to Boston in 1912. At that time Cushing was forty-five years old and Dandy only twenty-six. Undoubtedly the younger surgeon owed much to the disciplined approach to neurosurgery that his teacher demanded and handed down to his pupils, and to the atmosphere of scientific exploration that existed in Baltimore at that time. It is sad that the relationship of these two great men is remembered chiefly for their mutual antagonism which, in the long run, is as unimportant as the famous quarrels between Brahms and Wagner or Ruskin and Whistler.

Dandy did not feel the need to travel in order to acquire knowledge. Although he had aspirations as a physiologist, and was even put up for a Nobel Prize, his achievements in this field were not remarkable. He is particularly remembered for the introduction of ventriculography and pneumoencephalography, which were the chief sources of neuro-radiological diagnosis for more than fifty years. In the last twenty or so diagnosis was also provided by angiography which Dandy, in fact, rejected. His work on aneurysm surgery led the field. He devised operations for Ménière's syndrome and many other conditions, and advocated the complete removal of acoustic neuromas. He was an innovative surgeon rather than one who explored the nature of diseases, using pathology to establish neurophysiological principles as Cushing had done. He lacked the inspiration with which Osler, Sherrington, Kocher and Kronecker has provided the earlier neurosurgical pioneer. "Achievement, for Dandy, was everything, and it had to be by his own efforts".

Cushing's life of Osler is of literary and historical importance as is Fulton's life of Cushing. The present work is not of that order. However it is a source of a great deal of information. Unfortunately the author seldom places Dandy's work in relation to contemporary knowledge or in relation to present practice. This may be because he is a historian rather than a physician or surgeon. More extensive quotations from the writings of Dandy would have given the reader a greater impression of the personality of the man and a clearer definition of his views on various subjects. Judging by the number of references to letters, this material would be available for a larger work. Nevertheless, we must be grateful to Dr Fox for an immense amount of research in putting the biography together, a task which must have seemed impossible at times, judging by the eighteen years or so between the initiation of the work and its

publication. We are grateful also to the Congress of Neurological Surgeons for their sponsorship, and for filling a gap in medical history. The book will have to be acquired by every neurological library and every library of the history of medicine, but there will also be many eager purchasers among individual surgeons, and they will not be disappointed.

PETER H SCHURR

Color Atlas of Muscle Histochemistry. By Roger A Brumback and Richard W Leech. (Pp 116; £59.50.) Bristol: PSG Wright, 1984.

This volume consists principally of a technical section concerned with biopsy and staining methods, followed by a compendium of 272 photomicrographs in colour. A brief foreword serves as introduction and the photographic atlas is followed by a bibliography containing 59 selected references covering most of the conditions illustrated in the preceding section.

In the foreword, the authors rightly emphasise the central role of histochemistry in the histological interpretation of diagnostic muscle biopsies.

Open biopsy and needle biopsy techniques for obtaining samples of skeletal muscle are described in Chapter 1. The open biopsy technique used by Brumback and Leech involves the excision of small bundles of muscle fibres which are held in non-traumatic biopsy forceps for this procedure. Of necessity, such fragments cannot readily be lightly stretched during relaxation of the tissue and the authors aver the opinion that such stretching is unnecessary. However, many pathologists consider a period of light stretching immediately following excision to be highly desirable in minimising distortion of the tissue by contraction of the fibres. This is particularly so if it is intended to perform a morphometric analysis of fibre sizes as an adjunct to purely qualitative histological examination, in which case a technique whereby the specimen could be stretched would be preferable to that outlined in this book.

Chapter 2 presents a method for preparing frozen sections of a muscle biopsy and the staining schedules for 23 stains commonly used in diagnostic muscle histology followed by short notes on the characteristics and used of these stains.

Chapter 3 comprises the *raison d'être* of the book, the colour atlas containing 248 photomicrographs intended to illustrate

the staining characteristics of normal and diseased human muscle in a range of conditions representative of denervation, non-specific myopathies, various dystrophies, polymyositis, glycogen storage diseases, hypokalaemia, and assorted myopathies including central core disease, nemaline myopathy and tubular aggregate myopathy. Twenty four photomicrographs illustrating common artefacts and the histochemical reactions of normal rat and guinea-pig muscle forms the conclusion of this atlas. Short explanatory notes accompany each plate of photomicrographs. Unfortunately, the general quality of the illustrations is poor. The majority of photomicrographs possess a pronounced background tone, and in many cases, the illumination is clearly non-uniform, eg:— Plates 37A and 56A. The colour contrasts and definition are often weak and, in some cases, eg:— Plate 52B, C & D and Plate 62A, the definition is quite unacceptable. In several other instances, the heavy background colour severely distorts colour values and renders it difficult to recognise histological details, this is particularly so in Plate 31B & D, Plate 47C & D, and Plate 56B, where the outlines of the muscle fibres can barely be discerned. Even making allowance for the necessary use of frozen sections rather than sections of fixed and embedded tissue, many of the foregoing criticisms imply an unsatisfactory photomicrographic technique. Another serious defect is the complete absence of any indication of the magnification factors of the photomicrographs. Since several different scales of magnification are used in this atlas, the absence of magnification factors renders accurate comparison of the features illustrated in any two plates impossible.

The textual content of this book is accurate. A short section on the technique and diagnostic use of quantitative morphometry on histochemically stained muscle as an adjunct to the purely qualitative interpretation of abnormal histological features would probably enhance the book.

The authors' intentions are laudable. There is a definite need for a book of this type, but unfortunately, this one does not fulfil the requirements. If in a future reprinting, the quality of the photomicrographs is improved to an acceptable standard and their magnification factors inserted, this book would prove of value to both the trainee and consulting histopathologist but, in its present form, it cannot be recommended.

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