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The author of this short book has himself contributed original work in the field of “neurohumoral transmission”, and is still engaged on such research. The problems involved are therefore likely to him, and he succeeds in infusing the book with his own interest. After an historical review of the concept of humoral transmission from Langley and Loewi’s work at the turn of the century, via Dale and Cannon to the researches of Feldberg and his contemporaries, he assesses the evidence for acetylcholine as a transmitter of impulses first in the autonomic system and then at the myoneural junction and in the central nervous system in general. In chapters dealing with cholinergic and adrenergic mechanisms he reviews the evidence for the site and method of action of acetylcholine and epinephrine. Inevitably acetylcholine, which seems to be widespread in many other tissues than the nervous system and which seems able to play some part both in conduction in fibres as well as at synapses, gets the lion’s share of consideration; indeed, the book might almost be called “the role of acetylcholine in nervous activity”. However, Professor Minz presents a fair summary of the sometimes conflicting evidence on such problems as the methods and agents responsible for humoral transmission and the role of electrical as opposed to chemical mechanisms in this field. It is clear, concise, and readable, and will be of value both to students of neurophysiology and to clinical neurologists who wish to refresh their knowledge in this sphere.


This represents a further contribution from the Department of Neuropathology at the Maudsley Hospital to the problem of correlating clinical and other changes with the anatomical lesion produced by operations on the frontal lobes. One hundred and two cases are reviewed of which no fewer than 62 had a full neurohistological investigation. The purely anatomical findings are of great interest and value.

Such facts as the presence of hypothalamic connexions of those parts of the thalamic nuclei which project to the medial orbital and cingular region, and the confirmation of a small direct efferent pathway from the granular prefrontal cortex to the hypothalamus must have implications for normal and abnormal cerebral function. So far as clinico-anatomical correlation is concerned, the evidence, as in their earlier studies, still seems to favour some relation between the quantity of frontal lobe isolated and clinical improvement, though a localizing factor plays some part, since section of dorso-lateral white matter seems to be much less important for recovery than mid-central, orbital, or cingulate. In an appendix of tables, summaries of clinical details and site of lesion are given for each case. This allows the reader to check the authors’ conclusions and to draw others for himself if he wishes.


This edition is approximately half as big again as its immediate predecessor (1948). The chapter on prefrontal leucotomy and its applications has more than doubled in size, and there is a substantial new chapter on the treatment of alcoholic addiction. The bibliography has increased from 134 references to 344—an indication not of omissions in the previous edition but of the large volume of current work on relevant topics which the authors have neatly woven into the pattern of their text.

Happily, the book retains its original form and character, which gave it its appeal and won for it an established position as a practical guide for those who themselves perform the various techniques of physical treatment. The text is thoroughly up to date and includes, for example, brief discussions of treatment by chlorpromazine, acetylcholine, myanesin, and non-convulsive electrical stimulation of the brain. Dr. Denis Hill contributes, as previously, a chapter on the epilepsies, which embodies clear and concise advice on the selection of patients suffering from temporal lobe seizures who are suitable for surgery, as well as an enlarged summary table of the newer anticonvulsants.

It would have been helpful to have had fuller details of the dosage and spacing of penicillin in the treatment of general paralysis.

Some may be surprised to find an apparent leaning towards unmodified E.C.T. as a standard practice, and restricting the use of a general anaesthetic and muscle relaxant in this treatment to special cases. Not everyone will regard the argument in favour of this as being quite as convincing as the statistics quoted may seem alone to suggest, but it may be intended to apply only if the services of a skilled anaesthetist are not available,
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in which case few would dissent from it. The point is
of sufficient importance, in a treatment so widespread,
to merit some clarification in future editions. The
authors might consider it worth while to include some
observations on hypotension as well as hypertension
among the conditions that may indicate special hazards
in E.C.T. However, it is hardly the function of a
review to weigh the pros and cons of authors’ recom-
mendations, but rather to indicate the status, reliability,
and value of the work in question for the purpose which
it sets out to achieve. On this score, there can be no
doubt that “Sargent and Slater”, as it has come to be
known colloquially—one had almost said affectionately,
for it is a most likeable book—continues to be of the
first rank.

Intracranial Gliomata. Some Clinical, Radiological, and
Therapeutic Aspects of 298 Cases. By John Penman
and Marion C. Smith. (Pp. 69. 5s.) M.R.C. Special
Office. 1954.

The cases analysed in this monograph were seen in
a single neurosurgical clinic and radiological treatment
was given either at this or at one other hospital. Thus
all received equally competent diagnosis and surgical
and radiological treatment, and from this aspect form
a very suitable group for study. They have been care-
fully analysed from many points of view, including the
sex and age of the patients, the symptomatology, the
site and nature of the tumour, and the treatment received.
From this analysis the authors draw certain conclusions
which, although rendered tentative by the comparatively
small number of patients, appear to be quite unbiased
and fully justified by the analysis. That they are not
always in accord with modern teaching makes them all
the more important since re-assessment of the results of
treatment of intracranial gliomas is overdue.

The sex incidence of intracranial gliomas was found
to be less strongly biased towards males than in some
earlier series. In childhood males and females were
equally affected, but in the earlier years of adult life
the incidence rose to nine males for every five females.
Epilepsy was a symptom in 43-4% of all cases and in
32-3% was the first symptom; eight out of 11 patients
with oligodendrogiomas had epileptic attacks but in
only half of these were they the first symptom. Headache
was predominantly unilateral in 25% of cases in which
a glioma was confined to one hemisphere, and in 84%
of these cases was on the side of the tumour. Duration
of symptoms before admission to hospital was found to
have no relationship to length of survival after treatment,
but, as might be expected, there was here a close correla-
tion with epilepsy. Of 40 patients with a history on
admission of more than 24 months, 35 had had
epileptic fits.

Operative treatment was, of course, important, and
resulted in apparent cure in nearly 75% of all cases of
cerebellar astrocytoma. In tumours of the hemispheres
the results were less good, and surgery appeared to be
valueless in tumours of the brain-stem and corpus
callosum. An unexpected result of the analysis of
results in tumours of the hemispheres was that length
of survival was more closely correlated to the age of the
patient than to the malignancy of the tumour. Thus
40% of cases with astrocytomas and 20% of those with
glioblastomas survived for more than three years from
the onset of symptoms, but in both types of tumour
59-3% of patients under the age of 40 survived for this
length of time as against only 12% of those over this age.

In assessing the results of radiological treatment the
authors exclude all cases dying within three months of
admission to hospital. The remaining numbers are too
small to permit of definite conclusions. There were
however 21 patients treated by brain puncture (diagnostic
surgery) alone followed by radiotherapy and, of these,
six survived for more than 12 months. Excluding
cerebellar astrocytomas, which did well whether or not
they were treated radiologically, 16 cases were treated
by major surgery alone, with seven survivals for more
than 12 months; 86 were treated both by major surgery
and irradiation with 29 survivals.

Clearly no indication can be gleaned from such small
numbers as to the best line of treatment; this must
still be decided by the nature of the case. The analysis
shows, however, that our knowledge as to the type of
case which is likely to benefit from radiotherapy is still
rudimentary, and justifies the authors’ demand for the
use of more adequate controls in any further assessments
of the value of x-ray treatment.

Diencephalon: Autonomic and Extrapyramidal Func-
tions. By W. R. Hess. (Pp. 79; 33 figures. 25s., 84.00.)
London: William Heinemann; New York: Grune
and Stratton. 1954.

It is possible that, among English-speaking neurolo-
gists, the work of Hess of Zurich is more often praised
than read. This short introductory monograph deserves
a very warm welcome. It summarizes findings already
reported in 122 publications, and promises that the
original material—protocolls, films, and brain sections—
will remain available to interested experts. Stimulation
or destruction of accurately defined regions of the
hypothalamus in the waking and unrestrained cat, by a
refined method, reveals overlapping territories concerned
in autonomic and postural reactions. Of these, the
induction of natural curling up for sleep is still the most
remarkable. From the tectum, movements of head and
eyes, related to the representation of different parts of
the visual field, are excited. “The frequently expressed
hypothesis which coordinates individual signs or func-
tions with individual nuclei cannot be verified”. For
Hess, a nerve centre is “a device to establish connec-
tions. . . . Nervous elements located at very different
levels of the nervous system may constitute a centre.
. . . A centre is represented by series of polysynaptic
connections from among which—under the controlling
influence of the peripheral situation—those connexions
are selected which give the appropriate pattern of a
directed motion”. The theme of the research is the
integration of the autonomic reactions, by which the
internal environment is stabilized, with the somatic
reactions of the animal to its surroundings.

This book is an important addition to the study of the skull in relation to disease. Much of the material presented was collected with great perseverance by the late Professor Willy Loepp, who had a life-long ambition to write a textbook on craniology.

After Loepp's death in 1950 Professor Reinhold Lorenz undertook to complete this study.

In addition to the neurologically familiar aspects of skull radiography, there is a comprehensive account of skull development, defects and faults in growth, the various dysostoses, skull reaction to endocrine disease, to metabolic diseases, and to infection. Skull injuries and intracranial diseases occupy large sections, and special attention is given to intracranial calcification. Diseases of the jaws, nasal sinuses, and teeth all receive detailed consideration.

Modern methods of encephalography have tended to distract attention from the importance of the pure radiographic study of the skull, and this remarkable book will be welcomed as an invaluable work of reference on a very vital part of radiological diagnosis.


In this attractively produced volume we are presented with the collected papers of one of the greatest teachers and clinical investigators of the "phenomenological" school of psychiatry which developed in Germany at the end of the Kraepelinian epoch. The achievements of this school were of great importance, leading to the clarification of concepts, the distinction of pathological processes from modes of psychological reaction, and the provision of refined and reliable methods of diagnosis depending entirely on bedside observation. In this field Gruhle was a leader, and his work was marked by fertility of ideas, an intuitive understanding of the minds of his patients, and a gift for lucid and graphic description. The principal tool of investigation was "Verstehen und Einfühlen", understanding and empathy, which gives the title for the book; used in a self-conscious and self-critical way, it provided the main standard by which pathological mental processes could be distinguished from those which, however abnormal, yet did not indicate disease. The fruits which fell to this work are exemplified by the succession of papers: "The Significance of Symptoms in Psychiatry" (1913), "The Psychology of Schizophrenia" (1922), "Psychopathy and Schizophrenia" (1932).

This collection of his papers, made at the end of his professional life, shows also, what might well have been forgotten, the very wide range of Gruhle's interests and the extent of his contributions outside the range of the psychoses, to the psychology of the normal and the psychopathic, to criminology and forensic psychiatry. The author's very attractive style makes his papers as fresh and lively now as at the time they were written.


British reaction to the resurgence of psychodynamic concepts, especially in U.S.A., has been growing for some time; it will receive impetus from this book. The authors consider that psychiatry suffers from sectarianism, unwarranted attempts to expand its scope, and the danger of being divorced from the parent science of medicine. They plead that "the natural corrective to these unhealthy tendencies is supplied by a return to the bedside and to the discipline of clinical observation".

After reviewing contemporary schools of psychiatry, a multi-dimensional approach is suggested. One of the main differences between this and the Meyerian psychological approach is the emphasis that is laid on the similarities among individuals composing a clinical group rather than on the differences in their personal biographies and the minutiae of the reactions of their personalities. This leads naturally to the search for specificity in causation, symptomatology, and treatment, but does not deny the cumulative influence of non-specific factors and the colouring of specific syndromes by individual personality reactions. Thus are the authors led to speak of scales of reference and dimensions by which causal factors and clinical data can be compared. The reader might be more ready to accept this as the path of psychiatric virtue (or at least one worth trying) if the authors showed more moderation in their criticism of other schools of thought. In this, as in their criticism of British psychiatrists before the First World War, many will think their assertions much too sweeping and not always as well informed as they might have been.

However, when the real core of the book—the description of the various clinical syndromes and guidance about how to manage and treat them—is reached, the authors come into their own, and the reader cannot fail to discern the sure touch and sound judgment of the experienced and knowledgeable clinician.

A sharp distinction is made between personality reactions on the one hand and formal process illness on the other. Thus, various neurotic and psychopathic reactions of most diverse kinds are grouped together in one chapter, whereas affective disorders, schizophrenia (with the paranoid disorders), and many particular organic syndromes are given chapters, or substantial sections of chapters, to themselves, as are the mental diseases of the aged and of children. This tendency to present the subject in part on a basis of clinical description, in part on a basis of age groupings, leads to a certain amount of repetition. The chapters dealing with the marginal territory between neurology and psychiatry are excellent, and there is a compendious account of chemical intoxications and addictions quaintly sub-titled "Pharmacological Psychiatry".

Administrative and legal psychiatry is discussed conceptually rather than in terms of detailed practical instruction, and comparison is made in procedural differences in various countries. There are one or two slips concerning British procedure, for example (p. 548); recommendations, not certificates, are required for tempo-
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ratory treatment, one of the main points of this procedure being the avoidance of certification; and the approved practitioner who is required to sign one of the recommendations need not in fact be a specialist.

The number of plates is unusually large for a psychiatric textbook. They illustrate physique in Kretschmerian and Sheldonian terms; the neurological concomitants, pathological and symptomatological, of some mental diseases; and the grimaces and postures of a schizophrenic. Bibliography is abundant for the text, though not itself inherently compendious.

Psychosomatic disorders do not bulk largely in this book. The authors appear to be more concerned with what medicine can do for psychiatry than with what psychiatry can do for medicine—many will think rightly so in the context in which their ideas are expounded. The finer points of deciding the general strategy in treatment of the individual syndromes are remarkably well expounded, though for the details of the carrying out of treatments the reader is clearly expected to refer to other works.

The authors have succeeded in producing a work that has been needed for a considerable time in Britain—namely, a textbook of psychiatry for psychiatrists. Although they aim at providing for the needs of the student, the general practitioner, and the non-psychiatric medical specialist too, it is undoubtedly the advancing student of psychiatry that this book will make its greatest appeal. Although it is not free from flaws of the kind already indicated, it can only be regarded as a major work of the first class.


During the Second World War five nerve injuries centres were established in Britain as part of the Emergency Medical Service, and in connexion with these centres the Nerve Injury Committee of the Medical Research Council supported a variety of research projects the results of which are described at length in this volume.

The main basis of these reports depends on an elaborate and uniform plan of case recording. This provides a large mass of material for analysis of clinical features such as variations in innervation, trophic disorders, rate of axonal re-growth, degree of functional recovery, and the results of various surgical procedures. In this connexion, the successful results of nerve grafting reported by Mr. Seddon are of special interest. From the Unit in Edinburgh, R. L. Richards reports some important clinical studies on the vasomotor and nutritional disturbances after nerve injury, and a specially authoritative section on neurovascular lesions and on various forms of ischaemic paralysis.

The section on causalgia from Glasgow by Barnes will be read with interest, for it analyses the therapeutic value of sympathectomy, and it is suggested that in causalgia an artificial synapse is established between the sympathetic and somatic afferent nerves. This study is, however, disappointing in that it does not include sufficient studies of somatic nerve block, vasomotor responses, which are now used so much to study abnormal pain thresholds.

From the clinical research point of view some of these reports are disappointing. Perhaps the heavy burden of detailed case recording may have stifled ideas for breaking new ground that must have occurred to the specialists working on the subject. The failure to use an accurate method of muscle strength measurement prevents the adequate study of muscle recovery. The experimental work on the behaviour of denervated muscle is inadequate as regards the study of fibrosis, shortening and response to electrical therapy. The possibility of drugs such as prostigmine influencing the recovering neurone has not been investigated.

In regard to rehabilitation, there must be a mass of information regarding the use to which a partially denervated limb can be put which would be of considerable practical value, but in this regard the degree of functional recovery is little considered. The problem of nerve injuries as they appeared to the Armed Forces is not discussed. The common neurotic complications of nerve injury and the psychological aspects of the rehabilitation of these cases receive little consideration.

However, though there are very obvious gaps in these reports, all who are interested in nerve injuries will welcome this volume as a book of reference to the subject and as a record of a very painstaking and useful wartime organization.


In its limited field, this book is likely to prove a classic. In strict historical sequence the author gives a detailed résumé of all the contributions to the study of neologisms from 1852 to 1936. These works are almost exclusively of the clinical descriptive kind, often with emphasis on their linguistic derivation of the neologisms or neologic systems employed by the patients, and with interpretation along psychological, psychopathological, or psychoanalytic lines. The efforts which have been made at systematic classification of modes of disturbance have not gone very far, and in only the rarest cases was it possible to relate clinical symptoms with brain pathology. The great majority of patients in whose speech neologisms abound, or neologic systems so constant and elaborate as to amount to a new language (glossolalia), have been schizophrenics. The resemblances and differences between schizophrenic speech disorder (schizophrenia) and phenomena shown by the normal, in states of distraction or fatigue, hypnagogic and dream states, by children, primitive races, by hysterics, epileptics, manics, the confused and delirious, and organic paraphasias, have been repeatedly analysed in attempts to define psychological mechanisms. At the end of the résumé of each successive work the author confines his critical comments to a single paragraph, but at the end of the main part of the work he has a final chapter of conclusions of 13 pages.
In this he classifies schizophrenic speech disturbances into neologisms, paralogisms, agrammatisms, paragrammatisms, glossolalia and glossomania; somewhat similar terms may be used to classify disturbances of the written language, and disturbances of mimetic language have so far hardly been studied at all. All these forms of disturbance, it is claimed, may be grouped into those which derive from deficits, and those which are positive and reactive. In the examination of the first, Jacksonian concepts may be employed, it being held that with interference with higher regulatory and inhibitory controls simpler functional forms are released, with such mechanisms as perseveration, contamination, substitution, and mutilation. On the adaptive and compensatory side there is evidence that neologisms are at times manifestations of psychologically much more complex phenomena. Thus they may be used by the patient to refer to experiences, concepts or ideas, occasioned through the psychosis, for which there are no words in normal parlance, or used as a code word to conceal what is being said from imagined persecutors, or used because of an imagined magical power. The playful use of neologisms has also been repeatedly observed. The author proposes, in addition to this duality, a duality of modes of research; the mechanistic, relating speech disturbances with neurology, and the anthropological, relating them with the psychologically primitive, with the speech of children or primitive languages.


Dr. Sachs is particularly well qualified to write a history of neurological surgery; as Dr. Fulton states, he "has lived through and contributed to the heroic age" of this branch of surgery. He provides a living link with the founder of neurological surgery, for in 1909 Dr. Sachs spent two years working with Sir Victor Horsley, and only retired from the Chair of Surgery at St. Louis in 1949.

This book will interest many besides neurosurgeons, for Dr. Sachs has interpreted his subject broadly. There are continual references to the state of knowledge at different periods of time in the basic sciences, and in other branches of medicine and surgery, which enable the reader to keep the particular aspects of neurological surgery in proper perspective. Some of the observations are quite fascinating. Rude craniotomies were carried out in neolithic times, and it seems clear that patients survived although nothing is known of the empirical methods—if any—for avoiding or controlling infection. It may be that bacterial population and virulence have progressed hand-in-hand with human population. The first observations that damage to one side of the head affects the opposite limbs were found in Egyptian records of about 3000 B.C. Dr. Sachs quotes a graphic account of an attack of temporal epilepsy, with descriptions of visual and olfactory hallucinations, and behaviour disorder—"they are passionate and unreasonably peevish"—given by Aretaeus, a Greek physician who lived at Rome during the second century A.D. We learn also that he described the group of symptoms which are now ascribed to lumbar disc protrusion, and subdural haematoma. In the section on modern neurological surgery inevitably the subject matter becomes more restricted to surgery and pathology and deals with the manner in which various problems have been overcome. In his preface Dr. Sachs disarms criticism because he admits to some undue emphasis on the American literature. Nevertheless one would have liked to see a little more credit given to some of the leading British neurosurgeons. The book is liberally illustrated, and a particularly interesting photograph is that of a group of members of the Second International Neurological Congress (1935). It is a pity that the key to this does not include all the names, and that of Lima is applied to the wrong person.

This is a book that can be read with pleasure by all interested in medicine, surgery, and the basic sciences, and its value is enhanced by a large bibliography.


Whether we like it or not, Freud and Marx condition the intellectual climate in which we live probably more than any other two figures of the past century. Of the two, Freud's influence is likely to be the more far-reaching ultimately, and it is therefore a welcome decision of his family, despite his own decided views to the contrary, that material such as family records and letters should be made available for biographical purposes. The present volume contains the lengthy correspondence, extending over some 15 years, of Freud to his friend Wilhelm Fliess, who had a large consulting practice in Berlin but whose medical and scientific interests extended far beyond his specialty as a nose and throat surgeon. The letters are all from Freud to Fliess as Freud himself destroyed all Fliess's letters to him. They form a fascinating and revealing commentary on Freud's intellectual and emotional development, and to a lesser extent on the life of the professional classes in the capital of the Austro-Hungarian Empire in its sunset period. In addition to the letters, there are drafts of Freud's early views on the aetiology of various psychiatric symptoms such as anxiety, melancholia, and paranoia, and a lengthy "Project for a Scientific Psychology". The book therefore certainly fulfills the promise of its title in showing us Freud's mind at work at a time when he was feeling his way towards the comprehensive theory and practice of psychoanalysis. To many, however, its interest will lie in the picture it gives of a man of genius overcoming the difficulties of his own personality and of his environment—the highly organized system of influence and patronage that lay behind the "gemutlichkeit" of Franz Josef's Vienna.


As Professor Bailey says in his introduction, a new monograph on the cerebrospinal fluid is badly needed.
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It is therefore the more disappointing that this book, which looks so promising in its scope and general arrangement, should have so many faults. It contains a large amount of essential information, together with a remarkable collection of curves from colloidal reactions in different neurological conditions. The bibliography also is adequate, if not quite so up to date as might have been hoped. But as a whole the book is marred by a certain confusion in both terminology and thought. Further, dogmatic statements are often made on controversial matters, and frequently without reference to the relevant authority. For example, it is clear from the body of the text that by the "lumbar pocket" (or, as it is printed in one place, the "lumbar socket") is meant the spinal subarachnoid space. Yet in the anatomical section this "pocket" is described as extra-arachnoid. Again, the term "communicating hydrocephalus" is not commonly used in the sense of over-production of cerebrospinal fluid by the choroid plexus. A similar confusion is only too apparent throughout the long and important section on the meningiases. Finally, in the section on methodology no indication is given of the error of the methods described; and in at least one instance—that of the bromide estimations required for Walter's test—the method described is obsolete. In brief, then, this book is useful to those specially concerned with the problems of the cerebrospinal fluid; but for the clinical neurologist it will not supplant the other monographs.


This volume is a collection of essays written by the members of the Anatomical Institute at Oslo in honour of their former teacher, Professor K. E. Schreiner. An important feature of the book is that it is based on a very large extent on the results of the authors' own researches over the last two decades. The afferent and efferent connexions of the cerebellum in particular are treated very thoroughly, and problems of localization within these projections, as well as the relation of cerebellar structure to function, are discussed in the light of recent work based on more specialized techniques. Other subjects dealt with include the morphology of the mammalian cerebellum, the descending connexions of the inferior olive, and the development of the rhombic lip and its derivatives. The extensive and up-to-date review of the literature should further enhance the value of this work as a reference book for all neurologists.


In this small textbook the author first gives the student detailed instructions for dissecting the brain, and at suitable stages discusses the structure and function of the part under consideration. In this way an interesting presentation of functional anatomy is built around the exercise of dissection.


This book of some 400 pages clearly aims at a comprehensive treatment of the subject. It ranges from the embryology of the cerebral blood vessels to the rehabilitation of the patient who has had a stroke. Discussion of such a widespread field inevitably means that some subjects have to be treated with the brevity that suggests dogmatism, and where clinical information is given in tabular form an unreal simplicity is often introduced. Nevertheless, the book contains a great deal of well authenticated information.

The introduction, by way of embryology, anatomy, and physiology before the clinical side is mentioned, is a welcome encouragement to interpret signs and symptoms in terms of the basic sciences. The author clearly believes in vasospasm, and marshals the clinical and experimental evidence in its favour, though he does not really meet the objection that spontaneous vasospasm in apparently healthy cerebral arteries is a less likely explanation than others for some of the "vasospastic" syndromes.

In general this book will be valuable as a reference work (its treatment of the literature is adequate and up-to-date), especially to neurologists who may be unfamiliar with recent work in the cardiovascular field.


This book is the second report of the findings of the Boston Psychopathic Hospital in operations on the frontal lobes for the relief of mental illness. One hundred and sixteen cases are reviewed and the results of three procedures are considered: full bilateral leucotomy, bimedial leucotomy in which only the medial aspects of the frontal white matter are cut, and full unilateral leucotomy. The authors conclude that bimedial operations give the best results in the average chronic psychotic. This is of some interest since the cut must involve the connexions of the cingulate gyrus and some parts of what Papez has called the neurological substrate of emotion. The full bilateral operation seems to be unnecessarily extensive and tends to produce unwanted reduction in drive and initiative, while the unilateral operation gives insufficient relief of such symptoms as tension. However, it is interesting that results suggest there is always some change, e.g., measurable reduction in anxiety, following the unilateral cut, and, so far as the figures indicate, changes are more marked with operations in the right (non-dominant) hemisphere. Evidence also emerges that autonomic changes, especially in blood pressure and pulse rate, usually follow these procedures which tends to confirm the view that the frontal lobes are concerned with autonomic function. Clinical, physiological, psychological, and sociological studies were all used in assessing results and the book contains many useful facts, but the style is turgid and it is difficult to read.

This book comes from the late Professor Ranson's Anatomical Institute at the North-Western University and therefore carries a certain neuro-anatomical imprimatur. It contains the anatomical findings following 70 discrete localized lesions at varying points of the frontal cortex of Macaca mulatta, and the author's claim to have presented the most detailed set of observations that have ever been accumulated on the connexions of the frontal cortex is probably justified. The topographical nomenclature used is that of Brodmann and the Vogts, with further sub-areas defined by the author.

The book contains a large mass of anatomical facts which are likely to be of direct value to the specialist, and also to suggest possible correlates with the human brain for the clinician. In this connexion the preponderance of backward (parietal) over forward association fibres from frontal areas is interesting, while the absence of any cortical connexion with the caudate nucleus, putamen, or pallidus is worth noting. All the evidence is derived from Marchi studies, and no use was made of other stains, particularly the various modifications of the silver techniques now generally employed. The illustrations are a special feature of the book, particularly the author's method of portraying his findings from serial sections as a transparent three-dimensional reconstruction of the part examined.


This monograph is based on the author's experience of fractures and fracture-dislocations of the spine, on a total material of over 400 cases, 51 of which resulted in paraplegia.

In the first chapter of the monograph, the author deals with the anatomy and physiology of the spine, the mechanics and classification of vertebral injuries and their pathology affecting the various levels of the spine.

In the second chapter, which represents the most important part of the book, the author gives details of the pathological changes of both the osseous and cartilaginous structures of the vertebra, occurring during the various stages of repair, following spinal injuries. Particular attention is paid to the traumatic changes of the intervertebral disc, in relation to callus formation of the vertebral body. This chapter is particularly well illustrated with photographs of anatomical preparations and radiographs.

In the following chapter, which deals with the treatment of spinal injuries, the author's approach to spinal injuries, both with and without cord involvement, is conservative. He obviously does not agree with the method of closed reduction, as advocated by Boehler as the method of choice in the treatment of these injuries, and he emphasizes the dangers of this method in causing paraplegia or increasing neurological symptoms, which, at the time of injury, were only slight. As far as surgical procedures are concerned, he is not in favour of internal reduction and stabilization of the broken spine by graft (Albee), and no mention is made of the method of internal fixation by metal plating. Laminectomies are considered unnecessary in most spinal injuries with cord involvement. With regard to treatment of traumatic paraplegics, he refers to the progress made in this respect in England and advocates the establishment of spinal centres in Germany.

The last chapter deals with the legal aspects of spinal injuries involving the normal spine, as well as those of the abnormal spine caused by congenital, infectious, degenerative, or vascular processes.

This book can be recommended to everyone who is interested in traumatic disorders of the spine.


This book is based on the clinical material of the Johns Hopkins Epilepsy Clinic and is therefore to some extent a companion volume to E. M. Bridge's "Epilepsy and Convulsive Disorders in Children". The present work is, however, directed especially to a general practitioner audience and does not therefore carry much of the authoritative information that makes Bridge's book invaluable for reference to neurologists and paediatricians. Even allowing for its intended audience, the book seems unsatisfactory in mentioning too many subjects too briefly. This is especially marked in the section on "Social Management". Again a wide variety of drugs is mentioned but sometimes so shortly that no idea is gained of their possible place in the treatment of a given case. The dangers and difficulties occasionally met with in the established case of status epilepticus seem unknown to the author. The results claimed for the ketogenic diet are rarely achieved in this country, probably because it is not pursued so consistently and thoroughly as in the cases reviewed.

A more fundamental criticism is of the author's use of terms. He considers cryptogenic or idiopathic epilepsy separately from secondary epilepsy due to proven brain damage or disease but then discusses a third group of "disorders simulating epilepsy", such as breath-holding attacks, febrile convulsions, hypoglycaemia, etc., all of which may lead to a symptomatic convulsion through similar physiological mechanisms to those involved in his secondary epilepsy. In a further chapter on "Precipitating Factors" the influence of sleep, emotional upset, fatigue, fever, water balance, are mentioned in relation to cryptogenic epilepsy. However, these features may also trigger "secondary epilepsy", while some of them could just as well be considered as "disorders simulating epilepsy".

These structures do not apply to the chapter on electroencephalography, which forms an excellent and well-balanced introduction to this subject, useful for general practitioners, students, or medical specialists unacquainted with the technique.
BOOK REVIEWS


"Mental hygiene begins in the cot", concludes the author, but this book in support of his conclusion seems to fall between two stools. On the one hand he sets out to provide a lengthy description of the developmental stages which are seen in the baby from birth up to the beginning of the third year, together with the tests by which these may be recognized; on the other, to argue that some aspects of mental illness, notably schizophrenia and depression, have their origins in infantile problems of maturation. These two themes get rather involved and the argument is difficult to follow in places.


The author is the editor and publisher of the well-known periodical The Nervous Child and is a practising child psychotherapist. He was trained in Europe under Kraepelin before he came under the influence of Freud, Adler, and Jung, and it is principally from Kraepelin and from Jung that his basic ideas are derived. The result is a book which is highly interesting, original, simply written, temperate, and free from fanaticism.


The term psychosomatic medicine suggests an attempt to integrate psychic and somatic factors in disease; but the attempt runs into difficulties similar to those that have always beset the relationship of mind and brain. Psychosomatic medicine has avoided the difficulty by developing simply as an extension of psycho-analysis in which somatic symptoms are considered as manifestations of a psychopathology. This has certainly not achieved much integration, and has made the subject rather lop-sided. In this book a welcome tendency to correct this concept can be seen. It consists of 25 articles by 28 authors. Their quality is uneven. Those which deal with research and experimental approaches and with the possible cerebral mechanisms involved in psychosomatic reaction have a freshness and interest which are lacking in the more purely clinical discussion.

The concept of psycho-social disease is briefly discussed. The problem of specificity of psychosomatic disease is considered, but only to be dismissed since "deep analysis leads . . . to the common origin of the neurotic process" and "seemingly sharp differences in symptoms are relatively superficial vagaries". However, the problem has some practical importance—the difference, for instance, between migraine and ulcerative colitis as psychosomatic reaction patterns involves a considerable difference in morbidity and even mortality. Unfortunately, the style of writing, quite apart from the use of technical jargon, is at times verbose, prolix, and wearisome.


The subtitle of this work, "Principles of Psychiatric Genetics in the Light of Comparative Twin Studies", gives a better idea of its contents than the main title. The author is a clinical psychiatrist who has devoted his life to the investigation of problems of psychiatric genetics, using the method of studying twins and their families as his main tool. His work was honoured by the invitation to give the 1952 series of Salmon Memorial Lectures, which have now appeared in the present book form.

In effect, the book is designed as an introduction to psychiatric genetics suitable for study by the medical student and the medical and psychiatric clinician. It is divided into three parts, the first giving an elementary exposition of genetics and the methods of genetic study suitable to man, the second part an account of the results attained, and the third a discussion of the significance of genetics for mental health planning. It is in the second part that the author is particularly at home, and the part which will be most valuable for the majority of readers.

The importance of genetic aetiological factors in practically all psychiatric disorders can hardly be overstated. The author is in a position to provide detailed discussions from this point of view of the psychopathies and neuroses, manic-depressive, schizophrenic, involutional, and senile psychoses, convulsive disorders, and mental deficiency. In some of these conditions his own work provides the most important contributions we have. To list only some of the most significant figures, Kallmann has found that the concordance rate in uniovular twins, i.e., the proportion of cases in which both members of a twin pair were found to suffer from the same illness, was in male homosexuals 100%, in manic-depressives 100%, in schizophrenics 86%, in involutionals 61%.

The book is profusely illustrated with tables and figures and photographs of twins, the last being particularly interesting when the author is discussing the significance of bodily constitution.

This psychiatric and statistical study of a large Swedish rural population is a valuable book of references for anyone undertaking surveys of the kind described. The list of the references together with the notes of methodology are valuable in themselves. Two criticisms may be made forthwith: first, in regard to the title, it is hardly possible to conduct a methodological study of a population; here and there too the text bears the mark of translation, but these criticisms together with certain points in the arrangement (for example, separation of the summary and conclusion would have made for easier reference) should not be allowed to obscure the essential value of the data collected. It has been collected with great care, and covers 45 years of registration in a partially closed community with about 25,000 inhabitants, among whom 1,312 cases of psychosis, severe psychopathy, low-grade oligophrenia, and suicide were found by going through the 13 relevant parish registers for the years 1900 to 1944.

The results are to be published in two parts: the present part deals with methods, the representativeness of the sample, results concerning age of onset of disease, time in hospital, mortality, morbidity risks in the general population, and the frequency of consanguineous marriages. No significant increase in the frequency of first-cousin marriages was found between the parents of psychotics, but there such was an increase among the parents of oligophrenics.

The second part of the report will deal with the results of family studies, in particular the morbidity risks for parents and sibs, and will give the clinical and genetic analysis of the material.

BOOKS RECEIVED

(Review in a later issue is not precluded by notice here of books recently received.)


