pathology and radiological features and interpretation, giving an excellent survey of the present position of x-ray diagnosis in these regions. It is good to see close collaboration between the radiologist and a neurosurgeon in the section on the central nervous system, which by the way forms half the volume. The paper, printing and the illustrations, of which there are 439, are excellent. It is an authoritative book which should be in the hands of every radiologist.

R. N. C.

SURGERY OF THE SHOULDER.—By Anthony P. Depalma, M.D. 1950. J. B. Lippincott Company, London, W.C.2. Pp. xix plus 438 with 454 illustrations. Price, £7

SURGERY of the shoulder joint received great impetus from the work of Codman and as Mr. Depalma says in his preface 'No one has done more to extract from the vague symptom-complex—"the painful and stiff shoulder", the numerous heterogeneous entities which it comprises'. This work is an exhaustive monograph on the surgery of the shoulder and the neighbouring joints and structures. In the manner of its presentation and the meticulous detail in which the subject has been approached and dealt with, it resembles Bunnells' treatise on 'the surgery of the hand'. It contains all the most recent advances in anatomy, physiology, pathology and the treatment of the various conditions affecting the shoulder joint and the neighbouring areas and it is far ahead of most of the standard books on the subject.

There is good deal of original thinking and observations in the chapter on the anatomical variations and degenerative lesions and there are many valuable additions to our present knowledge of the subject. The controversial subjects of bicipital tenosynovitis, frozen shoulder and recurrent dislocation of the shoulder joint, etc., are dealt with exhaustively and in a masterly way. There is a chapter on bone tumours of the shoulder joint which contains large numbers of beautiful skiagrams and microphotographs. The various operations are illustrated in detail and leave very little to imagination.

The style of writing is refreshing and, unlike most American reference books, the sentences are short, to the point, and one is not lost in a maze of words.

Altogether this is a book of a very high order which every surgeon interested in the subject should possess.

A. K. B.

A SYLLABUS OF LABORATORY EXAMINATIONS IN CLINICAL DIAGNOSIS.—By Thomas Hale Ham, B.S., M.D. 1950. Published by Harvard University Press, Cambridge, Massachusetts. Pp. xii plus 496. Illustrated. Price, \$4.50

THIS syllabus was developed as a part of the course in laboratory diagnosis in the Harvard Medical School and is now published at a low price (made possible by lithographic printing) so that it may have a broader usefulness. It describes the laboratory procedures in the study of the patient and discusses them from the following points of view: pathological physiology, their clinical value, limitations and interpretations and as diagnostic aids. Suggestions have also been made to aid in the planning of laboratory tests so that the physician may proceed from the simple screening tests to the more complex procedures. A little less than half the volume is devoted to blood and the rest is on urinary system, gastro-intestinal tract, infectious diseases, diseases of metabolism and extravascular fluids (transudates and exudates). This book will serve the

purpose for which it is intended, viz, as a teaching aid to medical students and physicians in the diagnosis and management of the patient, and is specially welcome as showing the latest methods and practice in a famous school.

R. N. C.

RECENT ADVANCES IN CHEMOTHERAPY.—By G. M. Findlay, C.B.E., Sc.D., M.D., F.R.C.P. Vol. II. Third Edition. 1951. Published by J. and A. Churchill Ltd., London, 104, Gloucester Place, London, W.1. Pp. ix plus 597. Price, 36s.

THE second volume of Dr. Findlay's book is devoted entirely to the chemotherapy of malaria. It describes all the important advances in malaria chemotherapy that have taken place during the last ten years. Beginning with the biology of malaria, the chemical approach to antimalarial compounds it describes in detail, their pharmacology, mode of action, toxicity, drug resistance, immunity and treatment. There is a useful list of references on each chapter. It is a lucid and instructive account of progress in the malaria field which should be helpful to malaria research workers.

R. N. C.

HOW TO LOOK AT ILLNESS.—By Dr. Norbert Glas, M.D. (Vienna), L.R.C.P. (Lond.), M.R.C.S. (Eng.). 1951. Published by New Knowledge Books, 28, Dean Road, London, N.W.2. Pp. 48. Price, 3s.

THE theme of this book is that the body is built by the parents in accordance with the laws of genetics, but the soul comes from outside to occupy it. Only by degrees is the former made fit for the latter.

Children's diseases cast out the unwanted portions of the body in the form of discharges and scaling of the skin. Later in life headache, etc., bring about further adjustment by making the soul activities—*thinking, feeling and willing*—work together in harmony.

In a child the soul is not yet in full possession of the body and in old age it has partly left the body: hence the clumsiness of movements in both cases.

'The understanding of Karma alone makes it possible for us to comprehend the course of an illness in the right way, and to understand that in our present life we see the Karmic effects of our previous life.'

Such are the thinking, feeling and willing of the writer based on the writing of Dr. Rudolf Steiner.

'Immunization without sound and healthy methods of education results in pushing the growing child too deeply into the forces of heredity instead of helping him or her to overcome these influences in the right phase of childhood.'

Idle speculations even for the lands of Karma!

S. D. S. G.

PAIN AND ITS PROBLEMS.—Edited by Sir Heneage Ogilvie, K.B.E., D.M., M.Ch., F.R.C.S., and William A. R. Thomson, M.D. 1950. Eyre and Spottiswoode (Publishers), Ltd., 15, Bedford Street, London, W.C.2. Pp. 194. Price, 12s. 6d. net

THIS is the latest recruit to the 'Practitioner' handbooks and it consists largely of material contained in a series of articles contributed by invitation in that excellent periodical by 19 distinguished authors. These have now been expanded and further chapters added, under the editorship of Sir Heneage Ogilvie and Dr. William Thomson.

Great stress is laid on physiology and an excellent account is given of modern experimental work. After reading the articles by the President of the Royal Society, Dr. Gordon Holmes and the late Professor McSwiney, I venture to think that there will be but few clinicians who will not feel that their theoretical knowledge has received a very salutary brush-up. It is hard to pick out any chapters as being better than others, as they are all so good, but that on Abdominal Pain, by the Surgical Editor, Headache and Pain in the Nervous System, by Sir Charles Symonds and the Principles of Treatment, by Mr. Harold Balme, seemed to stand out for the clarity of their expression, all being written in the style of an essay. In contrast are Lord Moran on the Meaning and Measurement of Pain and Mr. Gerald Jack on Dental Pain. The former is, as it were, an informal chat to senior students on how they should start thinking about a pain, when they meet one; while the latter is so precisely tabulated that the varietal tyro armed with this book should be able instantly to diagnose and apply the correct emergency treatment to any form of pain in the teeth.

In the cardiovascular system, Dr. Evan Bedford is, perhaps, a little disappointing on Cardiac Pain, in that he writes at length on its aetiology and differential diagnosis, which is well covered by textbooks, and virtually nothing on its treatment; on the other hand, Pain in Peripheral Vascular Disease, by Mr. Slessor and Sir James Learmouth is a most able up-to-date review of the scope of the various types of therapy in these disorders, which, after all, do so often show themselves by pain. As for the contents of the other seven chapters, covering the remaining systems, I can only advise the curious and those to whom the basic understanding of such a universal symptom appeals, to get this book and see for themselves.

R. L.

Abstracts from Reports

INFECTION AND SEPSIS IN INDUSTRIAL WOUNDS OF THE HAND. BY R. E. O. WILLIAMS AND A. A. MILES (ASSISTED BY BARBARA CLAYTON-COOPER AND BRENDA MOSS). MEDICAL RESEARCH COUNCIL: SPECIAL REPORT SERIES NO. 266. PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE, LONDON. 1949. Pp. 87. PRICE, 1s. 6d.

This is an interesting study of the bacteriological aspects of wound infection carried out in Birmingham Accident Hospital in 1942-45, during which large numbers of wounds were observed and treated from the day of injury. The enquiry was specially directed to find out the channels through which bacterial contamination took place and the methods of prevention. *Staphylococcus aureus* and *Streptococcus pyogenes* were of course responsible for the majority of cases of sepsis, but the mode of their entry is interesting. It was found that a large proportion of those examined carried staphylococci in their nose and that these carriers constantly contaminated their own skin which accounted for the high incidence of this kind of infection of wounds. On the other hand, streptococcal contamination, being rare in normal skin, was less frequent and was acquired later from hospital environment (cross infection). The report also records the various methods in prevention and treatment. It was clear that wound

infection could be diminished by thorough cleansing of the wound and surrounding skin, saline being no less effective for this purpose than a solution of bactericidal detergent, and that 'added' or 'hospital' infection could be reduced by aseptic dressing routine.

The authors, R. E. O. Williams and A. A. Miles (assisted by Barbara Clayton-Cooper and Brenda Moss), have produced a painstaking work on a common but important subject presenting data on which surgical practice can be based. We recommend the report particularly to factory surgeons anxious to reduce loss of man-days due to sepsis from cuts and other trivial wounds.

R. N. C.

Any Questions

TUBERCULOSIS: EXUDATIVE AND PRODUCTIVE

SIR,—What is (a) Exudative tuberculosis and (b) Productive tuberculosis? (c) How can they be distinguished clinically? Are both processes active? Are they acute or chronic?

Yours faithfully,
K. A. SHAH.

- (a) is active tuberculosis, infiltration of the lung predominating.
- (b) is formation of fibrous tissue before or after caseation possibly healing.
- (c) Difficult, if not marked.
- (a) is usually acute, and (b) chronic. Both (a) and (b) may be present.

R. N. C.]

ANIMAL PROTEIN FACTOR

SIR,—What is the animal protein factor? Please give detailed information with some references.

Yours faithfully,
K. A. SHAH.

AHMEDABAD.

[The term animal protein factor is used in the broad sense to include those factors which occur primarily in animal products. Thus vegetable protein concentrates, such as soya bean meal, are extremely low in these unknown growth factors, while animal protein concentrates, e.g. fish meal, liver, milk, are excellent sources—hence the name animal protein factor. The factor, or it may be factors, are essential for growth and proper nutrition of different animal species like chicks, rats, etc. The factor was recognized by J. C. Hammond (*Nutr. Reviews*, 4, 116, 1946) in studies of chick growth. Recent evidences indicate strongly that vitamin B₁₂ and the animal protein factor are identical. The chick growth response of this vitamin was similar to the unidentified animal protein factor (Lillie, Denton and Bird, *J. Biol. Chem.*, 176, 991, 1948). Thus it seems clear that A.P.F. and vitamin B₁₂ are either identical or closely similar. The work of Verma and co-workers, on anaemia and malnutrition in a group of 800 South Indian Army recruits, adds one more item of evidence for the presence of the elusive 'animal protein factor'. It was seen that a supplement of meat gave the best gain in weight, much more than milk