BOOK REVIEWS

THE PHYSIOLOGY OF THE NERVOUS SYSTEM
J. F. Fulton

(Oxford University Press, London. 1938. 25s.)

It is safe to say that all interested in neurology and the teaching of it have long felt the need of a book dealing with the physiology of the nervous system and its recent advances. To undertake the task of compiling such a book demands fortitude and a wide view of neurology. It is therefore fortunate that such a task has been attempted by Professor Fulton, whose research in the field of neurophysiology is well-known. The product of what must have been many years of careful study—for over thirteen hundred references are quoted—is on the whole acceptable and will be of value to students of neurology. At the same time to a critical worker in any one field many of the expositions in this book will prove disappointing. It is to be hoped, therefore, that in future editions—as there surely must be—a less parochial outlook on certain aspects of neurophysiology will be taken and that a more critical analysis of the various theories will be attempted. For instance, the evidence for humoral transmission has received scant consideration. The classical flavour throughout the book adds to its attractiveness; the clear print makes reading easy, but the binding and cover are unworthy of the matter therein.

PSYCHOLOGICAL FACTORS IN MARITAL HAPPINESS
L. M. Terman


Occasionally amongst the mass of books on psychological matters one attempts to treat the subject in an unbiased manner. This book is to be welcomed as a careful statistical analysis of the answers to a questionnaire given by married couples. That this book is a valuable contribution to knowledge appears to be in little doubt, and all who are investigating the part played by various psychological factors in marriage will be well advised to study it.

A CEREBRAL ATLAS
R. J. A. Berry

(Oxford University Press, London. 1938. £5 5s.)

This work deals with the configuration of the brains of mentally deficient subjects. Short abstracts of the history of the cases with large-sized photographs of the various surfaces of the brain occupy many pages of the book. It is difficult for the reviewer to believe that the value of this atlas as an aid to research in mental deficiency will be commensurate with the energy and time which must have been spent on its compilation.
Several improvements have been made to the third edition of this well-known book. It has been reduced in size by the elimination of historical summaries and of certain details of comparative anatomy. The chapters on the cerebellum have been simplified and something has been added to the description of the hypothalamus and epithalamus. The illustrations of cross-sections of the brain stem have also been improved. But these alterations, though necessary, do little to bring the book up to the standards of modern neurological thought and teaching. It is still too full of obvious mistakes and disagreements with current views.

It is impossible even to summarize these in a short review, but as an instance of gross error, the composition of the normal cerebro-spinal fluid may be cited. The illustrations of cross-sections of the spinal cord do not in every instance correspond to the segments named; for example, that described as first cervical should be second cervical, and that named eighth cervical should be first thoracic. The fibres carrying pain and temperature are described as crossing in the grey commissure, and no touch fibres are said to travel with them. And most unfortunately the authors have chosen Campbell's seven layer description of the layers of the cerebral cortex in preference to Brodmann's description of six layers. The latter is so generally accepted that the American Medical Association accept the terms "3rd layer, 4th layer," and so on without any qualification.

The description of the internal structure of the spinal cord and brain stem is full enough, and with the help of the beautiful plates of cross-sections at various levels, might give a careful student a fair conception of the arrangement of nuclei and tracts, but one misses the clarity of description found in many text-books of anatomy. The reader has to pick up scattered bits of information and piece them together as best he may. For example, the cranial nerves are not described individually, although their position in cross-sections is stated. To obtain a composite image of any one of them the reader has to search the index which is neither full enough nor accurate enough to give him much assistance.

If the descriptions of anatomy are obscure, those of the physiology of the nervous system and the relation of anatomical lesions to disturbances of function are antiquated. Among many instances which might be cited, the control of the internal and external ocular movements is an obvious example. The description of nystagmus in relation to vestibular lesions is limited to six lines, and practically nothing is said relating to the synergic action of ocular muscles or to movements of the pupil.

In the correlation of localized lesions with clinical symptoms one meets many syndromes which, if not hypothetical, must be of the greatest rarity, while others which are common are very poorly described. These chapters abound in mis-statements and in what can only be called bad neurology. For example, the area said to be degenerated in thrombosis of the posterior inferior cerebellar artery bears little relation to what is found post mortem in this condition, tabes is still cited as the typical lesion of the posterior columns although it has been shown that several cardinal tabetic symptoms, such as loss of deep reflexes, are not caused by lesions of the posterior columns. But the fact is that in clinical neurology syndromes due to verified localized lesions are extremely rare and only of theoretical interest. So that attempts such as are made in this book to link up clinical symptoms with lesions of this kind are calculated to confuse rather than to clarify the student's mind.

As a final criticism the index is very incomplete and goes up to page 905, although the book only contains 851 pages. Surely it would only be fair to prospective purchasers of this expensive book if it were completely re-indexed before any more copies were sold.
MIS-MATED

J. F. Peters

(John Bale and Curnow, London. 1938. 7s. 6d.)

This volume develops a theory of temperamental compatibility based on sibling relationships. It is addressed to only sons, younger sons, only daughters and younger daughters by one so conditioned as “to have nothing but disdain for certain types of brothers and elder sons.” The most interesting section deals with lives well known in history and the arts. Headings such as “Men with Dominating Elder Sisters—Revolutionaries—Policemen—Utopians” demand attention; they indicate the factor of family conditioning which the author would stress. Orthodox views of psycho-pathology receive scant attention. Freud, we are told, was dominated by a peculiarly Jewish preoccupation with the relations of parents and children and “for this reason was allowed no influence over the author.” Nor could Adler give him any help. Only for Jungian types has he any use. There are original views that must be provocative—“jealousy has no sexual basis”; again, “the possessive sense is half of human life.” These concepts, however, the author considers to have nothing to do with incompatibility in marriage, which, despite the suggestion of the title, is touched on only after 110 pages. This is a popular work and should stimulate interest in biography.

TEXTBOOK OF MEDICINE

J. J. Conybeare

(E. and S. Livingstone, Edinburgh. 4th Edition. 1939. 21s.)

A fourth edition of this well-known textbook has appeared. To readers of this Journal those chapters dealing with neurology and psychiatry will most appeal. The addition of the section on psychological medicine has much increased the value of this book, which is recommended to all practitioners as giving an adequate and sufficiently detailed survey of diseases of the nervous system.

PERSONALITY DEVELOPMENT AND SOCIAL CONTROL IN TERMS OF CONSTITUTION AND CULTURE

I. S. Wile

(Oxford University Press, London. 1939. 3s. 6d.)

This series of three lectures entitled in turn “Personality in Terms of Constitution,” “Personality in Relation to Culture,” and “Social Control and the Prevention of Personality Disorders” was delivered before the Tavistock Clinic in 1937. It is difficult in the limited time of a short series of lectures to give an adequate account of any broad subject. The scope of the subjects discussed allowed the lecturer to present little more than an outline of the constitutional and cultural factors bearing on personality development, and the points of attack which society is considering or using in the prevention of personality disorders.
BOOK REVIEWS

PSYCHOPATHIC STATES

D. K. Henderson

(Chapman and Hall, London. 1939. 8s. 6d.)

This excellent monograph contains the substance of the Salmon Memorial Lectures given in New York last year. The term "psychopathic states" has been used in its fullest sense to include all those abnormal personalities who fail to make a reasonable adjustment to the exigencies of everyday life, although intellectually competent to do so. They have been divided into the predominantly aggressive, inadequate, or creative. Clinical examples of these types illustrate the various guises of the psychopathic personality, from simple alcoholism to complex syndromes which mimic the cyclothymic or schizophrenic psychoses. Stress is laid throughout on the relationship of the whole organism to its complex environment. The book reflects the accurate observation and human understanding of a wealth of clinical material which is not confined to mental hospitals, but is seen each day in the law courts, medical outpatients of general hospitals, and in the maladjustments of home life. The schemes for social rehabilitation will be considered Utopian by many, but have a topical interest in view of the radical criminal reforms which are in process to-day. All those who try to order the lives of others will read this book with advantage, for it will give "a formulation and a method which appeals to their intelligence and common sense, and which is couched in language they can understand."

EMOTIONS AND BODILY CHANGES

H. F. Dunbar

(Oxford University Press, London. 2nd Edition. 1938. 25s.)

In 1935 with the first edition of this work the authoress did a great service in reviewing knowledge of the interrelationship of psychic and somatic processes in health and disease. Her objective was the presentation of the available material with the minimum of critical comment. The merit of the volume was accordingly in its abstracts and extensive bibliography up to 1933. The second edition does little more to realize the potentialities of the subject; the general text goes unrevised; the additional bibliography is inadequate.

THE TROUBLED MIND

C. S. Bluemel

(Baillière, Tindall and Cox, London. 1938. 13s. 6d.)

This book gives the reader the impression that he is looking through the card-index of a busy consultant. The bulk of it consists of snippets from case histories, all duly ticketed with the initials and Christian name of the patient and strung together with a commonplace account of textbook psychiatry. Owing to this method of presentation, the book is hard to read, though its language is simple and clear. The division into chapters is according to symptoms rather than syndromes. Part I is concerned with Fixed Ideas and Reactions; Parts II and III with the manifestations and causes of psychoneurosis; Part IV with other aspects of the neuroses; and the remainder of the book, a little less than a quarter of the whole, is about mental illnesses.
BOOK REVIEWS

A SOURCE BOOK OF GESTALT PSYCHOLOGY
Prepared by Willis D. Ellis
(Kegan Paul, London. 1938. 21s.)

Many psychologists and psychiatrists have felt the need of a compendious work in which the basic contributions to Gestalt psychology should be collected and summarized. The 35 articles abstracted here cover the active period of Gestalt research, and give a clear insight into the mode of approach so fruitfully employed in Gestalt studies. The tendency to prolixity which has deterred many a would-be reader from persevering with the original papers is not apparent in these summarized versions; the reviewer has found that the rendering is admirably faithful and concise in those papers with which he is familiar in their original form. The final group of papers, dealing with pathological phenomena, contains the well-known work of Goldstein and Gelb, as well as Fuchs's studies in hemianopia, pseudo-fovea, etc., and Schulte's attempt at a Gestalt theory of paranoiac phenomena.

TRAUMATIC MENTAL DISORDER IN COURTS OF LAW
William A. Brand
(William Heinemann (Medical Books), Ltd. 1938. 7s. 6d.)

The "mental disorders" referred to in the title are the neuroses, and the book is intended at least as much for lawyers as for doctors. The writer insists on the psychological factors before, during, and after the accident which gives rise to litigations. He gives, however, only very brief consideration to the commonest traumatic mental disorder, viz. the psychasthenia which frequently follows head injuries, because nowadays the presence of such a condition is not often contested in the courts. From the medical point of view this is a defect in the book.

The author writes from the point of view of a medical assessor in the county courts, and his book will serve to make known to lawyers the difficulties which confront the medical witnesses when cases of neurosis are brought into court, and similarly to explain to doctors the attitude of the legal mind. Useful suggestions are made for dealing with such cases by a more rational procedure than argument in an open lay court.

ANALYSIS OF PARAGASIA
G. C. Terry and T. A. C. Rennie
(Nervous and Mental Disease Monographs, Series 64. New York. 1938. $4.00.)

This monograph presents in detail the psychobiological background and reactions of a group of 77 schizophrenic patients under conservative treatment. Happily it appears at a time when the general interest of psychiatry is focused upon "results" of various forms of "shock" therapy. The term "paragasia" is used in the sense of Adolf Meyer, or, as the authors state, "in order to avoid one-sided bias or emphasis, and an escape from nosological nomenclature." The analysis of the life-histories indicates those factors which seem to contribute most to the inability of these individuals to cope with their environment. This provides a guide for efforts in mental hygiene. Four or five years after the original hospitalization of one to two months, 34 of the cases had adapted to some mode of life outside institutional care. The assets which suggest a hopeful prognosis are summarized and should be of use to those interested in "results." This careful and patient study might well be used as a guide and reference for further therapeutic investigations and critical evaluations.
BOOK REVIEWS

BEITRAG ZUR KENNTNIS SKLEROSIERENDER ENTMARKUNGSPROZESSE IM GEHIRN, MIT BESONDERER BERÜCKSICHTIGUNG DER DIFFUSEN SKLEROSE

L. Einarson and A. V. Neel
(Universitetsforlaget Aarhus. E. Munksgaard, Copenhagen. 1938.)

This monograph is based upon a very thorough examination of the literature and a careful study of six personal cases of diffuse sclerosis. The work is predominantly histological in outlook, and great stress is paid upon the quantitative aspects of pathological histology. The authors distinguish five main forms of diffuse sclerosis: (1) The proliferative type, which has a close relationship to the gliomata. (2) The inflammatory type, to which belong many of the cases described as "Schilder's encephalitis periaxialis diffusa." (3) A non-familial degenerative type. (4) An heredo-familial degenerative type. (5) A special type described by Ballo as "centric sclerosis." The monograph concludes with a valuable review of the various aetiological theories and relationships that have been proposed for diffuse sclerosis, disseminated sclerosis, tuberose sclerosis, and tumour formation. There is a bibliography with 320 entries.

THE GENETICS OF SCHIZOPHRENIA

Franz J. Kallmann
(J. J. Augustin, New York City. 1938. $5.00)

Numerous studies on the inheritance of schizophrenia itself or of the predisposing constitution have been made. Some of the most exhaustive come from the German Research Institute for Psychiatry, directed by Professor Rudin. For many years, the notes in certain German mental hospitals have been kept in such a way that data can subsequently be obtained for investigating problems of heredity and mental disease in the manner planned by Professor Rudin and his co-workers. Dr. Kallmann, though he writes from the New York State Psychiatric Institute, has derived his material and his methods from the German school. The study which he presents is lengthy and, in many ways, very detailed, and he believes that by it he has established some new facts. The book is beautifully printed.

The principle aim of his investigation was to offer conclusive proof of the mode of inheritance of schizophrenia in order to establish a satisfactory basis for clinical and eugenic activities. The material was based on 1,087 schizophrenic propositi: the total number of case histories of this kind available in the Herzberge Hospital of Berlin between the years 1893 and 1902. These cases, according to Dr. Kallmann, were all schizophrenics beyond the possibility of doubt and the disease was manifest before they had attained the age of 40 years. Investigation of their descendants and collaterals was carried out partly by studying the hospital records and partly by personal interview with relatives. The conclusion is drawn that the fertility of schizophrenics is diminished below the normal. Because of this and on account of the late onset of the disease in fertile patients, the sterilizing of all schizophrenics at the onset of their psychosis would prevent the births of only 8.3 per cent. of the total offspring. It is therefore held that, in order to make eugenic measures effective in preventing schizophrenia, the carriers of the condition must be identified and sterilized also.

Dr. Kallmann has little doubt that schizophrenia is to be regarded as a single recessive trait. When both parents of the propositus are normal, 9 per cent. of the brothers and sisters are schizophrenic. This is not as high a figure as would be
expected in a recessive condition, but it agrees with estimates of Luxenburger and Schulz. It is assumed that not every potential schizophrenic manifests the disease: in fact, about one-third are normal. Moreover, a certain number of the supposed carriers of the disease show a schizophrenic type of character. The problem of identifying these carriers for certain is by no means solved. Dr. Kallmann argues that, because the incidence of tuberculosis in the families of schizophrenics follows closely the incidence of schizophrenia, there is a "heredito-constitutional" correlation between the predisposition to schizophrenia and the low resistance to tuberculosis. This association is thought to have its origin in a hereditary functional deficiency of the reticulo-endothelial system. It is doubtful whether this view will find general acceptance.

THE CONTROL OF THE CIRCULATION OF THE BLOOD

R. J. S. McDowall

(Longmans, Green and Co., Ltd., London. 1938. 73s. 6d.)

Within this volume is to be found much that should interest the neuropathologist. Collected together are the early and recent works on the cerebral circulation and the part played by the autonomic nervous system in controlling the circulation of the blood. With its excellent bibliography this is a book which will be valuable to any serious-minded student of the nervous system. It should be available in all laboratories where studies on the nervous system are being carried out.

REPORT ON CARDIAZOL TREATMENT AND ON THE PRESENT APPLICATION OF HYPOGLYCAEMIC SHOCK TREATMENT IN SCHIZOPHRENIA

W. Rees Thomas and I. G. H. Wilson

(H.M. Stationery Office, London. 1938. 1s.)

Since insulin and cardiazol at present dominate the psychiatric scene, an English review of the literature on these two methods of treatment is opportune. The Report by two Commissioners of the Board of Control has the merits and failings of an official document; on the one hand, deliberately uncritical and written without the intimate experience of the procedure which active clinical workers would have, it is, on the other hand, fair, comprehensive, detailed, and well written. The only articles of any consequence not mentioned in the survey, which extends approximately to the spring of last year, are those of the Wilna psychiatrists, whose opinions have been rather adverse. The brief reference to Marzynski's report is scarcely adequate. There are four chapters: the first two are mainly concerned with technique of administration, the third with theories of the mechanism of improvement, and the last with the assessment of results. The passages setting forth diverse theories would have been better omitted, as they are loose and almost entirely unsupported by evidence; the writers, however, are somewhat apologetic about this part of the report, which they have included only as a signpost "for the practical worker, whose opportunities to study theoretical writings may be limited." The main conclusions, with which no one would quarrel, are that "results are encouraging, but the well-known difficulties of statistical evaluation have not been solved; cardiazol appears to be best for stuporose and insulin for paranoid cases."
BOOK REVIEWS

MENTAL NURSING IN OBSERVATION WARDS

I. M. Sclare

(E. and S. Livingstone, Edinburgh. 1938. 6s.)

This book is so unpretentious and practical in its aims that the critic is disarmed; no doubt the nurses of observation wards will be all the better for having learnt what it contains. It abounds, however, in incorrect or misleading statements, e.g. "there is abundant post-mortem room evidence to show that the brain, particularly in its frontal portion, and also the peripheral nerves, are peculiarly susceptible to the action of alcohol" (p. 158). . . . "a normal child has an I.Q. of one" (p. 188) . . . . for "acute confusional insanity" "all the vitamins should be given in excess. There is just the possibility that many of these illnesses are precipitated by vitamin deprivation" (p. 171). . . . "the Unconscious is a concept formed for the purpose of fitting facts, just like the idea of memory is helpful to the psychologist, the idea of the ether to the physicist, or the idea of the molecule to the chemist" (p. 196).

PSYCHOTHERAPY

Paul Schilder

(Kegan Paul, London. 1938. 15s.)

Most of the recent works on psychotherapy contain a vast amount of psychopathology, a modicum of well-worn advice about procedure, and reports of a number of cases, nearly all successfully treated by the author: the whole testifying more to his optimism than to his judgement or knowledge. So far as these are faults, they are avoided in Professor Schilder's work. It is, as these books seldom are, at once intelligent and sensible, and it contains some original ideas, not always well worked out. There are candid and well-informed criticisms of the Freudian doctrine, with which, however, Dr. Schilder is in general agreement, and his comments on the actual share taken by the analyst in the free-association technique are especially valuable. A method of group psychotherapy is described which is still in the experimental stage, but which is of potential importance; psychotherapy cannot remain, as at present, a costly individual procedure, available only to a small proportion of those in need of it: it must be made less time-consuming, either by shortening the number and duration of interviews necessary or by making possible the simultaneous treatment of several patients. There is an occasional sign of a lack of balance in the book: for example, the work of L. Bender is mentioned oftener than that of any other psychiatrist except Freud and Adler; on the whole, however, it is a stimulating and informative work.

PRACTICAL CHILD PSYCHOTHERAPY

Curt Boenheim

(John Bale Medical Publications, Ltd., London. 1939. 10s. 6d.)

This short, well-written book contains many sensible suggestions as to the general and psychological treatment of the neurotic child and also of its parents.

PLAY THERAPY IN CHILDHOOD

C. H. Rogerson

(Oxford University Press, London. 1939. 3s. 6d.)

A brief psychological study of children at play. It bears a strong Freudian flavour.
BOOK REVIEWS

ALCOHOL: ITS ACTION ON THE HUMAN ORGANISM

(H.M. Stationery Office. 3rd Edition, revised. 1938. 1s.)

The third edition of this concise booklet, issued by the Medical Research Council, again attempts, with a considerable degree of success, to correlate scientific knowledge with the education of the untutored observer. It has to some extent departed from the original criteria and modalities, as expressed in the preface to the first edition, but this presumably has been enforced by the fact that few advances have been made on the experimental side since the issue of the second edition. Emphasis is, of course, laid on the nervous and psychological aspects, but no mention has been made of the classical use of alcohol vapour in depression of conduction in peripheral nerve fibres—direct evidence of its action. What new additions are made to the bibliography on the subject are confined to the sections on driving efficiency, to the clinical pathology of peripheral neuritis, to depression of tissue resistance in acute alcoholism, and to the effects of parental alcoholism on offspring.

DIE NEUROSEN DES KINDESALTERS

(Neurosis during Childhood)

(F. Enke, Stuttgart. 1939.)

The author, Director of the Children's Hospital of the University of Vienna, gives a survey of his experiences on the subject during the past 30 years. The recent schools of psychology are neither mentioned nor discussed; instead we are taught in a rather dogmatic fashion that "punishment is indispensable in education" and that "one begins with punishment at about nine to ten months of age, perhaps earlier." The way of slapping the infant is discussed in detail. The various neurotic symptoms occurring in children are described under distinct headings. It is difficult for the reviewer to believe that a mother or a father with common sense will find anything enlightening in the points made by the author. The author believes that children with an aggressive attitude towards their environment may be treated by faradization if medication should prove a failure. In a final chapter headed "Some examples of prescriptions for various neuroses" we are informed which medicines are good for individual neurotic symptoms. There is a political flavour throughout the book which may not meet with the approval of many readers. Certain abstracts are indeed difficult to understand—as, for instance, "the true 'Christianization' of the peoples is by no means completed. One can only hope that this Christianization will make big progress under the influence of Hitler." It is unfortunate that what might have been a valuable scientific treatise is impaired by the inclusion of such statements.

PHILIPPINE PAGANS

R. F. Barton

(George Routledge and Sons, Ltd., London. 1938. 15s.)

In the preface the author states that the book is appropriate only for mature readers. With this statement the reviewer is in entire agreement. Customs of the natives are described in detail and discussed from the psychological viewpoint. To those interested in the sciences of anthropology and psychology this book will prove of value and interest.
SEX CUSTOM AND PSYCHOPATHOLOGY
B. J. F. Laubscher

This work deals with the writer's observations following a psychiatric investigation of the South-Eastern Cape Bantu. He has studied in detail the customs, taboos, rites, and ceremonies of the tribe. To those interested in psychology the book will be of value, but it must have a limited public as its outlook is somewhat narrow. The chapters dealing with mental illness as seen in these natives are of more interest. It appears that the symptomatology is common to that found in white races.

PERSONAL AGGRESSIVENESS AND WAR
E. F. M. Durbin and John Bowlby

This is an interesting book, the contents of which have largely appeared before in "War and Democracy." Much will be found therein to interest the average reader and much to be criticized by psychologists.

ÜBER DEN DIAGNOSTISCHEN WERT DER ZEREBRALEN STEREOANGIOGRAPHIE HAUPTSÄCHLICH BEI INTRAKRANIellen TUMOREN.
(The diagnostic value of cerebral stereoangiography in intracranial tumours).
L. Benedek and T. Hüttl

Dr. Benedek and Dr. Hüttl describe a device for what may be termed rapid stereoscopic skull radiography, which they have been employing upon patients in conjunction with cerebral ventriculography and arteriography. Photographs and a brief description of the machine are given; it appears to combine some of the advantages of the Lysholm skull table with a stereoscopic attachment. The latter consists of two X-ray tubes mounted side by side and controlled by a synchronous time switch. Unfortunately, no diagrams of the mechanism are given, and it is not quite clear from the text how the cassette changer works; but it does not appear that they have solved the problem of a simultaneous stereoscopic exposure which would, in view of the rapid flow of thorotrust through the cerebral vessels, be ideal. The percussion method of Benedek for the localization of the tumours is also described, though again not in great detail. The majority of the book consists of a series of illustrative cases investigated by these methods and is of considerable interest throughout. It is probable, however, that conservative views would prevail in this country and that the performance of arteriography and ventriculography in such a wholesale manner would be somewhat hesitatingly undertaken. The reproductions of the films are excellent, as is the photography of the post-mortem specimens.
BOOK REVIEWS

CLINICAL STUDIES IN PSYCHOPATHOLOGY

H. V. Dicks

(Edward Arnold and Co., London. 1939. 12s. 6d.)

The author in this volume has brought together the results of his experiences in dealing with "neurotic illness." His main interest is towards the study of the cause of such maladies. The view-point propounded is a moderate one. It is doubtful if the continual recitation of the experiences of patients and the author's interpretation of their dreams are really necessary. It becomes very tiresome to read so many case notes. Be that as it may, the book is a valuable contribution to the study of "neurotic illness."

DE INVLOED VAN HET ACHTERSTRENGSYSTEEM OP DE TONISCHE CORTICO-SPINALE INNERVATIE DER EXTREMITEITEN. HET BUIGINGSVERSCHIJNSEL DER Vingers. (The influence of the posterior column system on the cortico-spinal innervation of the extremities. The flexor sign of the fingers)

H. Verbiest

(Eduard Ijdo, Leiden. 1939.)

In certain lesions of the posterior roots, posterior columns, medial fillet, thalamus and post-central gyrus, with an intact motor system, there occurs a "flexor sign" which is associated constantly with loss of sense of position and passive movement. It is elicited by holding the hands vertically, palms towards the examiner, fingers close together and all joints actively extended. There occurs a slow involuntary flexion of the fingers, little affected by closing the eyes, and a sharp extensor recovery movement which can be voluntarily controlled. Analogous movements are described in the feet. The combination of movements is called "athetosoid," resembling athetotic movements in some respects, but differing chiefly in that in the "athetosoid" there is no motor weakness, the movements of stretching can be controlled, the movements are less grotesque and do not occur at rest. In two normal controls with cocainized fingers the sense of position was impaired, but the sense of passive movements was not impaired, and the flexor sign could not be elicited, indicating that the impulses arise in the muscles themselves, and not the joint surfaces. The leg movements are similar to Barré's leg sign in pyramidal lesions and may be taken to indicate an interruption in the afferent ptosis of the cortical reflex arc responsible for voluntary maintenance of a specific position, and Barré's signs as an interruption of the efferent fibres. These observations will be of interest to the clinician and to the physiologist.