for the effect of extreme hypertension on blood vessels and tissue, and of the painstaking testing and eventual verification of the hypothesis by a series of experiments on rats with renal hypertension. The basic theme is that fibrinoid necrosis in arterioles is a direct effect of high blood pressure on vascular walls. When blood pressure is raised arterial constriction occurs to maintain the relationship of pressure to resistance at a constant level, thus ensuring a constant flow. Since resistance to viscous flow varies inversely with the fourth power of the radius, a small degree of vasoconstriction in the arterioles is sufficient to offset the large increase in pressure. However, the tension generated in the vessel wall as a result of vasoconstriction varies directly with the first power of the radius, so that the physical stress in the walls of hypertensive vessels may be considerably increased. At extreme levels of hypertension there is marked vasoconstriction but in some areas the metabolic reserves of peripheral vascular tone are exhausted, so that after chronic increase in tension weaker regions may give way. Oedema and leakage may occur at areas of dilatation.

Simply and logically, and with great modesty, the author describes the results of years of patient experiment and meticulous technique, marshalling the evidence for and against his hypothesis. In so doing he has produced a remarkable work of medical scholarship which all clinicians and research workers will admire and which few will equal.

DISORDERS OF HIGHER NERVOUS ACTIVITY Volume 3 of *Handbook of Clinical Neurology* Edited by P. J. Vinken, G. W. Bruyn, Macdonald Critchley, and J. A. M. Frederiks. (Pp. x + 443; illustrated; price not stated.) North-Holland Publishing Co: Amsterdam, 1969.

The characteristic trend of modern neurology is an attempt at incorporation of the recent rapid advances in knowledge of the physiology and chemistry of the nervous system into clinical practice. Undoubtedly the advances in electrophysiology, histochemistry, and clinical chemistry have been great. Even a 'young Turk' must feel that the major advances have been at the periphery of the nervous system, so it is surprising that this book comprehends a volume of clinical, psychological, and even experimental data bearing on some of the higher functions of the nervous system which could not have been written 20 years ago. The editors of this ambitious handbook were caught unawares and have had to divide the projected volume of neuropsychology into two, leaving aphasia and kindred subjects to volume 4.

Volume 3 contains 21 chapters by well-known authorities starting with an introduction by Critchley (perhaps more appropriate for the later volume) and ending with a long chapter by Luria and colleagues on restoration of higher cortical function after local brain damage. Between these outstanding chapters are others of localization of mental functions, consciousness and attention, coma and sleep, orientation in space and time, memory, intelligence, and emotion. They range from brief reviews supported by a bibliography to definitive monographs. The quality is not necessarily related to the length. Some are frankly poor and of little value to the practising neurologist; others are

outstanding reviews. If the clinical scientist sometimes longs for evidence in place of assertion and controlled trials to distinguish therapeutic benefit from natural recovery, there is no doubt that careful study of this book will make many young men ask themselves if British neurology is being too neglectful of the higher functions of the nervous system.

J. A. SIMPSON

HANDBUCH DER KINDERHEILKUNDE Vol. 8, Pt. 1: **NEUROLOGY—PSYCHOLOGY—PSYCHIATRY** Edited by F. Schmidt and H. Asperger. (Pp. xvii + 1,060; 332 figures. DM 385; \$96.25.) Springer: Berlin, Heidelberg, New York, 1969.

This book forms part of Volume 8 of a nine-volume *Handbook of Paediatrics* and is not intended to stand on its own, containing as it does cross-references to other volumes. Nevertheless, the book provides an impressive account of the neurology and psychiatry of childhood. In the larger section on neurology, there is an introductory section on the basic principles of history-taking, clinical examination, the diagnostic methods in paediatric neurology as illustrated by the assessment of the brain-damaged child. This is followed by an account of the normal development of the skull and brain, after which there are sections dealing in detail with diseases of the nervous system in childhood. These are grouped under the general headings of developmental anomalies of the skull, prenatal and neonatal anomalies and diseases, degenerative, inflammatory, and vascular diseases, damage to the nervous system by physical agents, disorders of the autonomic nervous system, and a chapter on fits in childhood. The second section on psychology and psychiatry starts with a description of normal psychological testing. Disturbances of psychological development and maturation, behaviour disorders, childhood psychoses, and speech disturbance are described, followed by a chapter on psychiatric examination and psychotherapy. The book concludes with a thoughtful chapter on the psychological situation of the child in hospital.

There are more than 30 contributors to this book, and by and large, the difficulties inherent in such multiple authorship have been satisfactorily overcome. The inevitable delay between the completion of the individual contributions and the final publication of the volume does not appear to have excluded references to up-to-date sources in the literature, some of the papers quoted in the extensive bibliography being as recent as 1969. The book has been produced to the high standards one expects from Springer-Verlag and provides a definitive work of reference on paediatric neurology and psychiatry.

J. B. STANTON

NEUROGENE BLASENSTÖRUNGEN Edited by M.-L. Allert, M. Bressel, and J. Sökeland. (Pp. viii + 78; 34 figures, 5 tables. DM.12.) Thieme: Stuttgart, 1969.

The chief regret one has on reading this report of a symposium on neurogenic disturbances of the bladder is its shortness. Guttman reports on the treatment of a new case of paraplegia before reflex emptying of the bladder occurs, as it is practised at Stoke