## Book Reviews

The Correspondence of Henry Oldenburg, ed. and trans. by A. RUPERT HALL and MARIE BOAS HALL, Madison, University of Wisconsin Press, 1965—(in progress), vol. I (1641–62), pp. xl, 504; vol. II (1664–65), pp. xxvi, 678; vol. III (1666–67), pp. xxix, 649; illus., 95s. per volume.

All accounts of the history of the Royal Society acknowledge the debt which the Society owes to its first Secretary, Henry Oldenburg. It was he who established contacts between the Fellows of the new Society and scientists on the Continent and acted as propagandist to such effect that within two or three years the most eminent scientists of other countries felt genuinely honoured in being admitted to its fellowship. It was he too who founded and published at his own expense the Philosophical Transactions. Oldenburg was indeed a one-man information centre for all the ideas, research and experiment which brought about the scientific revolution of the seventeenth century. His correspondence was vast, and in several languages, being still scattered in as many countries, as were those to whom he wrote his informative or enquiring letters. Professor Hall and his wife, both authorities on science in the seventeenth century, have now made it possible at last to view this correspondence as a whole and to assess its value as a primary source for the scientific history of the time. The letters are all carefully annotated and, where necessary, an English translation is given as well as the original, while detailed indexes make for easy reference and consultation. An important feature of this great work is that both sides of the correspondence are given, Oldenburg's own letters and their replies. The result is without doubt a most important contribution to the history of science and medicine.

Many of the founders of the Royal Society were medical men, and their interests and studies are well represented in these volumes. To single them out would mean listing all the great names in English medicine in the later seventeenth century—too late, alas, for Harvey, but not for Sir George Ent or Charles Scarburgh. Glisson, Croone, Highmore, Lower, Willis, and Charleton, all figure in the volumes already published. And here too is Daubeny Turberville, the famous oculist who was recommended to Pepys by Boyle and whose ostentatious tomb ('to the English Aesculapius') is the first to meet the eye of the visitor in Salisbury Cathedral where his friend Seth Ward, another Fellow of the Royal Society, was Bishop. Timothy Clarke, physician to Charles II, asserts Wren's priority in injecting specimens, and Oldenburg himself defends the priority of Wren and Lower in the controversy with J. D. Major over the invention of venous injection. Writing to Boyle on 17 November 1664, Oldenburg writes of a much more important matter:

I rejoyce, to find Anatomicall Experiments and Observations so well poursued, both here and at Oxford, persuading myselfe, we shall at length find out more for ye use of respiration, and ye account upon wch it is so absolutely necessary, yn ever was done. Will it not be made out at last, ty Life is a kind of subtil and fine Flame? to wch ye Aire must be applied, to keep both it in motion, and ye bloud, wherein it resideth, wch thence looks florid and sprightly, when the Aire, having been mingled wth it, as it were, per minima, passeth along wth it into ye left ventricle of ye heart, and thence into ye Arteries, after wch, when ye bloud returns into ye veines, it there begins to change its countenance, and looks dull and torpid, till it comes again to ye place wch can revive it.

Among topics of current interest which find early mention here is mouth-to-mouth resuscitation, mentioned by Hooke (III, 579) and fully described in the *Philosophical* 

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Transactions (No. 28, 21 October, 1667, 539-40); and blood transfusion (III, 480). An informed interest in medical subjects spread far beyond the qualified doctors of medicine, Boyle being the most notable example. Prince Rupert (whose own Medicine Chest is described, II, 229-30) recommended Valentine Greatrakes the 'stroker' to Boyle (III, 59), and a wonderful example of English scepticism is provided in Dr. Nathaniel Fairfax's account of the Norfolk gardener who experimented on himself and ate poisoned toads and lots of spiders to disprove the old wives' tales about them.

Oldenburg's far-ranging foreign correspondence gave rise to numerous letters from foreign scientists, many of the greatest interest and value. We cite at random from a letter of Michael Behm to Hevelius, 1 November 1667 (III, 574–7) on a disease which is still a problem. Behm has referred to Boyle's work on *Colors and Fluidity*, and wishes that he would publish more on the nature of salts. He goes on to suggest that Glisson or Wharton might investigate the process of coagulation of the blood. Behm himself has just suffered an attack of gout, and he goes on to write:

I have certainly observed that gout and arthritis are caused when the urinous corruption is not separated from the bulk of the blood by the kidneys and by sweating but is circulated about the body with it, adhering in the colder ligaments around the joints; there it causes rather acute pain and even swellings by the accretion of salt, or because of its viscosity occasions stiffness and calcification. Would that the causes of this disease and its remedies might be more thoroughly investigated by the sublime wits of England, and [the results] communicated to the world, so that medical men might no longer regard it as incurable. [Professor Hall's translation from Latin.]

It is customary for reviews of works of this type to conclude by drawing attention to a number of errors or oversights. It is a mark of the editors' concentration and high scholarship that very little can be done in this way. An obvious misprint ('tetrology' for 'teratology'—which should more correctly be 'teratism') occurs in the index of Volume III. Pure serendipity allows me to correct the reading of one personal name and so assist identification—'Mr. Whingate of ye grange in Dymoc' (II, 3, II) is undoubtedly one of the Wynniatt family who, with the Dymocks, practically comprised the village of Dymock in Gloucestershire from Saxon times. On the date in question (1663) it was probably Wenman Wynniatt (at the time sometimes spelt 'Whinyat') who was recommended to Oldenburg as knowledgeable on the making of cider. Finally, the 'Mr. Bernard, an apothecary' (II, 354) who passed on to Oldenburg his observation of a comet, was probably the famous Francis Bernard, the medical bibliophile who got a Lambeth M.D. and was later made a Fellow of the College of Physicians.

The next volume of this fascinating correspondence is eagerly awaited.

F. N. L. POYNTER

Medizingeschichte im Spektrum. Festschrift zum fünfundsechzigsten Geburstag von Johannes Steudel, ed. by Gernot Rath and Heinrich Schipperges, Wiesbaden, Franz Steiner, 1966, pp. viii, 211, illus., DM. 28.80.

An impressive collection of eighteen essays to honour Professor J. Steudel on the sixty-fifth anniversary of his birthday. The book is fittingly introduced by a short biographical note and winds up with a bibliography of Steudel's publications 1923–1965. The scientific level and value of all essays are high, but no more can be given