*

A DISCUSSION on the medical aspects of athleticism was opened by Dr. Tyrrell Brooks (Oxford) and Dr. Clement Dukes (Rugby). Dr. Brooks said his experience was that the more vigorous undergraduates came from schools whose athletics were of the more strenuous type. An inquiry to the medical officers of the principal public schools as to the influence of athletics on health extending over a period of twenty years gave five deaths, almost exclusively from surgical injuries during games, but among the same boys during the same time four sudden deaths occurred quite apart from athletics. At Oxford during the same time there were two deaths from excess in athletics, but one was in the subject of aortic valvular disease. As to the heart, valvular damage was very rare, and slight dilatation of the heart was difficult to estimate. Excessive smoking, alcoholic indulgence, gluttony, or sexual excess might produce perversion effects on the heart's action exactly similar to those of over-exertion, and the toxins of acute febrile attacks had a similar action. But in boyhood it was unlikely that mere muscular exercise could seriously damage the heart. Among precautions that should be taken to minimize the risks arising from athletics were an entrance physical examination, careful observation of younger boys in their ordinary games, and an ample interval between the previous meal and active exercise, with special care after convalescence from acute illness. With such precautions he supported the system of school runs. The profession should not, he thought, sacrifice the interests of the race to the interests of the individual. Dr. Clement Dukes said that the catastrophes from over-exercise were quite preventable. In addition to the points already mentioned in his abstract published in the SUPPLEMENT of the BRITISH MEDICAL JOURNAL, he especially referred to the evil effects of excessive football and running. The short, quick runs in boys were apt to produce rapid mischief in the heart, which quickly disappeared, the long runs permanent damage by dilatation. At least an hour between a meal and active exertion was imperative. Details of the serious effects of excessive running at Rugby in former days were given, but owing to the practical rules now there in force these were a thing of the past. Sir Clifford Allbutt referred to the blood-pressure observations on the effects of athletics at Cambridge, the results of which were to be shortly published. The only serious results were those from over-exertion after an acute infectious disease, particularly a bad cold. Sir Lauder Brunton said the ideal training of youths was probably a combination of gymnastic exercises and games. He advocated the establishment in the schools of this country of the office of games master. The Provost of Trinity College, Dublin (Dr. Anthony Traill), referred to the introduction of Swedish drill into the schools of Ireland, and insisted on previous medical examination and the necessity for suitable feeding of the children. He discussed the

effects of physical exercise on moral states, and gave personal experience of lifelong following of athletics. Sir James Barr referred to the influence of exercise on character, to the strain of the heart by its self-generated stress, and the importance of respiratory capacity. Dr. Clive Riviere described the effects of heart strain of arduous holiday excursions in boys. Dr. Gullan advocated games rather than gymnastics. Dr. W. J. Tyson urged a continuous individual interest in athletics, the teaching of health laws to school children, and the personal continuance of physical exercises throughout life. Dr. W. P. Kennedy referred to the question of pulmonary haemorrhage in athletes. Dr. Brooks and Dr. Dukes replied. Dr. P. Dempsey showed a case of argyria in the subject of a gastric ulcer, and Professor B. Moore an apparatus for administering known quantities of oxygen. Dr. Clive Riviere read a paper on cardiac strain in boys, and Dr. F. C. Eve one on a case of glycosuria which was only to be inferred from the presence of gas and bacilli in the urine.

*Friday, July 30th, 1909.*

On the third day of the meeting of this Section Dr. Theodore Thompson and Dr. H. S. Souttar gave a demonstration on gastric illumination. The mechanical features of the instrument they employed were demonstrated by Dr. Souttar, and its sphere of usefulness in observation and diagnosis was described by Dr. Thompson. Dr. Gordon Gullan read a paper describing an obscure case of hour-glass contraction of the stomach with special reference to diagnosis. Dr. Purves Stewart described the technique and results of Schlösser's method of the treatment of tic-doloureux, the injection of alcohol into the foramen of exit of one or other branches of the fifth nerve at the floor of the skull. Freedom from pain was secured for many months after each injection. The operation was demonstrated on a patient before the Section. The paper was discussed by Dr. W. P. Kennedy, Mr. H. A. Ballance, Dr. J. H. Williams, Dr. F. Kennedy, and Dr. O'Sullivan. Dr. J. H. Williams (Washington) read a paper on the treatment of tabes dorsalis by antisyphilitic remedies, especially the intravenous or intramuscular injection of mercurial solutions. The paper was discussed by Dr. Theodore Thompson and Dr. Gullan. Dr. H. D. Rolleston read a paper on pruritus in lymphadenoma, maintaining that if pruritus occurred early in the disease the prognosis was unfavourable.

NAVY, ARMY, AND AMBULANCE SECTION.  
*Thursday, July 29th, 1909.*

THE Section dealing with Navy, Army, and Ambulance work commenced proceedings on Thursday with the reading of a paper by Colonel P. Broome Giles, A.M.S., on the importance of the permanent attachment of ample transport under the command of the medical officer of each field medical unit. History and experience proved the failure of detailed transport for the use of medical units. The use of detailed transport, whether supplied on requisition from the Army Service Corps or hired from civilian sources, introduced serious complications. The wretched and inadequate results of using hired civilian transport, evident during drills and camp training, were intensified on manoeuvres, and it was a most elusive idea to think that civilian wagons and harness would do for medical units. The advantages of the permanent attachment of ample transport under the command of the medical officer of each field medical unit were that the transport sections recruited for each medical unit would be homogeneous, and part and parcel of the permanent personnel. In Territorial Medical Units hired civilian transport could neither be popular nor successful. Fleet Surgeon P. W. Bassett-Smith, R.N., communicated a paper on modern methods of laboratory diagnosis of syphilis and discussed the Wassermann Neisser and Bruck's complemental fixation methods. The procedure employed by Fleet Surgeon Bassett-Smith was that recommended by Wassermann slightly modified,

using for antigen dried syphilitic congenital liver and the following were the conclusions which he reached: Almost all cases with evident primary syphilis gave a marked reaction, this being obtained as early as the fifteenth day after infection; in many cases admitted for chancroids the presence of a double infection was early indicated by the test; in almost all cases of early secondary syphilis, with or without symptoms at the time, positive results were obtained; in late secondary stages or tertiary manifestations the results were more variable; in about 50 per cent. of para-syphilitic cases a positive reaction was present; in cases without symptoms and generally after much treatment, but with an undoubted history, a minority reacted; the reaction was specific for syphilis as far as other venereal diseases were concerned; mercurial treatment did not appear to prevent the reaction when symptoms were present. The method was a valuable aid in the diagnosis of syphilis, and would decide the nature of many difficult cases, and indicate early the need of specific treatment. Colonel F. J. Lambkin, R.A.M.C., read a paper on the probable effects in the services of the new treatment of syphilis by means of organic arsenical compounds, and Major G. S. Crawford, R.A.M.C., contributed a paper on the beneficial results of recent sanitary work in Malta. A few years ago most service people looked upon Malta as a very undesirable station, and the chief reason for this opinion was the amount of sickness usually prevalent in the garrison; all that had been changed, and Malta was now known to be one of the healthiest of the foreign stations.

*Friday, July 30th, 1909.*

The concluding meeting of this Section commenced with the reading of a paper by Staff Surgeon F. F. Mahon, R.N., on relief work from a British man-of-war at Messina. Dr. J. M. Carvell then read a paper on the existing ambulance organization of the home railway companies, with suggestions for its amplification and unification. He said that the course of instruction which railway ambulance men went through was in accordance with the syllabus of the St. John Ambulance Association. It extended over a period of five weeks. There were five lectures with an interval of seven days between each, followed by an examination. The examination consisted of a practical and a theoretical portion. The theoretical was either by a written paper or by *viva voce* questions. In the majority of railway examinations the written paper was dispensed with, owing to the fact that the premises were not suitable. The examination consisted of at least five tests. In the practical part each candidate must treat a case of supposed fracture and a case of supposed haemorrhage, and then do either stretcher or hand seat exercise, or perform artificial respiration. In the *viva voce* two questions had to be answered. The maximum number of marks was 20 per test, making a total of 100. For a pass for a certificate a candidate must obtain 50 per cent. For a voucher for the first re-examination, twelve months having elapsed after obtaining a certificate, 55 per cent. of marks had to be obtained. For the medallion examination, taking place after a lapse of twelve months from obtaining the voucher, the pass standard was 60 per cent. For the label examinations, which would be entered for at intervals of twelve months, the first twelve months after obtaining the medallion, the standard was 60 per cent. Encouragement to take up ambulance work was given in different ways on different lines—such as rewards for proficiency, rewards for work done, additional passes, medals, certificates of honour, competitions, and prizes. The great incentive to railway ambulance work was the Inter-Railway Shield, which was offered for annual competition by the St. John Ambulance Association. Each railway had the right to send a team, consisting of five men, to compete. As to amplification, he considered that all railway ambulance men should be given an elementary knowledge of nursing and sanitation. The men's wives should also be encouraged to go through elementary instruction in home nursing and sick-room cookery. In regard to transport, all guards' vans

should be fitted with rings in the roof for the suspension of stretchers, and looped ropes should be carried for attaching the stretchers to the rings. On those lines on which corridor trains were run, a percentage of stretchers should be provided with telescopic handles, as they could then be carried in the corridor compartments, when placed cornerwise. He thought the easiest method of unification would be through the St. John Ambulance Association. All railway companies, who had not already done so, should form centres of the Association. Then a Home Railway Committee should be formed, which could meet at St. John's Gate. The members of the Committee should be nominated by the railway companies and the St. John Ambulance Association. Captain W. Salisbury-Sharpe said that there appeared to be little co-operation or unity of method between the different railway companies respecting the way of keeping up the men's interest and efficiency in the work. Lieutenant-Colonel E. M. Wilson said he had listened with great interest to Dr. Carvell's paper, and agreed that it was more desirable to obtain a large number of efficient men than a few very highly trained squads for competition purposes. Mr. W. C. Rivers read a paper on rhinology as an aid to diagnosis of pulmonary tuberculosis, with special reference to the physically selected classes, and the work of the session came to an end with the reading of a paper on a detailed scheme for an unexpected landing party using material available on board ship by Staff Surgeon J. G. Wallis, R.N.

#### SECTION OF OBSTETRICS AND GYNAECOLOGY.

*Thursday, July 29th, 1909.*

THE Section commenced work at 9.30 a.m. by attending a demonstration on the development of the epithelial elements of the ovary. Notes respecting it will be found in the paragraph concerning the Section of Anatomy and Physiology, in whose room it took place. On return to its own quarters the President called upon Dr. Hastings Tweedy (Dublin) to open the discussion on endometritis. Dividing the cases into acute and chronic, Dr. Tweedy pointed out that in the former one must proceed upon general principles—collections of pus must be opened, necrotic matter removed, and before any douching a specimen of the discharge should be taken for the preparation of a vaccine. The patient's general system should be fortified, and any complication such as retroflexion rectified. He altogether condemned the use of the sharp curette. Chronic cases included all other non-malignant diseases of the uterus. Professor Fehling (Strassburg) thought that endometritis was less difficult to cure than endocervicitis. A sharp spoon was necessary for the cervix. Dr. A. Donald (Manchester) attached much importance to gauze packing in addition to dilatation and curettage, as it stimulated the uterus to contract and promoted involution. Professor Kidd (Dublin), like Professor Fehling, had found curettage to be followed by amenorrhoea. Dr. F. J. McCann (London) insisted on the necessity of supplementing curettage by a modified rest cure of from four to six weeks. Dr. Thomas Wilson (Birmingham) said that the indication for curettage was uterine haemorrhage. Professor Cullen (Baltimore) approved of the concise classification—(a) acute and chronic, (b) corporeal and cervical—adopted by Dr. Tweedy. A colleague of his own had described thirty-three different forms of endometritis, an affection which, except after abortion, he rarely saw in an acute form. He held that a sharp curette was absolutely necessary; a trial of the blunt curette on the uterus of the female cadaver ought to convince anybody. Professor Alfred Smith (Dublin) attached great importance to the so-called glandular hyperplastic endometritis, from its close resemblance to malignant disease. Professor Henry Corby (Cork) had known curettage to be followed by amenorrhoea for ten months and the birth of a healthy child. Dr. Buist (Dundee), Dr. T. B. Grimsdale (Liverpool), and Dr. E. J. Maclean (Cardiff) also joined in the discussion, and the President having emphatically declared in favour of the sharp spoon, Dr. Tweedy

replied. Dr. Smallwood Savage then read a paper entitled "An Ovarian Tumour, Clinically Malignant, arising from the Overgrowth of Lutein Cells," and showed the specimen with photomicrographs of sections of the growth. After some remarks from Professor Fehling, Dr. Munro Kerr, Dr. Edge, Dr. Louise McIlroy, and Dr. Hicks, from which it appeared that these growths were apt to be connected with vesicular mole, the meeting adjourned.

*Friday, July 30th, 1909.*

The last day's proceedings opened with a paper by Professor Fehling on the treatment of cases of contracted pelvis. He mentioned the method of limiting the diet proposed by Prochownik, saying that as fetal growth was most active towards the end of pregnancy good effects could be obtained by such restriction in the last six or eight weeks. The induction of premature labour he recommended, but only for primiparae. Walcher's position was useful, especially for the passage of the aftercoming head. With pubiotomy an increase of the true conjugate of from 0.5 to 2 c.cm. could be obtained in clinics, but in private practice the high forceps and perforation, even of the living child, could not be dispensed with. He was strongly in favour of pubiotomy and of Caesarean section on positive indications, but reserved as to the recently introduced extraperitoneal indications. As to relative indications for Caesarean section, each case must be judged on its own merit. Professor Murdoch Cameron (Glasgow) was strongly in favour of the induction of premature labour at from the thirty-fifth to the thirty-seventh week, as he thought the child had a better chance of survival than after Caesarean section. Dr. Munro Kerr insisted on the expediency of waiting, and pointed to the good results obtained at Queen Charlotte's Hospital. With the high forceps half the children were born dead. Dr. Hastings Tweedy considered that no contraction of the pelvis could be assumed without accurate measurements of the pelvis, for which the foreign and ordinary instruments were quite useless. He employed Skutsch's pelvimeter under an anaesthetic. The child's life should not be imperilled by too long delay; operation should be done before the fetal heart's action became slow. In reply, Professor Fehling said that Prochownik's limited feeding was essentially a method for the practitioner. Many Caesarean sections were performed upon primiparae and upon single women, and that accounted for the infantile mortality. In multiparae the induction of labour gave better results than Caesarean section; but, taking all cases in his clinic, this was not so. He preferred measuring the pelvis with his finger, under an anaesthetic if need be, and found it accurate enough. Professor Cameron read a paper on two cases of dystocia due to ventrifixation of the uterus. Professor Jacob spoke of three similar cases, and, after some remarks from Dr. McCann and Professor Murdoch Cameron, the meeting adjourned to the Ophthalmological Section for the joint discussion on the report of the Ophthalmia Neonatorum Committee, an account of which is given under the Section of Ophthalmology.

#### SECTION OF OPHTHALMOLOGY.

*Thursday, July 29th, 1909.*

PROFESSOR FUCHS (Vienna), in a paper on malformation of the cornea in cases of inherited syphilis, paid tribute to the work of Sir Jonathan Hutchinson on this subject. He himself had collected 28 cases last year, in which the cornea was oval, and of these 20 were girls and 14 had interstitial keratitis; it was a common condition in interstitial keratitis. The malformation was more frequently seen in both eyes; as a rule astigmatism was present "against the rule." Mr. Treacher Collins asked if Professor Fuchs had examined the cases anatomically or only clinically; some cases were apparent rather than real. Professor Fuchs said that in his cases the malformation was real.

Dr. Inglis Pollock (Glasgow) read a paper on visual acuteness among school children. He gave statistics of the condition he found in which 77.8 per cent. had defective vision. Mr. Bishop Harman had found that myopia in school children was not more than about 2 to 3 per cent. Mr. Henry (Leicester) agreed with Mr. Harman, as the result of his experience in Leicester. Dr. Pollock replied. Dr. Freeland Fergus described a method of trephining for glaucoma which is a modification of Le Grange's operation. His trephines were very like those of Bowman's. He selected the position where the iris was the freest. He then dissected up the conjunctiva and cut out a circle from the sclera. In acute glaucoma he still preferred iridectomy, but for chronic cases he preferred the trephining operation. After the piece of sclera had been removed he then separated the ciliary body with a retractor. This operation could always be done under cocaine. Mr. Little thought that an eye in which a filtration scar was present was in a very dangerous state from the point of view of infection at any late period. Dr. Berry (Edinburgh) thought that, taking it all round, iridectomy was by far the best operation, and the results were permanent in the great majority of cases. He much preferred to get an absolutely flat and smooth scar, but, if this were impossible, he thought that Dr. Freeland Fergus's operation would be most useful. Mr. Treacher Collins (London) pointed out that the operation was both a removal of the sclerotic and a cyclo-dialysis, and it was doubtful how much good arose from each part of the operation. Mr. Thomson Henderson discussed the question of the relation between intraocular and intracranial pressure. Professor Fuchs was not satisfied with cyclo-dialysis, and in some cases he had to do iridectomy for recurrence. He had quite given up the operation. Dr. Freeland Fergus replied, and said that some cases he had cured by trephining without the irido-dialysis. Mr. Treacher Collins opened the discussion on diseases of the lymphoid tissue of the conjunctiva. He pointed out the difficulty in following cases unless attached to an ophthalmic school. All the evidence pointed to the fact that the spread of it was always due to direct infection; the trachoma organism appeared to be a non-purulent one. He described in detail the life-history of the disease, and explained on histological grounds the *rationale* of treatment. He still considered the time-honoured sulphate of copper was the most efficacious means they had as a method of treatment. His experience of *x*-ray treatment was that it was at the present time somewhat uncertain, and radium had not given him much satisfaction. Professor Greef (Berlin) said that no micro-organism had been discovered that caused the disease, and probably it was not an ordinary micro-organism. He described the trachoma bodies he had found and examined. These were constantly present, and were probably a living germ. Mr. A. F. MacCallan (Egypt) gave his experience of trachoma in Egypt. Professor Fuchs (Vienna) had seen the micro-organisms, and they were entirely in the epithelium of the conjunctiva, and he advocated the search for them in doubtful cases. Mr. Sydney Stephenson (London) said that twenty years ago follicular conjunctivitis and trachoma were stages in the same disease. Among 15,000 cases of school children of various classes only 5 per cent. had absolutely healthy conjunctivae. Nearly all showed follicular conjunctivitis, and usually this was associated with enlarged tonsils, adenoids, etc. In this way he came to the conclusion that follicular conjunctivitis was uninfectious, and had nothing to do with trachoma. Mr. Craig (Belfast) said that Ireland was badly affected by trachoma, and this was chiefly due to industrial schools. He advocated legislation and the endeavour to prevent its importation. He still was of opinion that sulphate of copper was the best remedy at present known. Dr. Nelson (Belfast) advocated strict attention to hygiene, good surroundings, and good food. He thought that a regular crusade should be carried out, just as in consumption. Dr. Byers (Montreal) and Dr. Reeve described the legislative procedure in Canada. Mr. Collins and Professor Greef replied.



Friday, July 30th, 1909.

A resolution, calling on the Government to take action to prevent the spread of trachoma, was brought up by the executive of the Section. After discussion by Messrs. Treacher Collins, Storey, Nelson, Pollock, and Harman, the resolution, differently worded, was proposed by Mr. Collins, seconded by Dr. Greene, and carried. Mr. J. H. Tomlinson (Egham) demonstrated his new "scotograph with binocular fixation," an instrument for the detection of loss of sensibility in parts of the retina. Dr. Alexander Fleming (London) demonstrated his modification of Wassermann's serum test for syphilis. Mr. N. Bishop Harman demonstrated his "diaphragm test for binocular vision," and Dr. Pollock and Professor Fuchs commented thereon. The Sections of Ophthalmology and Obstetrics then united, under the presidency of Dr. John Campbell (Belfast), to receive the report of the Ophthalmia Neonatorum Committee. It was presented by Mr. Sydney Stephenson. Dr. Wendell Reber (Philadelphia) said there was a tendency to take the work out of the hands of the doctors, which was a fatal policy. Nurses should not be allowed to administer strong antiseptics. A doctor should be called in to determine their necessity and apply them. Mother and child should never be separated; the most natural feeding was never more necessary than to these affected infants. Dr. George Carpenter (London) agreed in these remarks, and added that compulsory notification was their hope, because thereby they could get immediate treatment of the affected. Dr. Nimmo Walker (Liverpool) objected to the current teaching of obstetricians on the desirability of Credé's method. He detailed their work at the St. Paul's Hospital, Liverpool. Dr. Wallace Henry (Leicester) said notification was impracticable without a definition of what the disease was. Mr. Bishop Harman said their great want was an instructed public opinion; governments and officials would never move except under pressure, it did not pay them. They had to get that pressure applied. Some good had been done in that direction by their work. He said there was no real difficulty in notification. Dr. J. Wharton (Manchester) said voluntary notification had been a brilliant success in his city. Dr. Buist (Dundee) agreed in the advantages of notification, and the smallness and hardship compared with benefit. Dr. J. H. Taylor (Salford) protested against that part of the report which tended to crystallize medical treatment. It was a dangerous precedent. Dr. Cecil Shaw (Belfast) said the objections to notification were the old ones used when diphtheria was under discussion. Dr. Staveley Dick (Manchester) objected to the "Recommendations to Practitioners," their principle was bad, they were not accurate, they would be made a subject of final appeal in cases of action for malpraxis. He moved that they be deleted from the report. Dr. Adam Fulton (Nottingham) seconded this amendment. Dr. Henry and Dr. R. J. Johnstone (Belfast) agreed. Put to the vote the amendment was carried. The amended report was then adopted by the joint meeting of the Sections.

#### SECTIONS OF PATHOLOGY AND VACCINE THERAPY.

Thursday, July 29th, 1909.

THE Sections of Pathology and Haematology and Vaccine Therapy combined to hold a discussion centring round the early diagnosis and treatment of tuberculosis. It was opened by Professor Calmette (Lille), who from observations on 20,000 cases was able to put forth some valuable conclusions. Early diagnosis, he said, was of the utmost importance in relation to efficacy of treatment, and this should be possible long before clinical or even bacterioscopic manifestations enabled a diagnosis to be made, for the following reasons: (1) The infection was generally localized for a time in the lymph glands, draining the part infected; (2) if the bacilli were not numerous or highly virulent they could be destroyed in these glands; (3) severe lesions resulted from a single infection in bulk or from numerous smaller infections repeated at short intervals. In discussing methods of diagnosing

early infection he pointed out that (1) the subcutaneous method was inadvisable on account of the local congestive reaction around the tuberculous foci with the danger of diffusion of bacilli and also because of the uselessness in febrile patients; (2) the cuti-reaction of von Pirquet was not perfect, as it also revealed latent lesions and old calcified and fibrous lesions, and so was only conclusive in patients under three years of age—in 55 per cent. of apparently healthy adults it gave a positive reaction. Hence in positive cases confirmation must be sought in the Wolff-Eisner-Calmette ophthalmo-diagnostic method. This in the apparently healthy only gave a positive reaction in 18 per cent., which corresponds to the average percentage of latent tuberculous patients. He did not think it was of any prognostic importance, nor was it a dangerous method provided that careful precautions were taken to prevent injury to the eye. In only 80 cases out of his 20,000 were there any accidental results. Further anaphylaxis of the conjunctiva did not exist. Often it was necessary to supplement this with other reactions such as the reviviscence and the humoral and phagocytic reactions of various sorts. With all these he thought it ought to be possible to diagnose and isolate the early tuberculous carriers and prevent repeated infections of the same case, and perhaps bring about the entire resorption of bacilli, as was known to occur in bovines. Professor Symmers, in a well-phrased reply, congratulated the assembly on having Dr. Calmette's important work set before it by the author himself. Dr. Paterson (Frimley) dwelt on the importance of preventing autoinoculation, which would occur even whilst the patient was being kept in bed or at stool. Professor Osler thought that all hardened veterans of the pathological world would give a positive Calmette's reaction, but did not state whether he himself or any other veteran had afforded conclusive proof of this statement *in corpore vili*. He thought that a large percentage of school children would react, but a distinction should be drawn between open and closed tuberculosis as regards segregation and the expense attached thereto. Mr. Maynard Smith (London) discussed inoculation treatment of tuberculosis from the surgeon's point of view, and still thought that the extinction of the surgeon was not yet imminent, though he might have to adopt more conservative methods. Dr. Carmalt-Jones gave a critical review of five years' treatment of tuberculosis in the Department of Therapeutic Inoculation at St. Mary's Hospital, with special reference to glandular disease. He submitted that his statistics showed the high value of this method of treatment. Dr. Inman pointed out the importance of the opsonic index in diagnosis before clinical manifestations. Professor McWeeney (Dublin) was in general agreement with Calmette, and had found that v. Pirquet's reaction was given in many non-tuberculous cases. Professor White gave his personal experiences of the initial stages of infection. Dr. Crofton (Sutton Bridge) had successfully tried intravenous injections of iodoform in ether in several cases of tuberculosis. Drs. Houston (Belfast) and Wilcox (London) added their experiences, and Dr. Butler-Harris spoke from the aspect of the general practitioner, concluding that a case of tuberculosis could never be regarded as cured. Professor Wright pointed out that, though more complicated than Calmette's reaction, the opsonic index had some relation to the immunization reaction, so should always replace it where a laboratory was accessible. The ophthalmic reaction was further of danger because of the absorption of a considerable amount of tuberculin from the eye; and, indeed, it had often been followed by a considerable negative phase. He doubted the advisability of continuing to use this method when the most scientific opsonic method of diagnosis was at hand.

#### SECTION OF PATHOLOGY.

Friday, July 30th, 1909.

PROFESSOR SYMMERS read Dr. Cobbett's (Cambridge) paper on the portals of entry of tubercle bacilli. As

a result of experiments with inert pigment particles, *Bacillus prodigiosus* and *B. tuberculosis*, Dr. Cobbett denied that pigmentation of the lungs was of intestinal origin, and he was able repeatedly to infect the lungs and then the bronchial glands by spraying into the respiratory tract suspensions of both bacilli mentioned. Professor Symmers pointed out that these observations were entirely opposed to the work of Calmette, and of Whitla and Symmers, which tended to show that pulmonary infection was secondary to intestinal infection. Dr. Ford Robertson (Edinburgh) and Dr. Margaret Young (Edinburgh) gave a lantern demonstration of their detailed work on the protozoan origin of tumours. They maintained that tumours were due to organisms of the mycetozoa group, for which a suggestive name would be nucleo-amoebae. By a special ammonium-silver-cyanide method they had followed out all stages of development of this protozoan and had diagrammatized the complete cycle side by side with the cycle of an *Haemamoeba*. Slides were shown purporting to demonstrate nucleated bodies, some even in conjugation, in Jensen's mouse tumours and human tumours. Further they had cultivated products which fitted into their idea of the complete cycle. Many of the slides, stained by this special method, which was specially stressed, were demonstrated in the adjoining laboratory. Professor McWeeney (Dublin) made an important contribution on the use of coloured media in the detection and differentiation of bacilli of the typho-coli group. With the aid of a watery solution of china green in nutrient agar he had managed almost to completely inhibit *B. coli*, and to obtain a luxuriant growth of *B. typhosus*. These results were most effectively demonstrated on their respective media side by side with cultures on the older media, such as Ludo's and Drigalski's. Professor Benjamin Moore (Liverpool) and Dr. Stenhouse (Liverpool) demonstrated the inhibition of growth of the bacillus of tuberculosis and other organisms in increased percentages of oxygen. Out of thirty-seven different organisms that he experimented with, he obtained definite inhibition only with *B. tuberculosis*, *B. pestis*, and *Staphylococcus pyogenes aureus*. Dr. Wilson (Belfast) described his observations on cases of epidemic cerebro-spinal fever, in whose blood serum he was able to demonstrate specific agglutinins for a non-pathogenic coliform organism isolated from Belfast tap water (*B. aquatilis alkabigenes*), and discussed the question of heterologous agglutinins. His results had led him to conclude that intelligent discrimination should be employed in the diagnosis of disease by the agglutination reaction. Professor McWeeney, in discussing this paper, referred to the analogous reactions observed in swine fever, where specific agglutinins for the coliform organism previously said to be specific for this disease were present, although the disease was now known to be due to an ultramicroscopic organism. He thought that in many infections in man the vital forces were so reduced by the primary infecting agent that organisms ordinarily saprophytic could acquire parasitic properties, with resulting development of specific agglutinins. Dr. Armand Ruffer (Alexandria) and Dr. J. G. Willmore (El Tor) described the varieties of dysentery occurring amongst the El Tor Mussulman pilgrims. They had come to the conclusion that in addition to the purely amoebic dysentery, a large number were due to a bacillus provisionally named "*B. dysentericus* El Tor No. 1." Professor McWeeney congratulated Dr. Willmore on his important contribution; and the meeting concluded with a valedictory address from Dr. Lazarus-Barlow, who referred to the great science of pathology as the Cinderella of medicine, and eagerly anticipated the arrival of the fairy prince.

## SECTION OF PHARMACOLOGY AND THERAPEUTICS.

Thursday, July 29th, 1909.

THE meeting of the Pharmacological and Therapeutical Section was continued on Thursday, at 10 a.m., when Professor W. E. Dixon (Cambridge) and Dr. H. H. Dale (London) gave a demonstration of the effect of certain

pressor substances in putrid meat, placenta, and ergot on the surviving mammalian heart and uterus. Abelous was the first to find indication of the existence of substances possessing an adrenalin-like action in putrefying meat, and similar substances were later recognized in extracts from the placenta by Professor Dixon and Dr. Taylor. Baiger and Walpole successfully isolated two substances which exerted this adrenalin-like action in a marked degree—that is, isoamylamine and parahydroxyphenylethylamine. They obtained these substances by inoculating a solution of broth containing tyrosin with a culture from human faeces. They came to the conclusion that the activity of the liquid extract of ergot was due almost entirely to the same substances. In the excised heart of a rabbit perfused with Ringer's solution  $\frac{1}{2}$  mg. of the active principle injected caused marked acceleration and increased amplitude of beat. It differed from adrenalin in that it could be given by the mouth and in its much more prolonged action. Similar effects were shown on the pregnant uterus of a cat. Professor Benjamin Moore (Liverpool) read a paper upon a new member of the saponin-digitalin group of glucosides, its chemistry and physiological action. He demonstrated upon a surviving mammalian heart its powerful action in slowing the beat and increasing the tone of the heart and the amplitude of the beat. Dr. J. C. McWalter (Dublin), in a paper on the regulation of quack medicine traffic, spoke of the enormous sale of such medicines, amounting to £2,000,000 annually. He suggested methods of controlling the abuse by co-operation with the medical officers of health. In such work the analyses recently published by the British Medical Association were of much value. Dr. F. Charteris (Glasgow) reported the results of extensive trials of the injection of thiosinamin. He had found no benefit clinically, and a large number of estimations showed there was no evidence of any effect on the leucocyte count; this, although the drug had been much praised and extensively recommended. Professor W. E. Dixon (Cambridge) read a paper upon facts and fancies in pharmacology. Tradition still was responsible for many of our formulae. Though opium had no local effect, there were three local applications containing the drug in the *Pharmacopoeia*. Ether and strychnine were not direct cardiac stimulants. Atropin paralysed nerve endings, but had no action on the mammary secretion, which was not under nervous control. He gave many examples of drugs to which certain actions were still erroneously attributed.

Friday, July 30th, 1909.

On the final day of the meeting Dr. H. D. Rolleston (London) opened a discussion on the treatment of oedema. He confined his remarks mainly to the treatment of cardiac and renal oedema. In cardiac dropsy he emphasized the importance of the recumbent posture, of restricted fluids, and of massage, together with certain cardiac tonics, digitalis, caffeine, and its allies diuretin and theobromine. In dropsy of renal origin the etiology was more complicated, and effects were more difficult to estimate. He referred to three cases in which, without any apparent cause, diuresis had suddenly set in and the oedema had disappeared. The great Dr. Johnson of dictionary fame apparently, he remarked, had a similar urinary crisis. It was important to know whether or not the reduction of oedema was always beneficial. He discussed the advisability of limiting the intake of (a) fluids, (b) of sodium chloride. Sir James Barr (Liverpool), who followed, defined his views as to the etiology of oedema generally. He believed that treatment to be successful must remove the cause. Dr. Lazarus-Barlow held that in the production of oedema, certainly of oedema of passive congestion, the first and most important factors were not mechanical. Primarily, transudation was due to the need of the outside cells for nutrition. Dr. F. Charteris (Glasgow) detailed the practice in Professor Stockman's wards in Glasgow. He believed that caution should be used in the employment of mercury in kidney disease. Symptoms of salivation, etc., were very readily pro-

duced. Sir Lauder Brunton referred to Ranvier's experiment, in which oedema did not occur, after ligation of the femoral vein in a cat, even when the motor nerves were also cut, but did occur on division of the sympathetic nerves. This nervous element was well shown in angio-neurotic oedema. He had produced oedema by injection of antistreptococcal serum, and he believed that the toxins here concerned had an action similar to that of the toxins of renal disease. Dr. H. C. Cameron (London) thought that too little attention had been paid to the "salt-free" treatment. The curve of the body weight of the patient had been proved to follow very closely the proportion of salt retained, as shown by estimation of the sodium chloride in the food, sweat, urine, and faeces. In certain cases, where the heart and lungs were hampered by excessive oedema, it should be tried. Dr. Sillar (Edinburgh) believed that the cause of some cases of oedema was the absorption of toxic products from the intestine. In this respect the action was comparable to that of other poisons which facilitate permeation. Professor Stockman (Glasgow), in the absence of Dr. Rolleston, replied. Dr. Robert May (Belfast) read a paper upon the action of crescinic and toluic acids in acute rheumatism. Their composition closely resembled salicylic acid, and their pharmacological action was almost identical. They were, however, distinctly less toxic. Earlier workers had used impure preparations. Sir Lauder Brunton congratulated the reader of the paper. It was a valuable contribution to the relationship between chemical constitution and physiological action.

## SECTION OF PSYCHOLOGICAL MEDICINE.

*Thursday, July 29th, 1909.*

IN his prefatory remarks to his paper on the present position of applied psychology in medicine, which opened the second meeting of this Section, Dr. Schofield said he wished it to be clearly understood that he did not limit the range of psycho-therapeutics to the treatment of mental diseases, but wished to emphasize rather the need for the special education of all medical men as an indispensable part of their curriculum in the psychic treatment of all diseases, of whatever kind. Defining psycho-therapeutics as "the power of the mind in medicine," the speaker discussed the principal elements which entered into the relations existing between the physician and his patient under the heads of the reason, emotions, and will of the physician, and the influences upon the reason, emotions, and will of the patient; the need for an educated guidance of the patient in these matters, and the beneficial effects which might accrue to the patient by a proper choice and disposal of surroundings. Finally, he submitted that it was high time that the study of psychic methods of treatment should form part of every system of medical education. Treatment by suggestion was mentioned incidentally, the "power of the mind over the body" tacitly assumed, and the influence of the will in averting or postponing death affirmed; but, although the study on a scientific basis of psycho-therapeutics was mentioned on several occasions, no hint of such scientific study was afforded by the paper, which consisted mainly of vague generalities upon the undoubted benefits to the patients which follow suitable suggestions by the physician—confidence in the treatment and the will to get better. Dr. Mercier's paper on somatic delusions and local lesions was then read, in the absence of the author, by Dr. W. S. Smyth. The paper consisted of a description of a case of a man with a persistent delusion that his bowels were stopped, who refused food in consequence, although his bowels were moved several times a week. He also believed that he had been ravished per rectum by a Frenchman, this also, for sufficient reasons, being deemed to be a delusion. After an illness of over two years the patient died, the *post-mortem* examination revealing extensive tuberculous disease of the lungs and perforating ulceration of the small intestine, with terminal peritonitis. The author discussed the various possible hypotheses

which might be advanced to explain the connexion between the bowel disease and the delusions, and in the end inclined to the view that the central cortex representing the bowel was first affected, the metabolism of the bowel in consequence interfered with, and the resistance of the bowel so lowered that it easily became tuberculous. The delusions were thus not secondary to the local lesion; but both the physical disease in the bowel and the delusions arose from the central disorder in the assumed cortical centre in which the bowel is represented, and from which its metabolism is governed. After a brief discussion by Dr. Dawson, a resolution of regret at the cause of Dr. Mercier's absence was proposed by Dr. Greenlees and carried by the meeting. An extremely interesting paper by Dr. Shuttleworth on Mongolian imbecility, based on 350 cases, mostly observed by the reader, was then read. After a brief account of the bibliography of the subject and an anatomical description of the type of imbecility, Dr. Shuttleworth considered, first, etiology, that is, heredity, and such factors as parental alcoholism and syphilis, and came to the conclusion that Mongolian imbeciles were exhaustion products, more than one-half of all cases in institutions being the last-born of long families, and in a large proportion of all cases the children of mothers already old in the child-bearing period. Dr. Shuttleworth's paper, which was illustrated by numerous excellent photographs, was followed with great interest, as were also the remarks of Dr. Langdon-Down, who spoke next on some points not touched upon by Dr. Shuttleworth, including the hand shape and markings of Mongolian imbeciles, illustrated by hand-prints. After Dr. Caldecott had commented upon the brief span of life of Mongolian imbeciles, rarely exceeding twenty years; the valuelessness of thyroid treatment, and their invariable proneness to tuberculous disease, necropsies disclosing tuberculous lesions in 100 per cent., the meeting terminated.

*Friday, July 30th, 1909.*

The last day of this Section was devoted to a consideration of the Report of the Royal Commission on the Feeble-minded. The discussion was opened by Dr. W. R. Dawson of Dublin, and the Section was honoured by the presence of Her Excellency the Countess of Aberdeen. After a general survey of the principles laid down by the Royal Commission, and after suggesting that, so far as Ireland was concerned, it would be well to restrict the powers of the local authorities by turning the asylum service into a national service on the lines recommended for the Irish Poor Law Service by the recent Viceregal Commission, Dr. Dawson proceeded to the discussion of the detailed recommendations of the Royal Commissioners. With regard to the three methods of dealing with defective persons by supervision, certification, and detention, the speaker failed to see what good could be done by the first two alone. With regard to classification, he did not quarrel with the disuse of the terms "lunatic" and "asylum," though any benefit accruing from the change could be only temporary, and the distinction between "persons of unsound mind" and "persons mentally infirm" seemed to him devoid of utility. Whilst in general agreement with the recommendations of the Commission, Dr. Dawson agreed with Commissioner Dunlop that compulsory notification, except where public assistance was required, was undesirable, and objected also, where Ireland was concerned, to the retention of the order for reception by a judicial authority, this being stigmatized by the speaker as an unwarrantable intrusion. Also his investigations in Dublin had convinced him that the establishment of special schools for mentally defective children was an impossibility, and that the provision of special classes would be much better. Further, he considered that the whole system should be supplemented by regulations dealing with inebriates who were not mentally defective, and lastly he thought that the recommendations of the Commissioners on the matter of family care were half-hearted and insufficiently definite, and that no system of provision for the

mentally defective could be complete without the inclusion of that form of treatment which was at once simple, easily provided, and inexpensive. Dr. Shuttleworth then gave the meeting the benefit of his long experience with mental ailments, and in particular pointed out that any scheme of compulsory notification as applied to the young child would be difficult, likely to arouse much opposition in the parents of the children, would throw a great responsibility on the certifying officers, and would permanently label many who might afterwards prove to be wrongly labelled as outcasts. Dr. Maguire and Dr. MacCormac both referred to the need for some provision being made for the early treatment of cases of incipient insanity and of early juvenile imbecility, and Mr. Fagan, Inspector of Reformatories and Industrial Schools in Ireland, voiced the general feeling of all speakers at the meeting that compulsory notification was inadvisable, and further that, in his opinion, it was unwise to separate feeble-minded children from their fellows at too early a stage, as he found that they derived benefit from mingling with normal children, when the feeble-minded bore only a small proportion to the normal children. Dr. Caldecott discussed the recommendations of the Commissioners from the financial standpoint, and affirmed that these recommendations, if carried out, would bear very hardly on charitable institutions by converting voluntary subscriptions into public contributions. He considered also that the Commission's estimate of the increased expenditure which would follow the adoption of their scheme, of £500,000 a year, would turn out to be nearer £1,500,000. Dr. Dawson then briefly spoke on the several points raised during the discussion, and in particular laid stress on the almost entire lack of provision for feeble-minded children in Ireland, there being only one institution, the Stewart Hospital for Imbeciles, with 100 beds, while it was estimated that there were 10,000 defective children in the country. The customary votes of thanks to the President having been passed, the proceedings then terminated.

## SECTION OF SURGERY.

Thursday, July 29th, 1909.

A DISCUSSION on modern methods of treatment of tuberculous disease of joints was opened by Sir William Macewen, who laid it down as an essential preliminary of treatment that a clear idea of the pathology and of the stage of the disease should be obtained. Only in the earliest stages, when tubercles were still discrete, blood vessels dilated, and no tissue actually dead, could cure be effected by treatment via the blood stream. When tissues still living were engaged in the endeavour to create a barrier to stop the progress of the disease, or to absorb dead tissue and bacilli, then was the time for chemical agents and active surgical intervention. The important point was to attack the disease whilst still limited to the bone and prevent its extension to the synovial membrane. The greatest reliance was to be placed on a proper use of iodoform emulsion injected into the actual focus of disease. The injection of sinuses with bismuth was useful both for diagnosis and treatment. Bier's treatment, unaided, had not fulfilled in this country the expectations raised by its success abroad. Massage used with iodoform was often very useful. In final stages, excisions might be practised with the certainty of good functional results in most joints; they should always be "intracapsular." Mr. Robert Jones emphasized the divergence to be observed between treatment for adults and children. He thought tuberculin valuable not only as a means of very early diagnosis but also of treatment. Limitation of movement and rigidity was, he thought, the most valuable early clinical sign. He described criteria for deciding the proper time for cessation of fixation treatment. Abscesses should, he felt, be treated in the most conservative way. Deformity, except in the case of the spine, should be reduced regardless of the stage of the disease. Professor Sonnenburg related his procedure in treating affected joints with new

tuberculin. Mr. A. H. Tubby drew attention to par-articular foci and the necessity for operative eradication. Mr. Crawford Renton believed every palliative method should be given a chance, but that excision should not be indefinitely postponed, especially in the case of the elbow. Mr. Ward Cousins emphasized the importance of eliminating the bacillus. Mr. Maynard Smith gave the results of treatment of tuberculous joint disease at St. Mary's Hospital by the opsonic method. Mr. Rushton Parker gave some historical reminiscences of the progress of treatment. Mr. Cathcart, whilst agreeing that iodoform emulsion was most useful, believed that excisions were often required. He thought much was to be hoped from tuberculin as a therapeutic agent. In the course of his reply, Sir William Macewen agreed that Calmette's test was safe and valuable. He had also used the Pirquet reaction. X rays were certainly valuable. He demonstrated by numerous photographs the excellent functional results obtained after excisions. Cases of interest were demonstrated to the members of the Section by Mr. Howard Stevenson and Mr. A. B. Mitchell.

Friday, July 30th, 1909.

Mr. Syme of Melbourne read a paper on the diagnosis and treatment of some of the rarer forms of echinococcus cyst. With regard to lung hydatids, he said that in the case of unruptured cysts the x-ray pictures were typical, but with ruptured cysts this means of diagnosis was less useful, and the condition was often mistaken for pulmonary tuberculosis. The character of the sputa, however, generally enabled the careful and constant observer to recognize the actual lesion. In bone the exogenous form of development was common in the cancellous tissue, and, probably as a result of the pressure, the formation of scoliosis was prolific. In some cases eosinophilia was marked, about 9 per cent. of eosinophiles being not uncommon. He referred to the precipitin reaction, but said that in the Melbourne Hospital they had always got negative results, which were of little value. He thought "marsupialization" the best treatment; where lung and liver were simultaneously affected the liver cyst—the primary, that is—should be evacuated per abdomen. Cysts in the spleen might be evacuated and the organ dropped back into the peritoneal cavity. He had no experience of the closure of suppurating cysts by suture; in bone, thorough and repeated gouging and scraping generally led to successful eradication. Mr. Ward Cousins referred to very large hepatic cysts which might be mistaken for ovarian, especially if sterile, and also to cases in which chronic changes obscured the true character and origin of the cysts. Mr. Freyer exhibited a series of prostates removed from octogenarians, and also some of very large size, the largest weighing 17 oz. He presented the final statistics of his 644 operations to date. The total mortality was 6 per cent.; the average age 69, and the average prostatic weight 2½ oz. In 114 instances calculi were present. In reply to the President, Mr. Freyer said that he now only left in the tube for from four to ten days, and that if at the expiration of that time catheters were regularly passed, no constriction took place at the opening of the bladder cavity into that from which the gland had been enucleated. He only made use of initial irrigation when uraemic symptoms were present, and it was generally wise to drain the bladder suprapubically for ten days before enucleating the prostate in these cases. Dr. Hort read a paper on the diagnostic value of estimations of the antitryptic content of the serum in cases of malignant growth. Mr. Mitchell detailed 16 cases of operation for perforated duodenal ulcer with 16 recoveries. He drew attention to the undue stress laid upon shock as a sign of perforation, and emphasized the value of rigidity of the muscles as an early feature. He explained the constant absence of considerable extravasation as due to reflex contraction of the pylorus. He had made use of gastro-jejunostomy, in addition to simple suture of the ulcer, in 7 cases without a fatality. Mr. Ward Cousins thought the absence of shock in visceral perforation was to be explained by

the quantity of fluid poured out into the peritoneum and thence absorbed. Mr. Thelwall Thomas advocated early operation and anaesthesia with ether by the open method. In the course of his reply Mr. Mitchell said an additional danger of morphine was the relaxation of the pylorus induced. Mr. Edington discussed the question of resection of intestine in various conditions. Mr. Leedham-Green gave his experiences of a hundred consecutive cases of scopolamine-morphine narcosis, describing his routine, and characterizing the method as ideal for the patient, in contrast to the spinal method, which, whilst perhaps ideal for the surgeon, had serious drawbacks for the patient. The advantages claimed for this method were that the patient was spared preliminary nervous tension; full narcosis was early and quickly attained; the amount of anaesthetic necessary was lessened by at least a half; complete muscular relaxation could be secured; the secretion of mucus was much diminished, so that ether could be given easily and safely; post-operative pneumonia could be avoided; the operation was followed by long and peaceful sleep of four to six hours' duration; there was almost complete absence of post-anaesthetic vomiting; and, finally, there was plenty of evidence to show that, as compared with simple inhalation narcosis, scopolamine-morphine was safer.

## SECTION OF TROPICAL DISEASES.

Thursday, July 29th, 1909.

MR. J. CANTLIE (London) opened a discussion on the treatment of chronic recurrent dysentery, with special reference to the possibilities of surgical treatment. He pointed out the many terms applied to intestinal flux associated with mucus in the faeces, and with occasional attacks of fever accompanied by blood in the stools. He considered that in the chronic forms of the disease a stenosis at the junction of the sigmoid and rectum (the sigmo-rectal pylorus) was to be met with in the majority of cases, and the treatment resolved itself in the means of dealing with this lesion and its consequences. He reviewed treatment by diet, by drugs, by enemata, and by surgical operations. In lesions limited to the junction of the rectum and sigmoid, when other means failed he recommended opening the upper part of sigmoid. When the disease extended further, he recommended washing out the bowel from the appendix, and when this proved insufficient, opening the ascending colon in preference to the caecum. A discussion followed, in which the following took part: J. L. Maxwell (Formosa), W. Carnegie Brown (London), Allan H. Hanley, C.M.G. (Dublin), R. A. Carter (British Guiana), J. Herbert Sanders (Hong Kong), Captain Gordon Tucker, I.M.S., Fleet Surgeon Lloyd Thomas, R.N., and the President, C. W. Daniels (London). A paper was communicated by H. E. Ozzard (British Guiana) on the life-history of *Ankylostoma duodenale*. He had cultivated the ankylostoma outside the human body, and having satisfied himself that this could be done, concluded that the *Ankylostoma duodenale* must be heterogenetic. The President (C. W. Daniels) discussed the paper.

Friday, July 30th, 1909.

Dr. W. Carnegie Brown (London) opened a discussion on feeding and treatment of children in the tropics. He stated that, although reliable vital statistics from tropical countries were unattainable, they followed the general rules that obtain in European countries where more carefully prepared returns are given. Amongst well cared for children, whether European or native, the death-rate was low in the tropics as in temperate climates; whilst in the tropics, amongst the lowest classes of natives whose children were badly nourished, the infant mortality might reach 50 or 60 per cent. This terrible loss of infant life was almost entirely due to gastro-intestinal disorders which were directly caused by the want of fresh and nutritious milk. He drew attention to a fact at times observed among European women; previously delicate, they improved in health whilst breast-feeding their infants. He compared the milk of the cow, the goat, and the

buffalo as substitutes for breast milk, and discussed the uses of condensed and preserved milks. The main disorders of early life due to tetanus neonatorum, gastro-intestinal affections, entozoa, dysentery, malaria, yaws, and enlargements of the liver and spleen, were dealt with in detail. The speaker considered it more than doubtful whether a white population could ever be successfully reared in the tropics. The following took part in the discussion: Lieutenant-Colonel Andrew Deane, I.M.S., J. L. Maxwell (Formosa), Surgeon-General W. R. Browne, C.I.E. (Madras), Major J. Ritchie, R.A.M.C., J. Cantlie (London), Stuart Brooke (India), Professor Hellier (Leeds), Captain T. H. Campbell, R.A.M.C., Robert Aird (Hankow), C. W. Daniels (London). The meeting was well attended, and a cordial vote of thanks was recorded to the President, Vice-Presidents, and the Secretaries of the Section.

## LITERARY NOTES.

PROFESSOR OSLER has a subject entirely to his taste in the Linacre Lecture delivered by him at St. John's College, Cambridge, in 1908, and reprinted at the Cambridge University Press. Thomas Linacre appeals to him not only as a physician but as a humanist. As every one knows, Linacre was the founder of the Royal College of Physicians of London. He was born at Canterbury in 1460, and educated at Oxford. He then went to Italy, where he was one of the earliest English students who sought at Padua the medical education they could not get at home. Linacre also studied Greek at Florence under Politian and Demetrius Chalcondyles, and he transcribed Greek manuscripts in the Vatican Library. He was, indeed, all his life more a scholar than a physician. Early in the sixteenth century he was appointed physician to Henry VIII, who himself was, according to Froude, one of the best physicians in his kingdom. At any rate, he took sufficient interest in the subject to favour Linacre's scheme of founding a college. Linacre was a friend of Thomas More and all the scholars of a court which Erasmus describes as "less a palace than an academy of learning." He translated several of Galen's works, and was the author of a Latin grammar which was for a long time an accepted authority, especially on the Continent. In his later years Linacre entered into Holy Orders, and held a number of benefices. He died of stone in the bladder in 1524. Professor Osler thinks that Linacre may have been the scholar who gave Browning the idea of *The Grammarian's Funeral*. At any rate the description would fit him:

Back to his book then; deeper drooped his head;  
Calculus racked him  
Leadens before, his eyes grew dross of lead;  
Tussis attacked him.  
"Now, master, take a little rest,—not he!"  
Not a whit troubled  
Back to his studies fresher than at first,  
Fierce as a dragon.

So with the throttling hands of Death at strife,  
Ground he at grammar:  
Still, through the rattle, parts of speech were rife  
While he could stammer.  
He settled Hoti's business—let it be!  
Properly based Oun,  
Gave us the doctrine of the enclitic De,  
Dead from the waist down.

Of the many foundations associated with Linacre's name, a full account is given by Professor Osler, whose booklet, illustrated by reproductions of the title pages of several of Linacre's works, is interesting alike to doctors and to scholars.

Dr. Henry Barnes (Carlisle) writes: As supplementary to your notice of Dr. Homan's paper on St. Luke (see JOURNAL, July 31st, p. 274), I venture to send you a few additional observations, as any facts or comments bearing on the literary or medical character of the author of the third gospel will probably be welcome to your readers. There is reason to believe that St. Luke, who is affectionately called the "beloved physician" by St. Paul (Col. iv, 14), was an Asiatic Greek. He was born at Antioch in Syria, and his writings bear clear evidence that he had received an education much superior to that of the other evangelists. Instances are given by Professor