lished research. The areas of research covered include biochemistry, sociology (a most stimulating paper by George Brown), epidemiology, motivation of research workers and the quality of their work (an original and fascinating paper by John Cooper), mental handicap, child psychiatry, clinical research generally (a thoughtful paper by Robert Kendall), psychogeriatrics, behavioural and dynamic psychotherapies, pharmacology and neuropsychiatry. Finally Sir Denis Hill and Peter Sainsbury consider research in academic and hospital (and community) settings respectively. Some of the discussion after each paper is also recorded: this is of rather more variable quality.

The editor is to be congratulated on the speed of publication and the book is recommended reading for anyone interested in (and especially anyone contemplating) psychiatric research.

JL GIBBONS

Neurological Examination in Clinical Practice, 4th ed By Edwin R Bickerstaff (pp 339; £18) Oxford: Blackwell Scientific Publications, 1980.

When this book first appeared in 1963 the Midlands tradition of Stanley Barnes became part of contemporary neurology. It was careful and painstaking and laced with wisdom and wit, a guide to the grammar and syntax of practical neurology for the aspirant to consultant medicine. The reader cannot dawdle: before he has picked up *his* hammer and ophthalmoscope—not the vintage tools of fig 1—his work has begun. The step and the voice, even the time and manner of arrival, of some unseen patient have their message for him; and sometimes the clamour and commotion warn him of the extremes of neurology —the very ill and those who think that they are very ill. Step by step the author takes his readers through the niceties of history and examination, illustrating by word, diagram and picture almost every movement which the doctor and his patient must make. Where the patient fails, there is a comment always, an inference often, a diagnosis sometimes.

Why should this change in 17 years? Despite the demands of publisher and public for a new and bigger edition, the essential Bickerstaff remains. His claim that diagnosis has been "transformed by one particular new technique," CT scanning, belies the clinical skills of which he is an acknowledged master; more soberly he writes that scanning "has brought to intracranial diagnosis a new dimension" but unfortunately restricts comparison with earlier methods to arteriography. An unforeseen complication of CT scanning may be the disappearance of radiologists versed in air encephalography, still the most sensitive probe of the secret places of the skull. Although the chapters on laboratory and ancillary investigation are deliberately superficial, they form a well executed guide to the selection, quality and depth of such tests and are a useful complement to the clinical sections. Of the brilliance, range and penetration of these latter none can complain.

Over-emphasis is a subtle fault. Dr Bickerstaff's statement that "by the time the history is complete, the physician should be three-quarters of the way towards the diagnosis" belittles the examination—the title and subject of his book. He keeps a style and idiom which are slightly artificial in 1980. Pupils react to light and are seen to constrict and converge but accommodation is invisible at the bedside: the near reflex or response, or the near triad, are better terms. Pulsation of the retinal veins, visible in most healthy subjects, is not mentioned as a sign of *normal* intracranial pressure. Rapid saccades, to command, in vertical and horizontal planes accentuate minor defects of ocular motility and the "onion skin" pattern of trigeminal analgesia is a classic sign of syringobulbia: neither is listed in the sections on the cranial nerves nor does the dramatic sign of mirror movements, indicative of spinal or medullary dysraphism, appear in the appropriate chapter. An account of muscle function with over 40 pictures showing the action of individual muscles and the method of testing them has an exceptionally wide appeal: in casualty, in the surgery, in the recovery room and in the orthopaedic clinic as well as in neurological practice. It is, therefore, unfortunate that the spinal root derivation of the obturator nerve (fig 52) has been confused with that of the superior gluteal nerve (fig 53). The error is not total as adductor magnus has an additional supply from the sciatic nerve, thus enabling it to act as synergist to the hamstrings. An account of the differential response of myasthenic muscles to anticholinesterase and the control of therapy by serial edrophonium testing would enhance the value of this chapter.

Persisting with the vocabulary of aphasiology which was popular in 1963 the author has overlooked the needs of his readers in the Americas and in the Far East (his book has been translated into Japanese) who will be familiar with the phraseology of New England. However much he abhors the new "cartographers" of higher intellectual activity, he could have discussed with advantage fluent and non-fluent aphasia and the role of the arcuate fasciculus and other such bundles in disconnection syndromes The chapter on the autonomic nervous system is the least satisfactory in the book, a deficiency reflected in his retention of a formal bibliography. Recent events may encourage him to include a note on brain death in the fifth edition. Meanwhile the fourth will rank high in students' reading lists round the globe.

CHARLES WELLS

The Diagnosis of Stupor and Coma, 3rd ed By Fred Plum and Jerome B Posner (pp 373; $22.00, £12.76) Philadelphia: F A Davis Co, 1980.

When the first edition of Plum and Posner's monograph on *The Diagnosis of Stupor and Coma* was published in 1966, obviously it was destined to become a classic. That edition contained nearly 200 pages; the present volume has double that material. The clarity of the original exposition on the pathophysiology and clinical features of different causes of coma remains a model of medical writing. Many a casualty officer and embryo neurologist or neurosurgeon will have had occasion to thank these authors for their guidance on difficult cases of "undiagnosed coma." But this book has always been more than a reference source, for it has laid down a logical framework for approaching the comatose patient, a framework built on physiological principles, and careful clinico-pathological correlation. The latter now has been extended even further by the easy access to CT scanning facilities available in the United States, and informa-