

Reports of Societies

OXFORD OPHTHALMOLOGICAL CONGRESS

The twenty-fourth annual meeting of this congress was again held at Keble College, Oxford, on July 5th, 6th, and 7th. The foreign and oversea members present were: Professor Joseph Meller of Vienna, Dr. J. Edward Rivera of Peru, Professor Berg of Upsala, and Dr. T. Donald Gordon of Durban.

PROCEEDINGS

These began on July 5th with a short speech from the Master, Mr. CYRIL WALKER, who referred in moving terms to the death of the Immediate Past Master—Mr. BERNARD CRIDLAND—which occurred only five days before the congress assembled. The congress had been founded twenty-five years ago by the late Robert Walter Doyne, but there was no doubt that the continued success of the meetings had been in very large measure due to the late Mr. Bernard Cridland, who was secretary for fifteen years, and became Master in 1929. He proposed the following resolution:

"That this meeting of the Oxford Ophthalmological Congress desired to express to Mrs. Cridland and family its profound sympathy with them in their recent bereavement; and to place on record their sense of the irreparable loss the Congress had sustained in the death of the Immediate Past Master."

Immediately afterwards Sir FARQUHAR BUZZARD opened a symposium on "The Functional Diseases of the Eye." He described how the opinions of ophthalmic surgeons had changed on this subject during the last twenty-five years, and that now a much more scientific attitude was taken on the matter.

He was followed by Mr. WILLIAMSON-NOBLE, who dwelt on the need for liaison between ophthalmology and psychiatry, quoting cases and discussing their treatment. He suggested a possible explanation of functional amaurosis with inactive pupils. He then discussed in detail the general considerations of ophthalmic methods of diagnosis to eliminate functional from organic causes of asthenopia. The variability in threshold stimuli in the production of headache in different patients was fully discussed. He thought it was possible to over-emphasize the importance of the functional element in the production of asthenopia.

Dr. WILLIAM BROWN said that the psychological factors at work in causing or sustaining functional diseases of the eye were identical in general—namely, inadequate solution of mental conflicts, faulty adjustment to the conditions of life, and a general failure to make headway along the individual chosen path. The baulking of fundamental instincts, especially those of self-preservation and sex, was responsible for much functional eye disease; but mental stress and shock arising in conditions involving eye strain would be specially potent in this direction, as in the case of miners' nystagmus. The visual symptoms in some forms of hysteria are of special theoretical interest, in that they illustrate with particular clearness some of the psychological characteristics of the illness. The disturbances of vision in war neurosis were very instructive, since they portrayed the working of psychological factors in a clear and simple form. In civilian cases of slow and prolonged development the psychological motive could only be revealed by long and painstaking analysis. There were a great number of cases of organic eye trouble with functional overlap, where the disturbance of function was in excess of that to be expected from the organic defect, and was due to the mental reactions of the patient to his disability.

A very interesting discussion followed, which was carried on by Sir ARNOLD LAWSON, Dr. TRAQUAIR, Dr. SAXTY GOOD, Mr. P. H. ADAMS, Dr. GEARY, Mr. GRAY CLEGG, Mr. F. WALKER, Mr. AFFLECK GREEVES, Mr. ALABASTER, and Dr. RIVERA. Mr. AFFLECK GREEVES related a case of retinal glioma in the second eye treated by radium externally. The first eye was removed when the patient was fourteen months old, and at the operation an ophthal-

moscopic examination was made of the other eye, which was discovered to be gliomatous as well. It was treated externally with radium in a wax mould, and when the case was seen three years later there was no sign of recurrence.

In the afternoon Dr. H. W. BARBER, physician in charge of the skin department, Guy's Hospital, read an exhaustive paper on the aetiology and treatment of some conditions affecting the eyelids. Eczema was first discussed at length as regards aetiology and treatment, then relapsing streptococcal lymphangitis with or without subsequent elephantiasis. Next Dr. Barber fully described the seborrhoeic state associated with blepharitis, styes, granuloma pyogenicum, sycosis, and rosacea. This was followed by a detailed description of miliary, lupoid, and rosaceous tuberculide, herpes simplex, and disturbances of the autonomic nervous system, and finally certain tumours of the lids were dealt with.

Mr. TUDOR THOMAS showed a patient who had had corneal graft performed on both eyes successfully, and he described the operative technique of the procedure.

Tea was taken at Oriel College, where the members were received by Dr. and Mrs. Franklin.

The annual dinner was held in Keble Hall in the evening, presided over by the Master, Mr. Cyril Walker. During the dinner the opportunity was taken of making a presentation to Professor ARTHUR THOMSON, who had just retired from the professorship of human anatomy in the University of Oxford, and who had kindly allowed the congress to hold its meetings in his department for the last twenty-four years.

OTHER PAPERS

On the morning of July 6th Dr. THOMSON HENDERSON read a very interesting paper on the constitutional factor in myopia. He brought forward the view that axial myopia was the result of constitutional factors, which, by inducing an inadequacy of the sclerotic, cause the posterior pole of the globe to give way under the normal intra-ocular pressure. Current theories as to the causation of myopia were criticized. It was shown that after the age of 5 years growth took place behind the equator, and hypermetropia resulted from an arrest of such development while myopia resulted from an over-extension. Congenital causes and hereditary influences were not considered to play a great part in determining myopia.

Mr. ARNOLD SORSBY read a paper on the pre-myopic state. The physical and biological conception of the normal eye was considered, and reference was made to the work of Steiger. The curves of the globe and the normal refraction in infancy were fully discussed.

The Doyne Memorial Lecture was given by Professor JOSEPH MELLER of Vienna, and was entitled "Tuberculosis and its Relation to Spontaneous Post-traumatic and Sympathetic Ophthalmia." The aetiological classification of the uveitides was criticized, and the opinion was expressed that a large proportion of these cases were of tuberculous origin. Professor Meller dwelt on the insignificance of the general tuberculous changes found in the lungs or glands of these patients. It was emphasized that only a positive focal reaction to tuberculin made the diagnosis certain. Sympathetic ophthalmia was next considered, and, after a short historical survey, reasons were given indicating its endogenous character. The results of Lowenstein's method of blood examination in cases of sympathetic ophthalmia were described. A culture from the tissue of the exciting eye in a case of sympathetic ophthalmia in 1932 showed tubercle bacilli. Further cases were also reported. In post-traumatic iridocyclitis bacillaemia was proved in 20 per cent. of the cases, but positive bacillary tissue findings were still lacking.

Dr. OLIVER PRATT read a paper on "The Influence of Diet in Ophthalmic Practice." Migraine was first discussed as regards its causation and treatment. Faulty fat metabolism was considered to be an underlying cause in many cases, and it was pointed out that assistance might be obtained for this defect by prescribing glucose. The inflammatory conditions of the cornea and conjunctiva were often associated with excessive carbohydrate consumption, and aggravated by lack of vitamins. Diabetes

was next discussed, and it was pointed out that when this was untreated myopia tended to develop. In diabetic retinitis diet alone was insufficient to arrest deterioration, and properly controlled treatment by insulin was essential.

Mr. BERNARD CHAVASSE read a paper on "Thermoplasty of the Extraocular Muscles." He described a method of heat coagulation of the motor nerve fibres destined to supply that portion of a muscle whose action it was desired to abrogate. A method was also described in which by the same means the effect of a muscle upon the position of the eye might be increased by longitudinal heat shrivelling of its tendon.

Mr. J. JAMESON EVANS and Mr. PHILIP JAMESON EVANS read a paper on "Some Remarks on the Aetiology and Treatment of Congestive Glaucoma." The aetiology of this condition was described as essentially one of angio-neurotic oedema or thrombophlebitic oedema of the ocular structures. The necessity of preliminary treatment, which was mainly medical, was dwelt upon, and the actions and uses of acetylcholine were described.

On the morning of July 7th Mr. FREDERICK RIDLEY read a paper on "The Clinical Significance of the Composition of the Tears," with special reference to the action of lysozyme. Mr. SAVIN read a paper and fully described a case of uveoparotid fever. The patient improved after drainage of an empyema of the right maxillary antrum, and no evidence of tuberculosis was found. The last paper was by Mrs. LYTGOE, giving the result of some research work on the "Production of Rosettes in the Mammalian Retina." This paper was of great scientific interest, and was obviously due to much thoughtful and original work. A kitten was shown, in which rosettes had been developed in the retina, which could easily be seen with an ophthalmoscope.

The proceedings were closed by a short speech from the MASTER, who stated that 116 members had attended the congress.

OCCUPATIONAL THERAPY

A conference on occupational therapy, organized by the National Council for Mental Hygiene, was held at the house of the Royal Society of Tropical Medicine and Hygiene on July 11th.

Sir HENRY GAUVAIN, who was in the chair in the afternoon, defined occupational therapy as "occupation carried out under direct medical control and supervision with a definite therapeutic object." It should be prescribed, he said, in the same way as medicines with regard to the requirements of the individual patient. The movement was of recent development, and in this country we were merely on the fringe of the subject. The value, both psychological and physical, of the occupational treatment of all persons whose infirmities necessitated a prolonged sojourn in hospital or institutional environment was daily becoming more apparent to all those concerned in their care and restoration to normal health.

Dr. J. B. McDUGALL, medical director of the British Legion Village, Preston Hall, gave an enthusiastic and inspiring account of the trades and industries carried on there. The effect on the morale and general health of the men he described as amazing.

Dr. VERONICA DAWKINS, resident medical officer, Maltings Farm Sanatorium, Nayland, discussed the possibilities and limitations of occupational therapy in a sanatorium with a relatively shifting population. She laid great stress on the value of handicrafts, and described a regime carefully graded according to the patient's capacity for work and exercise. In addition to handicrafts, patients assisted in the utility services of the sanatorium, but in all cases this was carefully individualized and carried out under constant medical direction.

Dr. H. J. SEDDON, resident surgeon, Royal National Orthopaedic Hospital, Brockley Hill, Stanmore, warmly espoused the cause in respect of patients treated in that hospital. He stressed its importance in re-educating crippled limbs as well as its psychological effect on the morale of the patients. Controlled occupation was one of the greatest advances in therapy of modern times.

OCCUPATIONAL THERAPY FOR MENTAL AND NERVOUS CASES

At the evening session Dr. NATHAN RAW, the Lord Chancellor's Visitor in Lunacy, was in the chair, and the discussion centred round occupational therapy in the treatment of patients suffering from mental and functional nervous disorders. The principal speaker was Mrs. ELEANOR SLAGLE, secretary and founder of the American Occupational Therapy Association. Her organization has official recognition, and supplies trained workers to all the principal Government institutions for mental illness and mental defect in the State of New York. She also supplies workers to mental hospitals and defective colonies in numerous other States. Mrs. Slagle described recent methods and advances in America. She emphasized the importance of using workers properly trained according to a recognized syllabus. The course in her school took two years, and included not only training in handicrafts but practical experience in their application to the treatment of patients in mental hospitals. It was also necessary, she said, that a considerable proportion of the nurses should have a knowledge of occupational therapy, so that they could supplement and assist the work of the specialist by helping the patients in the wards. It was the practice in America for nurses to have a short course of special training in the application of occupation therapy. She was convinced that this individualistic treatment, which brought the patients into contact with reality and obliged them to live a life approximating, as far as they were capable of it, to the normal was the greatest and most valuable weapon in the armamentarium of mental treatment.

Dr. J. R. REES, medical director of the Institute of Medical Psychology, warmly endorsed Mrs. Slagle's remarks, and said how greatly he had been impressed by the conditions in those mental hospitals in America where he had seen occupational therapy fully organized. It was proposed to start a school of occupational therapy in connexion with the Institute of Medical Psychology in London.

Dr. ELIZABETH CASSON, medical director, Dorset House School of Occupational Therapy, Clifton, Bristol, described the regime at her school. She was convinced of the immense therapeutic value of the time-table of exercise, occupation, amusement, and rest in the treatment both of the psychoses and of the psychoneuroses. Nothing was worse for patients than to drift about aimlessly. The carrying out of such a regime required the loyal co-operation of every member of the staff—medical, nursing, and occupation specialists.

Dr. NORAH HOWARTH, assistant medical officer at Severalls Mental Hospital, Colchester, described the forms of occupation therapy used in that hospital. She distinguished between the employment of handicrafts in the wards and in a special occupation centre, and occupation in the utility services of the hospital. The latter undoubtedly had a useful place in treatment provided that the occupation was fitted to the patient and not vice versa. For example, it was quite a different matter whether a patient was drafted into the laundry because she showed a special inclination for some branch of laundry work, or whether she was sent there because there happened to be a shortage of laundry hands.

Miss RUTH DARWIN, a Senior Commissioner of the Board of Control, said that she was convinced of the great value of occupational therapy in the treatment of mental illness. In order that it should be successful it was necessary to have co-operation from four angles: (1) the medical superintendent and assistant officers, who set the tone for the whole hospital, (2) the visiting committees, (3) the nursing staff, (4) the occupation teachers. Medical superintendents were coming more and more to realize its value, and in several hospitals this system was already in operation. Miss Darwin hoped that in the near future many more would come to appreciate it as a valuable and, indeed, necessary method of treatment. She was convinced that it would soon become a *sine qua non* of a well-conducted modern hospital. She quite appreciated in regard to hospital committees that they

must be satisfied that any expenditure incurred was justified by the results. She was sure that if visiting committees would acquaint themselves with the improved conditions in those hospitals where occupational therapy was well established they could not fail to appreciate its value. The nursing staff also of necessity took their tone from the medical officers. Where this was favourably disposed nurses had already shown themselves able and willing to co-operate to an invaluable degree with the trained occupationists. Occupation to be really successful must not be confined to a special room or an hour two or three times a week, but carried on daily in the wards. It appeared to be a psychological necessity for all humanity, whether mentally sick or mentally sound, to have some occupation with an object.

SUB-SPECIES OF ANOPHELES MACULIPENNIS

At a meeting of the Royal Society of Tropical Medicine and Hygiene at Manson House, on June 21st, Dr. L. W. HACKETT, assistant director, International Health Division of the Rockefeller Foundation, read a paper on the present status of our knowledge of the sub-species of *Anopheles maculipennis*.

Dr. Hackett said that the six varieties of *A. maculipennis*, as identified by their eggs, were each to be found in a number of different areas which were widely separated geographically. Within its own climatic range the presence of a given sub-species was determined by the orohydrographical conditions of the area, or, more particularly, the character of the surface water which the insect required for oviposition. No observations as yet suggested that an environment or micro-environment suited to the adult of either sex could determine the presence or prevalence of any sub-species. It had not been shown that individuals laying the same kind of egg varied significantly in physiology or behaviour, even if they came from different regions. Surveys of new zones proceeded, therefore, on the assumption that the egg type would serve to identify the sub-species, which was broadly homogeneous throughout its range in spite of adaptations to local conditions. Such modifications were apt to be quantitative (as in duration of sexual repose in winter, or range of micro-climatic tolerance) rather than qualitative and genotypic. The biological differences between sub-species were such as apparently to preclude hybridization in nature, and while cross-mating had occurred in the laboratory successive hybrid generations had never been obtained. The sub-species differed also in the frequency and regularity with which they bit man under present conditions of rural life, and since this determined the amount of malaria transmission some races were more consistent vectors than others. Thus *maculipennis (typicus)* and *melanoon* had little contact with man; *labranchiae* and *elutus* were continually penetrating into houses in relatively large numbers wherever these races occurred; while *messeae* and *atroparvus* were easily deviated by domestic animals but overflowed into human habitations in search of food in various circumstances, among which were a disproportionate density of anophelines, a scarcity of animals, or the stimulus of certain physical states such as temperature, humidity, etc. Under identical conditions the various sub-species behaved quite differently, being drawn by diverse instincts into different environments and to different hosts. This in general explained their separate roles in the spread of malaria, but whether a given sub-species became a vector or not in a given locality depended also on a complex of local conditions, which might in one place lead it into continual contact with man or in another restrict it to animals to such a degree as to render malaria transmission highly improbable. The range of adaption of *labranchiae* and *elutus* was so wide, however, that there was no region in which either was known to be effectively deviated by domestic animals.

DISCUSSION

Professor P. A. BUXTON said that it was abundantly clear from Dr. Hackett's paper that races or sub-species of anopheles did exist, and that they were different in

anatomical characters, in details regarding breeding, and in their relation to malaria. Much of the published work on this subject was, however, in a very confused state. It could be classified in three very distinct categories: first, taxonomy; secondly, biometric facts; thirdly, physiological characters. Considerable progress might come about if attention were paid to physiological characters, not only in the field but also in the laboratory. If, for instance, a stock of *atroparvus* were taken and bred at different temperatures, or fed differently, would one get differences in the eggs or the larvae or the adult structures? No one had any real knowledge of what the answer to that question would be.

Dr. F. W. EDWARDS of the British Museum agreed that the race of *maculipennis* showed very different characters, at least in the eggs, but in regard to certain other distinctions some were less easy to understand. The chief point of distinction in the males was whether a particular hair or spine on the tail end was blunt or pointed, and that might be a matter of mere label rather than pure fact. On the other hand, probably more attention might be paid to colour pattern. However, if observers themselves could not distinguish the insects, the latter managed to distinguish each other, for they never made a mistake on mating, as exemplified by certain species of gnats in this country distinguished only by their minute characters, such as a tiny wing spot and so on. How they did it was a mystery, but undoubtedly the whole truth was being approached as a result of the investigations of Dr. Hackett and others.

Colonel S. P. JAMES remarked that, not being an entomologist, he was a little bit confused, but felt quite sure that all would in time agree about some, if not all, of the varieties of *maculipennis* that Dr. Hackett had described. The late Mr. Richard Burton as early as 1916 had noted two forms of *maculipennis* in Shropshire, one of which was found hibernating completely in the winter in clock towers, church steeples, and the like, while the other passed the winter in stables and in the bedrooms of some kind of houses. Later, in association with Mr. Shute, a great number of observations were made on the habits of these two different forms of *maculipennis*, which were of value in explaining why malaria in England had such a peculiar distribution, especially along the coast, and why it was particularly a disease of certain houses. This house mosquito was now known to be *atroparvus*.

Sir RICKARD CHRISTOPHERS said that the discovery of these races of *maculipennis* was by far the biggest thing in the epidemiology of malaria in recent years, and it was a curious thing that this work should have originated in Western Europe with its three species of anopheles. Further, although in the Tropics it was known that the habits of anopheles were very important, it came somewhat as a shock to find that the presence of malaria in Holland, for example, turned upon a most trivial habit of a particular variety, which was scarcely distinguishable from others. But the greatest change this new work had made concerned the conception of what a carrier species was. Dr. Hackett, who had taken the foremost part of any worker in studying this question, put it clearly in one sentence: "A carrier species is so by reason of the relative frequency with which it bites man twice." Once is not enough—it must bite man twice! Dr. SENIOR-WHITE stated that four years ago Sir Rickard Christophers had said at Algiers that the study of *maculipennis* was becoming a separate science: he trembled to be in charge of an area in the Tropics containing twenty-one so-called species of anopheles, many of which, even on superficial examination, presented something queer in species. Major AUSTEN discussed the vexed question of nomenclature, and supported the plea put forward by Sir Rickard Christophers for its revision; he also upheld Professor Buxton's suggestion for more laboratory investigation. Sir MALCOLM WATSON said there was no doubt that the malaria reports of the League of Nations between 1924 and 1928 had discouraged the prevention of malaria throughout the world. They cast grave doubts on the relationship between anopheles and malaria, and certainly called a halt in many parts of the field. Dr. Hackett's work in Italy and Sardinia gave the malaria position a better course.

In reply, Dr. HACKETT dealt with the status of subspecies, and agreed it might be better to accept Fulleroni's recent suggestion by giving another name to *typicus*; then all the races would have names and none of them would be called the type. He agreed with Professor Buxton that physiological studies were important, and an enormous cage which contained pigs and a stable had been made in Albania, which Lewis was now filling with *typicus* to see whether they could mate under conditions as natural as possible.

STERILIZATION OF THE UNFIT

At a meeting of the London Association of the Medical Women's Federation, held at B.M.A. House on June 26th, with Professor MARY LUCAS KEENE in the chair, Dr. LETITIA FAIRFIELD spoke on eugenic sterilization of the unfit.

Dr. Fairfield based her observations on the recently issued report of the Departmental Committee on Sterilization. She pointed out that the wide popular interest in sterilization had grown out of two main factors. First, the increase in biological knowledge of the hereditary factor in mental and physical disease, and secondly, the sociological outlook, which attributed numerous evils of society to mental and physical "unfitness." The appointment of the committee was inevitable, for it had become fashionable to regard sterilization as a panacea, and in the case of mental deficiency, for example, the over-emphasis on sterilization had been allowed to swamp every other aspect of a many-sided problem. It was only fair to state that the efforts of many prominent eugenicists and the findings of the Departmental Committee's report were directed towards correcting these exaggerated claims. Dr. Fairfield then reviewed the findings of the report. She considered that the legal obstacles in the way of the eugenic sterilization of persons of normal mentality had been somewhat exaggerated. As a matter of fact, no one who was able to pay for such an operation at the present day had the least difficulty in getting it done, and probably more hospitals were performing such operations than was supposed. No case of a surgeon suffering any penalty for doing a eugenic sterilization was on record, and it was impossible to imagine such a case being brought into court, provided that genuine grounds existed for believing that diseased offspring might be procreated. It was, however, recognized that the sterilization of mental defectives was undoubtedly illegal.

In examining the present knowledge of the causation of mental defect the committee had evidently found itself on highly contentious ground. All their witnesses agreed on the important part played by "heredity," but they were not at one on the exact meaning of the term. Some would include in the family tree any deviation from the normal, including epilepsy, instability, delinquency, and insanity, while others would confine the term to the transmission of a single defect such as certifiable mental deficiency. Naturally the percentage of "hereditary" cases differed according to the view taken, the variation extending from 5 to 80 per cent. The report had recorded some interesting researches into the mentality of the offspring of defectives, who showed an unexpectedly high rate of mental deficiency—namely, nearly one-third of surviving children. Dr. Fairfield pointed out, however, that the figures were overweighted, as defective offspring were likely to call the attention of the authorities to defective parents. The report further blackened the picture by bracketing the "subnormal" and defective children, although the former might be little different from the general population. While assessing the part played by environment in causing mental abnormality, many witnesses stressed the point that this factor acts in combination with defects of heredity, the thesis being: "environmental factors may accentuate inherited weakness." The evidence also brought out a point which was still often overlooked—namely, that mental deficiency was so devious in its manifestations that it could not conceivably be a single unit transmissible on Mendelian lines, though certain sub-varieties might be. The final

recommendations of the committee condemned compulsory sterilization as unjustifiable in the present state of knowledge of genetics, and likely to arouse public hostility. It was not clear, however, whether it would be possible to keep voluntary sterilization really voluntary. It was difficult to imagine the precautions which would prevent enthusiastic committees from using the social services (such as outdoor relief) or the bait of discharge from an institution as an inducement to sterilization. This was avowedly happening in other countries where sterilization measures were on the Statute Book. As regards high-grade mental defectives, the committee evidently considered it an easy matter for a doctor to decide whether they were or were not mentally competent to give a valid consent to the operation, but no standards were laid down, and Dr. Fairfield considered that in practice the point would be a very difficult one to determine. As regards mentally normal persons, it seemed to have been overlooked that any attempt to regulate voluntary eugenic sterilization would seriously restrict the freedom of action now enjoyed by the "well-to-do"—that is, by all who could afford to pay for an operation. In future they would have to submit to an elaborate process, beginning with two medical certificates, and involving reference to the Ministry of Health, and possibly to the Board of Control, or a special advisory committee of experts. Notoriously, in the sight of a Ministry a thousand years was but as a day, and the loving couple who longed to be united could hardly be expected to await inevitable official delays. It seemed probable that the regulation of voluntary sterilization was doomed to failure. In view of the small proportion of institution cases which would be suitable for sterilization, and the grave risks involved by any form of legislation on the subject, it seemed doubtful whether the recommendations of the report would receive general support.

Dr. C. P. BLACKER, the general secretary of the Eugenics Society, said he found himself in entire agreement with most of the points which Dr. Fairfield had made. The propaganda in favour of legalizing eugenic sterilization would, he said, do more harm than good if it were seized upon by local authorities as a justification for inertia, or if it were interpreted by the general public as a measure likely to save the pocket of the ratepayers. Much confusion also centred around the meaning of the word "heredity." According to the report of the Committee on Mental Deficiency appointed by the British Medical Association, the term "heredity" implied "that in the ancestry of any given case of mental deficiency there has existed a morbid condition of bodily and/or mental development, which may have taken the form either of mental deficiency or of some neuropathic condition, or of some other defect due to damage inflicted to one or other of the germ cells before fertilization." According to this sweeping definition we would be justified in regarding as hereditary a given case of mental defectiveness if it were known that there had occurred in the ancestry of that defective a case of cleft palate in the time of William the Conqueror. Careful scrutiny of recent American and Continental investigations into the heredity of mental deficiency pointed to the conclusion that the more carefully the pedigree was investigated the greater was the importance attributed to heredity as a causal factor, and the larger was found to be the percentage of parents of high-grade defectives who were themselves on the borderline between subnormality and certifiable defectiveness. At the same time, it should be remembered that, though discussions on sterilization continued to focus themselves upon mental deficiency, the recommendations of the Brock report extended far beyond this sphere. The eugenic benefits, in fact, of legalizing the voluntary sterilization of mental defectives would probably turn out to be small, as compared with the results of legalizing it for persons who had recovered from mental disorder and for persons who exhibited or carried mental or physical disease or defect. The results, said Dr. Blacker, of the uncertainty in regard to the present state of the law relating to the sterilization of persons who are *compos mentis* had at present the effect of discriminating against the poor. The legal risk, admittedly small, was willingly taken by

surgeons who operated, in a private capacity, upon paying patients; the same surgeon, however, before operating upon a hospital patient usually found it necessary to obtain the consent of the superintendent of the hospital. This consent was often withheld, partly for fear of alienating Roman Catholic subscribers to the hospital, and partly because, in view of the already long waiting list, many hospitals hesitated to incur the smallest legal risk. Such discrimination between rich and poor was unfair, and it constituted a good argument for regularizing the position for people of all classes by Act of Parliament. In the matter of safeguards, said Dr. Blacker, a course had to be steered between two opposing camps of critics, and, in his opinion, the recommendations of the Brock Committee constituted a happy *via media*. Some safeguards, he thought, were necessary. It was to be remembered that vasectomy was a simple operation, capable of being performed under a local anaesthetic; it took but a few minutes, and necessitated at most a day's absence from work, yet it produced irreparable and irreversible effects. Every new law was exposed to certain criticisms and objections. Dr. Blacker was far from denying that a voluntary sterilization law along the lines of the recommendations of the Brock Committee was exempt from these, but in deciding whether to oppose or to support it the question we had to ask ourselves was: "On balance did the advantages outweigh the disadvantages?" and he believed that in this instance the answer was "Yes."

CORRESPONDENCE

Prescription of Thyroid

SIR,—Your article in the *Journal* of June 9th serves a very useful purpose in drawing attention to the danger of prescribing overdoses of thyroid owing to the confusion between the dosage of fresh gland and dry gland preparations to which you refer. The letters of Dr. W. Martin and of Mr. N. Evers in the *Journal* of June 23rd show there is still some difference of opinion as to the relative strength of the two, but in practice I have found that, as you state, 1 grain of dry thyroid B.P. is equivalent to 5 grains of fresh gland. The dangers and ill effects of continued overdosage are well illustrated by the cases of thyroid addiction described by Dr. S. W. Patterson in the *Journal* of July 7th.

In prescribing dry thyroid it is important to bear in mind the amount of it which is equivalent to the daily output of the normal gland of an average adult. This varies in different individuals, but long experience has shown that in the majority of fully developed cases of myxoedema, in which the gland has become functionless, a daily dose of from 1 to 2 grains is sufficient to restore and maintain good health for many years, so that this amount may be taken to represent the daily quantity of secretion produced by a normal gland. In the treatment of these cases there is nothing to be gained by exceeding these doses. In mild cases of hypothyroidism, in which the gland still supplies a small but insufficient amount of secretion, a single daily dose of 1/2 grain is adequate. When it is desired, as a means of treatment, to raise the basal metabolic rate above the normal level larger doses are necessary, but should be employed under medical supervision, so that the effect on pulse rate and weight and, if possible, on the basal metabolic rate may be observed, and the dose diminished as soon as any ill effects appear. The official B.P. dose is given as 1/2 to 5 grains. The latter is too large, as the continued use of 5-grain doses two or three times a day is apt to produce the symptoms of induced hyperthyroidism observed in Dr. Patterson's cases.—I am, etc.,

Manchester, July 11th.

GEORGE R. MURRAY.

Pyloric Stenosis

SIR,—The interesting article by Dr. H. L. Wallace and Mr. L. B. Wevill and recent correspondence in the *Journal* on congenital hypertrophic stenosis of the pylorus, reveal many points of view on which differences are manifest and results by no means uniform. As one of your correspondents states, team work is essential; the practitioner, the paediatrician, and the surgeon all play their parts, but sufficient stress is not laid by him on the importance of early diagnosis and the part played by the practitioner in making this possible. Valuable as is the assistance of the paediatrician in pre- and post-operative care, the surgeon prefers the infant to reach his hands within, say, ten days of the onset of cardinal symptoms, before wasting has become excessive.

Under such circumstances the mortality should not be more than 5 per cent. As I pointed out in 1927,¹ a group of ninety cases operated on at the Birmingham Children's Hospital had a mortality of 40 per cent. Among these were fifteen "private" patients, none of whom died. These cases were treated in the private ward of the hospital under conditions exactly comparable to those in the general wards, but they differed inasmuch as symptoms had, on the average, only been present for thirteen days in this group, compared with eighteen days in the cured cases from the ordinary wards, and twenty-five days for those who died following operation.

If a palpable tumour is to be a cardinal point in the diagnosis, as we are accustomed to regard it, the examination must be painstaking and prolonged. Its presence clinches the diagnosis, and differentiates cases of pyloric spasm. In the last two years, in cases referred to me by my colleague Professor Parsons, palpable tumour was found by him in forty-one cases out of forty-three. In one case it was definitely not felt, and in the other no note was made.

Radiography appears to be used but little in this country as a routine method of differential diagnosis. In France it appears to be otherwise; Poucel, in his recent monograph,² regards it as a normal and harmless procedure. In Birmingham we regard it as usually unnecessary and not altogether harmless.

Since the commencement of 1930 I have operated on eighty-nine cases to date, with seventeen deaths—a mortality of 19 per cent. This compares favourably with the group of ninety cases which I published in 1927 with a mortality of 40 per cent.; and, though it is undoubtedly true that most of the seventeen cases might have been saved with earlier diagnosis, yet I think great credit is due to those upon whom the responsibility for the initial diagnosis rests—namely, the practitioners—for the improvement in results already manifest in a disease which has only been generally recognized and adequately treated for just over a decade.—I am, etc.,

Birmingham, July 10th.

SEYMOUR BARLING.

Preliminary Ligature in Toxic Goitre

SIR,—There are a number of cases of toxic goitre in which a primary radical operation, even in the best hands and after careful preliminary treatment, is associated with a considerable, indeed an unjustifiable, risk. I refer particularly to cases in which the goitre is large and the patient over 40 years of age. A preliminary ligature of both superior thyroid arteries will almost invariably effect a notable improvement in such cases. I would go further and maintain that the subsequent thyroidectomy should be done in two stages.

¹ *Lancet*, September 3rd, 1927, p. 492.

² Poucel: *La Sténose Hypertrophique du Pylore chez le Nourisson*. Paris: Masson et Cie. 1934.