

SYDENHAM'S INFLUENCE ABROAD*

by

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A DOZEN of these Sydenham Memorial Lectures have already been given and several of them have made a substantial contribution to our knowledge of Sydenham and his times. It was in one of these lectures that Dr. Dewhurst first gave us in summary form the new biography of Sydenham, based on newly accessible sources in the Bodleian Library, which was later published in greatly expanded form in the Wellcome Historical Monograph series.¹ It was in another that the late Dr. Richard Trail gave us a detailed study of Sydenham's influence on English medicine. Dr. Hugh Sinclair, an acknowledged authority on the work and writing of the great Dutch clinician, Herman Boerhaave, spoke to us of Sydenham's influence on his ideas, but unfortunately did not publish his lecture.

Neither of the standard biographies of Sydenham, the first by J. F. Payne² and the modern work by Dewhurst, says very much about Sydenham's influence outside England. This is an obvious gap in our historical knowledge which I shall try to fill, at least in outline, in this lecture. Clearly, it is not at all satisfying for a historian simply to declare, as many have, that Sydenham's influence spread rapidly throughout Europe and that his fame has persisted. It is our duty to probe rather more deeply and to inquire how and in what form this influence was spread and how the subsequent development of medicine was affected.

In our search we shall follow three particular themes which were held to be the most important in his work among those whom he influenced. The first of these is exemplified by the title of 'The English Hippocrates'. This was certainly not accorded him by his compatriots, who are not given to the kind of adulation which it implies. Although some modern historians trace this title back to the early nineteenth century I have myself found it in doctoral dissertations from continental universities published within a decade or two of Sydenham's death in 1689, and then not as something new, but as an honorific label already familiar in medical circles.

It derives of course from the fact that Sydenham began his work at a time when medical practice was bedevilled by a number of conflicting theories and systems. Galenism was on the way out. Chemical medicine (*not* medical chemistry be it noted) was in the ascendant and few patients—unless they were Sydenham's—could expect better treatment than that accorded King Charles II in his last illness, of which Sir Raymond Crawford has left us a horrifying and detailed account.³ By taking Hippocrates as his sole guide and mentor Sydenham offered his bewildered contemporaries a new hope that there was a better way towards medical enlightenment.

Many doctors today, after dipping into some of Sydenham's writings, have asked themselves—and some of them have asked *me*—why is Sydenham given such a high place in the history of medicine? The careful case-histories and descriptions of diseases,

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all based on long observation at the bedside, seem good enough to them, but no better than many which they may read in the clinical journals today. And some of the treatments seem very questionable to them.

The short answer is that given by a French medical writer towards the end of the eighteenth century⁴— Sydenham was the *first* among the moderns to lead medicine back to the true road, to the Hippocratic method of observation and experience allied to cautious and conservative treatment which supported rather than undermined the patients' natural recuperative powers. To those who sought traditional authority for all they did, this was a godsend, for in Hippocrates they had a more ancient and now more respectable guide than Galen. Sydenham's success in practice was ample proof of the value of such a method and, as we shall see, it became the model for the new type of clinical medicine taught and practised by Boerhaave at Leyden and which spread from there to Vienna through Van Swieten and to the British colonies in America by way of Edinburgh.

There is another side of Sydenham's clinical work which supplies our second theme. Try as he may to be completely objective in his observation of patients, try as he may to shun all attempts to draw general principles or erect a system from his observations, Sydenham could not entirely resist this favourite occupation of his medical contemporaries. He strayed far from the Hippocratic method when he began to regard his accumulation of observed symptoms as the disease itself. By arranging these symptoms in such a way as to aid differential diagnosis he established the general principle of disease *entities*, a concept which led to the treatment of the disease rather than the whole patient, in the true Hippocratic manner, and so to the kind of rigid relationship between diagnosis and treatment which was to lead to the authoritarian and mechanical treatments of the eighteenth and nineteenth centuries. This concept was also to lead to a large crop of nosological systems in the eighteenth century, elaborate and speculative systems which professed to follow Sydenham but in which that all-important clinical relationship between patient and doctor was completely lost. This, then, is the second theme.

The third has a happier aspect, again being truly Hippocratic, with one reservation, and developed from Sydenham's classic work on epidemic constitutions. In his study of epidemic diseases Sydenham made careful observations over many years of their outbreak in London, correlating them with weather conditions in different years and at different seasons of the year. To account for the severity or mildness of any particular outbreak he implicated what he called 'some unknown constitution of the atmosphere', and to the presence in varying quantities of 'unknown particles in the atmosphere' which determined its 'epidemic constitution'. He suggested that these 'particles' might have their origin in the 'vapours exhaled from the bowels of the earth', that they were breathed in and then mixed with the blood to produce a particular type of epidemic disease. The diseases themselves also had some interdependent relationship, so that when conditions favoured one, another was less in evidence.

When read in their context, these theories, and it should be remembered that they were only theories, give us little reason to regard Sydenham as an early anticipator of the 'germ theory of disease'. Clearly they were not statements of fact and illustrate the point that Sydenham was not so free of speculation in his approach to medical

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problems as he believed himself to be.⁵ This was my one reservation when I characterized his work on epidemic constitutions as Hippocratic.

What was important about these studies however was the fact that he stressed the importance of the environmental factor in epidemic disease, an emphasis which was to be noted and followed by many who came after him and which has once again become a topic of interest in recent decades.

The three main themes which I have just outlined also follow the chronological order of the spread of Sydenham's influence throughout Europe. In its beginnings, this was initiated by his close friend, the famous philosopher John Locke, who often mentioned Sydenham and his practice with praise when writing to his friends on the continent or in his conversations with them when he was living in France and Holland.⁶ Coupled with the fact that Sydenham's writings, in their Latin versions, were published even during his lifetime at continental centres such as Amsterdam, Geneva, and Frankfurt, this must have rapidly built up Sydenham's reputation abroad.

The first medical centre I must take you to is Montpellier, a famous medical school which had the reputation of following the Arabic writers long after everybody else had turned away from them. As you may know, there is a considerable gap in our knowledge of Sydenham's career and we are not sure how or where he spent a good part of the time between graduating at Oxford and starting practice in London. It has been suggested that he spent two or three years studying medicine at Montpellier, that there he came under the influence of a locally famous Hippocratic practitioner named Charles Barbeyrac (1629–1699) who set Sydenham along the path which was to win him fame. A long article published in Montpellier in 1958⁷ implied that Sydenham enjoyed the fame which really should have gone to his master Barbeyrac. It is well written and well documented on all points except Sydenham's supposed residence in Montpellier and his supposed time as a pupil of Barbeyrac.

A few years later, in 1964, another medical historian, a pupil of Professor Ackernecht's in Zurich,⁸ made a critical examination of this thesis and rejected it completely quoting Dewhurst to show that it is most unlikely that Sydenham ever travelled outside England, but overlooking a most conclusive point that appears in Dewhurst's book on John Locke, namely that Sydenham could neither read nor speak French.⁹

It was of course John Locke himself and not Sydenham who studied in Montpellier for nearly fifteen months and actually struck up a friendship with Barbeyrac and told him of Sydenham's work, already published.

Considering the relations between France and England during the three centuries which have elapsed since Sydenham's time, it is surprising that there are so little of these patriotic counter-claims to Sydenham's fame. As we shall see there were one or two earlier attempts of the same kind, but no more soundly based; but before we come to them we have to consider what was to be the chief centre of Sydenham's teaching on the continent, the great medical school at Leyden. With it the name of Herman Boerhaave (1668–1738) will be forever associated, but there is a brief prologue to Boerhaave in which the chief character is one of his own teachers, Archibald Pitcairne.¹⁰ A Scot from Edinburgh, he was appointed professor of the practice of physic at Leyden in November 1691 and in the following April gave his Inaugural Dissertation in Latin entitled 'An Oration in which it is shown that Medicine is free

from all philosophic sects'. Here we find him stating, after he has briefly run through the various theoretical systems which doctors had followed: 'It remains then that we cultivate Physic, not under the Disguise of such Fictions as these, but upon the Trials of Experience; that we suffer not ourselves to be in the least Instance diverted from Truth by an unwary Partiality to a Sect.'¹¹ The historian of Scottish medicine, John D. Comrie, claimed that Pitcairne followed Sydenham, and indeed the influence is obvious, but nowhere in this Oration, nor indeed in any of his later writings does Pitcairne mention Sydenham by name. These were his early days, and he did not stay long in Leyden before going back to Edinburgh to become the leading exponent of the sect of mathematical physicians. I have chosen to quote him only because this oration was given in Boerhaave's last year of medical studies and it heralded the end of the reign of Sylvius de le Boë, one of the leaders in chemical medicine. Boerhaave, who had already taken his doctorate in philosophy, had been influenced in his decision to embark upon a medical career by reading the works of Hippocrates, which seemed to him eminently sensible. Pitcairne's own dissertation had been so well received in Leyden that he was immediately confirmed in his appointment and given an increase of salary. From which we can argue that the intellectual climate in Leyden was ready for the kind of medical teaching which Boerhaave himself was to give later and ready also for the implementation of many of Sydenham's own ideas.

Boerhaave took his M.D. in 1693, four years after Sydenham's death and in 1701 began his extraordinary career as a professor in the University of Leyden. I say extraordinary because he held no less than four different chairs, theoretical medicine, practical medicine, botany and chemistry, and three of them at the same time. He studied pathology, hygiene and therapeutics, and his texts on chemistry and physiology became standard works.¹² When we recall Sydenham's own opinion that anatomy and physiology were of little use to the medical practitioner we may ask how it was that Boerhaave became such a convinced follower of Sydenham.

It is widely believed that Boerhaave's chief claim to fame is that he greatly improved medical teaching by initiating instruction at the bedside. It had in fact begun at Padua in the sixteenth century and been revived in Leyden several decades before Boerhaave began to teach there. It was not so much that he took students to learn from observations of the patients at the bedside as that he thoroughly indoctrinated them in the Hippocratic method. Speaking of Hippocrates in his Inaugural Dissertation from the chair of Medicine he spoke of him as 'the best of all teachers', and then went on to say—'but not the only one. Above all I know one excellent man, yea, I would blush for shame if I omitted the name of Thomas Sydenham, the shining light of England, that Apollo of the art, and did not mention him with respect.'¹³ After praising Boyle's work in chemistry, he reminded his audience that 'Hippocrates had employed simple remedies; and, much later, Sydenham had done the same. *Nil desperandum simplicitate duce*. Pitcairne too had explained in very simple terms the miraculous effects of mercury in various diseases.'¹⁴

There was a story long current in Leyden, and often repeated by later writers, that when, during his lectures, Boerhaave mentioned Sydenham he always raised his hat as a mark of respect. It was certainly the custom in Leyden for professors to wear their hats while lecturing, but Lindeboom dismisses the story as apocryphal.¹⁵

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But we know from Boerhaave himself that when he was asked, as he frequently was, how he came to know so much about the diagnosis and prognosis of disease he always replied, 'By studying Sydenham's *Observations*, which he had read ten times with greater pleasure and improvement each time.'¹⁶

During his whole life Boerhaave remained faithful to Sydenham's memory. According to the concise *Methodus discendi medicinam*, compiled by a student from Boerhaave's lectures, he never failed to recommend the study of Sydenham's works, reminding his students that Sydenham had described disease from his own experience and observation, without any parade of his learning or reliance on the theories of others.¹⁷

In his correspondence with colleagues and former pupils he often appealed to Sydenham's authority. In one letter he writes: 'It has pleased God to chain me to my bed for four months now. . . . It is the disease which among the writers only Sydenham describes, by the name of Lumbago Rheumatica.'¹⁸

And in another: 'My faithful counsellor, Sydenham, is virtually the only one to have written well of this disease.'¹⁹

Discussing smallpox in another letter, he writes: 'The treatment must be approached with great caution. . . . The only man who does not fail in the painstaking recognition of this disease is Sydenham whose care, faith and wisdom make him the first in this matter. To what he has said I can add nothing of value.'²⁰

I will not continue these quotations, for I think I have said enough to demonstrate that Boerhaave's clinical teaching was firmly based, with generous acknowledgement, on that of Sydenham himself. It was Boerhaave's own fame as a teacher that carried Sydenham's influence along with his own, to the leading medical schools of the eighteenth century. Among these one of the most important was the Edinburgh school, founded by Boerhaave's pupils along the lines of the Leyden school. Its story is well known, and I shall not repeat it here, but as you know, it became the most successful medical school in the eighteenth century. There came to it as students some of the brightest young men from the British colonies in North America, among them John Morgan, and the first medical school in what is now the United States, founded in Philadelphia by Morgan and his associates, remained faithful to the teaching of Sydenham and Boerhaave as it had been transmitted to them in Edinburgh.

However, this may well be regarded as a further chapter in Sydenham's influence among the British and I wish to follow the paths which led from Leyden to Austria and France, since these will be less familiar to you. But first, for the sake of chronology, I have to mention two contemporaries of Boerhaave who occupy a place of honour in the history of medicine in Italy. They are Giorgio Baglivi (1668–1707) and Bernardino Ramazzini (1633–1714).

Baglivi has often been called 'The Italian Hippocrates'.²¹ He was physician to the great Malpighi and at the age of twenty-eight he was appointed, with the support of the Pope, to the chair of anatomy in Rome. In the same year, 1696, he published the book which is the chief justification for his reputation. Baglivi was as lively and forceful a writer as he was a lecturer, and students flocked to hear him, but his book, which became a best-seller and went into numerous editions, is very much a young man's book. Entitled *De Praxis Medica* (1696), it was published in English translation in

1704 with the title *The Practice of Physic*. The first chapter is headed: 'Of the absolute necessity of Observations in the way of Physick'. Another 'The preposterous Interpretation of Books, and the pernicious Custom of making systems.' As we go on, we find him giving 'Rules for contriving and promoting the History of Diseases', and proposing the establishment of a College of General Practice, in which each member would be allocated a particular disease and required to present monthly reports of his observations. Sections are devoted to smallpox, fevers, gout, diseases of the mind and the book concludes with 'An Appendix of the Apoplexies that were almost epidemical, 1694, and 1695, at Rome, and all over Italy.'

All this has a very familiar ring and in fact much of it is a paraphrase of passages in Sydenham's writings, even to the quotations from Francis Bacon and the references to Robert Boyle. Even Sydenham's famous dictum that Medicine is not to be learned at the university but only at the patient's bedside comes back to us in a more flowery form: 'My son, you come from the university, you breathe pride from an empty cabinet, from an unlearned breast' (p. 54). Writing of fevers, he alludes to 'particles exhaled from vapours arising from the earth and when breathed in, mixing with the blood' but, he tells us, our knowledge of fevers would be dismal indeed 'if one Author, among so many, had not shone out in this Age, I mean *Thomas Sydenham*, the Imbellisher and Ornament of our Profession, who laying aside the Fictions of Opinion, applied himself wholly to Observations, and dwelt with Nature from his younger years to a good old age; by which means he at last disclosed a more probable Hypothesis of the Nature of Fevers, and a more plausible Method of Cure; nay, his Learning and Sagacity was so much distinguish'd in the curing of Fevers, that his Countrymen commonly called him *The Doctor for Fevers*. This I have been several times inform'd of by the English Gentlemen that travel into these Parts.' (p. 143).

Writing of hysteria he remarks: 'This Truth is not only verified by Experience, but vindicated by Dr. Sydenham', and later 'The excellent Dr. Sydenham did not cull this Hypothesis from his own Fancy, as Men commonly do, but after a frequent and repeated Observation.' (p. 149) Introducing a section on gout, he remarks that he is 'countenanced in this Undertaking by the excellent Dr. Sydenham, whose method we follow.' (p. 250)

Baglivi's book certainly had a great influence on Italian medicine, but he himself hardly practised what he preached, for before he died at the early age of thirty-eight he himself turned away from the Hippocratic method to become one of the leading exponents of the mechanical school of medicine, with a special leaning towards the theory of 'solidism'.

Ramazzini, a much greater man than Baglivi by any standards, has his secure niche in history as the founder of occupational medicine. There are many excellent accounts of his life and work, but it is not generally appreciated that Ramazzini's interest in the effect of occupations on health was a development of Sydenham's implication of the environment in the causation of disease. Ramazzini had so far accepted Sydenham's work on 'epidemic constitutions' as to make annual studies of his own for the six years 1690–1695, a work which in 1728 was reprinted at Geneva together with Sydenham's own.

Returning to the main stream of Sydenham's influence we pass to Vienna,²² where

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one of Boerhaave's most brilliant pupils, Gerard Van Swieten (1700–1772) had been called from his native Leyden in 1745 to become personal physician to the Empress Maria Theresa, a post which was only the starting point for a great career as a medical administrator. His chief published work was his Commentaries on Boerhaave's Aphorisms on the diagnosis and treatment of disease, where Sydenham is quoted in every chapter. When he reformed the medical faculty in the university of Vienna he made sure that bedside instruction had a prominent role in the education of the student, as he did in the new medical school which he founded in Budapest. Looking around for a head of the new clinic in Vienna his choice fell upon his former fellow pupil at Leyden, Anton de Haen (1704–1776) a man in whom the work of Sydenham, Boerhaave and Hippocrates was, as Erna Lesky²³ has put it, woven into a single unified influence. Between them, these two men, who considered Sydenham's work as the ideal of clinical practice, rapidly made the Vienna medical school a magnet for students from the whole of Europe. Under Maximilian Stoll (1742–1788), de Haen's pupil and successor, the first Vienna school reached its greatest heights. Following Sydenham particularly in his work on epidemic constitutions, Stoll created an important school in epidemiology where 'the principles of Sydenham were held in veneration until the middle of the 19th century.'²⁴

The third leading clinician in the Vienna school, Johann Peter Frank (1745–1821), after a brief flirtation with the theories of John Brown, settled down to the true way with his own book on the cure of disease (1782), in which he showed himself a true follower of Hippocrates and Sydenham, whom he refers to as 'that famous man whose labours restored medicine to its pristine dignity'. He quotes Sydenham too in his famous book on Medical Police (1784) and in several of his other works.²⁵ With the leaders of Viennese medicine so conscious of the value of Sydenham's work, it is not surprising to find that in Vienna in 1786 there was published a complete German translation of the medical works of—as the title-page described him—'the famous Englishman Thomas Sydenham'.²⁶

It is interesting to note that at this time, the whole of English medicine as it was known abroad was coloured with the ideals of Sydenham and characterized as 'empirical, sober, cautious, pragmatic'. As an outstanding medical historian, Max Neuburger, himself a product of Vienna, has written 'That sober empiricism resting on the accumulation of detailed observations, which was characteristic of English medicine in the 18th century and which it has never lost, became the guiding star of the Vienna medical school also. Its independent and unprejudiced spirit, combined with great power of observation, made it the type of clinical investigation, the example of the true clinical method.'²⁷

It was precisely this spirit which greatly influenced an important school of French clinicians and it is in France that we find the first full-scale attempt to realize one of Sydenham's own ideals.

In the preface to his *Medical Observations* Sydenham had made a statement which was to have a far-reaching influence. It is one to which I have already alluded but which I now quote in his own words: 'It is necessary that all diseases be reduced to definite and certain *species*, and that, with the same care that we see exhibited by botanists in their phytologies; since it happens, at present, that many diseases, although

included in the same genus, mentioned with a common nomenclature, and resembling one another in several symptoms, are notwithstanding, different in their natures, and require a different medical treatment.'

In the early 1730s a young medical graduate of Montpellier named Boissier de Sauvages (1706–1767) made the first real attempt to classify diseases in the manner suggested by Sydenham.²⁸ Deploring the gap between medical theory and practice he became a faithful follower of Sydenham and his disciples, among whom he gave rather more than his due to the Italian Baglivi. His little book entitled *Nouvelles classes de maladies*, his first, was still only in the exploratory stage, but twenty years later, in 1752, his *Pathologia methodica* included many closely reasoned arguments making a sharp distinction between the study of phenomena and the study of causes and contains, in its third part, another version of his Nosology. This was not its final form however, for in 1768 was published his greatest work,²⁹ a methodical nosology whose Latin title actually includes the name of Sydenham as the chief inspiration.

The classification of diseases by the great Linnaeus, following the lines of his own fundamental classification of plants, had already been published five years earlier with the title *Genera Morborum* (1763). But although Linnaeus was a Doctor of Medicine, his clinical experience and appreciation of all the difficulties involved were slight compared with those of Sauvages and it is generally agreed that the influence of his book was harmful since it filled the physician with false confidence, leading him to believe that once he had put a label on the disease he knew all about it.

Perhaps the same could be said of Sauvages, but the fact is that he appears to have been a good clinician, who himself made clinical experiments, and whose doctrine of signs, used in the differentiation of diseases, paved the way for a much clearer teaching of 'physical signs' during the great renaissance of clinical medicine which took place in France in the first decades of the nineteenth century, with Corvisart and Laënnec, and in Britain a little later with Bright, Addison, Stokes and Graves.

However, it must be acknowledged that both Sydenham and Sauvages were working on inadequate grounds, for too little was yet known about the causation of disease and nosology based merely on symptoms was bound to be unsatisfactory.

But it was not only in this direction that Sydenham's influence became pervasive in French medicine of the eighteenth century. In the France of Voltaire and Rousseau, of Diderot and the Encyclopédistes, in all the intellectual ferment which preceded the Revolution of 1789, the work of Sydenham was cited to justify many kinds of experiments in social medicine.

The Paris Faculty, hidebound and reactionary with its emphasis on tradition and authority, came increasingly under attack. Sydenham's awareness of disease as shaped by historical and geographical factors and formulated in his theory of epidemic constitutions, was especially influential. It was accepted that the health of the people could be preserved only by studying the outbreaks of disease in their own habitat and special officers of health were appointed to the districts in the French provinces charged with the task of making careful observations of the diseases in their communities and associating with them all the relevant data about weather, crops and any concurrent animal diseases. Well before the Revolution, in 1778, the Société Royale de Médecine was created to receive and collate these reports on the health of the people.



Thomas Sydenham (1624–1689). From an oil painting in the Wellcome Institute of the History of Medicine (c. 1680). (*By courtesy of the Wellcome Trustees.*)

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Founded to report on epidemics, the new society, whose existence and powers were greatly resented by the Faculty, soon became the chief centre of all medical activity. It produced schemes of collective investigation, laid great emphasis on observation as opposed to theory, organized medical police and public health education, compiled statistics, and soon became what has been called 'a generalised medical conscience permeating society'.³⁰

The kind of medicine which the revolutionaries wanted to establish was demonstrated during the Revolution, when the universities themselves, with fifteen faculties of medicine, were temporarily abolished and replaced by the *Écoles de Santé* at Paris, Strasbourg and Montpellier, with students being taught and taking their qualifying examinations only at the bedside. Here the observation and recording of the phenomena of disease led to the growth of the important 'language' of physical signs and to the hypothesis, very useful in practice, that the complex of symptoms *was* the disease, an idea in which they followed Sydenham and which justified their keeping case histories in the most minute detail. The philosophy of Locke was also central to their thinking, for they believed with him that biological phenomena are a totality of sensations, all of which were to be recorded.

Nosology itself took a new turn and in attempts to seek a new and more fruitful analogue than botany, the choice of Sydenham and Sauvages, Pinel argued the merits of language and vision, while Cabanis elaborated this to a point where symptoms were equated with letters of the alphabet which, when put together in the right order, made up significant words. Even Bichat indulged in this new game and followed Lavoisier by proposing a chemical basis in which the elements were symptoms and the compounds the various species of disease. Perhaps the last retrospective glance at Sydenham was made by Alibert, who tried to frame a medical nomenclature based on chemistry but actually followed the botanical model of Sauvages and Sydenham, leavening it with the specific localization of disease as propounded by Morgagni.

A detailed discussion of this exciting period in French medicine must await another opportunity, but before I leave France I should mention the fact that many editions of Sydenham's writings were made available in French translation during this period. As early as 1742 one of the leading French medical writers of the day, Pierre Chirac, had referred to Sydenham with praise in his *Treatise of Fevers*.³¹ Another outstanding Montpellier doctor, Théophile de Bordeu (1726–76), included a long eulogy of Sydenham in one of his best books.³² An abridged version of the *Medical Observations* in French came out in Paris in 1741, with a new edition in 1752.³³ Just four years before the foundation of the *Société Royale de Médecine*, in 1774, one of the leading Paris publishers brought out a complete French version of the same work, and its popularity is attested by another edition in 1784, and again, in two volumes, in 1816, the same translation being included in the famous *Encyclopédie des Sciences Médicales* published in Paris in 1835.³⁴

The 1816 edition is notable for the inclusion in the second volume of what may be seen as a patriotic protest against the too great importance which had been given to Sydenham in French medicine. He was, it said, a figure promoted by the national pride of the English and had done no more than had been achieved earlier by his French contemporary Guillaume de Baillou!

Sydenham had certainly had his day of triumph in France, but in Germany it was still to come.

Here the most influential figure in the early transmission of Sydenham's teaching was the great Swiss physician Albrecht von Haller (1708–1777). Like Van Swieten he had taken his M.D. at Leyden under Boerhaave and his scientific attainments and wide knowledge came to surpass even that of his master. At the new Hanoverian university of Göttingen he, like Boerhaave, found one chair insufficient to display all his knowledge and he was professor of medicine as well as of anatomy, surgery and botany. He made important contributions to the development of physiology, but one of his enduring claims to the gratitude of posterity was the extraordinary series of medical and scientific bibliographies which give an annotated and comprehensive survey of the scientific literature existing at his time. Today, it seems, only a large institution with a whole team of workers and a computer can produce works of this kind and it is positively awe-inspiring to examine these very substantial volumes and recall that they represent the unaided labours of one man who was also a busy teacher and a researcher making original contributions to knowledge. One of these great works is entitled *Bibliotheca medicinae practicae*, or The Library of Practical Medicine, published at Berne in four volumes in the years 1776–1788. It claims on the title-page, with justice, to review the whole literature of the subject 'from the beginning of things until the year 1775'. Divided into separate books comprising the various epochs of medicine we find that Book X, occupying nearly 400 quarto pages, is named after Thomas Sydenham, his name occurring as the headline on every page.

These books became and have remained standard authorities and nobody consulting them could be in any doubt of the importance attributed to Sydenham. However, despite the fact that German translations of Sydenham's works had been published at Leipzig and Frankfurt in 1717 and again in 1735,³⁵ and despite the fact that even Hoffmann and Stahl, each working along lines very different from Sydenham's, acknowledged his influence, Germany in the eighteenth century was too much given to philosophical speculations, especially in the direction of chemical medicine, to offer a sound basis for the development of Sydenham's ideas.

This fashion of speculation reached its climax in the so-called 'romantic medicine' which had its vogue in Germany at the end of the eighteenth and the beginning of the nineteenth century. Like all fashions, it was bound to go out of favour and the man who, in Wunderlich's phrase, 'led Medicine back to the facts', was Johann Lucas Schoenlein (1793–1864) who dominated clinical medicine in Germany between 1820 and 1850 and whose pupils held the leading medical chairs in German universities during those decades.³⁶ With K. W. Stark (1787–1845) and Ferdinand Jahn (1804–1859) he founded the so-called 'Natural History School of Medicine' and they looked to Thomas Sydenham for their chief inspiration. In 1827 C. G. Kühn, who was still working on his classic edition of Galen and had just completed his edition of Hippocrates, published a new edition of Sydenham's *Opera omnia* with a new life of Sydenham, and this provided the textual basis for the return to Nature. It greatly influenced Jahn, who in 1840 published a book on Sydenham which is still the most erudite and most detailed discussion of Sydenham's work and ideas.³⁷

Schoenlein did not write very much, for he was always amassing observations on

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an empirical basis with a view to forming a 'natural system based on botany and zoology', but he used his great authority to impress his ideas on his pupils, among whom were Virchow and Billroth. Walter Pagel has pointed out the strong links between the scientific work of Virchow and Schoenlein's ideas, but has stressed that even closer parallels can be found between Virchow and the work of Jahn.³⁸ To Jahn, the writings of Sydenham came like the promised land when viewed by Moses, and it is interesting to see that he brings in Robinson Crusoe when he discusses utilizing the materials provided by Nature.

The interweaving of Sydenham's influence with later developments in the basic sciences needs to be thoroughly unravelled in this very crucial period in the history of medicine. Schoenlein's school was so successful in bringing about the reshaping of German medical thought that the generations immediately following made Germany a Mecca for all those seeking to learn from the best teachers. Sydenham continued to be honoured there as, in Jahn's words, 'a twin star with Hippocrates, the founder of medicine'. In the 1850s an article appeared in a German medical journal with the title 'Sydenham as a scientist and his importance for our time'.³⁹ In the succeeding decades Sydenham's place in medical history was firmly established by the rising school of medical historians in several countries. Daremberg paid eloquent tribute to his achievements in the important series of lectures which he delivered from the Chair in the Paris Faculty,⁴⁰ while in Germany Julius Pagel⁴¹ was among those who made a new assessment of his significance.

During the present century medical historians throughout the world have continued to pay their tribute to Sydenham as one of the founders of the scientific method based on rational empiricism. If a man's greatness may be judged by the influence which he exerted on his posterity then certainly we are right in considering Thomas Sydenham as one of those whose place in the history of modern medicine is secure and unchallenged.

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