many that the same type of pot was, and is still, in use in the paint and colour industry.

A final miscellaneous group embraces bleeding bowls. Not all those objects sold as bleeding bowls by antique dealers have held blood though coming within the author's description as 'single-handed'. Those graduated in fluid ounces are without doubt the real thing: it might be prudent to consider all others suspect unless there is a satisfactory origin or provenance for them as bleeding bowls: they would have to hold at least four to five ounces. Curiously, the barbers' bowls, at least those with only a small indentation in the rim, seem more suitable for such a purpose than to be fitted to the neck when being shaved. Still under the heading 'Miscellaneous', the reader will find himself consulting notes on such diverse items as inhalers—now to be found on most second-hand stalls—and phrenological heads. Those patented by Fowler of Ludgate Circus, London, had as long a life as any.

It is a heartening statement in the Foreword by the Director of the Institute that a further volume will deal with other ceramic material. We may hope that there will be further volumes that in time will cover the greater part of the vast Wellcome Collections. John Crellin has set a high standard by this first catalogue. Not only will students of the history of medicine and the allied sciences benefit by it but 'pottery people' everywhere will need the book and the collecting public will have a good part of their insatiable appetite slaked by the perusal of this well-produced and scholarly volume.

LESLIE G. MATTHEWS

A Catalogue of Sixteenth Century Printed Books in the National Library of Medicine, compiled by RICHARD J. DURLING, Bethesda, Md., U.S. Department of Health, Education and Welfare, 1967, pp. xii, 698, \$5.25.

The decision to publish specialized catalogues of the early collections in the National Library of Medicine is a logical development from the creation of the History of Medicine Division, though in fact it continues a process begun at an earlier date with Dr. Dorothy Schullian's Catalogue of Incunabula. Now in this volume devoted to the sixteenth century (to be followed by another for the seventeenth century) the imprints previously embedded among subject entries and scattered through many alphabetical sequences in the Index Catalogue and succeeding volumes have been brought together, revised and amalgamated with newly-catalogued material. For the first time the contribution of this century to medical science and to the development of medical printing, as represented in this great library, can be viewed in its entirety.

The catalogue includes among its 4,818 items undated incunabula which might be assigned to 1500 or later and books published in 1600. The proportion of new entries is not stated but comparison of sample sections with the previous catalogues suggests a figure of approximately 40 per cent. Such comparisons also provide impressive evidence of the care devoted to the revision of existing entries, involving fresh transcriptions, changes in form of headings, identification of anonymous works, correction of erroneous attributions, authentication of authors' dates and the provision of additional footnotes. From this one would be entitled to predict a high level of accuracy throughout the catalogue.

The form of entry follows the Library of Congress rules in general, as in the NLM annual volumes. The substitution of a statement of size for the more usual format seems out of place in a historical catalogue. The code itself specifies the use of format for incunabula and this modification could surely have been extended to the sixteenth century. The Introduction to the volume justifies the omission of format by the statement 'it can usually be inferred from the details of height . . . of the book as bound'. This is a rather surprising assertion as most cataloguers have encountered sixteenth century books which have been cut down at some stage and present themselves as of similar size, yet prove on examination to be 8vos masquerading as 12mos, folios as 4tos and so on. Other points which might be made are that some (if not most) readers would find difficulty in relating format to height without reference to a list of measurements and that format has always been a useful descriptive tag for differentiating between early editions, especially those of the same date.

The order of entries under each heading is alphabetical (not chronological, as in the Index Catalogue). Any arrangement involving special groupings for editions or translations presents obstacles to the reader in locating particular works but in this system there is the additional problem of variations in title, common in early books. A survey of imprint dates offers a means of narrowing the field of search but the imprints must be made as conspicuous as possible, so that the column or page can be scanned quickly and without interruption. Unfortunately this requirement has not been met as the imprint has been run on at the end of the title with no attempt at differentiation by spacing or type-face.

The imprint (or colophon) is given in the original form. As misinterpretation of place names is a major source of 'ghost' editions, the original form is often preferred because it ensures that an accurate record is set before the reader. The chief objection is that this merely transfers the onus of interpretation to a number of persons whose knowledge of bibliography is conjectural, i.e. all those who may in the future choose to cite the imprint data. In the NLM catalogue one is confronted by imprints in Greek or Czech, obscure place names, abbreviated forms and unusual spellings. We find, for example, 'Leyptz., Smalchaldiae, Ceburgk, Regiaci Atrebatium, Henricopoli, Ihena, Leucopetrae, In Epilensi oppido, Curiae Variscorum, Gebenn, Methynae Campi, Halae Suevorum'. These can be identified from the indexes but a casual reader who is not aware of the method to be followed (i.e. by reference to the printer or publisher, not to the Geographical Index) might be tempted to interpret them in his own way. In any case, that this method is not infallible is shown by no. 312 (imprint 'Liptzk, Per Baccalauream Vuolfgangum Monacensem') which is listed under Stöckel, Wolfgang, without any cross-reference. In view of the possibility of mis-citation, it may be suggested that where, as here, the compiler of the catalogue is qualified to furnish an authoritative interpretation of early imprints this should be preferred to the original form for use in the main entry; this does not apply, of course, to bibliographies which are intended mainly for specialists.

At this point it may be helpful to future users of the NLM catalogue to supply an *erratum* note to no. 4451.1, left incomplete; this can be identified from the Index Catalogue (Ser. 1, Vol. 14, p. 946) as a folio edition, Frankfurt-am-Main, H. Gülfferich, 1551.

Bibliographical research throughout the volume is of the highest quality and this is nowhere more apparent than in the Geographical and Name Indexes. In conjunction with those in Vol. I of the Wellcome Catalogue they provide the basis for a comprehensive survey of medical publishing in the sixteenth century. Ideally such indexes would list author and title but this is seldom practicable and both of these catalogues use serial numbers referring to the main entries. A useful addition to the NLM Name Index is the insertion of dates of publication arranged very clearly in columns with the numbers opposite; this is an aid to identification and the chronology of each printer or publisher is displayed at a glance. Separate entries have been made for different persons of the same name, for those operating in more than one locality or acting in collaboration and also for varying imprints used by a single publisher or a publishing group, such as the Giunta and Plantin dynasties. There is, however, no indication of the connection between C. Plantin and his associates and successors, e.g. F. Raphelengien (whose name, incidentally, has been omitted from the imprint to no. 1615, unless it is a variant of the edition in the Wellcome Library).

The Geographical Index, though it follows the normal arrangement by country and town, is a list not of books but of printers and publishers; reference to the main catalogue is, therefore, indirect as the books published in a particular locality cannot be identified until the serial numbers have been obtained from the Name Index.

For many readers the Index to Vernacular Imprints (29.4 per cent of the whole) will exercise a special fascination. It shows the gradual erosion in the course of this century of the privileged position of the Latin language as a medium of communication for medical and scientific writers. Preceding this index is a Concordance of 128 items listed in STC together with 18 English works or imprints not given by Pollard and Redgrave.

The problem of making the arrangement of the catalogue intelligible has been mentioned in connection with imprints. If one looks at specific examples in the NLM catalogue, e.g. the entries under Albertus Magnus, G.B. da Monte or Agostino Nifo one can appreciate that the reader might well be confused by the grouping of related works or by changes in the form of the title, often due to the insertion of proper names or other phrases in front of the arranging word. Under Avicenna he might be mystified by the introduction without any indication by subheading or other means of distinct groups for editions of parts of the Canon. The general pattern is that collected works and miscellaneous collections precede the main sequence of individual titles and that translations follow the original and any Latin editions in alphabetical order of language. There are special arrangements for Galen and Hippocrates which are models of their kind; groups of works, separate works and language subdivisions are clearly marked, the chronology of editions is emphasised by the repetition of dates in bold at the left hand margin and exhaustive analyticals guide the reader to component works. In relation to the general problem of locating entries in the main body of the catalogue it would have been helpful if some explanation of the principles of arrangement had been included.

The catalogue is equipped with an excellent system of cross-references and analytical entries but its efficiency is impaired by the substitution of serial numbers for the usual details identifying the author and work. This means that the reader is

directed from one part of the catalogue to another on a quest that may prove fruitless and in the case of multiple references he may be involved in the expenditure of much time and effort in order to separate relevant from irrelevant items. An attempt has been made to overcome this difficulty by the insertion of the author's surname in selected references but this concession has only a limited value. No reason is given for abandoning the more detailed form of reference but clearly the main objection to its use must have been the inevitable increase in the size of the volume. Could this not have been met, in part at least, by economies in other directions? One notices, for example, that spacing throughout the catalogue is on a generous scale—4,818 entries occupy 618 pages (as against 6,959 entries on 369 pages in Vol. I of the Wellcome Catalogue). This seems to allow a considerable margin for reduction without detriment to the general clarity of the layout.

Although this Catalogue of Sixteenth Century Books may be open to criticism in regard to details of structure and presentation, its importance as a contribution to medico-historical bibliography can hardly be questioned. The volume is impressive in appearance, clearly printed on excellent paper. The high quality of the descriptive cataloguing, footnotes and indexes and the wealth of bibliographical material which it contains must assure it a place alongside the other great medical catalogues of our time.

H. R. DENHAM

Steno and Brain Research in the Seventeenth Century, ed. by Gustav Scherz (Analecta Medico-Historica, No. 3), Oxford, Pergamon Press, 1968, pp. 302, illus., £5.

Nicolaus Steno (1638-1686) has been much—and rightly—celebrated. His great works and letters have been made accessible. And yet, looking at the present splendid—though, alas, index-less—volume, one cannot help feeling that he is inexhaustible. No more can be done in the space available than briefly enumerate and indicate the contents of the contributions to the Copenhagen Symposium (18-20 August 1965) incorporated in the book under notice. Happily it was not restricted to the Brain, as the title may suggest, but also, though as a second line, covered other notably biographical and background aspects of Steno.

'Brain Anatomy before Steno' (Edwin S. Clarke) concentrates importantly on the knowledge of individual structures and the differences in nomenclature from modern usage and the remarkable progress in the decade 1655–1666. Mercifully mention is made of the neuro-anatomical merit of J. B. Van Helmont's rejection of the *Folly of Catarrh*—normally and unjustly submerged by the laurels accorded to C. V. Schneider.

'Swammerdam and Steno' (B. P. M. Schulte) illuminates the similarities in their neuro-muscular physiology and the importance of the latter's views for the former therein. 'Willis and Steno' (K. Dewhurst) enlarges circumspectly on Steno's criticism of Willis's ideas on the localization of brain functions.

'Descartes, Stenson and the *Discours sur l'Anatomie du Cerveau'* (K. E. Rothschuh) is a study in contrast lucidly dividing the tenets of the creator of a philosophical system who selects the facts fitting in (Descartes) from the methodical man of scientific research intent on securing his observations and theories (Steno). Perhaps it could