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THE APOTHECARY AS PROGENITOR

INTRODUCTION

In comparison with the physician, the apothecary was a practical man, though also touched by the Scientific Revolution of the late seventeenth century. Many, if not all, the roots of the ever-finer divisions of medicine, science, and pharmacy can be detected in the fertile soil of apothecarial practice. It is not too much to claim that the apothecaries of the period under discussion were amongst the precursors of the dispensing chemist, the experimental and manufacturing chemist, the pharmaceutical wholesaler and manufacturer, and the general practitioner.

As a founding father, he was by no means equally responsible for all his descendants, nor did he exert equal influence on them all. His effect on the experimental chemist was comparatively slight, neither was he pre-eminent in the rise of the manufacture of inorganic chemicals. Not surprisingly, he played an important part in the development of the pharmaceutical industry, although others were also involved, particularly in the field of proprietary medicines. On the face of it, it seems only reasonable to believe that the apothecary gave rise to the dispensing chemist, but this has been denied by those much nearer in time than us to the meteoric rise of the chemist and druggist and dispensing chemist. John Mason Good, R. M. Kerrison, and Edward Harrison, crusading medical reformers and so perhaps not totally unprejudiced, have all written along these lines, but such limited research as has been done on the subject does not confirm their views, and the topic requires much more detailed work before any definite conclusion can be reached.

In contrast, much has been written about the apothecary's role in the rise of the medical general practitioner. There would seem to be little doubt that a section of the London Barbers' Company was, in the fourteenth and fifteenth centuries, practising not only surgery but also physic.⁶⁹ These barber-surgeons were given certain privileges, such as exemption from serving on juries, inquisitions, and assizes, and the Act of 1540 gave them immunity from bearing armour and service on watches. They probably, like their Continental counterparts, had exemption from the curfew as well. They were, in effect, the first general practitioners. Efforts were made to curtail their activities, to prevent their further incursion into the physicians' world. The London collegiate physicians were not so simplistic as to believe that their small numbers (around fifty for a population of 200,000 in 1600) could personally treat all those requiring medical attention; rather their battles were directed towards the establishment and maintenance of a medical hierarchy, and ensuring that their colleagues (whom they deemed to be auxiliaries), the barber-surgeons, surgeons, and apothecaries, did not by-pass them in their dealings with patients. Their greatest error

⁶⁹ Sharpe (editor), *op. cit.*, note 44 above, Letter Book I, p. 135; J. F. South, *Memorials of the craft of surgery*, London, 1886, pp. 19, 22.

Margaret Pelling has stated that, "... the barbers, barbersurgeons and surgeons carried the main burden of general practice in the towns." ('Occupational diversity: barbersurgeons and the trades of Norwich, 1550-1640', *Bull. Hist. Med.*, 1982, **56**: 484-511, see p. 490.)

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lay in not recognizing the necessity for, and the inevitable rise of, the general practitioner.

Why the development of the general practitioner in England should have become pre-eminently the responsibility of the apothecary and not the barber-surgeon (as was generally the case on the Continent) is not easy to decide. The rise of the apothecary to a position of power has been accredited to the rapid increase in the import of exotic drugs in the early seventeenth century, the popularity of the complex Galenic formulae, and above all, to the apothecaries' sound commercial practices and contacts. At any rate, it is to the apothecary as progenitor of the general practitioner that we turn first.

THE GENERAL PRACTITIONER

Zachary Cope wrote in 1961 that, "until recently", the general practitioner might be defined ". . . as one who practised medicine, surgery and midwifery, prescribed and in many instances dispensed medicines, and more than other members of the profession, had the continuous care of patients."⁷⁰ The introduction of the title "general practitioner" belongs to the nineteenth century, though this is not to say the species was not to be found at an earlier date. One of the earliest appearances of the title in print occurred in 1813, when Samuel Fothergill, in discussing the apothecary, wrote, "Those who practise pharmacy alone are few in number compared with those who exercise all branches of the profession. Every city, every town and almost every village in England and Wales presents one or more of these general practitioners. . . ."⁷¹ He urged that they should not be known as apothecaries but that some other new designation be found. In this, he was supported by popular opinion. The term "general practitioner" by 1830 had come into such common usage that the Metropolitan Society of General Practitioners in Medicine and Surgery was instituted under the presidency of William Gaitskell, and the title "apothecary" is found only once in the first fifty pages of Robson's *London directory* (1854).

It is generally conceded that "it was chiefly from among the apothecaries that the general practitioner arose . . ." (Cope, p. 7), but his origins also lay with the surgeons, in particular those who had served in the army, navy, or the East India Company. Clark has noted that in the later eighteenth century the name "surgeon-apothecary" was coming into use, a term long favoured in Scotland (op. cit., footnote 7, p. 610). The amalgamation of these two branches was undoubtedly the trend of the times. In May 1761, John Aiken, lecturer at Warrington Academy, was endeavouring to settle his son in life, and wrote, ". . . we have therefore determined on physic, and as it grows pretty common to unite the two professions of apothecary and surgeon I could wish my son were placed where he has opportunities of learning both these branches,

⁷⁰ Sir Zachary Cope, 'The origin of the general practitioner', *Hist. Med.*, 1973, 5: 3.

⁷¹ Editorial, *Med. phys. J.*, 1813, 29: 3-4. The term can, however, be found much earlier, though possibly with a slightly different connotation. In 1714, J. Bellers wrote of hospitals being useful ". . . to those physicians that are more general practitioners in Physick. . . ." He had noticed that there was a change in medical practice, for he wrote, "There are the same reasons for classing of Diseases, Medicine and Physicians, especially Chronicks and Acutes, as there was formerly to distinguish between physicians, chirurgeons and apothecaries . . ." (*An essay towards the improvement of physic*, London, J. Sowle, 1914, pp. 10-11.)

though I would have the *principal attention* given to surgery and midwifery.”⁷² In fact, this union had been taking place for many a year but was only then being recognized.

There are many examples of the dual practice in earlier centuries. The Annals of the College of Physicians made reference to a man called Horseman, described as an apothecary and surgeon in 1723, and in 1658, Edward Randal, “chirurgopharmacopoeus” was accused of malpractice. Amongst the 294 licences issued in the diocese of London under the Act of 1511, from 1600 to 1725, there were three specifically for the combined practice of apothecary and surgeon, and nineteen for physicians or practitioners of physic and surgeons. Similar figures can be obtained from the subscription books of the same diocese; there were three such mixed practitioners from 1627 to 1644, and fifteen from 1663 to 1683.⁷³ The same picture can be seen in the diocese of Canterbury. Out of a total of 167 medical licences between 1568 and 1640, there were fifty-seven for physicians, 103 for surgeons, and seven for physicians and surgeons. Among those who signed the testimonials in 1605 were Nicholas Bennett, Theodore Beacon, Mr Spencer, and Robert Harvey, all of whom were “*artis chirurgie professor et phisice professor*”.⁷⁴

Pelling and Webster, in their survey of East Anglian medical practitioners, 1500–1640, concluded that “medical practice in London and the provinces was dominated by general practitioners, some licensed, most unlicensed. . . .” They cite as examples the John Cropps, father and son, who are mentioned in the Paston letters; Robert Hauust of Great Yarmouth with an ecclesiastical licence for medicine and surgery (1566); Philip Barrough, given a surgical licence by Cambridge in 1559 and one to practise medicine in 1572; as well as the three men who were awarded dual licences by the same university between 1540 and 1570.⁷⁵ Roberts has no doubt that there was widespread general practice in Tudor and Stuart England, and has shown that not only did apothecaries gain the right to practise medicine in Exeter in 1607, but that twelve licences for the practice of medicine and surgery were awarded in that diocese between 1568 and 1640.⁷⁶

There is at least one example of mixed practice in the fifteenth century. In April 1462, William Hobbys was described as “the king’s surgeon” in the household of Edward IV; by July 1470, he had been elevated to “principal surgeon of the body”, but in 1475, he was referred to as “*physicus et cirurgicus pro Corpore Regis*”.⁷⁷ In the time of Chaucer, Ussery has found six men who were both physicians and surgeons,

⁷² Linnean Society, Pulteney letters, John Aiken senior to Richard Pulteney, 19 May 1761 (Aiken’s italics).

⁷³ J. H. Bloom and R. R. James, *Medical practitioners in the diocese of London, licensed under the act 3 Henry VIII c. 21; an annotated list, 1529–1725*, Cambridge University Press, 1935. The three apothecaries and surgeons were Robert Hitchcox of Ware (1662), George de Folleville of Cheshunt, a French refugee (1693), and John Harris of Whitechapel, who was certified to have been admitted as a foreign brother to the Barber-Surgeons’ Company.

Guildhall Library, MSS. 9539A/1, 9539/C, 9540/1, 9540/4. The licences for most but by no means all, of these subscribers to the ecclesiastical and political doctrines of the day are to be found in Bloom and James’s list. There are also some differences, Ralph Warwick for example, on subscription was admitted to practise “*artem chirurgie*”, but his licence was that for a physician.

⁷⁴ A. J. Willis (editor), *Canterbury licences (general) 1568–1646*, Chichester, Phillimore, 1972, pp. 22–29.

⁷⁵ Pelling and Webster, *op. cit.*, note 29 above, pp. 235, 224, 195, 194.

⁷⁶ Roberts, *op. cit.*, note 26 above, pp. 376, 369.

⁷⁷ A. R. Myers, *The household of Edward IV*, Manchester University Press, 1959, 2nd ed., p. 124 and n. 189, p. 29 and n. 191.

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and quotes from Lanfranc, who wrote at the end of the fourteenth century, “. . . knowe wel this, that he is no good phisician that can no thing in cirurgie. And also the contrarie therof; and a man mai be no good cyrurgian but if he knowe phisik.”⁷⁸

Chief Justice Best said erroneously in 1828 that, “The distinction between the various departments of the medical art had been drawn with great precision”, and two years later J. W. Willcock, “The law recognises only three orders of the medical profession: physicians, surgeons and apothecaries”, so that Holloway was constrained to follow suit by writing, “Between the physician, who could claim to belong to a learned profession, the surgeon, who practised a craft, and the apothecary, who followed a trade, the gap was wide and impassable.”⁷⁹ This was not true in the first decades of the nineteenth century, nor was it true in earlier years. The general practitioner has a long and respectable history.

The question arises, to what degree was the apothecary a component of the general practitioner’s origins? We have on no less an authority than William Bulleyn that the Elizabethan apothecary was involved in surgical practice. His nineteenth rule, that the apothecary was to remember that he was only the physician’s cook, has been quoted frequently, yet rules eleven and sixteen have caused less comment:

11. [The apothecary is] to have two places in his shop; one most cleane for the phisik, and a baser place for the chirurgie stuff.

16. That he may open wel a vein for to helpe pleurisy.⁸⁰

The apothecaries’ rules were published in Bulleyn’s *Bulwarke of defence* in 1563, when he was practising in the ward of Cripplegate-without, London, so that he must have been aware of the privileges of the Barber-Surgeons’ Company set out in the Act of 1540.

Roberts has shown that some apothecaries, for example John Swayton of Faversham in 1598 and Anthony Salter of Exeter in 1622, had licences for surgery, a definite step in the direction of general practice. William Dove, apothecary, was licensed at Exeter to practise both medicine and surgery in 1580, as were Thomas Flay and his apprentice James Collins, and John Pemberton of Liverpool to practise medicine. It was by no means unusual for apothecaries in the small towns of Berkshire, Herefordshire, Northamptonshire, Suffolk, and elsewhere to obtain medical licences, there being a particular upsurge in the 1630s in the time of Archbishop Laud. We have little direct evidence, but it is reasonable to assume that this medical practice embraced physic, at least simple surgery, and pharmacy.

Carter has noted that apothecaries were not required to subscribe to the Acts of Supremacy and Allegiance, nor were they mentioned as such in the Act of 1511.⁸¹ Nevertheless, their letters testimonial for a licence to practise physic or surgery were

⁷⁸ H. E. Ussery, *Chaucer’s physician*, New Orleans, Tulane University Press, 1971, p. 59.

⁷⁹ S. W. F. Holloway, ‘Medical education in England, 1830–1858’, *History*, 1964, 49: 299–324, see p. 306.

⁸⁰ C. Townsend, ‘Apothecaries, druggists and pharmacists, past, present and future’, *Pharm. J.*, 1870, 11: 615.

⁸¹ E. H. Carter, *The Norwich subscription books*, London, Nelson, 1937, p. 134. There is a total absence of apothecaries in the visitation lists of the diocese of London, except for one cryptic note, “John Cook ‘medicus’ of Leigh. That he is an apothecary and served his apprenticeship and practised as such and not otherwise.” See MS. 9537/24, f. 144v., note 83 below.

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acceptable. On 25 April 1692, Joseph Freeman of Little Waltham, surgeon, was certified to be a competent practitioner by Benjamin Chamberlaine, licentiate in Chelmsford, apothecary, and William Swan, apothecary; likewise, Samuel Dale, botanist and apothecary at Braintree for thirty years, was one of the referees for John Clerke, of Castle Hedingham, apothecary and practitioner in physic, when he required a licence.⁸²

The licences of vicars, schoolmasters, midwives, surgeons, and physicians were in theory checked by archidiaconal visitations. The visitations of the diocese of London for 1697, 1700, 1706, and 1715 are in good order, although only a section of the diocese was examined on each occasion. It is noticeable that within the City and nearby villages the vast majority of licences examined were those of surgeons. Ten or more miles distant, the situation was different; Staines in 1697 had two “medici”, St Albans, one, and in 1706, Brentwood had one as well. Just what the authorities meant by “medicus” is not at all clear. Only two are specifically stated to have medical degrees, Benjamin Allen in Braintree, from Oxford, and Jonathan Bowes in Chelmsford, from Leiden. Ralph Grindale of Ware had a “Lambeth degree” (in other documents he is called “Dr in Physick”), and Rodon of Harwich a licence of London, otherwise no details are given.⁸³

It is possible that many of those designated “medicus” were in fact apothecaries, and in two cases this can be proved. The previously mentioned John Clerke of Castle Hedingham was termed “medicus” at the visitation of 1715, on 1 September of the same year on making his subscription he was given leave to practice “artem medicinae”, but on the 30th, as we have seen, he obtained his licence as an apothecary and practitioner in physic. Similarly, William Heckford of Thaxted showed his licence at the visitation, proving him to be “medicus et chir.”, yet when he was taking apprentices in 1711 and 1724, he is described as an apothecary. A “medicus” could also be a surgeon, as witness John Holmsted of Colchester. In 1706, he made his subscription and obtained his licence as a surgeon, which he was termed in the visitation of that year, but in 1715, he was called “medicus”. There was considerable inexactitude in the use of titles, and possibly it worried neither party that Robert Mayhew of Witham was a “medicus” in 1706 but had become a surgeon in 1715.⁸⁴

It must not be thought that physic-practising apothecaries were not to be found in London before the Rose case or even before the Restoration. Roger Gwyn, apothecary to St Bartholomew’s and St Thomas’s hospitals, and the well-known and highly respected botanists, James Garrett, Hugh Morgan, and John Parkinson, were all prosecuted by the College of Physicians for illegal practice.

Roberts struck a note of caution in assuming that the apothecary-surgeon of the late seventeenth-century countryside developed entirely from the apothecary turned

⁸² Bloom and James, *op. cit.*, note 73 above, pp. 49, 43.

⁸³ Guildhall Library, Archidiaconal triennial visitations, MSS. 9537/24,9537/26. The accuracy of the scribes or perhaps their interpretation is doubted when it is noted that in Maldon in 1706 there was but one “medicus” and six surgeons, and yet only nine years later the situation is completely reversed with five “medici” and one surgeon – admittedly the two sets of names are different too.

⁸⁴ When Robert Ma[y]hew apprenticed his son in 1716 to Vesey Haslfoot (probably related to the Harwich surgeons, Robert and Thomas Haslfoot), citizen and goldsmith, his occupation was given as D[octo]r of P[hy]sic.

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medical practitioner. He felt that at least as much was owed to the surgeons, especially naval surgeons. The Inland Revenue apprenticeship records give some support to this view. They show a particularly high proportion of surgeons practising in and around the ports of Plymouth, Portsmouth, and Chatham. On a few occasions, the men are designated “surgeons etc.”, which appears to be the scribes’ shorthand for “surgeon and apothecary” or “surgeon, apothecary and man-midwife”, for which the term “general practitioner” was ultimately substituted. The surgeons’ oft-reiterated rejoinder that they had to give internal medicines without reference to a physician when at sea, was one which applied with equal force to surgeons living in distant lands that were being rapidly opened up to commercial development. The East India Company was well aware of the desirability of employing a man with all-round qualifications.

Edward Bulkeley, chirurgion, was admitted to the London Barber-Surgeons’ Company by redemption by order of Sir Henry Colt in September 1684.⁸⁵ He was appointed first surgeon to Fort St George (Madras) on 29 December 1692, when he was informed that he had been placed in charge of the hospital, that he was to take care of the patients, and “. . . look after all medicines and other things, that none be spoyled or wasted, or use for any other purpose. Keep an account of all material actions in a Book. Dr Brown is to be continued a Chyrurgion here as before . . . [but as there is] not roome for the continuance of Dr Hart, he is to be discharged”. A communication from London informed Madras in April 1697 how this had come about. “When wee understood Mr Heathfield was dead and that you had entertained Mr Hart as a temporary surgeon in his stead, we resolved to supply you as soon as well as we could, and accordingly sent you Mr Buckley [*sic*] one who was every way very fitly qualified to serve us by his large experience of India as well as here, and as fit for prescribing Physick as manual operation.”⁸⁶

That Bulkeley was interested in the production of pharmaceuticals can be seen from his letters to James Petiver. He wrote on 12 February 1703, “I also desire you will send me ye waye of refining Camphir and sugar. We have brown sugars here very cheap, I want to refine them and make them into loafe. I want also the best and the easiest method of making Vinegar, we have often pricked and damaged wines but knowe not howe to make good vinegar of them, nor how to brighten that which is browne and fowle.”⁸⁷

Until the second half of the nineteenth century, complete reliance on the titles used can be completely misleading. As Roberts has written, “The point then is that it is necessary to get behind ‘official’ titles in administrative records to see how these men really did practise – for not only are the appellations misleading but also they were interchangeable. For example Thomas Edwards [originally an apothecary] having with difficulty become a physician in 1607, called himself ‘surgeon’ when his daughter applied for a marriage licence in 1623; John Newton was styled physician when he died in 1646 but he had been licensed by the Bishop in 1628 to practise surgery.”

⁸⁵ Guildhall Library, admissions to Barber-Surgeons’ Company, MS. 5265/2, f. 47.

⁸⁶ D. G. Crawford, *History of the Indian medical service, 1600–1913*, London, W. Thacker, 1914, p. 88, quoting from *Vestiges of old Madras*.

⁸⁷ British Library, Sloane MSS., MS. 3321, f. 110.

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Clark, commenting on this Star Chamber case of 1604–07 examined by Roberts, wrote, “But it shows, and in conjunction with other known facts, that at and after this time the appellations of physician, apothecary, and for that matter surgeon and doctor, were not used either by provincial practitioners or in popular speech, or even in some official records, so as to demarcate different kinds of practice.”⁸⁸

Kett noted that, “After 1730 the words ‘surgeon’ and ‘apothecary’ were used interchangeably in the provinces. . . . Samuel Buxton was described as a ‘worthy and sensible apothecary near the Wells’ in 1769 and as ‘Mr Buxton, surgeon’ ten years later.”⁸⁹ This view is borne out by a close examination of the Inland Revenue surgeons’ and apothecaries’ apprenticeships records. To men such as Anthony Harrison of Penrith (fl. 1743–83) and Henry Luximoore of Okehampton (fl. 1758–89) it seems to have been a matter of indifference as to whether they were termed surgeon, apothecary, or surgeon and apothecary; likewise with the Bryetts of Hatherleigh, Devonshire. In 1713, James Bryett was termed “Dr of Physick and surgeon”, but in 1717 and 1721, just “surgeon”. Thomas Bryett was “physician and surgeon” in 1730, and “surgeon etc.” six years later.⁹⁰ This variation in title can be seen equally clearly if we follow the history of a medically orientated family such as the Oldershaws of Leicestershire.

The armigerous Oldershaw family lived in Kegworth in the fifteenth century, and the first apothecaries appeared on the scene towards the end of the seventeenth century. John and Fowler were the oldest and youngest sons of John Oldershaw JP and his wealthy wife Sarah (née Fowler), who lived at Old Parks, Loughborough.⁹¹ John practised in his home town, and it is recorded that he had at least three apprentices; when he took William Fullwood in 1721, and John Robins of Salisbury, Wiltshire, he was entitled apothecary, but earlier, at the binding of Moses Foxcroft, apothecary and surgeon. John’s second son, Francis, was sent to Emmanuel College, Cambridge, and there gained an MB in 1740, but he died the same year, aged only twenty-six. The next son, James, also entered medicine but by a different route, and in due course became established in Leicester. Nichols referred to him as a surgeon, but Emmanuel College, when his two sons were admitted (one to enter the church and the other, James, to acquire an MD in 1780), called him an apothecary. The apprenticeship records either agree with Nichols or give him the double title of apothecary and surgeon.⁹² Whatever term was used, there is no doubt that by the time of his death in Rochester in 1782, he was a rich man.

Fowler Oldershaw left Loughborough for Market Bosworth and there set up in practice. His only recorded apprentice, when he was designated apothecary, was Theophilus, son of Henry Hastings of Thornton, Leicestershire, possibly a distant cousin of the earls of Huntingdon.⁹³ It is probable that Fowler trained two, if not

⁸⁸ Clark, *op. cit.*, note 7 above, p. 608.

⁸⁹ J. F. Kett, ‘Provincial medical practice in England, 1730–1815’, *J. Hist. Med.*, 1964, 19: 17.

⁹⁰ For further discussion see Burnby, *op. cit.*, note 31 above, pp. 160–164.

⁹¹ J. Nichols, *The history and antiquities of the county of Leicestershire*, London, [the author] 1798.

⁹² Amongst James’s apprentices was Francis Cheselden, a relative of the great William. Will of James Oldershaw of the City of Rochester, proved 2 May 1782, PRO, PCC, Prob. 11, 1091 f. 260.

⁹³ The second wife of Theophilus Hastings, the seventh earl, was Frances Leveson Fowler, and it is possible that there was a connexion. Their granddaughter, Elizabeth, Countess of Moira, wrote of a collateral branch of the Hastings, “His wife (a woman of very good family who was related to my

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three, of his own sons. In his will of 1749 (he died aged fifty-seven), he made his oldest son John executor and bequeathed him “my shop and all druggs, materials and utensils belonging, also all my household goods and furniture in that house of which the said shop is part.”^{94a} John, who died some twelve years later, in his will of 1762, unlike his apothecary father, styled himself surgeon. He set up a trust for his only child, the trustees being his wife and his youngest brother, James, who was a surgeon in Tamworth.^{94b}

James had already been elected a burgess of Tamworth in 1758, and was the founder of a successful medical practice. His first known apprentice was Walter Lyon in 1757, who was a partner ten years later when they became joint masters of James Henry Gresley; another of their apprentices was Edward Bage in 1770. On both occasions they were described as “surgeons etc.”, a phrase which often included man-midwife, a branch of medicine it is known that they practised (see p. 107). James Oldershaw had retired by early 1788 when the firm was called Messrs. Lyon & Co., subsequently (1794) it became Messrs. Lyon and Bage, and then (1803) Bage & Woody, surgeons. Whatever title they used or was bestowed on them, the Oldershaws were, in fact, general practitioners, and had been for many a long year.

The administration of the English Poor Law must clearly also have had a considerable effect on the emergence and numbers of general practitioners. Leonard stated that, “A fairly effectual system of relieving the destitute by public authority had had in England a continuous existence since the seventeenth century. Attempts to follow such a system of poor relief in the sixteenth century were common to most of the countries of western Europe, but the continuous existence of any organization of the kind is peculiar to England.”⁹⁵ Leonard believed that in large measure the survival of the English organization was due to the policy of the Privy Council in the reign of Charles I, which effectively interfered to enforce the administration by the justices of the peace of the Poor Law enacted in 1597 and practically re-enacted in 1601. The statutes of these two laws attempted to provide work for the unemployed, procure corn in years of bad harvests, regulate wages, and provide succour for the impotent poor, including the sick.

Provision was made for those who were struck down by illness or were victims of accidents. Leonard, writing at the very end of the nineteenth century, said, “In some places the help provided was even greater than that of today; a town physician was appointed especially to look after the poor.” As early as 1574, the mayor and justices of Chester signed an indenture with Alexander Harrison, whereby the latter would “. . . cure, heale and help all such the poore deserved people . . . within the citie livinge

grandmother and was her companion) . . . being a woman of independent spirit . . . wanted her husband to go into business. As he would not consent she undertook that task herself and thereby brought up and educated a large family. Her eldest son she put in the army; another in the law; and others in trades; all behaving respectably and succeeding in their different pursuits . . .” See H. N. Bell, *The Huntingdon peerage case*, [privately published], 1820, p. 302.

⁹⁴ Lichfield Record Office, (a) will of Fowler Oldershaw of Market Bosworth, apothecary, proved 10 February 1750; (b) will of John Oldershaw of Market Bosworth, surgeon, proved 22 March 1763. His son John was admitted to St Mary Hall, Oxford, in June 1776; he became BCL in 1783, DCL in 1819, and vicar of Tarvin, Cheshire.

⁹⁵ E. M. Leonard, *The early history of English poor relief*, Cambridge University Press, 1900, preface, p. vii.

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upon the almes of the citie of all their ulcers, wounds, sickness, and diseases etc.” A surgeon in Newcastle upon Tyne received forty shillings in 1592 as his accustomed fee for helping “. . . to cure the maimed poor folk”; in later years he came to be known as the town physician, and by 1632, a Mr Henderson was receiving £20 as a half-yearly stipend. Barnstaple was equally provident, in November 1629 engaging a Dr Symes at £20 a year.⁹⁶

This assistance to the sick poor was one of the sections of the Elizabethan Poor Law that survived into the Restoration and beyond;⁹⁷ vestry minutes or the accounts of the overseers of the poor afford many examples. Whittet and Newbold have shown that Peter Dent, William Frisby, Edmund Halfhyde, Artemas Hinds, and Charles Gilman, all apothecaries of Cambridge, were paid by the overseers in the parishes of St Peter’s, St Edward’s, and Great St Mary’s between 1685 and 1707.⁹⁸ Although Newcastle talked of its “townes physitian”, Barnstaple referred to a “learned physician” being employed, and Cavendish, Suffolk, commissioned Richard Hawes in 1758 as their “physician and surgeon”, most towns made use of apothecaries or surgeons as their medical practitioners. The towns of Eaton Socon and Enfield, Middlesex, may be taken as typical examples.

The first medical practitioners noted in the accounts of Eaton Socon and the nearby village of Roxton were a Dr Trott and a Dr Williams, both of St Neots, Huntingdonshire.⁹⁹ Although both men were accorded the honorary title of “doctor”, neither had a degree. The former was John Trott, son of Edward, clerk, who had been bound in 1688 to Joseph Pawlett, citizen and apothecary of London.¹⁰⁰ From 1702 to 1721, he was employed at different times by the authorities of Roxton and Eaton Socon. Trott had at least four apprentices, one of whom, Samuel Archdeacon, was to be employed by the parish from 1758 onwards. Dr Williams was George Williams, described in the apprenticeship records as either a “surgeon” or “surgeon etc.”. His bills could be sizeable. In 1724, he received £11 10s. 6d. for setting and “cureing” William Bass’s leg, and when Widow Gazeley’s boy required the same treatment, the bill was settled in two halves, one in 1707 and the other two years later.

Others, such as Drs Jesham, Appleby, King, and Rolt, came from St Neots as occasion demanded, and so did James Crow, possibly a barber-surgeon, as he dealt primarily in phlebotomies and salves. Specialist treatment was also sought from Mr Fisher, the bonesetter. The “wise women” were paid small sums for dealing with sore hands, burns, and scald heads.

At first, the medical bills were paid as and when they occurred, but by the second quarter of the eighteenth century, medical contracts began to be made, possibly as a result of the high expenses that had been incurred. A vestry resolution of 19 January 1730 stated that the parish of Eaton Socon had agreed to pay £5 “. . . from this time . . . to Easter 1731 [to] Mr John Sharpe, an apothecary [who] shall find all

⁹⁶ *Ibid.*, p. 202, quoting Welford’s *Newcastle and Gateshead*, p. 132, and ‘Wyot’s diary’, *North Devon Herald*, 21 April 1881.

⁹⁷ E. G. Thomas, ‘The old poor law and medicine’, *Med. Hist.*, 1980, 24: 1–19. Vivian Nutton, review of Webster (editor), *op. cit.*, note 29 above, in *ibid.*, 471–473.

⁹⁸ Whittet and Newbold, *op. cit.*, note 52 above, pp. 115–118.

⁹⁹ F. G. Emmison, ‘The relief of the poor at Eaton Socon, 1706–1834’, *Beds. Hist. Rec. Soc.*, 1933, 15: 1–99, see pp. 78–79.

¹⁰⁰ Guildhall Library, Apothecaries’ Society court minutes, MS. 8200/2, f. 260.

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manner of surgery and physick for all the poor of our said parish . . .". Dr Sharpe's bills for 1729 had amounted to £28, so the parish was being distinctly hopeful, not to say parsimonious, to contain the costs to this low sum. Indeed, it was obviously impossible, as when the contract ran out, the next was made with a "Mr Willis Atkins" [Adkins] for six guineas a year. He had been frequently called in by the overseers from 1718 onwards.

These men practised not only as apothecaries and surgeons, but also as man-midwives. From 1709 to 1719, Eaton Socon made nineteen disbursements for lyings-in. Usually, only the midwife was paid her half-crown fee, but sometimes the doctor was also present, as for example, "To Dr Williams for doeing his office in laying Musgrave's wife. £3 4s. 6d.". Successors to Willis Adkins were Jonathan and William Gorum (or Goreham), thought to be uncle and nephew), Samuel Archdeacon and his son, Robert Vickery, and William Halliley, all of whom are known to have been either surgeons or surgeons and apothecaries.¹⁰¹

The vestry minutes and parochial charity records for the small but wealthy market town of Enfield, Middlesex, are not extant before the last quarter of the seventeenth century, consequently the first reference to parish medical aid dates from 1682.¹⁰² On 24 September of that year, a Mr Huddleston received £2 10s. for "cureing a poor man called Jeremiah Gillam". John Huddleston was the son of Robert, a fellmonger, a man of some means as his will shows.¹⁰³ John was apprenticed to Henry Cliff of the London Barber-Surgeons' Company in 1665, and probably spent most of his professional life there; this was the sole occasion he was called in by the parish, and it may well have been at the behest of his brother, Robert junior, who was one of Enfield's schoolmasters.¹⁰⁴

The next man to appear was Robert Murrell in 1684, who received £4, "for curing the wife of John Mountegue, a husbandman, living in Green Street whose leg was dangerously broken". In subsequent years, Murrell appeared frequently for ever larger sums of money; the charity minutes for 5 August 1709 have the entry "Paid Mr Murrell for the cure of a mans head and arm wounded by the Mill, for the cure of Grace Saxbeys leg, for the cure of Wid. Ingles arm and for the cure of John Smedleys leg. £15". Two years later, he was paid £11 9s., and a note was added, "More due to him £26 11s.". ¹⁰⁵ Murrell's work seems to have been mainly, if not entirely, concerned with surgery. He probably trained his son William in the same art with the idea of him succeeding to the practice, as in the visitation of 1715 it is William Murrell who is named surgeon for Enfield and not Robert as in 1697.¹⁰⁶ When he made his will in

¹⁰¹ Emmison, *op. cit.*, note 99 above.

¹⁰² Thomas Greenhill, apothecary, was in Enfield between the years 1660 and 1677, and may have tended the parish poor. John Stephens, chyrurgeon, was in the town from 1678 onwards, but neither he nor his son Benjamin, apothecary, are known to have been employed by the parish.

¹⁰³ Guildhall Library, Commissary Court wills, MS. 9171/35, f. 289, 13 July 1675.

¹⁰⁴ *Ibid.*, Barber-Surgeons' Company bindings, MS. 5266/1, f. 109r; Robert Huddlestone, in his will dated April 1713, referred to him as ". . . my brother John citizen and chirurgeon of London now living at Enfield".

¹⁰⁵ Vestry minutes and Enfield parochial charities' accounts held in the vestry of St Andrew's Church, Enfield.

¹⁰⁶ Robert Murrell married three times. William, born January 1683, was the son of his first wife, Mary. Richard, the son of his third marriage, was apprenticed in 1736, after his father's death, to Daniel Harper, surgeon of St Mary's, Whitechapel.

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October 1728, Robert termed himself surgeon, but he had other sources of income. The survey of the manor of Enfield, 1686, shows that he held nearly forty acres of demesne land, rented from the feoffees a tenement known as the Greyhound, part of John David's gift, and held a freehold messuage in Bridge Street. He seems to have disposed of most of this property before his death, but, nevertheless, held two messuages and a brewhouse in Silver Street.¹⁰⁷

The Enfield charities paid out sums of money to lay persons such as Thomas Maskall in 1695 (£5), Robert Smithson in 1700 (£5), Mr John Game 50s. in 1685 and a further 50s. was promised if his cure was successful, Margaret Crisp for treating four children troubled with scald heads (£2), the Widow Mountegue for a cure done to John Welch (£2 10s), and there were, of course, the midwifery cases. Sarah Fish receiving £1 3s. 6d. in 1701. A Thomas Jones was in receipt of three sums of money. It is possible that he was a bonesetter and manipulator who specialized in ruptures, although when his two sons were apprenticed, he was described as a gentleman.¹⁰⁸

Another man who was much employed was Thomas Wilford, and there is no doubt that he was an apothecary. Thomas was baptised at St Andrew's, the parish church of Enfield, on 13 October 1651, the son of Edward and Susan Wilford, members of an influential, well-to-do, and educated local family. When Thomas was sixteen, his father exchanged indentures with William Phillips, citizen and apothecary of London, for his son to have an eight-year apprenticeship, starting on Lady Day 1669.¹⁰⁹ It is probable that Wilford first of all practised in London, but certainly from 1704 onwards he treated the poor of Enfield. It is apparent from the charity minutes that he was practising as both physician and surgeon. In November 1705, he received £2 6s. "for physick given to several poor", and there is still extant a bill of his dated 1709, "For performing a cure on Goody Roberts leg, which had been very bad for above a year by Poulcesses, Fomentations, Oyntments, Plasters and several bottles of dyett drink, for all which we deserve no less than forty shillings. Thomas Wilford." Goody's leg was still giving trouble in 1714, and Thomas was still hopefully "cureing" it.

Thomas Wilford died in 1719, the year in which the workhouse came into being. Who immediately followed him and Robert Murrell in their attendance on the poor is not known, as the records are defective, but from 1744 a Joseph Wilson was receiving £21 a year "... for his salary as Surgeon and Apothecary to the Parish."¹¹⁰ He was also given one or two guineas for "attending a woman in labour" or "laying a woman". Other records show that Wilson was as comfortably placed in life as Robert

¹⁰⁷ PRO, Duchy of Lancaster records, survey of the manor of Enfield, 1686, MS. DL 43/7/9; Guildhall Library, Commissary Court wills, MS. 9168/36, 6 March 1733.

¹⁰⁸ In 1713 and 1714, Thomas Jones apprenticed Thomas (baptized 1696) and John (baptized 1699) to two men whom the clerk of the Inland Revenue office termed citizens and barber-surgeons. The Company records, however, are more explicit. Thomas's master, John Kirkham, is called a surgeon but John's, Richard Frisby, a "consarcinator" (?consigner). Later, it is recorded that John Jones, apprentice of Richard Frisby, barber, was turned over to Samuel Seddon, packer. To confuse matters further, Richard Frisby proves to have been bound in 1692 to a William Curtis, packer, and then turned over to Jacob Wilson, "libert. cloath-worker". An example of the way in which official documents, whilst not totally incorrect, may be misleading.

¹⁰⁹ Guildhall Library, Apothecaries' Society court minutes, MS. 8200/2, f. 123v; made free 4 September 1677, f. 224r.

¹¹⁰ His licence to practise, obtained 26 November 1724, describes him as "Joseph Wilson of Enfield. surgeon". See Bloom and James, *op. cit.*, note 73 above, p. 35.

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Murrell or Thomas Wilford. He was in possession of three dwellings in Enfield and rented a fourth, the mansion house of Ridlington in which he lived. In addition, he had several large parcels of land, a brewhouse, and, for a short period, the Two Brewers public house at Ponders End.¹¹¹ His daughter Catherine, in 1761, married a surgeon, John Cameron, who succeeded to his father-in-law's practice.¹¹²

It is probable that Cameron continued to attend the poor for some years, but he must have relinquished the service by 1772, as the vestry minutes record that in November 1774, Thomas Prichard was given £21 as a year's salary "...for attending the poor as Doctor due at Mich. 1773." Prichard, a surgeon, had been in Enfield since at least 1755, when he figured in the rates book, and the following year received two guineas from the parish for delivering Hall's wife. In 1775, he was joined by John Sherwen, and their combined salary was increased to £31 10s. Sherwen, like Prichard and Wilson, was an "incomer", and received his initial training from Anthony Harrison, apothecary of Penrith.¹¹³

In any study of the development of the general practitioner, it is instructive to investigate the history of a modern firm of doctors from its recent past to its origins, so tracing its growth and studying the men who participated in it.

The medical practice in Church Street, Edmonton, endured for two hundred years, and even now is to be found "just round the corner". The first record of its existence can be dated to May 1733, when Robert Killingly presented a bill to the committee of the new workhouse. Unhappily for him, they voted against payment, probably because only a fortnight earlier they had appointed Dr Swift "to be our Physician & Apothecary" at £12 a year. Nine years later, however, it was agreed that "Mr Killingly be the Parish Apothecary" at the same salary, an offer which he accepted.¹¹⁴ Robert had been apprenticed to William Beckington, citizen and apothecary of London in 1722, but never applied for the freedom of the Society, possibly because he intended to practise just on the seven-mile boundary outside the City.¹¹⁵

Killingly died in 1755, and he was followed in his practice by John Hammond, who married his daughter Frances two years later. It is not known where Hammond was

¹¹¹ London Borough of Enfield local history library, courts baron of manor of Worcesters, 1750 and 1758; Trinity College Library, Cambridge, Tithe map of 1754; Greater London Record Office, court baron of manor of Durants, 1753. In 1749, the Window Tax assessments for the first and second quarters show he owed tax on sixty-six windows.

¹¹² London Borough of Enfield local history library. The Eliab Breton sale of 1771, "An apothecary's shop, wash house, stable etc. let to Mr Cameron on lease of which 32 years unexpired."

¹¹³ PRO, Inland Revenue apprenticeship records, I.R./1/56, f. 15. Sherwen received further short periods of training at Edinburgh and St Thomas's Hospital, London. He passed as a surgeon to an Indiaman on 1 June 1769, and made at least one voyage to the Far East. He became an MD (Aberdeen) in 1798 and an extra-licentiate of the London College of Physicians in 1802. He was a Shakespearian scholar, was involved in the Rowley/Chatterton controversy, and was himself a poet of no mean attainment. For further details of his career, see J. Burnby, *John Sherwen and drug cultivation in Enfield*, Edmonton Hundred Historical Society, Occasional Paper No. 23, 1973.

¹¹⁴ London Borough of Enfield local history library. Edmonton workhouse committee minutes for May 1733, unpaginated; Edmonton vestry minutes for April 1742.

¹¹⁵ Guildhall Library, Apothecaries' Society court minutes, MS. 8200/5, f. 56v. The will of Robert Killingly shows that he possessed several copyhold tenements in Church Street, Edmonton. The Killinglys seem to have been well placed in life; his aunt, Frances Hankin of Hornsey, bequeathed his family silverware in 1742, and the will of his son, Robert, shows that he traded with Antigua and probably lived there for a period.

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trained, but the chances are high that his master was Killingly. Hammond was a successful man, a close friend of Sir James Winter Lake, governor of the Hudson Bay Company, and Pierce Galliard of Bury Hall; he appointed Lake trustee for his will of 1790, in which he described himself as an apothecary and surgeon. He bequeathed his three sons, William, Thomas, and John, £1,200 to be equally divided, and earnestly desired that they should “. . . continue together and to aid and assist each other to the utmost of their respective powers in carrying on their business of Surgeons and Apothecarys.”¹¹⁶ Shortly after his death, the Edmonton vestry passed the motion “. . . respecting a vacancy of an apothecary in room of the late Mr John Hammond, it was unanimously resolved that Mr William Hammond and Mr Thomas Hammond, be continued as apothecaries of the Parish on the same terms . . . viz. £50 a year but to find every kind of Medicine and to be subject to be discharged on non-attendance in their duty to the poor.”

William and Thomas had been trained by their father before they went to Guy's Hospital as dressers to William Lucas in 1781 and 1786. The details for John are missing, but it is known that he attended Guy's Hospital (or possibly St Thomas's Hospital) in 1791. All three sons passed the diploma of the London Company of Surgeons.¹¹⁷ Despite their father's stated wishes, the three young men soon went their separate ways. John was already in Enfield by 1795, and there married the daughter of a neighbour, William Complin, a well-established surgeon and apothecary who earlier had been in practice in Goodmansfields near the Royal Mint.¹¹⁸ William Hammond stayed within the parish of Edmonton but removed himself to its most rural point on the edge of Enfield Chase, now known as Southgate. Like his father, he trained his own son, another William, and then sent him to be a dresser to Astley Cooper.¹¹⁹ From the will of the older William, proved in 1837, we learn not only that father and son had drawn up articles of co-partnership in a “business as a surgeon and apothecary”, but that they also had a shop well stocked with drugs.

The Church Street practice continued to be run by Thomas Hammond, the middle brother, whose greatest claim to fame is that he was the apprentice-master of John Keats. Of his three sons, two, Henry Samuel and Edward Bowles, chose the same career as their father and uncles. The younger boy, a contemporary and probably fellow-apprentice of Keats, gained his MRCS at the second attempt in 1819. He then practised in one of his father's branch surgeries in nearby Fore Street until his early death.¹²⁰ Henry Samuel was not his father's apprentice but

¹¹⁶ PRO, PCC, Prob. 11 1192, f. 240.

¹¹⁷ Archive office, Guy's Hospital Medical School, registers of entry of physicians' and surgeons' dressers, 1778–1813, Guy's and St. Thomas's Hospitals pupils and dressers, 1755–1823; Royal College of Surgeons' Library, Examination book of the Company of Surgeons, William Hammond, June 1783, Thomas Hammond, May 1787, John Hammond, March 1795.

¹¹⁸ William Complin returned to London and died at Spital Square in 1808. He bequeathed to his son-in-law, Nicholas Birch, surgeon, all his books of physic and surgery, and to his son, Edward, druggist, all “. . . my books of herbals and dispensary”.

¹¹⁹ It was probably through her brother that Ann Elisha Hammond met and married in 1813 Joseph Henry Green, the celebrated demonstrator at Guy's Hospital who made the famous introduction between the two poets, Keats and Coleridge.

¹²⁰ From 1826, Edward Bowles Hammond was in partnership with Henry Biddle, surgeon, who was five years his junior. The firm was still known as Hammond and Biddle in 1837, nine years after Edward's death; it finally became Henry Biddle and Son.

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was indentured with the well-known surgeon Thomas Blizard at a premium of 200 guineas.¹²¹ He became MRCS in 1814 (and FRCS in 1858), and on his father's death three years later took over the Church Street practice. In 1842, exactly a hundred years after Robert Killingly's appointment as parish apothecary, Henry Samuel became medical officer to the Edmonton Poor Law Union at £110 a year.

Henry had a large family but only the youngest son, Samuel, decided on medicine as a career. Samuel took the double qualification of MRCS and LSA in 1858, and was the first of the family to become a licentiate of a Royal College of Physicians (Edinburgh) in 1860. The following year, he left Edmonton, not to return.¹²² This must have been a blow to his father, who in 1862, when he was seventy, took into partnership a young surgeon with the resounding name of Charles James Massey Morris. Four years later, Henry Samuel retired and Morris succeeded to the practice, where he was to remain for another thirty years. The Church Street firm of doctors did not move until 1931, when the old house was demolished.

The history of a present-day firm of general practitioners having thus been followed, it is equally worthwhile to scrutinize the history of a strongly medically-orientated family. The changes of title and of education in each generation reveal the manner in which the practitioner of today has grown out of the surgeon or apothecary of the early eighteenth century.

The central figure at the beginning of this story was John Snashall, son and grandson of maltsters in Lewes, Sussex, who was apprenticed to Richard Russell, surgeon of the same town, in 1713.¹²³ In 1730, Snashall rebuilt 203 High Street, and practised there for the next thirty-six years. He married for the second time, Mary Ridge, widow of Thomas Ridge of Southover, but there were no children. An apprentice of his, Joseph Ridge (1734–1816), son of a woollen-draper and a distant relative of Mary, inherited the practice in the High Street.¹²⁴ To cement matters further, Joseph married Snashall's niece. John Snashall is known to have had at least six apprentices when he was termed either surgeon or apothecary, to which titles Joseph Ridge added man-midwife.

At an unknown date, Ridge took in a partner, an apothecary known as Dr John Chambers, who became the apprentice-master of Ridge's nephew Thomas (1760–1822) in 1775. This Thomas was the first of the Ridges who left Lewes to gain experience in a hospital, but was by no means the last. He began attending courses at Guy's Hospital in 1781, to be followed in 1798 by Samuel, the son of Joseph Ridge who had given him his preliminary training. Thomas then went to Great Yarmouth, where he practised until his death in 1822.

This history of the Ridge medical connexions now takes a slight shift to another

¹²¹ It is possible that Thomas Hammond and Thomas Blizard were personal friends, as Hammond's youngest daughter was baptized Harriet Blizard in August 1808.

¹²² For further details of the Hammond family see, J. Burnby, *The Hammonds of Edmonton*, Edmonton Hundred Historical Society, Occasional Paper No. 26, 1973.

¹²³ There were a number of medical Russells in Lewes; this Richard is probably the one nicknamed "Sea Water Russell", son of Nathaniel, an apothecary, and who after an advantageous marriage obtained an MD at Leiden in 1724. See T. D. Whittet, 'Apothecaries and the development of sea bathing', *Pharm. Hist.*, 1981, 11: no. 3, 7–8.

¹²⁴ For much of this material I am indebted to Dr Jessie Ridge of Seaford, Sussex.

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branch.¹²⁵ Benjamin (1779–1832), son of William Ridge, brewer and brandy merchant, mayor of Chichester and second cousin to the previously mentioned Thomas, was apprenticed in 1795 to James Cockburne, “surgeon etc.” of the same city for six years. Benjamin did not complete his apprenticeship, for he had joined Samuel Ridge at Guy’s Hospital by 1798. Two years later, he joined the East India Company as a ship’s surgeon. He did not lead the roaming life for long, because he was settled in Lambeth in 1802.

Of Benjamin’s four sons, the two younger decided not only to enter medicine but that formal qualifications were then the order of the day. The elder, Benjamin II (1807–89), became first an LSA, then an MD (Jena, 1839), and an FRCS (1854). He was the author of many medical papers. The younger brother, John James (1811–74), after experience with his father, went to Guy’s Hospital as family tradition demanded, finally gaining the double qualification MRCS, LSA, and an MD (St Andrews 1852). J.J., as he was called, practised as a general practitioner in Gravesend, Kent, where he became a justice of the peace and mayor. He was of an inventive turn of mind and took out a number of patents, the most successful being “Dr Ridge’s patent food”. The Post Office Directory lists him as being both a surgeon and a chemist and druggist in 1862, a description that was far from inaccurate, because he was the first chairman of the General Apothecaries’ Company, which existed from 1856 to 1959.¹²⁶ A broadsheet informed the public that the company’s avowed intention was to supply “. . . unadulterated Drugs and Chemicals, Invalid Foods, Condiments, Sanatory [*sic*] and Domestic Articles; to prepare Physician and other Prescriptions, Photographic Chemicals etc.” The directors claimed they had fitted up extensive laboratories and drug mills and employed “Scientific Chemists” for the testing and analysis of all goods sold. All of this is a reminder of general practitioners’ apothecarial forebears.

It is unnecessary to follow this medically-centred family further, except to say that J.J.’s only son J.J.II (BA, BSc, MRCS, LRCP, MD(Lond.)), a general practitioner in Enfield and co-founder of the Cottage Hospital, was the father of two doctors (MB BCh(Edin.), and FRCS, LRCP), grandfather of two more (both MB BS), and great-grandfather of another (MB BS, MRCGP), general practitioners in Enfield to this day. From this can be seen the steps taken in one family from eighteenth-century apothecary to member of the Royal College of General Practitioners.

There is no doubt that the apothecary was an essential factor in the genesis of the general practitioner, but it is equally obvious that the title “apothecary” was not an exact one. Throughout the eighteenth century and even earlier, the terms “surgeon” and “apothecary” could scarcely be differentiated in the provinces. John Trott and Thomas Wilford were both apprenticed to London apothecaries; neither, as far as is known, had training with a surgeon, and yet both worked as the mixed practitioners of the day in Eaton Socon and Enfield. Possibly, the London apothecary practised far more surgery than is generally supposed, a view that gains greater credence when the education of Samuel Snashall, cousin of the previously mentioned John, is considered. On 4 June 1706, Samuel, the son of a mercer of Petworth, Sussex, was bound for eight years to John Brown, a member of the London Society of Apothecaries. Surprisingly,

¹²⁵ See Snashall and Ridge pedigree.

¹²⁶ T. D. Whittet, ‘The Liverpool Apothecaries’ Company’, *Chem. Drugg.*, 1965, **184**: 40–41.

he did not seek the freedom of that Company but rather that of the Barber-Surgeons, "1 February 1715, Samuel Snashall, chirurgeon, apprentice of John Browne, foreign brother, admitted by redemption. Paid £3 4s. 6d."¹²⁷ When cases such as this are explored, it becomes increasingly apparent that many of the barriers erected by historians between the London guilds are artificial and fragile.

It is also true to say that the implementation of the Poor Laws was instrumental in the emergence of the general practitioner. The apothecary, skilled in physic and pharmacy, and with some surgical expertise, practised, as occasion demanded, the neglected and despised expertise of midwifery. Neither was this just a second-rate service fit only for the lower orders. Dr Joan Lane, working on Warwickshire material for the years 1750–1834, has found that apprenticeship as a means of training was held in very high esteem, and that the parish poor and the gentry were treated by the same medical practitioners.¹²⁸

THE EXPERIMENTAL AND MANUFACTURING CHEMIST

Chemistry as a science in its own right with its own individual approach to problems, its own technology and concepts, is a late product of the Scientific Revolution. The work of Dalton, Lavoisier, Cavendish, Priestley, and Black established chemistry as a clearly defined branch of science; any attempt to classify earlier sources that led to both chemical theory and practice immediately becomes complex. Discoveries in mineralogy or physics, in metallurgy or biology, could have chemical significance; even more obviously related were developments in industrial technology and medicine. A. R. Hall has written that, "By the end of the seventeenth century the best accounts of experimental chemistry were those written with medical applications in mind", adding that such progress was due to "... physicians and apothecaries, among them Boerhaave, Cullen, Scheele and Black."¹²⁹ The teaching of chemistry began in the universities around 1700 but only as an adjunct to medicine, and even at the end of the century, when Black was lecturing at Edinburgh the bulk of his listeners were medical students.

The study of chemistry by medical practitioners gained its greatest impetus from the works of Paracelsus and his followers; the English Paracelsian, Noah Biggs, in 1651, went so far as to call for a "Reformation of the Universities and the whole Landscap of Physick", which would thus effect the discovery of the "Terra incognita of Chymistrie".¹³⁰ The replacement of the humoral theory by the three principles, sulphur, salt, and mercury, was no advance in medical theory, nor was the esoteric Paracelsian and Helmontian philosophy in any degree helpful to medical practice, but these physicians had the effect of promoting chemically-prepared medicines and the analysis of mineral waters. As Franklin has written, "The physicians were at liberty to spin their webs of intuitive chemical thought, but for the apothecaries and druggists whose livelihood depended on their ability to market drugs, the improvement of

¹²⁷ Guildhall Library, Apothecaries' Society court minutes, MS. 8200/4, f. 247; Freedoms of the Barber-Surgeons' Company, MS. 5265/4, f. 61.

¹²⁸ Dr Joan Lane, Centre for the Study of Social History, University of Warwick. Personal communication.

¹²⁹ A. R. Hall, *The scientific revolution, 1500–1800*, London, Longmans, 1962, p. 320.

¹³⁰ A. G. Debus, 'Paracelsian medicine: Noah Biggs and the problem of medical reform', in Debus (editor), op. cit., note 6 above, p. 36.

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chemical procedures had become a practical necessity".¹³¹

Two immensely popular works were produced in the early years of the seventeenth century to cater for this demand, Oswald Croll's *Basilica chymica* and Jean Beguin's *Tyrocinium chymicum*. Later in the century, these books were followed by those of Nicasius Le Febvre, Christopher Glaser, Moise Charas, and Nicolas Lemery.¹³² By 1685, advertisements such as that of Thomas Hammond's could be seen, ". . . sundry select and experimental Medicines such whose Beneficence is well known to the most eminent Physicians, faithfully prepared and sold by Thomas Hammond, at his house, the sign of the Blew Balls in Ave-Mary Lane, leading from Lud Gate Street to Pater Noster Alley, who has been practically conversant as well as Student in Chymical Pharmacy . . . above ten years past". His list of preparations included: (i) "The Queen of Hungary's Water"; (ii) "The English Orvietan or the curious purging antidote"; (iii) "The Elixir proprietatis, impregnated with volatile salt of Hartshorn"; (iv) "The Tincture of the Salt of Tartar (of a Rubicund colour)"; (v) "The ponderous Acid Oyle of Vitriol made Volatil and sweet"; (vi) "Dullidge Water evaporated so as a Pint will Purge as much as three Quarts crude from the Well."¹³³ Thomas Hammond has not been found to be a member of the Society of Apothecaries; nor was his contemporary, George Wilson (1631–1711), a chemist of greater note. Wilson received his freedom of the Company of Haberdashers by order of the Court of Aldermen, and in his will referred to himself as "citizen and haberdasher". Nothing is known of his origins, but he was certainly established at the sign of the Hermes Trismegistus, Watling Street in the parish of St Mary Aldermary, by the time of the Great Plague, during which he was kept exceedingly busy. About 1688, he moved to Well Yard, near St Bartholomew's Hospital, and there he wrote his *Compleat course of chymistry* printed in 1691. It formed the basis of many public lectures from then until well into the eighteenth century.¹³⁴ It was an eminently practical book and contained chapters on how to "lute limbeckes", "terms used in chymistry", how "to fortifie cracked glass", how to "defend a glass in a naked flame" by means of pipe clay or jackets of sand, besides sections on Dr Starkey's pill, "Matthew's his pill", extract of Peruvian bark, amber, extract of opium, and sugar.¹³⁵

The book seems to have been intended to be used in conjunction with his most successful courses in chemistry. They were advertised in John Houghton's weekly paper, *A collection for the improvement of husbandry and trade*, in 1694, which

¹³¹ A. W. Franklin, 'Clinical medicine', in *ibid.*, p. 125. See also, C. Webster, *The great instauration. Science, medicine and reform, 1626–1660*, London, Duckworth, 1975; N. G. Coley, "'Cures without care'. "Chymical physicians" and mineral waters in seventeenth-century English medicine', *Med. Hist.*, 1979, 23: 191–214.

¹³² Nicasius Le Febvre, *A compendious body of chymistry*, London, 1662, "Apothecary in ordinary and Chymical distiller to the King of France and at present to his Majesty of Great Britain". Christopher Glaser, *The compleat chymist, a new treatise of chymistry*, London 1677; Glaser was a Swiss who held the chair of chemistry at the Jardin des Plantes. Moise Charas, *Pharmacopée royale galénique et chymique*, Paris, 1676 (London 1678); a master apothecary, who was successor to Glaser. Nicolas Lemery, *Cours de Chymie*, Paris, 1675; a French apothecary.

¹³³ British Library, advertisement of Thomas Hammond, 546.d.44(11).

¹³⁴ F. W. Gibbs, 'George Wilson, (1631–1711)', *Endeavour*, 1953, 12: 183.

¹³⁵ George Starkey was one of the "chymical physicians" who did not survive the Great Plague; before his death, he imparted the formula for his pill, the compound soap pill, which found its way into the London Pharmacopoeia of 1746. He sold an earlier variant to Matthews.

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informs us that the lectures and demonstrations were held in Wilson's house and that a full course cost three guineas. Others who followed his example and methods were Edward Bright, a chemist with a laboratory in Whitefriars near Fleet Street, and William Johnson at the sign of Van Helmont's Head in Fetter Lane. Johnson had been employed by Robert Boyle and had a knowledge of both physics and chemistry.

The Honourable Robert Boyle (1627–91) stands squarely at the watershed of chemical thought and theory. Although Boyle is often dubbed “the father of chemistry”, John Freind in his chemical lectures in 1704 at Oxford was rather more correct when he commented that “. . . he had not so much laid down a new Foundation of Chymistry, as he had thrown down the old”.¹³⁶ Boyle went to Oxford in 1655, and there lodged with John Crosse, an apothecary, thereby following the example of William Petty (1623–87), who had lived at the house of another apothecary, Arthur Tillyard.¹³⁷ Boyle soon employed Robert Hooke to be his chemical operator, and in January 1660 brought over the German chemist, Peter Stähl, to act as demonstrator. Stähl began to teach chemistry to any that were interested, and many took advantage of the opportunity, including the mathematicians Christopher Wren and John Wallis, and the physicians Ralph Bathurst, Thomas Millington, and Richard Lower. What is not known is whether the apothecaries, besides providing facilities, participated further in these chemical experiments. It is possible that Stephen Toone did so, because he and three Oxford surgeons, Francis Smith, William Day, and John Gill, were all close friends of John Ward when he was studying medicine and the allied disciplines of chemistry, botany, and physiology in the years between 1650 and 1668.¹³⁸

Pilkington has pointed out that Boyle could with justice be regarded as a director of an extensive private institution.¹³⁹ Amongst those who worked for and with him were the previously mentioned Robert Hooke and Peter Stähl, Denis Papin, Hugh Greg, Frederick Slare, and another German, Ambrose Godfrey Hanckwitz. Boyle moved to London in 1668, the capital having become the centre of scientific thought, and there set up new laboratories in Maiden Lane. It is often said that Hanckwitz helped Boyle in the erection of the building, but as all the evidence of Hanckwitz's birth points to it being in 1660, this is clearly impossible. He was born at Nienburg, and it is not known when he came to this country or how Boyle came to know him, but it is very likely to have been before 1683, the probable date of the birth of his eldest son, Boyle Godfrey Hanckwitz. Again, what training Ambrose (I) had in chemistry is far from clear, although from his own testimony he served a Mr Steiger, chymist, when a young man.¹⁴⁰

Ambrose Hanckwitz's rise to fortune was due in the first place to his successful manufacture of glacial phosphorus. Tradition asserts that Hennig Brandt of

¹³⁶ Franklin, *op. cit.*, note 131 above, p. 127.

¹³⁷ Several members of the Invisible College migrated to Oxford in about 1647 and formed an “experimental philosophical Clubbe” which met at Tillyard's.

¹³⁸ (a) Robert G. Frank *jr.*, ‘The John Ward diaries: mirror of seventeenth century science and medicine’, *J. Hist. Med.*, 1974, **29**: 147–179, see pp. 152, 157; (b) *idem*, *Harvey and the Oxford physiologists*, Berkeley, University of California Press, 1980.

¹³⁹ R. Pilkington, *Robert Boyle, father of chemistry*, London, Murray, 1959, p. 145.

¹⁴⁰ R. E. W. Maddison, ‘Studies of the life of Robert Boyle, FRS’, *Notes Rec. R. Soc. Lond.*, 1953, **10**: 159–187, pedigree p. 162.

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Hamburg, in about 1668, discovered how to isolate an impure phosphorus, a secret that he carefully guarded. In spite of this, in September 1677, Dr Johann Daniel Kraft demonstrated the newly discovered element to Boyle, and gave him hints of the materials from which it had been derived. By 1680, Boyle had devised a method employing urine but, being dissatisfied with the yield, he asked his laboratory assistant Bilger to find a more successful method. In this he was forestalled by the young Hanc-kwitz, who not only obtained a better yield but produced a far superior end-product. Some time between the birth of his eldest son and the death of Boyle in 1691, Hanc-kwitz started his own laboratory in the garden of his house in Southampton Street. It soon became one of the best equipped in England, and was the resort of people of fashion as well as those with scientific leanings. Here he developed his “fire annihilator” or “water bomb” and conducted analyses of medicinal waters and earths. He also perfected a method of preparing sulphuric ether, whose properties he and Johann Sigismund Frobenius demonstrated to the Royal Society in 1730. He found it useful in the cold extraction of essential oils.

Ambrose (I) died in 1741, and the business was continued by his second and third sons, Ambrose (II) and John, who were soon in difficulties. The firm was burdened with money commitments arising from their father’s will, but John’s incurable extravagance was probably even more damaging. Bankruptcy ensued in 1746, but the struggling concern was allowed to work off its debts, and happily rose to considerable prominence under the guidance of Ambrose (III) of the next generation. After the death of the founder, the character of the firm seems to have changed; it was still engaged in the manufacture of chemicals, but it also prepared the pharmaceutical products of the day. On 1 July 1746, Ambrose (III) was apprenticed for eight years to James Burges, junior, citizen and apothecary, and took up the freedom of the Society thirteen years later in 1759.¹⁴¹

John Conyers, a London apothecary, conducted some of the earliest “tryalls” on phosphorus of which we have any knowledge. It was his normal practice to make a careful note in his memoranda book of the dates on which he carried out his experiments, but on this occasion he has unfortunately not done so. In his book, they lie between those of 3 October 1682 and 20 October 1690, and, as he writes of using a small slice, it would seem he had obtained his sample from Hanc-kwitz.¹⁴²

Som[e] tryalls Made upon phosphor described in Mr Boyles Booke (i) I tooke the shanke of veale bones & when I had scraped ofe the skinn & moysture I rubbed a small minute slice of the phosphor upon this bone w[i]th the handle of my knife which did not at all flame, but onely now & then smoke upon knocking & bending the bone. Secondly, I took oyle of Almonds & upon browne paper 3 double I droppt it & wth a small quantity of phosphor rubbed wth my knife handle thereon it scarce made show of so much as light or smoke, the same I did then trye with butter. 3ly I rubbed a small quantity wth salt & saltar-monick wch was not improved therby, the same allso wth flower of brimston. 4ly I tried upon paper wett wth oyle of vitriol and spirit of salt & found they extinguished it so th[a]t little or no flame appeared, as allso wth Sp: Corn: Cervi as little or less & so allso wth water in like warmer wett upon browne paper, lastly I spread P. Aureos upon doubled browne paper & a minute slice of this rubbed thereon fired verry feircely & speedier then anny of the other in so much th[a]t it appeared to bee furious in its motion & speedily burnt my Ivory knife handle wth much less rubbing. I tooke of salt peeter a little & rubbed it upon the bottom of the outside of a Gallypott & wth a small modicu[m] of this phosphor quickly made an explosion like gunpowder.¹⁴³

¹⁴¹ Guildhall Library, Apothecaries’ Society court minutes, MS. 8200/7, ff. 5r, 143v.

¹⁴² Hanc-kwitz’s phosphorus was white and solid and not the earlier dark brown sticky mass.

¹⁴³ British Library, Sloane MSS., MS. 958, f. 139r. Memoranda of John Conyers.

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Our knowledge of the life and activities of the seventeenth-century apothecary is so slight that the memoranda of John Conyers, apothecary in Fleet Street, London, warrant a closer examination. From his notes, we learn that he was the son of Edward Conyers and his wife Jane Clarke, who were married in 1632 or 1633 in the former church of St Faith's. He was apprenticed to Robert Phelps, citizen and apothecary, and gained his freedom of the Company in February 1658. When he first became involved with the Royal Society is not known, and he is often confused with William Conyers MD of Oxford, who died of the plague in 1665.¹⁴⁴ Although the relationship was of the remotest, it is certain that the two families knew of each other. In 1672, the records relate that Mr Hooke had produced a speaking trumpet which was found to be better than the one designed by Mr Conyers; in 1679 and 1680, Conyers was propounding mathematical problems, which Mr Hooke solved by means of Signor Viviani's book which he had recently received.¹⁴⁵ Robert Hooke knew Conyers well and mentioned him several times in his diary. "Wednesday, May 27th 1674. At Mr Coniers, Apothecary in Fleet St. Saw some stones of his Collection and much Ebur Fossile. He gave me a peice." On Thursday 19 August 1680, he wrote, "Conier, apothecary. At Jonathans with Coniers, Ashton and Dr Wood."

Conyers published papers in the *Philosophical Transactions* on a pump and on hygrosopes. In the second half of the seventeenth century, a fresh investigation began into the age-old ideas concerning the relationship between weather and disease. Sydenham believed that the study of epidemic illness required a close observation of the weather, a study that was made easier by Boyle's experiments with barometers and other instruments such as his "statistical hygroscope". Christopher Wren urged the importance of the study of meteorology in relation to the incidence of disease in an address to the Royal Society, and it is possible that Conyers heard him on the subject.¹⁴⁶ In March 1675, Conyers wrote: "Here you will find som observations made touching the weather as to heat or cold, moysture & drouth which will be taken from glasses modified into Cylinders & Conexes . . . all having 3 fs of sponge put into each glass wch varies their weight from tyme to tyme as the tyme of the yeare is . . ." He went on to relate that he had already kept a diary concerning the weather for a year and a quarter. These glasses he suspended in a cupboard with perforated base and sides, which he nicknamed the "phenix nest". He weighed them frequently and related the variations between them to their differences in shape, which he thought might affect the gathering of moisture.

He made instruments which he sometimes called thermometers and sometimes thermoscopes. They were filled with different fluids such as almond oil, spirits of wine, or "green water made from vinegar maydew, Roman vitriol and verdigrease in common water", all designated by symbols. They were calibrated, and he took great pains to ascertain at what number they were standing, and under what conditions, speculating as to why they should differ.

¹⁴⁴ William Conyers had an interest in chemistry and we learn from the John Ward diaries (note 138a above) that he had a furnace of his own. He was the son of William of the Walthamstow Conyers. His will is at the PRO, PCC Prob. 11-319 f. 20.

¹⁴⁵ R. T. Gunther, *Early science in Oxford*, 15 vols., Oxford, [for the Subscribers], 1923-67, vol. 7, pp. 403, 538, vol. 4, p. 85. His paper on the ear trumpet was published in the *Philosophical Transactions*.

¹⁴⁶ J. H. Cassedy, 'Medicine and the rise of statistics', in Debus (editor), op. cit., note 6 above, p. 303.

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He related the weather conditions to the state of health, and on one occasion gave a dramatic example. On 24 March 1675, he noticed a sultriness in the atmosphere with a “. . . smoakynes & a due or moysture cleaving to the paste & painted boarded entryes . . .”, the sulphurous reek continued for an hour or so and the unusual warmth for longer, “. . . which proved fatall for about 10 of the clock that night my verry good friend Dr Jonathan Goddard reader of the Physick lectures at Gresham colledg, he was taken ill & sodainly fell downe dead in the street as he was entering into a coach, he beinge pretty Corpulent & tall man, a Bachelour of about 5 & fifty yeares age & Mellancholly & inclineing to be Cynick who used now & then to complain of giddynes in his head; he was an excellent mathematician & phisician, sometymes to Oliver the protector.”

John Conyers was convinced that the earth shrank and swelled “. . . one [*sic*] the superficies at least, in like manner as the wo[o]den Pannel of Deale with an Index”. He listed twenty-seven observations which he thought proved his belief. He was aware of the phenomena of magnetism, electrostatics, evaporation, absorption, expansion, and fermentation, but explained them all in terms of “rarifaction and condensation”. In observation No. 24, he wrote of an experiment in which a tightly stoppered empty bottle was lowered to such a depth in the sea that it shattered. This he believed was due not to “. . . pressure as Mr B. would have it . . .” but to “. . . the ayre therin shrinking untill it drawed in the sydes”. He knew of the new theory of “the pressure of the atmosphere which is now strongly maintained by all the world” but remained doubtful of its validity. He carried out a number of experiments which he thought “rebuked” the theory but his results were much confused by capillarity and surface tension.

His work as a pharmacist was of ever-present interest to him. In his memoranda, he referred to the making of extract rudii and drew inferences in relation to combustion; the manufacture of aloes of roses gave him the opportunity to discuss the question of the dispersal of solids in liquids and the entrapping of air, whilst the preparation of lac virginis allowed him to suggest the method by which fossils were formed. He also made notes on the tanning of leather and drew diagrams of outsize hailstones and snowflakes, but his keenest interest aside from physical chemistry was archaeology, about which he wrote at length. Living so near to the cathedral of St Paul and having such an enquiring mind, it is not surprising that he often visited the workmen at the time of the rebuilding. The discovery of Roman coins, brick, and pottery interested him greatly. He noted Samian and Castor ware and poppy-beakers and well understand the value of strata. He wrote, “I might see the Epochs or beginnings of things and in these various heighths of ground poynt & shew with my finger the Romans concernes lay deepest, then higher those of more recent or fresher conerne”. The man obviously had the makings of a good archaeologist and, as Oakley has pointed out, he appears to have recognized that the hand-axe was a primitive tool.¹⁴⁷

Conyers was in close contact with the enquiring and “curious” persons of his day. He often mentioned Francis Glisson, the Regius Professor of Physick at Cambridge, who lived nearby, and no wonder, because Glisson was Conyers’ wife’s uncle.¹⁴⁸ Other

¹⁴⁷ K. P. Oakley, *Man the tool-maker*, London, British Museum, 1963, p. 3.

¹⁴⁸ From Glisson’s will dated 1674, it is apparent that John Conyers had borrowed £80 from him and had not repaid it. PRO, PCC, Prob. 11, 355, f. 116, proved November 1677.

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well-known acquaintances were Mr Tompion the watchmaker, who borrowed Conyers' deal hygroscope for a while, and Mr Flamsteed the astronomer, who "... resolved to make one of my weather-gages ...". John Conyers' ideas on physical science were woefully confused, but he was aware of the recent developments, even if he did not agree with them or fully understand them. He manfully tried to implement the "new" philosophy by conducting experiments and evaluating their results. His profession not only allowed but actually encouraged him in his studies, and was a continual stimulus to his investigatory powers.

The apothecaries would seem to have contributed few experimentalists with leanings towards chemical theory, but in manufacture the story is rather more positive. As Clark has noted, the diaries and correspondence of scientists in the age of Newton are full of their visits to workshops, of their talks with artificers, and descriptions of industrial processes. He quotes Boyle as saying, "In many cases a trade differs from an experiment, not so much in the nature of the thing, as in its having had the luck to be applied to human use"¹⁴⁹ James Goodwin, referred to in the Annals of the College of Physicians as "Chymist and Apothecary at the end of the Hay Market", is known to have manufactured sal ammoniac and probably sal volatile and ammonium carbonate.¹⁵⁰ His business must have been of a considerable size, as he made a bold attempt to gain and hold a much-prized contract for the supply of drugs to the Royal African Company in the early 1720s. He thereby gained the enmity of the College, and, because he was an unincorporated apothecary, that of the Society as well.¹⁵¹

The very successful activities of the Society of Apothecaries' own laboratory should not be forgotten. The College of Physicians had established a laboratory in about 1650 under a chemist called William Johnson.¹⁵² Johnson was a victim of the plague in 1665, and the laboratory with the other College buildings was destroyed in the fire of the following year, whereupon the physicians' interest seems to have died. The apothecaries, seeing a good opportunity, in 1671 invited the freemen of their Company to finance an elaboratory for the manufacture and sale of chemical medicines. The inaugural meeting of subscribers was held 4 January 1672. The first operator was Samuel Stringer, but his conditions of employment were so poor that he left a year later. His successor, Samuel Hull, died in November 1675, and his apprentice, Samuel Symonds, was appointed as a temporary measure. The laboratory does not seem really to have got into its stride until the appointment of a German, Nicholas Staphorst, in 1676. Production soon increased, and the following year he was in trouble for allowing sulphur fumes to be emitted from the kitchen chimney.

¹⁴⁹ Sir George N. Clark, 'Aspects of science in the age of Newton', *Econ. Hist.*, 1937, 3: 362–379, see p. 371.

¹⁵⁰ J. Grier, *A history of pharmacy*, London, Pharmaceutical Press, 1937, p. 143.

¹⁵¹ J. Bell and T. Redwood, *Historical sketch of the progress of pharmacy in Britain*, London. Pharmaceutical Society of Great Britain, 1880, pp. 21, 23; Wall, Cameron, and Underwood, op. cit., note 8 above, vol. 1, pp. 416–417. James Goodwin of St Martin-in-the-Fields gave himself this title when he took Guy Stone as his apprentice in June 1712.

¹⁵² He became a member of the Apothecaries' Society under certain conditions, "William Johnson the chymist being a Freeman [of the City of London] desired hee may be incorporated in this Companie and is granted, and left to himself what gratuitie he will give, on his promise or security not to meddle with galenical medicines". Guildhall Library, Apothecaries Society court minutes, MS. 8200/2, f. 18r., 27 January 1653.

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Sales were made to physicians, surgeons, apothecaries, and druggists, and the venture became so successful that shares were limited to £25 per member.

An idea of the size of the Society's manufacturing operations, which included those of a chemical nature, can be obtained from the responses of the master and wardens to questions by the commissioners of the Army Medical Board in 1810. They indicated that medicines could be provided for an army of 30,000 men over the course of ten days if the emergency were great, and divulged that the average amount spent by the Royal Navy (whose contract they possessed) for medicines in the five previous years was £24,917 per annum, and the figure for the East India Company, whom they also supplied, was £21,582.¹⁵³

THE PHARMACEUTICAL WHOLESALER AND MANUFACTURER

Pharmaceutical manufacturing may be defined as the preparation of medicinals on a large scale for retail and wholesale purposes, and necessitates the invention of and experimentation with technical improvements. The seeds of the twentieth-century pharmaceutical industry were sown as early as the late seventeenth century, and by the end of the next century were in vigorous growth.

The term "proprietary medicines" or, less correctly, "patent medicines" has been applied to those for which the sole rights of manufacture were claimed by virtue of a secret formula known only to the preparers; or to medicines for which letters patent had been granted; or to those to which the preparers have affixed their names or trade marks in the hope of establishing the sole rights of presentation.¹⁵⁴ There is no doubt that such medicines were already on sale by the first half of the seventeenth century. In the Star Chamber case of 1634, which the College of Physicians brought against the Society of Apothecaries, one of their stated grievances was that some of their rivals had private nostrums: "Cook hath pills and a Medicine called Cooks golden Egg, And Edwards a Water called Edwards Cordiall Water, And Holland Purging bottles called Hollands Bottles."¹⁵⁵ The widely advertised Dr Patrick Anderson's Scots Pills and Singleton's Eye Ointment were also being produced at this time. Anderson is said to have been a Scots physician, and A. C. Wootton has traced the origin of the mercuric eye ointment to a Dr Johnson; other physicians certainly had their own nostrums, as became apparent during the pamphlet war, but apothecaries were equally, if not more, to the fore.

Thomas Bromfield, later to become master of the Society, wrote a booklet in 1679 in which he publicized his *Pilulae in omnes Morbos* (pills against all diseases). In 1624, the Statute of Monopolies gave to Parliament the privilege of granting monopolies for the manufacture of products for fourteen years, provided it deemed them advantageous to the country. Richard Stoughton, an apothecary of Southwark,¹⁵⁶ applied for and obtained a patent for his famous cordial elixir under

¹⁵³ Ibid., MS. 8200/10, 1810, "Negotiations between the commissioners of the army medical board and the master and wardens of the company of apothecaries", f. 152 *et seq.*

¹⁵⁴ L. G. Matthews, *History of pharmacy in Britain*, Edinburgh, E. & S. Livingstone, 1962, p. 282.

¹⁵⁵ Wall, Cameron, and Underwood, *op. cit.*, note 8 above, vol. 1, p. 283.

¹⁵⁶ Guildhall Library, Apothecaries' Society court minutes, MS. 8200/2, f. 254. "3 Feb. 1679, Richard Stoughton, son of Richard of Surrey, yeoman . . . bound to Peter Barton for 8 years." Made free 5 April 1687. Later, he acquired the title of doctor, see MS. 8200/4, f. 414, "1 Dec. 1713. Richard Stoughton son of Dr Richard Stoughton, having done the full years with his father made free."

this Act in 1712. A common method of advertising the patent medicine was by the “unsolicited” testimonial, a method employed by John Moore, apothecary, at the Pestle & Mortar in Laurence Pountney’s Lane, in the *Daily Post* of 14 July 1736. John Moore sold worm medicines and Green-sickness Powders, Byfield’s Sal Volatile Oliosum, patented in 1711, at 6d. an ounce, and, rather surprisingly, a book called *Columbarium, an introduction to the natural history of tame pigeons*. The Huguenot emigré apothecaries also had their lines, such as Charles Angibaud, once royal apothecary to Louis XIV, who advertised in the *London Gazette* of October 1683 his “Troches, or Juyce of Liquorice of Blois”.

The post-Restoration period saw an increasing interest in the waters of natural springs for medicinal purposes. For many, the sale of these waters proved a lucrative business, not least for the apothecaries of the day. In 1700, a manor court ordered, “That the spring lying by the purging well be forthwith brought to the town of Hampstead at the parish charge, and that the money profits arising therefrom be applied to easing the poor-rates . . .”. An advertisement in the *Postman* of 20 April of the same year tells of one who took advantage of the facility. “Hampstead Chalybeate Waters sold by Mr. Richd. Philps, Apothecary, at the Eagle and Child in Fleet St. every morning at 3d. p.flask, and conveyed to persons at their own houses at one penny p.flask more. The flask to be returned daily.”¹⁵⁷

Mineral waters, such as Philps’s, quickly became putrid during transportation. As it was often inconvenient and expensive for the patient to visit the source of supply, attempts were made to solve the problem. Analyses of the waters led to two possible alternatives; the solution of the known salts in ordinary water, thus making an artificial mineral water as suggested by Paracelsus, or the administration of the extracted salt itself. John Conyers would seem to have evolved a method that was a combination of the two methods. On 12 May 1679, he wrote on the flyleaf of his memorandum book, “By Mr John Conyers, apothecary at the White Lyon in Fleet Street is prepared and sold an Essence made of the mineral which giveth the virtue to Tunbridge Waters. Any soft water mixed with a little hereof becomes in nature a true Tunbridge water of great use to those who desire to spare their journey to the Wells. Mixed with Tunbridge water itself makes it so much stronger as you please. . . . Mixed with Epsom or their Purging waters makes it of the nature of Astrop water. Bottles hereof are to be had at reasonable rates with Directions.”¹⁵⁸

The Epsom waters mentioned were to become the centre of a bitter quarrel. Dr Nehemiah Grew MD (Leiden), FRS, and non-conformist, was a great advocate of the salt extracted from Epsom water and in 1695 published a short work in Latin, *A treatise on the nature and use of the bitter purging salt contained in Epsom water and similar water*. Being by no means averse to the pecuniary advantages of commerce, honorary fellow of the College of Physicians or not, he obtained a patent in 1698 for the extracted salts, whose principal constituent was magnesium sulphate. He obtained his salt from a spring at Acton, Middlesex, and received £1 profit for every 10 lbs. of salt sold by his agents. One of his customers, George Moulst, “chymist” and FRS, sold

¹⁵⁷ W. Andrews, *Bygone Middlesex*, London, Hull Press, 1899, p. 185.

¹⁵⁸ British Library, Sloane MSS, MS. 958. See also, N. G. Coley, ‘Physicians and the chemical analysis of mineral waters in eighteenth-century England’, *Med. Hist.*, 1982, 26; 123–144.

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the Acton salt in his shop until he and his younger brother, Francis, discovered they could obtain the salt for themselves from a spring at Shooters Hill, Kent. They ignored Grew's patent and, partly because their source was even richer in the salt, were able to bring down the price from one shilling an ounce to threepence a pound. To add insult to injury, Francis Moulton then translated Grew's treatise into English and placed it on sale in his shop to any who bought the salt.¹⁵⁹ This led to a furious attack from the College, which does not seem to have incommoded the brothers in any way. Despite the fact that they referred to themselves as "chymists" and traded under the sign of Glauber's Head in Watling Street, a sign often used by chemists and druggists, Francis became on 7 July 1691 a member of the Apothecaries' Society.¹⁶⁰

The path from apothecary to pharmaceutical wholesaler and manufacturer can, in some cases, be followed step by step, there being no better examples than the famous firms of Corbyn, Stacey & Co., and Allen & Hanbury. The origin of the former can with certainty be traced back to 1707, when Benjamin Morris, London apothecary, took as apprentice Joseph Clutton, the son of John and Mary of Pensax, Worcestershire.¹⁶¹ Ten years after he was out of his apprenticeship, Clutton, probably a new recruit to the Society of Friends, married Mary Morris, daughter of Richard, an apothecary of Rugeley, Staffordshire. Her brother, Moses, also of Rugeley, was not only an apothecary but a "chymist" as well.¹⁶² Joseph Clutton and Benjamin Morris were in partnership by 1732, if not before, but parted company a few years later.

Clutton wrote on medical topics, and there is little doubt that he practised both pharmacy and medicine. He issued a pamphlet on Joseph Ward's patent medicines, which included an estimate that 16,380 of Ward's Pills could be made for 1s. 3d. A letter from the founder of the County Hospital, Winchester, suggests that Joseph was the originator of Clutton's Febrifuge, although the credit is usually given to his son Morris. Joseph was supplying chemicals to that hospital at the time of his death in 1743, the governors referring to him as "Mr Clutton, Chymist". He is known to have had at least six apprentices including his son, who had done only four years of his time when Joseph died. His widow continued in business with the aid of an excellent journeyman, Thomas Corbyn of Worcester, who had begun his apprenticeship with Clutton in September 1728, but had hitherto made no effort to obtain his freedom from the Society.¹⁶³ Mrs Clutton remarried in 1747, the year in which her son gained

¹⁵⁹ M. P. Earles, 'Cutting the tapestry', *Pharm. Hist.*, 1972, 2: pt. 4, unpaginated.

¹⁶⁰ Guildhall Library, Apothecaries Society court minutes, MS. 8200/3, f. 326, "Francis Moulton, apprentice of Charles Feltham having served part of his time with him and then suing out his Indre. hath lived ever since with his brother, a Chimist, was made free." He does not appear to have been in favour with the Society as he was refused permission to be a subscriber to the new stock for the Navy in 1703, and was refused a share in the laboratory. In 1695, George Molte [*sic*], chemist, was a partner of Thomas Wilson in the parish of St Mary Magdalene, Old Fish Street; both men were taxed on £600+ per annum. See, *London inhabitants within the walls*, 1695, reprinted by London Record Society, 1966, p. 205.

¹⁶¹ For a history of the firm see, T. D. Whittet and J. G. L. Burnby, 'The firm of Corbyn and Stacey', *Pharm. J.*, 1982, 228: 42–47.

¹⁶² The Cluttons of Pensax were an armigerous family, and adherents of the established church. Although it would be reasonable to suppose that Benjamin Morris was related to the Morris family of Rugeley, this has not been proved, and all indications are the reverse.

¹⁶³ There seemed to be a growing belief that it was unnecessary for a journeyman to take out his freedom and that he could save his money until such time as he became a master, as witness a letter from John Newsom in 1765 to his son, who was working as an assistant to Mr Smith, apothecary of Cheapside, but

his freedom, and within two years Thomas Corbyn had become a partner.

Morris Clutton and Corbyn forsook the practice of medicine and concentrated on the trade in drugs and chemicals. Trade had already started with the American colonies in Joseph's day, and as the eighteenth century progressed, the partnership became one of the principal suppliers of drugs to America and the West Indies. The Clutton interest in the firm ceased with Morris's death in 1755, and by 1763, two new names are to be found, those of John Brown and Nicholas Marshall; neither stayed for long. Brown may have been a member of the Apothecaries' Society, but Marshall is referred to as a chemist. The pattern of things was changing, to be fully confirmed with the arrival of George Stacey (I) in 1772. The three George Staceys, and the later Beaumonts and Messers, are never termed anything other than chemist and druggist. Admittedly, Thomas Corbyn's son, John, was a member of the Society until 1843, but it is not thought that he was in any way active in the expanding wholesale and retail business.

A very similar pattern can be seen at Allen & Hanbury's. The founder of the firm was Silvanus Bevan, who leased 2 Plough Court, London, in December 1715. He had gained his freedom of the Apothecaries' Society as recently as 5 July of that year, it having been noted a week earlier in the court minutes that, "Mr Silvanus Bevan servant to Mr Mayleigh wanting six or seven months of his time paid £6 9s. and is to be freed." He was joined some years later by his younger brother, Timothy. It is written in the Society's minutes for 11 March 1731 that "Mr Timothy Bevan, who as he says has been bred an Apothecary in the country and has been some time with his brother, Mr Silvanus Bevan, a member of this Company desires his Freedom . . . by Redemption; ordered that on payment of £25 and 40s. to the Garden and the usual Fees and passing an Examination, he be made free." The redemption fees were always high in the Society of Apothecaries, and may account for the fact that some apprentices sought the freedom of other companies.

In his later years, Silvanus practised as a physician and sent letters of medical interest to both the Royal Society (of which he had been elected a fellow in 1725) and Dr James Jurin. Timothy does not seem to have been interested in the practice of medicine, and when Silvanus died in 1765, the style of the firm became "Timothy Bevan and Sons, Druggists and Chymists, Plow Court". These two sons of Timothy's first marriage were not destined to promote the affairs of the drug house, as Silvanus (II) left within two years to become a banker, and Timothy (II) died in 1773. Future expansion was left to their half-brother, Joseph Gurney Bevan. Timothy stood down in favour of his youngest son in 1775, and it was at this point that the complete break was made with the firm's apothecarial origins. Joseph Bevan made no attempt to become a member of the Apothecaries' Society or even of the Grocers' Company,¹⁶⁴

with prospects of a partnership in the near future. "You seem desirous of purchasing your freedom: at present it will cost a good deal of your money . . . you need not purchase while you are [a] journeyman. . . ." See J. E. Brigg, *Memorials of the families of Newsom and Brigg*, [privately printed], 1898, p. 33.

¹⁶⁴ Guildhall Library, Woolmen's Company court minutes, MS. 6903/3, unpaginated. "3rd. March 1789. Joseph Gurney Bevan of Plough Court, Lombard Street, London, druggist, was admitted to the Freedom of this Company by Patrimony. He paid the sum of £1." The master at this time was James Phillips, the Quaker printer of George Yard, father of William and Richard, both FRS and chemists. William Allen, druggist, obtained his freedom of the same company in October 1800 by redemption for the modest sum of £1 18s. 6d.

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indeed, he joined no London company until 1789, when he was thirty-five. Why he chose the Woolmen's Company is not known, except that it was one that had close connexions with the Society of Friends. Like the Corbys, the Bevans were deeply involved in the wholesale overseas trade.

The origins of H. O. Huskisson & Son (which after an amalgamation in 1920 became Castle Huskisson & Co.), chemical manufacturers rather than drug wholesalers, can be found in the work of an apothecary, Thomas Towers. After working in association with William Jones, chemist and druggist in Great Russell Street, Covent Garden, the poor rate accounts for St Mary le Strand show that he had set up in business in 1767 at Catherine Street. In that year, he took Samuel Towers as his apprentice and is described as a druggist; nevertheless, he was employed between 1769 and 1771 by the Overseers of the Poor as an apothecary. Although both a prescriber (some of his prescriptions still exist) and compounder of medicines, it seems that his inclination was towards the manufacture of those chemicals that are used in medicine. Nothing is known of his earlier years, though it is probable that he hailed from Leicestershire. The wills of Samuel Towers and his brother George, who succeeded to the little manufactory, show that they had connexions with that county; both referred to themselves as "chymists".¹⁶⁵

Leicestershire can furnish us with a provincial example of the change from apothecary to manufacturer and patent medicine vendor. Richard Swinfen was established as an apothecary in Hinckley before 1760, the year in which his son Edmund was born. Later, he moved to Leicester and took his son into partnership. Edmund purchased his freedom of the town at a cost of £20 and became mayor in 1804. During the course of his career, he was variously described as a "surgeon", "druggist", "chymist", and "apothecary". On his death, Edmund bequeathed his business to his son Richard B. Swinfen, and in his will wrote that he had given him, ". . . the receipts and prescriptions whence all nostrums or proprietary medicines are prepared", and that he had fully instructed Richard regarding their true composition and had not told anyone else. These nostrums included Swinfen's Electuary, which was advertised in the *Leicester and Nottingham Journal* of 4 December 1773 by "Swinfen, surgeon of Hinckley". The Swinfens were a highly respected dynasty of apothecaries and druggists, training more apprentices than any other Leicester pharmacist and commanding premiums of £100 to £150.¹⁶⁶

Other examples in the provinces of this transformation are to be found in Newcastle upon Tyne and Bristol. The founding father of Mawson and Proctor was John Proctor, apothecary, who opened a shop in The Side, Newcastle, in the autumn of 1768, where he was followed by his son and grandson.¹⁶⁷ The story of the rumbustious John Bingham Borlase, apothecary to the Bristol Infirmary, sending out Abraham

¹⁶⁵ There were Thomas Towers who were apothecaries both earlier and later at Loughborough and Lutterworth. For further details of this company see J. G. L. Burnby, 'The Towers and the Huskissons', *Pharm. J.*, 1980, **224**: 716–717.

¹⁶⁶ L. G. Matthews, 'Byways of pharmaceutical history', *ibid.*, 1963, **191**: 631; J. K. Crellin, 'Leicester and 19th century provincial pharmacy', *ibid.*, 1965, **195**: 417–418.

¹⁶⁷ 'Wholesaler's bicentenary', *ibid.*, 1968, **201**: 523. The grandson, Barnard Simpson Proctor, was an examiner for the Pharmaceutical Society, 1867–69, and was appointed lecturer in pharmacy at the medical school of Durham University.

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Ludlow's prescriptions to be dispensed by John Till Adams is well known.¹⁶⁸ Adams is usually regarded as a dispensing chemist and druggist, but he was, in fact, trained as an apothecary and surgeon. His master was Thomas Benwell of Overton, Hampshire, who had only just finished his own apprenticeship with Edmund Portsmouth of nearby Whitchurch.¹⁶⁹ John Till Adams died in 1786, but the pharmacy was continued by his capable widow Ann until the turn of the century, when she was succeeded by her nephew William Fry.¹⁷⁰ William died in 1812, when he was only thirty-three, but continuity was preserved by the succession of his own apprentice, James Gibbs. Richard Ferris joined Gibbs in 1814 and the firm began to specialize in aerated waters and the manufacture of pharmaceuticals. A liquid opium preparation "Nepenthe" was one of Ferris's best-known products, and was frequently prescribed until recently.

Some thirty years ago, the company was absorbed into British Drug Houses, a firm which came into being in 1908 with the amalgamation of four organizations with roots in the eighteenth century.* The oldest component was Hearon, Squire & Francis, whose founder was a man called Kirk, an apothecary and druggist at 95 Bishopsgate Street Within. One of the originators of Davy, Hill & Co. was that larger-than-life-size character, Alexander Dalmahoy, whose business at the sign of Glauber's Head on Ludgate Hill, London, was started in 1755. Alexander's father, William, had been apprenticed to Hugh Patterson, surgeon-apothecary of Edinburgh in 1712, and at some unknown date emigrated to the south, to Southwark. By the time Alexander was apprenticed to Francis Dalby, apothecary, in January 1737, William was dead.^{171a} Alexander Dalmahoy was well enough known in his own day to inspire an amusing piece of doggerel, in which it was related that he sold not only infusions and lotions, decoctions and potions, castor, camphor, and acid tartaric, but wore an enormous doctor's wig. He supplied high-quality medicine chests, a "curious smelling bottle" which he advertised as the "Bouteille de Senteur", and an "Essence de Mente [sic] Pectorale" which was still sold by his successors, A. S. Hill & Son, wholesale druggists, late in the nineteenth century.^{171b}

The eighteenth-century apothecary was a man of wide-ranging interests and

¹⁶⁸ John Bingham Borlase, later apprentice-master of Humphry Davy, was the great-nephew of the Cornish antiquarian, Dr William Borlase, close friend of Humphry's great-uncle, Robert Davy. Borlase came from a family with leanings towards medicine and pharmacy, his cousin Henry, father Walter, and great-uncle John were all surgeons and apothecaries. W. C. Borlase, *The descent, name and arms of Borlase of Borlase in the county of Cornwall*, London, G. Bell, 1888.

¹⁶⁹ PRO, Inland Revenue apprenticeship records, I.R./1/26, f. 6., 1768. Benwell soon moved into Whitchurch. Thomas Pole, in his diary, refers to Thomas Benwell and Francis Riley, another ex-apprentice of Dr Edmund Portsmouth, as both being "in the Practice of Physic".

¹⁷⁰ Ann Fry was the daughter of William and Hannah Fry. William was a prosperous grocer of Bristol who was in partnership with Fripp as a tallow-chandler and soap-maker. Ann's brother, John Plant Fry, succeeded to their father's business, but a business letter to William Padley of Swansea shows him to have been a druggist and chemist as well. This family of Frys was not related to Joseph Fry, the apothecary who was involved in the manufacture of chocolate and porcelain. Joseph's antecedents lay in Sutton Benger, Wiltshire, and he did not arrive in Bristol until 1753, when he was given leave by the Tolzoy to practise as an apothecary on paying a fine of fifteen guineas, whilst William's family can be traced back to a soap-maker of Bristol in 1717.

* The four organizations that merged to form British Drug Houses were: Davy, Hill & Co.; Hodgkinsons, Clarke & Ward; Hearon, Squire & Francis; Barron, Harveys & Co. (G. D. Hopkinson, 'An establishment unique', *Pharm. Hist.*, 1983, 13: 8-12, see p. 8.)

¹⁷¹ (a) PRO, Inland Revenue apprenticeship records, I.R./1/42, f. 42. (b) L. G. Matthews, *The antiques of perfume*, London, G. Bell, 1973, p. 72.

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activities, and not deterred from acting simultaneously as medical practitioner and drug manufacturer and wholesaler. In due course, a choice had to be made, and today's pharmaceutical industry owes much to the innovative spirit of those apothecaries who decided against pursuing a purely medical career.

THE PHARMACEUTICAL CHEMIST OR PHARMACIST

In England, the title "pharmacist" was not used in the seventeenth, eighteenth, or nineteenth centuries, and is still not fully accepted today. In the nineteenth and twentieth centuries, many terms – pharmaceutical chemist, dispensing chemist, and chemist and druggist – are found, not all of them completely interchangeable. The earliest example of the dual title so far found occurs in Bristol in 1714, with the phrase, ". . . widow and relict of John Nicholson, druggist and kemist".¹⁷² A study of the Inland Revenue apprenticeship records has shown that the separate titles "druggist" and "chemist" or "chemist and druggist" were used completely indifferently by the same practitioner.¹⁷³ For purposes of discussion here, the phrase "dispensing chemist" will be used, meaning a man who dispensed physicians' prescriptions, counter-prescribed, and made "his own lines" in the back shop, so differentiating him from the purely retail chemist and druggist or owner of a drug-store.

It is usually stated that the dispensing chemists were a completely new body of men who sprang into being from nowhere in the last couple of decades of the eighteenth century.¹⁷⁴ This not only begs the question of their origins but is untrue. Richard Smith of Bristol in his biographical memoirs, when writing of the dispensing druggists (as he called them), said, "These people had been in existence formerly but had been extinguished or at least their candle had burnt but dimly for some years", and quoted from an advertisement of 1754. Similar advertisements can be found in London. John Toovey, druggist and chemist at the Black Lion in the Strand, stated in September 1755 that he made and sold "all Sorts of Chemical and Galenical Medicines . . . the very best French and English Hungary Waters, Lavender and Mineral Waters, Daffy's and Stoughton's Elixir etc. Wholesale and Retail. . . . Physicians Prescriptions made . . . Chests of Medicines for Gentlemen and Exportation." No mention was made of the practice of medicine, but this was not always the case. In 1743, a chemist and druggist, when advertising for an apprentice, wrote ". . . [he] may likewise be instructed in the common Practice of Physic", and a chemist in 1766 advertised in similar terms.¹⁷⁵ The difference between the practice of a dispensing chemist and of an apothecary was not necessarily great, the degree varying with every practitioner. Both operated a shop where drugs, compound preparations, and household commodities were sold, both dispensed prescriptions and counter-prescribed, both made galenicals and complex preparations, both carried out in their shops minor surgical operations such as drawing teeth, lancing boils, or bandaging wounds. The major difference was

¹⁷² Bristol Archives Office, Bristol Apprentice books.

¹⁷³ Burnby, *op. cit.*, note 31 above, see p. 164 and tables.

¹⁷⁴ E. Harrison, *Remarks on the ineffectiue state of the practice of physic in Great Britain*, London, Bickerstaff, 1806, p. 14; John Mason Good, *The history of medicine so far as it relates to the profession of the apothecary*, 2nd ed., London, General Pharmaceutic Association, 1796, pp. 47, 48; R. M. Kerrison, *An inquiry into the present state of the medical profession in England*, London, Longman, 1814, p. 40.

¹⁷⁵ 'The title of chemist and druggist', *Chem. Drugg.*, 1926, **105**: 100, 95, 97.

that the apothecary travelled to the patient's house, at first to supply and administer the physicians' prescribed medicines, and later as the medical adviser of first instance. The dispensing chemist seems not to have left his shop. The father of John Flint South, the surgeon of St Thomas's Hospital, was a highly respected druggist in Southwark High Street. South relates that his father had been an excellent counter-prescriber, being particularly successful with children and babies; many times he was urged to "go apothecary" and make outdoor visits, but he preferred to stay behind his own counter.¹⁷⁶

It has been suggested that the druggist was originally purely a wholesaler.¹⁷⁷ Charters dating from the reigns of Henry VI and James II placed the jurisdiction of the druggists under the Grocers' Company of London, and it remained with that guild after the separation of the apothecaries. An examination of the careers of the Bromfield family is instructive on this point. Thomas Bromfield (I) (1643–1711) was an apothecary who rose to become master of the London company. He wrote papers on scurvy, anaemia, dropsy, and intestinal worms, and introduced his "Pilulae in Omnes Morbos" which, in time, came to be known as Bromfield's Pills. He had one son, Thomas (II), by his first marriage (to Rebecca Girle), and three sons, Edward, William, and Thomas (III), by that to Bridget, the daughter of Sir Thomas Witherley MD. Thomas (II) became a druggist after apprenticeship to Philip Scarth, a druggist member of the Grocers' Company. In due course, Thomas became Scarth's son-in-law, but probably did not succeed to the business, for Scarth's son Philip junior was also a freeman of the Grocers' Company.¹⁷⁸

Some idea of what these men traded in can be gained from the inventory in 1721 of Thomas (II)'s house in Dove Court, where he stored coffee, black pepper, oyster shell, and cinchona bark, and from Scarth's accounts with Messrs. Estwick and Conyngesby of the Feathers, West Smithfield. In 1674, Scarth was paid £4 3s. 4d. for supplying them with precipitate, and they, in return, sold him lapis tutie and large quantities of rhubarb. The Chancery Masters' Exhibits describe the concern at the Feathers as that of an apothecary, but "wholesale and retail druggist" is more exact.¹⁷⁹ The account books, with some gaps, cover the years 1651 to 1685. The sums of money handled were large, such as £144 15s. 6d. for cardamoms, £45 for ginger, or £40 5s. for musk, and the total value of the goods in 1661 ran to £1,106 13s. 8d.

Six men, Thomas Weld, Humphrey Jenner, William Hills, Richard Turgis, John Wright, and William Marston, in 1651 had formed a "co-partnership", whose day-to-day business was in the hands of Francis Estwick and John Conyngesby. It can be seen from the first year's trading accounts that they were actively engaged in wholesale trade. Every few weeks, Estwick and Conyngesby carried out a rough and simple piece

¹⁷⁶ C. L. Feltoe (editor), *Memorials of J. F. South*, London, Murray, 1884, p. 2.

¹⁷⁷ R. S. Roberts, 'The early history of the import of drugs into Britain', in Poynter (editor), op. cit., note 1 above, p. 171.

¹⁷⁸ This family covered a wide professional spectrum, including druggists, apothecaries, a physician, a surgeon of note, and a barrister. For further discussion, see J. G. L. Burnby and T. D. Whittet, *Plague, pills and surgery, the story of the Bromfields*, Edmonton Hundred Historical Society, Occasional Paper no. 31, 1975.

¹⁷⁹ PRO, Chancery Master's exhibits, MSS. C. 104/130 and 131. A view which is confirmed by a will in the Commissary Court, that of a young man called John Conyngesby, who calls his uncle of the same name, "citizen and druggist".

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of book-keeping. On the right-hand page were listed all payments, even the smallest, such as 1s. 6d. to the carman or 2d. for a bottle, and the left-hand page bore all the receipts. Payments were usually considerably less than receipts, so that a healthy balance was left. Amongst the receipts, usually the last item, was the entry, "Rec'd out of the Counter". The sums varied from £10 to over £40. Clearly, the Feathers had a retail side as well as a wholesale, but whether sales were made only to the trade or to the public at large is not apparent. The goods of the partnership travelled beyond the confines of London, going as far as Uttoxeter and Welshpool. There were no references to prescriptions, counter-prescribing, or medical treatment. The annual stocktaking shows them to have had a very wide range of vegetable drugs, a few of animal origin, and considerably more of chemicals and minerals. They also stocked ivory glisten pipes and those of less exotic material; they had small and large syringes, but no surgical instruments. The only apparatus noted was a brass mortar worth £7 and a copper bottle valued at £1. They had only small quantities of the favourite compound preparations of the day, for example, crocus metallorum, mithridate or London treacle, which suggests there was no dispensary or laboratory for the compounding of the complicated recipes of the London Pharmacopoeia.

It is useful to make a comparison with the chemist and druggist's business of William Jones, which flourished some eighty years later.¹⁸⁰ He started to trade in 1746 in Little Russell Street, Covent Garden, and moved to Great Russell Street ten years later. It is obvious from the large number of prescriptions still extant that he was a dispensing chemist as well as a wholesale druggist in a considerable way. He supplied apothecaries, surgeons, and hospitals all over the Midlands and the West Country, yet he had a retail business from which he sold such domestic remedies as 4 oz. of senna for 10d., or 3d.-worth of carmine to the players in the nearby theatres. He had a well-equipped laboratory with still, worm, and furnace. Watson points out that Jones, like other merchants of substance and reputation, was entrusted with the collection and holding of drafts, which were the usual means of paying accounts at a distance. "Some were for goods supplied by him but a substantial part of them were held by him as reserve funds to be used as directed by the customer for future disbursement on their behalf. . . . His banking activities were a very considerable part of his business . . . and included the handling of executor and trustee accounts and the investing of surplus funds in government securities. . . ." He handled 3% India Bonds for his customers, supplied the ever-popular lottery tickets, and fire insurance, and paid their stamp duty, land tax, and poor rate for them. The practice of medicine seems to have played only a small part in his business, but from 1761 to 1766 he did have a partner, Thomas Towers, an apothecary who prescribed medicines and treatment and made postal diagnosis.¹⁸¹ It is doubtful that the type of business found at the Red Cross in Great Russell Street would have developed from that of the Feathers, Smithfield.

Following the lead of Bell and Redwood's *Progress of pharmacy* (1880), many have stated that the origins of dispensing chemists can be found in those dispensers

¹⁸⁰ G. M. Watson, 'Some eighteenth century trading accounts', in Poynter (editor), op. cit., note 1 above, pp. 45–77.

¹⁸¹ It is thought that Thomas Towers later forsook medicine and founded a manufacturing drug firm. See Burnby, op. cit., note 165 above, pp. 716–717.

employed by the physicians in their three dispensaries in the cities of London and Westminster.¹⁸² The number involved, however, was small and could not possibly account for all the dispensing chemists of the two cities, to say nothing of those in the provinces. From the petition laid before Parliament for the proposed Act of 1748, it is apparent that both the apothecaries and the “laboratories” springing up in increasing numbers played a part. One witness, Edmund Stallard, related that he had served an apprenticeship to a “regular apothecary” in London, and then he had acted as an operator, first to a Mr Midgley, a chemist, and then to a Mr Hall, a druggist.¹⁸³ This, he explained, meant that he had become a compounder of medicines. Later, he became a partner in the chemical business. Another witness, John Horridge, told the committee that he too had served his apprenticeship with an apothecary, and that he was currently engaged in that capacity, but earlier, before he had set up for himself, he had been an operator at an elaboratory.

The foundations of many old-established pharmacies can be found to be in apothecaries' shops. According to family tradition, Raggs of Edmonton, Middlesex, started in an apothecary's shop on the Green in 1839, and Mackereth's of Ulveston, Lancashire, is claimed to have originated in the practice of an apothecary, Dr Fell, a member of the famous Fell family of Swarthmore Hall.¹⁸⁴ The pharmacy in the Market Place of Faversham, Kent, housed in a medieval timber-framed building, can be traced back from its 1978 owners to Thomas Joseph Thomas and his uncle, Evan Jenkins, who bought the business in 1887. Jenkins' predecessors were the Clause family, comprising Samuel Ruthbrook Clause (MPS, 1868–95), his father Thomas Clause (died 1858), and his grandfather, another Thomas (died 1820). The older Thomas was listed in the directory of 1784 as an apothecary and surgeon. The London Surgeons' Company in 1779 had pronounced him “first mate, first rate” and he served as a surgeon on the sloop *Bonetta*. There is then, unfortunately, a gap between him and a barber-surgeon, John Allen in 1700, and a practitioner of physick, George Mourton, in 1641.¹⁸⁵

A rather similar pattern can be seen in the little Huntingdonshire town of Kimbolton, where Thomas Peck, apothecary, in 1776 leased a property at 1 St Andrew's Lane at a rent of £3 10s. 0d. a year and an immediate expenditure of £50 on repairs.¹⁸⁶ The pharmacy was hived off from medical practice in about 1830, whereupon it

¹⁸² ‘The title of chemist and druggist’, op. cit., note 175 above, p. 90; E. C. Cripps, ‘Pharmacy in the 18th and 19th centuries’, *Pharm. J.*, 1950, **164**: 30. Bell first made the suggestion in 1842.

¹⁸³ ‘Attempted legislation in 1748’, *Chem. Drugg.*, 1926, **105**: 198–199. Mr Midgley was probably the Charles Midgley, son of John, a citizen and scrivener, who was bound to Francis Moulton, apothecary, on 3 August 1697. He encountered some problems when he applied for his freedom in 1705, “. . . [he] not being capable to answer in Pharmacy though understanding Chymistry, to be presented to the Court of Assistants”. He was freed three months later without further comment. He succeeded to Moulton's business at Glauber's Head, Watling Street.

¹⁸⁴ C. Ragg, *Memories of Edmonton Green*, Edmonton Hundred Historical Society. Occasional Paper (O.S.) no. 2., [n.d., c. 1950s]. Information supplied by Mr T. B. Horrocks to Mr D. J. Greaves of Ulveston library. This Dr Fell is probably the John Fell, apothecary and surgeon, who was taking apprentices in 1769 and 1778, and of whom Sir Thomas Frankland wrote so kindly in a letter to William Curtis in 1781.

¹⁸⁵ F. Haley, ‘The 300 year tale of a Kent pharmacy’, *Chem. Drugg.*, 1978, **210**: 896; ‘A Faversham pharmacy’, *Counterscope*, Bayers' Professional Projects, 1962, vol. 1, p. 1.

¹⁸⁶ R. M. and P. A. Hall, ‘Bicentenary of Kimbolton pharmacy’, *Pharm. J.*, 1976, **217**: 515–516. It was the year in which Thomas Wagstaffe started training with him; it is probable that Peck had his own apprenticeship with William Bond, apothecary of Pavingham, Bedfordshire.

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becomes apparent that the shop could not be supported by pharmacy alone until at least 1920. Props ranged from veterinary surgery to stationery and the sale of glass and earthenware. George Gudgen, in the later nineteenth century, carried on fierce verbal battles with the dispensing doctor opposite, but then turned more and more to auctioneering; in this century, the pharmacist has practised as both optician and dentist, and one so organized local affairs that the telephone exchange was installed in his shop.

More widely known, but unhappily no longer a pharmacy, is the firm of Cope and Taylor in Derby. According to the pharmaceutical historian, Kirkby, who had access to certain "title deeds, all of which are in safe custody", the house in the Cornmarket was built by William Franceys of Markeaton in 1648, a grazier, and let by him the following year to John Franceys of Derby, a butcher, when the building was valued at £250.¹⁸⁷ William died in the summer of 1664, bequeathing all his property in Derby to his elder son John, a butcher. His younger son William was to have £90, "£10 for his binding as an apprentice to some good trade such as William with the advice of his mother and friends shall make choyce, and £80 at the end of his apprenticeship in order to set himself up".¹⁸⁸

William chose to be an apothecary. His master is unknown, but in due course he set himself up in his old home in the Corn Market, brother John having transferred the property to him by an indenture dated 1683.¹⁸⁹ The minute book of the Derby mercers' guild shows that William rose to be appointed in turn registrar, warden, and steward; he was mayor of the town for the years 1697, 1699, and 1700.¹⁹⁰ During his mayoralty, he was much involved in politics and was a friend and adherent of Thomas Coke of Melbourne.¹⁹¹ William and his wife Elizabeth had six sons, but only the first two, William (baptized January 1675) and Henry (March 1677) grew to adulthood. The older son was sent to London in 1691 to be apprenticed to Richard Blundell, surgeon of the Barber-Surgeons' Company.¹⁹²

The apothecary died in 1703. His son William, then practising as a surgeon in Derby, received only £100, although it is obvious that his father was a wealthy man; the rest of his estate, including shares in leadmines and waterworks, was bequeathed

¹⁸⁷ W. Kirkby, 'A 17th century Midland pharmacy, Cope and Taylor of Derby', *Pharm. J.*, 1935, 134: 566–568. The MS. of the fair-book of Derby corroborates that William and John Franceys were trading as butchers at the fair between 1646 and 1654.

¹⁸⁸ Lichfield Record Office, will of William Franceys of Derby, butcher, proved 10 September 1664. He appears to have been illiterate, and his seal was a simple W.F.

¹⁸⁹ Kirkby, *op. cit.*, note 187 above, p. 566. Kirkby did not make use of either wills or parish registers and has confused the numerous members of the Franceys family. He believed the apothecary, who was baptized in February 1650, to be the son of John the butcher and not William.

¹⁹⁰ H. A. Bemrose, 'Derby Company of Mercers', *Derbyshire Archaeol. J.*, 1893, 15: 113–160, see pp. 159, 155, 153; on 1 March 1692, William Franceys, apothecary, was authorized to pay £40 to the mayor and burgesses for the new waterworks being built by George Serocold, who had married William's niece Mary in December 1684.

¹⁹¹ Hist. MSS. Comm., 12th report, London, 1888, *Cowper MSS.*, vol. 2, p. 413; *ibid.*, vol. 3, p. 157.

¹⁹² Guildhall Library, Barber-Surgeons' Company records, bindings, MS. 5266/2, f. 289. William did not claim his freedom but returned to Derby. On 14 January 1702, Robert Hardinge wrote to Thomas Coke, "Mr Gray is ill of a swelling in his mouth, suspected kin to a cancer; William Franceys, Junior his Surgeon." William, the surgeon, was buried at All Saints, Derby, on 27 April 1712. Administration was granted to his brother Henry, apothecary; his whole estate amounted to £102, of which £36 was accounted for by "The Horses".

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to Henry.¹⁹³ Henry, an apothecary like his father, became well known for the magnificence of his home, his entertainment, and the high social status of his friends. Notoriety was thrust upon him in 1745, when he had to lodge Lord and Lady Ogilvie and Mr and Mrs Murray, members of the Young Pretender's retinue. Franceys was elected an alderman in 1733 and mayor in September 1747, but he died during his year of office.¹⁹⁴ Kirkby stated that the apothecary's practice was then carried on by Henry's son George for the next four years when it came into the possession of Francis Meynell, surgeon, and Theophilus Brown[e], apothecary.¹⁹⁵

Francis Meynell, scion of a county family, after education at Derby Grammar School, had been apprenticed in 1719 to John Holmes of Derby, an apothecary, which designation Meynell used himself when he took Edmund Brown as his apprentice in 1745. It is likely that Meynell and Brown had been long-time associates of Franceys.

By 1763, Meynell was on his own, and the following year, A. Stevenson, druggist, was in possession. Francis had a son, John, who had been apprenticed to a Derby surgeon, Henry Tatem, but he appears to have struck off on his own. Stevenson reigned alone for twelve years, but then a J. Beridge, doctor, was taken into partnership. He is thought to have been John Berridge MB (Oxon.), who appears in the 1779 *Medical Register*. In the nineteenth century, W. Stevenson, dispensing chemist, was the owner.

The career of Theophilus Browne, one-time partner of Francis Meynell, is also of interest. In newspaper advertisements of 1740 and 1743, when he is located at the Market Head, he called himself either druggist and apothecary, or else druggist; there is no suggestion that he practised medicine. Whilst still in association with Meynell, he combined with another apothecary, Robert Winfield, in nearby Irongate, Derby, where a pattern similar to that of the Cornmarket practice developed.¹⁹⁶ On Winfield's death in 1776, Browne was on his own until he was succeeded by his son Henry ten years later. Henry, in turn, was succeeded by his apprentice, Richard Jones. Jones was the son of the Reverend Hugh Jones of Burton-on-Trent, and the indentures, which still exist and were signed in 1802, show that for the consideration of £100 Henry Browne agreed to teach him the "art of a Chemist and Druggist and Apothecary".¹⁹⁷ George A. Hewitt, Jones's successor in 1850, was a dispensing chemist with no pretensions to medical practice other than counter-prescribing.

¹⁹³ Lichfield Record Office, will of William Franceys, apothecary of Derby, proved 11 October 1703. In it he states that he has "... a one third part of the Waterworks at Leeds", which were built by Serocold in 1694. William's inventory came to a total of £791 9s. 6d., of which "Druggs" comprised £300. Unlike his father, he used the Franceys family arms on his seal.

¹⁹⁴ Contrary to what has been written by Kirkby and others, including the writer on an earlier occasion, Henry Franceys did not proceed to Emmanuel College, Cambridge, and there obtain an MA in 1713, in which year he would have been thirty-seven. The Derby poll list for 1727 shows a Mr Henry Franceys, clerk, who voted, and another Mr Henry Franceys, apothecary, who did not vote.

¹⁹⁵ This statement is incorrect. Henry Franceys had no son and the property had to revert to his father's brother's male heirs, the eldest of whom was a George Francys who was not an apothecary.

¹⁹⁶ Robert Winfield had been apprenticed to Henry Holmes, apothecary, in 1729, and is thought to have taken over his practice on Holmes's death. Holmes was at Derby Grammar School, and then went for a year's training from July 1718 with John Beaumont, apothecary of St Paul's, Covent Garden. He was probably the son of Henry Holmes, apothecary, mayor of Derby in 1694.

¹⁹⁷ E. Sample, 'Henry Monkhouse, chemist of Derby', *Derbys. Countryside*, 1972, 37: 72-73. Henry Browne was mayor of Derby twice and was the first man in that town to light his house with gas, which he had manufactured himself.

The apothecary as progenitor

An advertisement in the *Newcastle Chronicle* of 24 November 1821 clearly shows that a pharmacy could and often did change hands between the various branches of medical practice.

To Surgeons, Apothecaries and Druggists.

To be disposed of by a surgeon and apothecary: a good retail business, stock and fixtures: the returns have been gradually and materially increasing for several years and are at present very good with a Prospect of Improvement.

Continuity of training between apothecary and druggist can be detected by examining the apprenticeship records of both Chester and Bristol. A study of the records of the Company of Mercers, Ironmongers, Apothecaries and Grocers of Chester, the city registers for the binding of apprentices and the granting of freedoms of that city, as well as the Inland Revenue apprenticeship records allows one to make “strings” of successive apprenticeships covering as many as 150 years.¹⁹⁸ One such string shows that the druggist of the late eighteenth century was a direct descendant of the apothecary of the seventeenth.

- I. John Goulborne: apothecary of Restoration Chester who trained at least four apprentices between the years 1670 and 1687, including –
- II. John Sudlow: he had two apprentices, one in 1677, and in 1674 –
- III. Francis Touchett: on 27 February he became the master of –
- IV. Ralph Brown: who started training Thomas Davis in 1710, and in 1703 took on –
- V. Peter Ellames: one of his earlier apprentices was Thomas Rowe in 1722, and up to this point all masters were termed apothecaries but when Ellames became the master of Edward Storer of Nottingham, the description was apothecary and druggist. Both Ellames' sons, Peter the younger and Pattison, on receiving their freedoms of the city were called druggists.
- VI. Pattison Ellames: he had two apprentices, Thomas Meacock and John Dyson; on both occasions, 1771 and 1777, he was termed druggist.

At least one other apothecary in Chester preferred to adhere to the pharmaceutical side of his profession. Nathaniel Basnett, apothecary, took as apprentice Robert Anderson for nine years from 1672, who, in turn, became the master of Samuel Hinton for eight years from 1682. Samuel, in his old age, had as an apprentice Matthew Hinton, who, when he gained his freedom of Chester on 30 December 1730 six years later was entitled apothecary, but when he ran foul of the Assembly in 1767 was referred to as a druggist. On 26 March, that body read a petition which alleged that Matthew Hinton, druggist, had projected his shop window in Lower Bridge Street to the annoyance of passersby and contrary to a recent Assembly order. He was ordered to take down or reduce the windows within one month, or the treasurers would have them removed.¹⁹⁹

The civic records of Bristol give a similar picture of the continuity between druggists and apothecaries.²⁰⁰

¹⁹⁸ The records of the Company of Mercers, Ironmongers, Apothecaries and Grocers of Chester were held in 1980 by Mr G. H. Parry, former president of the Freeman and Gilds of Chester; Chester City Record Office, MS. M/AP/B1; J. H. E. Bennett (editor), *The rolls of the freemen of Chester, part II, 1700–1805*, Lancashire and Cheshire Record Society, 1908, vol. 55.

¹⁹⁹ Chester City Record Office, MS. AB/4/, f. 246v.

²⁰⁰ Bristol Archives Office, Bristol apprentice books, Bristol burgess books.

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- I. William Dale: "apothecary" on 11 October 1591 took Abraham son of John Edwards of Axbridge, Somerset, as an apprentice.
- II. Abraham Edwards: trained his own son, Abraham, William Vaughan, and Beavis Mathews, who gained his burgess status in 1636.
- III. Beavis Mathews: his apprentices included –
- IV. John Sessill (or Cecil): who became a burgess in 1648. He had at least two apprentices of whom one was –
- V. Richard Millecha[m]p: a burgess in 1658, he had five apprentices including –
- VI. Richard Noblett: Like all his predecessors he was an apothecary; he had five apprentices in the early years of the eighteenth century. He died in 1721 or 1722, but his widow decided to continue the practice and to take apprentices.
- VII. Elizabeth Noblett, widow and relict of Richard Noblett, druggist, deceased: Her apprentice, Thomas Hudson, started his service on 17 November 1722. All previous apprentices were admitted burgesses as apothecaries; Hudson's admission has not been found, possibly he returned to his home, Malmesbury.

Equally informative is the line of succession beginning with James Freeman, apothecary, who gained his burgess status in 1676 as a result of his father being a milliner of Bristol. The line of apprentices may be shown thus:

- I. James Freeman:
- II. Ebenezer Burdock: burgess 1701
- III. William Morgan: burgess 1717
- IV. Nicholas Lodge: burgess 1725
- V. Samuel Smith: burgess 1739. Up to this point, all masters were termed apothecaries, but when Smith gained his freedom his master, Nicholas Lodge, was termed "wholesale apothecary and druggist".
- VI. Harry Farr Yeatman: became burgess in 1751 but not in virtue of his apprenticeship started on 2 May 1745 with Samuel Smith, apothecary and druggist, but because of his marriage with Susannah, daughter of Rice Charlton, apothecary of Bristol.

Rice Charlton, apprentice of Charles Gresley, a well-known Bristol apothecary, trained at least eleven young men. All those who stayed on in Bristol to practise were registered in the burgess books as apothecaries, including Henry Durbin (burgess 1747), but Durbin was always subsequently referred to as a chemist. This was by no means the first time in Bristol that apothecaries and chemists were linked.

The burgess books record in 1685 that "John Nicholson, chimis[t] is admitted into the liberties of this Citie for that he married Ruth Hester the daughter of John Machen, Draper, a freeman. . . ." He must have also practised as an apothecary, because three of his apprentices attained burgess status as apothecaries, and he himself is termed apothecary in the Inland Revenue records. By 1714, Nicholson was dead. His son was admitted burgess in that year as a druggist, and when his widow became the apprentice-master of Edward Dunne in December, she was described as ". . . widow and relict of John Nicholson, druggest and kemist".

In the mid-eighteenth century, the dual title of "apothecary and druggist" became increasingly common and many examples can be cited: Harry Farr Yeatman (1751) and his apprentice William Hussey (1759) both of Bristol, Thomas Smith of New Sarum (1755), and a variant with Thomas Warwick of Newcastle upon Tyne (1723) merchant, apothecary, and chymist. Presumably, these men were apothecaries who had turned to the medical field to only a limited degree and still had busy retail shops behind which there may have been a limited amount of manufacturing.

The apothecary as progenitor

The sudden rise in numbers of dispensing chemists so apparent in the apprenticeship records of the last quarter of the eighteenth century, was the result of the apothecary's greed, according to Richard Smith.²⁰¹ The great profits of the apothecaries were due to the enormous quantities of medicines that they induced patients to swallow, either as a result of their own diagnoses and prescribing, or by "an arrangement" with an obliging physician or pure surgeon. In the 1780s, it appears that a patient's bill was less if he consulted a physician and then took his prescriptions to a dispensing chemist, than if he had only called in an apothecary. Many of the dispensing druggists that Smith names – for example, Till Adams, Alexander Sheddon, and the Tucker brothers, whose father Emanuel had been the apprentice of James Bush, apothecary of Bristol in 1724 – had been the apprentices of apothecaries.

Clearly, the apothecaries played an important part in the genesis of the dispensing chemist, but the development of the patent medicine industry, with the necessity of erecting laboratories, has so far received too little historical attention.

²⁰¹ Bristol Archives Office, MS. Bristol Infirmary, biographical memoirs by Richard Smith, vol. 2, f. 162.