practice and literary output, and eventually he died on December 29th, 1689, in his house in Pall Mall, where he had lived since 1667, and was buried in St. James's Church, Piccadilly, where a tablet, erected in 1810 by the College of Physicians, in the south wall aisle, eloquently describes him as "Medicus in omne aevum nobilis."

To recall his works by name would be as unnecessary as it would be lengthy, for they are immortal, especially those dealing with fevers, the distinction for the first time of scarlet fever from measles and of rheumatism from gout, and the classical descriptions of chorea and of hysteria. Scholarly criticism has been much concerned about the question whether Sydenham originally wrote in English or in Latin; the conclusion that appears to have most in its favour is that he composed in the language he spoke, and that Dr. John Mapletoft and Gilbert Havers, a scholar, did his text into Latin. But whatever medium he used he painted from Nature, and, with the artistic instinct of a great clinician, emphasized the essential and kept the immaterial in due proportion.

In his attitude of "back to Hippocrates," whom he called "the divine old man," and the principle of observation rather than the precepts of authority, Sydenham insisted on the importance of the accurate description of the natural history of diseases, the constant and essential symptoms being distinguished from the accidental; he also advocated their separation into species, as in the classification of animals and plants, there being a common resemblance in their seasonal variations. Thus regarding diseases as specific, he urged that specific remedies should be sought for them. Sydenham has accordingly been regarded as the founder of scientific nosology. Further, he urged that a definite system of treatment should be established on rational grounds instead of on polypharmacy. As J. F. Payne, in comparing these two Masters of Medicine, who, as far as we know, never met, writes, Sydenham was the Master of Practice, while his contemporary William Harvey was the Master of Science.

The importance of Sydenham's practical outlook on medicine can hardly be over-emphasized, but this is not his only claim on our remembrance; for in his attempts to obtain a cure for epidemic fevers he made observations on their incidence and variations which led to his famous hypothesis of "epidemic constitutions"—a somewhat mysterious conception of a more elaborate character than those of Hippocrates and Ballonius (Guillaume Baillou) in 1574. His view of acute, especially epidemic, diseases was to the effect that they were modified by the additional factor of a constitution or influence derived not only from the atmospheric and weather conditions, as Hippocrates believed, but from telluric and other sources; thus upon a specific disease, in the modern bacteriological sense, are superimposed features due to a common factor, which, however, varies in the course of years and gives rise to what he termed "stationary fevers." Thus in the years 1661-64 "the epidemic constitution" was malarial, in 1665-66 plague-like, and in 1666-69 like small-pox. That accomplished scholar-physician, the late Joseph Frank Payne—sometime our Harveian Librarian—in his masterly life of Sydenham expressed the hope that his "sketch should induce some readers to study for themselves Sydenham's own works." Since then several Fellows of the College—Sir William Hamer, Dr. F. G. Crookshank, and Dr. Major Greenwood—have devoted much thoughtful consideration to the epidemic constitutions, and Sydenham has been rightly described by Dr. E. W. Goodall as "the founder of the modern science of epidemiology." By a kind of prophetic sense he seems to have foreseen that bacteriology might appear and be held to explain the whole question of the incidence of acute disease, and at any rate he provided reservations to such a simple and exclusive conception.

Thus the three-hundredth anniversary of the birth of the Father of Clinical Medicine in Britain and the Prince of Practical Physicians, of the Founder of the modern science of epidemiology, and of the originator of scientific nosology, "the incomparable Sydenham," should be kept in grateful and proud remembrance in his Country and College.

THOMAS SYDENHAM: HIS WORK AND CHARACTER.

BY

ARNOLD CHAPLIN, M.D., F.R.C.P.,
HARVEIAN LIBRARIAN.

In the annals of medicine in this country three men may be found who, by universal consent, are honoured above all others. They are William Harvey, John Hunter, and Thomas Sydenham. Special measures have been taken to prevent the glory belonging to Harvey and Hunter from ever becoming dim, for a wise prevision has established societies and annual orations designed to perpetuate in the minds of medical men the memory of those great pioneers in medical and surgical science. But Thomas Sydenham, although his labours have left an effect upon medicine scarcely less than the work of the other two, has never been honoured by an annual oration for the purpose of keeping alive the memory of his great achievements. Indeed, apart from the society for medical publications bearing his name, the issue from time to time of his collected writings, and attempts, sometimes inadequate, to portray his life and activities, but little has been done to fix the public gaze upon the monumental work of this

Isaac Barrow's certificate, showing the date of Sydenham's degree; in the possession of the Royal College of Physicians.

most "English" of English physicians—this rugged genius who, unaided, laid the sure foundations of clinical medicine. Now, in this year 1924, three hundred years after his birth, a tardy recognition of his merit is being laid at his shrine. French medicine, ever ready to award a scientific crown wherever it is deserved, irrespective of nationality, has already paid its tribute to one of England's greatest medical sons. And now a great journal, voicing the thoughts of thousands of British medical practitioners, in the tongue that Sydenham spake, and in the land that bred him, is placing on record its deep appreciation of the work he accomplished. At the same time the Royal College of Physicians, of which body Sydenham was a distinguished member, has held a special evening session, and through the mouth of its President, Sir Humphry Rolleston, himself a great clinical physician, has paid the debt it owes for the glory of having the name of Sydenham on its roll. This action of the College of Physicians is peculiarly fitting, for it is well known that, for reasons somewhat obscure to us at the present time, Sydenham never applied for the Fellowship of the College, nor was that honour ever offered him, although for the last thirteen years of his life he was in every way eligible. But this gathering of the Fellows of the College in the twentieth century, for the purpose of doing honour to Sydenham's name, will surely be regarded as an adequate act of penance for its omission three centuries ago. Nor must we feel aggrieved that medicine in a foreign land has paid its tribute first to our Sydenham in this year, the tercentenary of his birth, for his influence upon medicine was so great that it left its mark in whatsoever land it was practised. It knew no national boundaries. That vigorous intellect wrought for all time

and for all countries, and we do not, therefore, grudge our colleagues their first-offerings of homage to the name of Thomas Sydenham.

It is not the purpose of this article to write a biography of Sydenham, for that has been done with great ability and discrimination by the late Dr. Payne; but rather to consider his character, his mental environment, and the results for us to-day of his work. Some biographical details will, however, be necessary in order to appreciate the true position occupied by Sydenham as a great medical reformer.

Thomas Sydenham was born in 1624, at the Manor House of Wynford Eagle, in the county of Dorset. The exact date of his birth is not recorded, and it can only be stated

that he was baptized on September 10th of that year. He came from an old Somersetshire family dating back to the time of King John, which multiplied exceedingly, for no less than eight branches were founded in that county. One of the branches was settled at Aller, and a cadet of this branch acquired, in the middle of the sixteenth century, the Manor of Wynford Eagle from Zouch, Lord of Harringworth. The Manor of Wynford Eagle once formed part of the great Honor of the Eagle, granted by the Conqueror to one of his companions, Gilbert, whose chief castle was at Pevensey in Sussex. Gilbert came from Aigle (Aquila) in Normandy, and the Honor no doubt derived its name from that source.

The Manor House of Wynford Eagle stands by itself at the bottom of a shallow valley in the downs of Dorsetshire, with a clear chalk stream flowing swiftly in a masoned channel at the end of the garden. It is a well kept substantial building of grey stone stained with lichen. Its chimneys are of red brick in the picturesque style of the early seventeenth century. It has the large casemented windows of the period, and the garden walls and parts of the side walls of the house are composed of the characteristic local chipped flints in panels. In the centre of the front of the house, which faces west, is a projecting porch with a room over it. On its gable is placed an eagle in stone, and under it the date 1630. Another eagle of older date, and much battered, taken down probably when the house was repaired, still stands at the top of some steps in the yard. In 1630 Thomas Sydenham was 6 years old, and, save for some inconspicuous farm buildings, the place must be now very much as it was in his boyhood. It looks to-day a very home of ancient peace, though in Sydenham's time it gave shelter to a family of valiant sons who issued

forth to the stern business of fighting for the Puritans against the Royalists.

Long before the actual struggle began, the Sydenham family had become deeply committed to the Puritan cause, and Thomas Sydenham was therefore brought up under strict Puritan influences. The adherence of the family to this cause was no mere formal acceptance of its tenets, for, when the civil war broke out, the father and his five sons bore arms for the sake of their consciences on the side of the Puritans, and two of them lost their lives in battle. Thomas Sydenham had only been at Oxford for a few months when the summons came. He at once threw aside the gown for the sword, and took his place beside his valiant brothers, ready to risk all for the honour of his belief.

So far as is known, only one other member of the College of Physicians, Dr. Martin Llewellyn, actually bore arms in the civil war. At the conclusion of the first civil war Sydenham again repaired to Oxford in 1646, and, acting on the advice of Dr. Thomas Cox, a physician in the Parliamentary army, devoted himself to the study of medicine. In 1648, being then a Fellow-Commoner of Wadham College, he took the degree of M.B. on the recommendation of the Chancellor, the Earl of Pembroke, and a few months later was elected a Fellow of All Souls. In 1650 he again obeyed the call to serve in the army, and was employed in Scotland and elsewhere, but there is no evidence that he was present at the battle of Worcester, as has been asserted. After this Sydenham re-

Diploma granted to Sydenham on taking the degree of M.D. at Cambridge. From the document in the possession of the Royal College of Physicians.

mained at Oxford until 1656, when he removed to London and settled himself in practice in Westminster. During the year 1659 he paid a visit to Montpellier, but with the exception of that brief period of study, lasting less than a year, Sydenham's career was unconnected with any of the medical schools abroad. It was not until 1663, although he had already been in practice in London for some years, that he obtained the Licence of the College of Physicians to practise, and in 1676 he took the M.D. degree at Cambridge. When the great plague devastated London, Sydenham followed the example of nearly all the London physicians, and absented himself with his family from Westminster. This action must always be a matter for regret, for, had he been present, we might have possessed an almost perfect clinical picture of that great epidemic. But during his absence from London he was not idle, for he began to place on record the results of his own observations concerning disease, and especially fevers. Since the year 1661 he had been engaged in taking these notes, and in 1666 he gave

to the world his first work, *Methodus Curandi Febres*, in which the treatment of disease was approached from an entirely new standpoint.

This book of Sydenham may be regarded as epoch-making, for it was the first treatise founded on the personal observation of the physician at the bedside when attending cases. Before his time it was the almost universal practice of physicians, when writing of disease, to appeal entirely to the ancient authorities, and to neglect what their own senses had taught them. Vesalius and Harvey had already definitely broken with this tradition in the sciences of anatomy and physiology, and it was reserved for Sydenham to take the same bold step in medicine. With a knowledge, scant it may be, of the principles of medicine, he literally rejected all that had been written concerning the practice, and relied absolutely on his own unrivalled powers of observation. With two important exceptions, Sydenham had a profound contempt for the knowledge of medicine to be found in books both ancient and modern, and to the last refused to be influenced by their authority. The teachings of anatomy and physiology, which had received such an impetus from the work of Vesalius and Harvey, made no impression upon him, and he dismissed them from his system almost with contemptuous disdain. He was wedded to the belief that personal observation, and personal observation alone, could unravel the mysteries of disease. Chemistry, physiology, and anatomy might be amusing, and perhaps instructive as sciences, but he thought that they could lend no aid to the purpose he had in view. The two important exceptions mentioned above, to which he accorded his approval, were the Hippocratic writings and the philosophy of Bacon. For the former he had unbounded respect, because he was convinced that the teaching of the Father of Medicine was based on clinical observation; while from the latter he took the main principles of Bacon's system and applied it to the study of disease. The essence, therefore, of Sydenham's great innovation is to be found in the fact that he was the first to teach the great truth that disease could only be understood by watching its progress at the bedside of the patient, or, in other words, by studying Nature herself. The fine apophthegm of Bacon, which being translated reads, "We must not imagine, or think, but find out what Nature does or produces," most aptly expresses the essentials of Sydenham's work.

We must not be astonished to find that Sydenham's method was often responsible for faulty ideas concerning disease. That was inevitable, for the method was far from perfect, and much progress in the knowledge of disease had to take place before it could yield definite results. Nevertheless, from the time that Sydenham launched upon the world his clinical method, that branch of medicine has continued to advance, and has been seen in its highest excellence in the hands of Heberden, and Boerhaave in the eighteenth century, and of Bright, Addison, Watson, and Trousseau in the nineteenth century.

Sydenham's book on fevers was considerably expanded in successive editions until it embraced nearly the whole of his observations concerning disease as he saw it, and a particular merit of his writings is the clear and faithful descriptions of the clinical features of various ailments. Indeed, as Dr. Payne observed, his descriptions of many diseases are "so admirable that they have never been surpassed, nor are likely to be." This was particularly the case in his dissertation on gout, where his account of

the symptoms of that complaint is so vivid and true that writers have been content to follow it without alteration. While advocating his new clinical method in his book on fevers, Sydenham laid the foundation of the study of epidemiology, and may therefore be regarded as the father of that branch of medicine in this country.

In estimating the cast of mind of Sydenham regard must be paid to his upbringing. He was nurtured in a strict Puritan household, and throughout his work the Puritan influence is abundantly evident. He had risked his life on the field of battle for the cause he believed to be right, and he was just as ready to risk unpopularity and criticism in promulgating views concerning the practice of medicine which were new, and therefore suspect. He often complained, somewhat bitterly, of the adverse criticism of his contemporaries, but, like a true Puritan, it could not turn him a hair's breadth from the course he had planned.

In medicine his was a voice crying in the wilderness, and again as a Puritan he probably accepted the position with some satisfaction. He drove home the great truth that the solution of the problem of disease, its manifestations, and its cure must be sought at the bedside by means of observation and inquiry, and not by an appeal to theory and authority sanctified by time. Before the end of his life he saw that his work had not been in vain, but it was not until the eighteenth century dawned that the full effect of Sydenham's teaching was felt. In that century it may be truly said that the whole of practical medicine was dominated by the system of Thomas Sydenham. At the present day the influence of his great work is not so apparent. Nevertheless, in this, the three hundredth anniversary of his birth, our homage is no less sincere, for in him we recognize the master who made straight the road up which countless

physicians have toiled to realms of more perfect medical knowledge.

Very little has been left by Sydenham in the shape of letters and manuscripts. The Royal College of Physicians possesses one most important manuscript entitled *Medical Observations* by Thomas Sydenham, a folio volume containing his observations on various diseases, the first page of which is reproduced above. It is not a manuscript of any complete work of Sydenham, but merely his notes, probably written down from time to time, and it is doubtful if the whole of it is in the handwriting of Sydenham. The College also has in its possession the signature of Sydenham,

Title page of "Medical Observations," in Sydenham's handwriting. From the manuscript in the possession of the Royal College of Physicians.

Sydenham's signature. From the "subscription book" of the Royal College of Physicians.

on admission as a licentiate, in the subscription book of the Fellows, and this has also been reproduced. Two interesting exhibits referring to Sydenham have been reproduced. One is the certificate given by Isaac Barrow when he was Vice-Chancellor at Cambridge, and in his hand, certifying that Sydenham had taken his degree of M.D. The other is the diploma given to him by the University on taking his degree.

Several portraits of Sydenham are in existence, and three belong to the College. The most important is the portrait painted from life by Mary Beale, and this is reproduced

at page 917 Another in the possession of the College is attributed to Lely or Closterman, and fine portraits are in the possession of the Wellcome History Museum and Sir Thomas Barlow. The Mary Beale portrait, and that attributed to Closterman or Lely, have been engraved in line and mezzotint by Houbraken, Seiller, and McArdell.

SYDENHAM: REFORMER OF ENGLISH MEDICINE.

To celebrate the tercentenary of the birth of Sydenham Sir George Newman has written a biographical essay¹ which is among his happiest efforts. It is not long, it is comprehensive, and it is, almost needless to say, intensely sympathetic, for Sir George Newman, like Dr. Arnold Chaplin, comes of Puritan stock. Though Puritanism was at its beginning a religious movement, it was in its essence a habit of mind, which those possessed by it applied to all institutions and all departments of mental activity. Thus Sydenham, who held strong religious and political views as to individual liberty, and fought for them in the field, applied the same principles and showed the same love of independence when he came to study and practise medicine.

Sir George Newman's essay contains five chapters or sections dealing successively with Sydenham at Oxford, and in London, with Sydenham as a physician, with his little books, and with Sydenham the man. Rather more is said in the essay than in the two articles published above about the Oxford period; with a few months' interruption, when Sydenham fought again under Cromwell, it lasted for fully eight years. That he took an active part in the life of the University is shown by the fact that he was bursar as well as Fellow of All Souls College; he must have known every one he wished to know, and certainly numbered among his friends many men already distinguished or afterwards to become so. Whether he became acquainted with John Locke at Oxford may be doubted, but they afterwards grew to be fast friends, and Locke's resolve to begin the study of the principles of philosophy by setting down "on a piece of paper" the limits of human understanding must have been much to Sydenham's taste.

Of the Westminster to which he took his bride in 1655 we have a graphic sketch. There were the Abbey and Westminster Hall, and Whitehall Palace, some houses of courtiers and official persons, and hovels of the poor, with the swamps and marshes of the unconfined Thames around.

"The Palace consisted of a vast congeries of buildings and pleasure grounds, covering almost the whole of what we call Whitehall, through which passed the public highway, King Street, between the glorious Holbein Gate (which stood until 1759) and the High Gate built by Richard II. It was a narrow street, with a network of smaller streets and courts on either side at its southern end. Here Sydenham lived. The houses rose three or four storeys, gabled all, with projecting fronts, the timbers painted or gilt, some of them bearing escutcheons or brightly blazoned arms, or carved beams or signs. There were taverns, and much coming and going, wagons, packhorses, pedestrians, and the motley crowd which frequent camps and courts. Down it passed the pageantry of funerals, coronations, and State shows. Lord Howard of Effingham set out from King Street to fight the Spanish Armada, Charles came down it to his trial in Westminster Hall, Cromwell lived in it, and Colonel Sydenham and many of the parliamentary leaders and soldiers."

There and afterwards in Pall Mall, Sydenham lived until his death, with apparently only two long absences, one in 1659, possibly, we may suggest, connected with the approaching Restoration, when he went to Montpellier to study under Barbeyrac, the other in 1665, when the plague was in London, when he retired a few miles. "Had he remained," Sir George Newman drily remarks, "medical literature might have been enriched by an adequate description of the plague."

Of Sydenham's disregard of the contemporaneous or almost contemporaneous work of others, Sir George Newman has no explanation. "It seems very strange," he writes. "Perhaps it was temperamental, perhaps a studied effort to exclude the influence of others upon his own mind." Yet it is rightly claimed for him that "the principles of direct clinical study, of the non-reliance on tradition and

the return to Nature, of the scientific method of observation and induction, laid down by Sydenham as the foundation of sound medical practice, will endure for ever." It must be remembered that Sydenham's practice was very largely concerned with fevers, and he set himself "to define an orderly and systematic scheme of clinical study to consist of three parts: (1) an exact description of the disease before him, (2) a method of remedy, and (3), where he could discover them, the use of specific forms of treatment." Sir George Newman looks on Sydenham as having laid the foundation of modern epidemiology; he saw that certain fevers had an epidemic character which bred true, but there were, he thought, variations, the same disease manifesting itself with dissimilar aspects as to origin, formation, and decline. While he began "to feel out after the idea of contagion, though not very surely," yet he believed that "both typical and atypical fevers prevailed at certain times, dependent, he thought, upon meteorological or atmospheric conditions, or other external influences." Associated with these views was his theory of epidemic constitution, which he seems to have derived from Hippocrates. We find in the essay no very definite opinion on its worth. The controversies to which it has given rise have perhaps rather tended to obscure the great merit of Sydenham, which lies in his insistence on accurate bedside observation coupled with a system of rational therapeutics founded on careful record of the action of remedies administered with the intention of assisting Nature's own efforts to overcome the disease.

Scotland.

THE Branch Council for Scotland has certified to the returning officer that Sir Norman Walker, M.D., has been duly elected a direct representative for Scotland upon the General Medical Council in accordance with the regulations made by the Privy Council.

HOUSING IN GLASGOW.

The provision of dwelling-houses is a serious problem for Britain as a whole, and it seems to be admitted that the general standard is lower in Scotland than in England. Within Scotland it is difficult to believe that any locality can be worse off than Glasgow. Whether private enterprise could have continued to meet the needs of the case, as it did in a fashion until within the last score of years, we do not profess to say, but clearly the no-rent developments in Clydebank are sufficient to deter the cautious Scot from risking his money in any such speculation, and so the problem is transferred to the local and central authorities. The valuable report for 1923 of Dr. Chalmers, the medical officer of health, shows how deplorable the whole position is, notwithstanding building schemes at present being carried out. A margin of 325 unoccupied houses in 1923 is wholly inadequate, even if all of them were suitable in size and otherwise for the families requiring them. In the past five years the average annual addition to the number of new houses has been slightly more than 1,200. But the average by which the births exceeded the deaths in the past four years has been more than 10,000. The Registrar-General for England assumes two persons per room as a permissible standard, but a room in Scotland being commonly larger than in England, Dr. Chalmers takes three persons per room as his measure of existing needs. Following the 1921 census report for Scotland, and leaving aside 24,853 houses of one apartment occupied by not more than three persons each, 86,425 houses of two apartments occupied by not more than six persons each, and so on for larger houses, Dr. Chalmers says there remain 14,131 one-roomed houses occupied by from four to six persons each, 1,643 occupied by seven to nine persons each, and 62 houses of one apartment in which there are between ten and twelve persons each. Of two-apartment houses there are 19,596, occupied by from seven to nine persons each, 2,832 by from ten to twelve persons, and 117 by more than twelve occupants. If the rate of increase of house accommodation in the decade 1891-1901 persisted now, the annual provision would have

¹ *Thomas Sydenham, Reformer of English Medicine*. By Sir George Newman, K.C.B., M.D., D.C.L. London: The British Periodicals, Ltd. (Cr. 8vo, pp. 23. Price 1s.)