An Address

ON

THE SOURCE OF MODERN MEDICINE*

BY

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Gentlemen,—I must trouble you with a date, 1685, the year in which Charles II died. That reign marks the watershed between the mediaeval and the modern world ; between the mass and the individual ; between authority and experience ; between books and experiment. From that summit the spring of modern medicine burst forth. It was in reality a new world. The Royal Society had been founded ; the circulation of the blood had been proven ; the Cartesian method had been disclosed ; the universal law of gravity and the laws of planetary motion had just been announced. Logarithms, electricity, magnetism, chemistry, were words coming into common use. Up to that time, the authority in science was Aristotle ; in philosophy, Thomas ; in medicine, Galen. All three had organized and synthesized the existing knowledge of their day. It was a useful task ; but when life is too closely organized it begins to perish. The body of knowledge then becomes a burden, a tradition ; it blinds men's eyes ; it makes them incapable of observation or thought. It enslaves them ; but suddenly, freedom asserts itself. Freedom too has perils, but they are less dangerous than the perils of slavery. One can now say what he likes, even in medicine, no matter how foolish ; there will be plenty to contradict him.

There were reasons deeper still for the scientific renaissance of the period under review. The divine right in science of Aristotle and the Greeks had passed ; the divine right of kings in politics perished at the hand of Cromwell ; the divine right of Galen in medicine came to an end with the appearance of Thomas Sydenham ; and so we have come to our subject at last.

For a perfect sight of the old medicine, let me conduct you to the bedside of Charles II: With a cry he fell. Dr. King, who, unfortunately, happened to be present, bled him with a pocket-knife. Fourteen physicians were quickly in attendance. They bled him more thoroughly ; they scarified and cupped him ; they shaved and blistered his head ; they gave him an emetic, a clyster, and two pills. During the next eight days they "threw in" fifty-seven separate drugs ; and, towards the end, a cordial containing forty more. This availing nothing, they tried Goa stone, which was a calculus obtained from a species of Indian goat ; and as a final remedy, the distillate of human skull. In the case report it is recorded that the emetic and the purge worked so mightily well it was a wonder the patient died. One physician did protest that they would kill the king ; and out of this arose the suspicion that he had been irregularly poisoned. But he did die, "as peaceable as a lamb" ; his last words were, "Do not let poor Nellie starve."

SYDENHAM'S METHOD

Whilst this mediaeval practice was in progress at the palace, not far away, on the north side of Pall Mall, looking south over St. James's Park, opposite to Nellie's, and quite near the house of Moll the dancer, lived Thomas Sydenham. But he was not called to the royal bedside. He was a Puritan ; he had been a captain of horse in the Parliamentary army ; and, worse still, he was reputed to be practising medicine "in a new way." Out of his specifically creative mind modern medicine was already

emerging by this new way. His method was no secret. Twenty years ago he had published his method of curing fevers ; he was ready to publish his Observations, a series of five letters addressed to his friends: "about the sum of all I know of the cure of disease up to the day on which I write—namely, the 29th September, 1686." He died three years later. A collection of letters to his son was issued after his death. That is all. He lies buried in the Church of St. James's, Piccadilly, where a mural tablet was put up by the Royal College of Physicians in 1810. It bears the inscription adapted from Horace, *Medicus in omne aevum nobilis*—a physician famous for all time.

The most casual reading of his little books reveals the method. There is no dogma, no system, no body of doctrine, merely a few general principles. It is not a method even ; it really indicates a way of looking at things, without searching too curiously into their causes. He looked upon diseases as they appeared to him, and made a complete study of each. Most forms of disease, he thought, had a definite and uniform type due to the uniformity of the cause. He sought only for the "evident and conjunct causes" ; the remote ones he thought it vain to seek. Acute disease he considered to be a reaction of the body to meet some injurious influence coming from without. He was content to watch and aid in the natural crisis. Chronic diseases were in the main due to errors in diet and in the general way of life. As he put the case, "Acute disease is an act of God ; of chronic disease the patient himself is the author." Fever was nature's engine against the enemy, or her handmaid for removing the morbid material from the blood. Fever was a sign that nature was curing the disease, and should not be curbed unless it becomes too violent. The patient should be lightly covered ; he should be allowed air and light, with water if he was thirsty, and food only when his appetite demanded it.

To do without hypotheses, and study the actual disease with an open mind ; to make an unbiased study of the natural processes in health and disease ; to trust in the healing power of nature—for nature is the mother and healer of us all—and provide help only when help was demanded—that was his rediscovery, for the original discovery had been made by Hippocrates himself. He demanded that a physician should regard disease with the eye of a naturalist, and describe it with equal care. "If only one person in every age," he said, "had accurately described and habitually cured only one single disease, and disclosed his method, physic would not now be where it is." Every hypothesis must be abandoned, whilst every phenomenon of disease is being minutely observed ; "but it is right and necessary to distinguish between the constant characteristics of a disease and those that are merely accidental and adscititious. Want of accuracy in distinguishing diseases that are apparently similar is fatal to medicine."

Sydenham, of course, had his own theories ; but he was never enslaved by them. Still less was he enslaved by classical dogma or by the chemical theories then in vogue. He made his own the great saying of his favourite, Bacon: "We have not to imagine or to think out, but to discover what nature does." These are the very words that Hunter addressed to Jenner, "Do not think—try."

SYDENHAM'S PRACTICE

In practice Sydenham did not disdain the use of drugs ; he used Peruvian bark freely, as well as laudanum, which he was the first to prepare ; but he had many cases, "in which he consulted his patient's safety and his own reputation most effectually by doing nothing at all." It was a great mistake, he declared, to suppose that nature

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always needed the assistance of art. His friend John Locke, the philosophical father of Hume and Kant, himself a captain in the army of the Parliament, and a practising physician as well, in commending the new method writes to a friend, "You cannot imagine how far a little observation will carry a man in the curing of disease, though very stubborn and dangerous, and that with very little and common things, and almost no medicine at all."

Too much has been made of Sydenham's contribution to the diagnosis of disease. True, he distinguished between chorea and St. Vitus's dance; he described syphilis, and recognized many diseases as specific in the modern sense; he established hysteria as a definite disease; his description of gout remains unexcelled. It was from that malady he suffered and died; but he consoled himself with the reflection, that fools rarely suffered from it, unless indeed he himself might have been an exception. He missed many of the symptoms of scarlatina; and his classification of fevers remains obscure.

It was in practice he excelled. For a patient who had suffered from the prevailing lowering treatment he prescribed a roast chicken and a pint of Canary wine. A hypochondriac he advised to consult a physician in Inverness. The man proceeded on horseback; he could not find the doctor; he returned very angry but cured. "Nothing," Sydenham said, "so cherishes and strengthens the blood and spirits as riding a horse."

In addition to all this, there was in Sydenham, as there was in Hippocrates, in Pasteur, and in Lister, a powerful moral element which shines on every page. "Whoever," he wrote, "applies himself to medicine ought seriously to consider: first, that he will one day have to render an account to the Supreme Judge of the lives of the sick committed to his care; and next, that whatever skill or knowledge he may, by divine favour, possess should be devoted above all else to the glory of God and the welfare of humanity." And again, "The physician will care for the sick with more diligence and tenderness if he remembers that he himself is a fellow-sufferer."

CONTEMPORARY OPINION OF SYDENHAM

Sydenham created no great stir in London. To the end of his days he remained on the outside of the faculty, although he had his friends within and without, and in that Invisible College which was the precursor of the Royal Society. To us who are alert for any new method the conduct of the profession towards Sydenham seems strange: For thirty years he was described as a "sectary." In one of the few letters now extant, written in English, he admits that, "whilst he has the happiness of curing his patients, some of the faculty take fire at his attempts to reduce practice to a greater easiness." In another letter he utters a mild protest against those who make it a matter of reproach, if one brings forward anything new, which had not previously been said, or heard, by themselves.

But the profession must not be too severely blamed. We are so often right in our scepticism, we may be forgiven when we are occasionally wrong. And Sydenham was quite "irregular." He practised in London until he was 40 years old, without a licence of any kind. In 1663 he was admitted licentiate by examination of the Royal College of Physicians, which is the lowest rank. It was not until 1676 that he acquired the doctor's degree, not from Oxford but from Cambridge. He was at the time 52 years old, and his son was an undergraduate there. He is known to have had the degree of bachelor of medicine from Oxford, but there is no official record. In any case, his medical study must have been short, and not profound. To compensate, he is alleged to have taken a post-graduate course at Montpellier. There is

no evidence of that either, although French writers make the most of the legend through the natural desire to claim him as their own.

Even his unlicensed practice was interrupted by an excursion into politics in 1658, when he became a candidate for Parliament. He was unsuccessful; but as a defeated candidate he was appointed Comptroller of the Pipe, an office long since obsolete, and having to do with Crown lands. More important, he was awarded £600 on account of his military service. With this money in hand he married, and settled down to practise medicine.

Likewise, his study preliminary to medicine was brief. He entered Oxford at the age of 18; but after three months his career was interrupted by the outbreak of civil war. He joined the army in company with three of his brothers; he kept the field for four years, when he returned to the university, and received an academic degree in 1646. Two years later, after his return from the Second Civil War, he was made Bachelor of Medicine by "actual creation." It was an honorary degree given in advance of the study for a profession which he entered by the influence of "a great man and by his own destiny."

It was quite natural, therefore, that he should be considered in London as an uneducated and unqualified person. He could not write Latin, although he could read it; his writings must be translated for him, and the work was badly done. Only rough notes in his own English remain, and it is without especial quality. Although his pre-medical education was deplorable, he was not an ignorant man. He could speak Latin. Cicero was the author he most admired, "the great teacher both in thought and language." He frequently quotes Homer, Theocritus, Virgil, Horace, Juvenal, Seneca; and all modern Latin writers were known to him, especially Bacon and Erasmus. He knew the English Bible, which was then a new book.

It was from Edinburgh and Leyden the fame of Sydenham first extended to the world. Boerhaave described him as the light of England, an Apollo in the art of medicine, a true pattern of the Hippocratic physician. Haller, a pupil of Boerhaave, who carried Sydenham's method to Germany, discovered him as the beginning of a new epoch in medicine. Van Swieten, a fellow-pupil, bore the seed to Vienna, where it developed into a great clinical school. Arbuthnot in the Harveian Oration for 1727, found in him the "aemulus" or emulator of Hippocrates; and more recently the beloved Dr. John Brown describes him as the prince of practical physicians.

This Boerhaave was professor of medicine in Leyden, where he succeeded "Sylvius," who had made a vain attempt to reconstruct medicine upon a basis of the new chemistry and the circulation of the blood, losing himself in the technical and the mechanical. Boerhaave lectured five hours a day; his hospital contained only twelve beds, but by Sydenham's method he made of it the medical centre of Europe. That knowledge came to him through Edinburgh from Archibald Pitcairne, who for a short time occupied the professor's chair in Leyden, and was the teacher of Boerhaave.

PITCAIRNE AND THE SCIENTIFIC METHOD

This Archibald Pitcairne was born in Edinburgh in 1652. His ancestor fell at Flodden with his seven sons. The family was continued by a posthumous child. He entered Edinburgh University in 1668, where he graduated Master of Arts in 1671, at the age of 19. Then he studied divinity and law. In Paris, where he went for his health, he began the study of medicine, but soon returned to Edinburgh, and took up the study of mathematics and medicine. Once more he went to Paris, and graduated

doctor of medicine at Rheims. He practised in Edinburgh with wide success, and in 1692 he went to Leyden to occupy a professor's chair. Two of his pupils were Boerhaave and Mead. In 1693 he returned to Edinburgh for his marriage to the daughter of an eminent physician, Sir Archibald Stevenson, from which place he often went as consultant to England and Holland.

Lacking the means of anatomical study, he persuaded the town council to permit him and some of his medical friends to dissect the bodies of paupers in Paul's Work, unclaimed by their relatives. The persuasion was easy, as they agreed to bury the bodies after dissection at their own charge, and to save the town from that expense. To this was added the somewhat dangerous provision that they were to attend the patients free of cost to the town until they died. This was the origin of the Edinburgh School of Medicine.

Anatomy has been the origin of every school of medicine. Human dissection is even yet the sovereign method of transforming the average layman into a physician. To this rule neither Hippocrates nor Sydenham is an exception. They did not dissect; but they were men of genius; and genius knows no law. Besides, they did not found schools. The fame of every school, McGill included, is based upon anatomy. It was fixed by Shepherd. I pause to utter a word of respect to his memory. In the modern sense he was not a teacher; but he compelled men to learn by the sheer drudgery of dissection—dissection not of earthworms, frogs, rats, or guinea-pigs, but of the human body. To him the human body, living or dead, was the primary unit in medicine; and in those days the ward bed and the dissecting table were not very far apart. Indeed, as Sir John Bland-Sutton reminds us, the word *κλινη*, from which "clinical" is derived, applies equally to a bed and to a table.

I am well aware that in these days, when a student must be converted into a physiologist, a physicist, a chemist, a biologist, a pharmacologist, and an electrician, there is no time to make a physician of him. That consummation can only come after he has gone out in the world of sickness and suffering, unless indeed his mind is so bemused, his instincts so dulled, his sympathy so blunted by the long process of education in those sciences, that he is forever excluded from the art of medicine, which was to Hippocrates "the art" of all arts. In that case he is destined for the laboratory, the professor's chair, or the consultant's office. What would have happened to Sydenham had he been put through this machinery is a problem in infinity which no human intelligence is competent to solve.

Pitcairne, like Sydenham, insisted upon the strictly scientific method long since enunciated by Bacon: an exact compliance with observation and experience. "Nothing," he affirms, "more hinders physic from being improved than the curiosity of searching into the virtues of medicine; but to inquire whence they have that power is a superfluous amusement, since nature lies concealed. A physician ought therefore to apply himself to discover by experience the effects of medicines and diseases, and not needlessly fatigue himself by inquiring into their causes, which are neither possible nor necessary to be known." This is going too far; but we must agree that undergraduates in medicine and practitioners should be debarred from this "superfluous amusement."

Both Sydenham and Pitcairne were convinced that nature lies concealed, and always will be concealed. The more we seek, the further she recedes. To pluck out the heart of her infinite mystery was to them a vain task, and the seeker was sure to go astray. Nature knows no law. The laws of nature were merely our own presuppositions.

Pitcairne was also a poet, a mathematician, a scholar, a collector of books. His library was acquired by Peter the Great of Russia. His monument in Greyfriars churchyard bears an epitaph in testimony of his generosity to scholars. He was the first champion of Harvey. He, too, failed to win the approval of his colleagues; his plan for dissection was strongly opposed. His way of life was equally disapproved by the Calvinistic Edinburgh. If we can believe his detractors, he was a frequenter of clubs, public-houses, and taverns. He is reputed to have been drunk twice a day; an unbeliever; much given to profane jests; an atheist; involved in quarrels with the faculty, and suspected by the Government. A curious evidence of his quality is supplied by Richard Mead, his pupil along with Boerhaave at Leyden, afterwards court physician to George II, better known as the discoverer of the *Sarcoptes scabiei*, the insect that causes the itch. Pitcairne's son was out in 1715, and was condemned to death. Mead in gratitude to his master interposed and saved his life. He pleaded with Sir Robert Walpole that if he and the royal family had been cured by his skill, it was due to the instruction he had received from Pitcairne.

The intermediary between Pitcairne and Sydenham was Dr. Andrew Brown. He had read Sydenham's "new and quite contrary method." It so impressed him that he went to London "to settle his tossed thoughts." He spent "some months in his society," and found in him "everything that use to beget in wary and prudent people trust and knowledge." He returned to Edinburgh "as much overjoyed as if he had gained a treasure." He had; he published it to the world in 1691, "a vindictory schedule concerning the new cure of fevers, first invented by the sagacious Dr. Thomas Sydenham." Pitcairne in the following year carried that treasure to Leyden.

MODERN MEDICINE CROSSES THE ATLANTIC

Modern medicine had a resting stage in Edinburgh, whence it issued in two faint streams across the Atlantic to Montreal and Philadelphia. In 1821 the Montreal General Hospital was founded, and from it emanated the McGill Medical School. This was the first hospital in America to introduce students into the wards. Here again the old and the new came into conflict. A duel was fought: men had conviction in those days. Five shots were exchanged with ounce bullets. One protagonist was shot through the chest; the other had his right arm shattered. Both recovered, the one by the old treatment, the other by the new, so their comparative merit was left undecided. The four founders were Edinburgh men.

When the College of Physicians of Philadelphia was founded in 1787, four of the eleven senior fellows had graduated from Edinburgh and four others had studied there, "children of Edinburgh and grandchildren of Leyden," as Weir Mitchell said. There is in the Frick Library a collection of 126 theses, presented by Sir William Osler, written by American students in Edinburgh between the years 1760 and 1813. Some of them bear the names of Morgan, who founded the first American medical school in the University of Pennsylvania in 1763; of Shippen, Kuhn, Logan, Rush, and Lee. The first clinical lecture was given by Thomas Bond in 1766, on the advantages of clinical instruction. He took the precaution of reading it in advance to the board of managers, who inscribed it in their minutes. To complete the record, Osler in 1885 went to Philadelphia, bearing with him what he had learned at McGill; and so these two streams of modern medicine were joined.

MEDICAL EDUCATION

If I stopped at this point I should be a mere historian repeating what you already know, or can read in books. Sydenham's little writings are at your hand in Latin and English, published by the old Sydenham Society. Everything germane to the subject has been collected by Dr. F. Picard, and by J. F. Payne in 1900. From this material, small though complete as it is, many charming essays have been drawn, none more charming than that by H. H. Bashford in his Harley Street Calendar.

But history is the master to whom we all must go. If now we are convinced that Sydenham has achieved a world mastery in medicine we might do well to inquire how close we come to his mind, or how far we have departed from it. For the moment I shall content myself with one aspect—medical education—a subject upon which Sydenham expressed himself without reserve. We must not rely too implicitly upon even his authority, for he had no experience in the public teaching of students; he never had a hospital appointment, never occupied a professor's chair. He had, however, some private pupils, one of whom was Dr. Dover, whose powder yet bears his name. His own instruction at Oxford was scanty; he never entered a laboratory; never walked through a ward; there were no wards to walk in. He mentions Aristotle only once, Galen three times, Celsus not at all.

If a young man were to ask you by what means he should achieve a medical education, you would feel compelled to offer him the curriculum for the first two years. They are much the same; they represent the sum of our wisdom. In one recently under my hand, the first year is assigned to physiology, anatomy, histology, and organogen; although if the aspirant asked me what "organogen" meant, I should be obliged to confess that I do not know; unless, indeed, it is derived from the Greek word *ὄργανος* through the Latin *organer*. In the second year biochemistry and pharmacology are added, with lectures on public health and the history of medicine. It is not on record that the neophyte comes into the remotest contact with a sick human being for two years. The London schools are within the hospitals, and students from curiosity or boredom wander with new interest and profit into the wards. The French go to the other extreme, and assign clinical duties to a student on the first day of his entrance.

This very question of medical education was put to Sydenham by Hans Sloane, who afterwards achieved the highest professional and social honours, and is yet remembered as the founder of the British Museum. The young man modestly suggested that he might take a course in anatomy and botany. "This is all very fine," said Sydenham; "but it won't do. Anatomy, botany—Nonsense, Sir. I know an old woman in Covent Garden who understands botany better; and as for anatomy, my butcher can dissect a joint full as well. No, young man; all this is stuff: you must go to the bedside; it is there alone you can learn disease." Rather than go abroad to study botany, he recommended this earnest seeker to drown himself in a pond that was commonly used for that purpose. The frightful thing is that he may have been right.

Sydenham was a physician, an artist, a practitioner; he thought that enough for any one person. He was not an ultimate scientist, not a botanist, anatomist, or physiologist. These were separate trades; they concerned him indirectly or not at all; they destroyed in the practiser the quality of physician. He had a passion for curing the sick, which expelled all other interests.

He does not seem to have heard of Harvey or the circulation of the blood, which was then a discovery forty years old. Osler goes further when he writes: "There

was nothing in Harvey's discovery which could be converted immediately into practical benefit, nothing that even the Sydenham of his day could take hold of and use." He knew nothing of Malpighi's discovery of the arterioles twenty years earlier. Indeed, he averred that not even the microscope could disclose them. These to him were explanations, and he kept his mind upon the majesty of open facts. He gave to medicine a method which was more valuable than detailed discovery; he brought canonical authority to an end. But, strange to say, this method was soon to be extended into those fields of science of which he professed himself negligent or ignorant. Boerhaave applied that method to anatomy, physiology, and the microscope. Haller bore it with him to Göttingen, and developed physiology into a natural science; Morgagni in morbid anatomy was "the counterpart of Sydenham."

If Sydenham in his mature age began to practise in any American city, he would be put in gaol; if he applied with his poor preliminary qualification to study medicine in the first year of any medical school, he would be put in the asylum, along with Shakespeare, if he were found wandering about, after he had applied to a high-school as an instructor in English composition. We in Canada have been in the habit of blaming the United States for our established curricula. Forty per cent. of our medical students at McGill are Americans; they help to pay our salaries, although they do profit to the extent of 600 dollars a year from our pious endowments.

In times gone by, Canadian graduates went freely to the United States to practise. We felt obliged to conform with the regulations of the various State Boards; we still feel obliged in a measure to meet the legal needs of our American students. Now the border is more strictly closed. If an American physician comes to us, he comes on his own record since graduation. No one thinks of asking how or where Penfield, or Cone, or Stehle studied. If now our curricula are too abstract, the fault is our own. We have to deal only with the various Provincial Boards. The eye of the legislatures is upon them and upon us; and they are swift to act. One Canadian Provincial Board is much more rigid than any similar body in the United States. The final Report of the Commission on Medical Education, issued last month,¹ discloses that all State regulations are completely relaxed, and the schools are now free. The head of one Board writes that licensing examinations, "as such," that is, apart from the candidate's school record, are worthless. Sydenham would sanction the profound sanity of this report.

Let us now, in conclusion, try to discover if Sydenham's practice has any lesson for us. When he came upon the scene, practice had become so scientific that the most scientific physician did not even look upon his patients. In Paris their excretion was carried to him in an earthen vessel by a servant. By inspection of that alone he made a diagnosis, and sent the proper remedy. To be "elaborately curled" was a favourable sign. A similar practice prevailed in Scotland, if we can believe the panegyric of Robert Burns upon Dr. Hornbook, except that the mode of conveyance was upon a "kail-blade"—that is, a cabbage leaf.

We in our time have departed still further from reality, when we substitute a photograph for the thing itself. The older surgeons were content to diagnose a broken leg if the end of the bone protruded through the skin. Now we must have a picture. The fault is not wholly with the surgeon. The poorest patient is so hedged about with insurance that the surgeon must provide himself with the evidence the court may require. Nothing lies like the camera, especially when the deeper

¹ See *British Medical Journal*, January 14th, 1933, p. 70, and February 11th, p. 239.

structures are involved. By a judicious use of the camera a fish may be made to appear as long as the man who caught it. In hospitals given over mainly to chronic and convalescent cases, an expert photographer comes once a week to "read" the pictures that have been made in the interval by the "technicians." He makes the diagnosis and suggests the treatment, although he has never seen a patient *qua* patient since the day he acquired his degree.

THE SCIENTIFIC RITUAL OF TO-DAY

If Sydenham were alive to-day, and came into a modern hospital, he would be for the moment bewildered. He would have to teach himself that the field of medicine has been immensely widened, and cannot even be surveyed by a single mind. He would see acute conditions diagnosed at a glance, and swift treatment applied. But he would see obscure cases which had baffled practitioners as earnest as himself. He would discover, to his joy, that the chief physician was so scientifically conscientious that he would not make a diagnosis, still less prescribe anything more than a palliative treatment, until he had before him all the reports of his various expert assistants. By the time the file was complete the patient might have left the hospital alive or dead. If living, he might take his file with him, to display with the interest he had in his family album. But the visitor would recognize in that physician a brother to himself—with this reserve, that the patient be not lost in the problem, or the physician in the abstract scientist. The world may be a stage: it is not a hospital, as the young man will discover when he begins to practise, deprived of apparatus, and compelled to rely upon his own natural senses.

Sydenham would be astonished at the magnificence of the modern hospital, and wonder if practice could not be reduced to a "greater easiness," thinking of the days when he fought his troopers and doctored them, too, as indeed the soldiers in the recent war were adequately treated in aid-post, dressing station, field ambulance, and in rest stations for their convalescence. He would ask, as many are now asking, who bears the expense of three dollars a day for each public patient, described in his time as a pauper.

Unless the hospitals for public patients curb their scientific curiosity and return to the simple practice of Sydenham, their task will be taken away from them and given to another. Science, too, is governed by economic law. Even private patients are beginning to discover, as Sydenham did, that they can get well without becoming victims of the scientific ritual. Any patient who lives long enough will get well. Life is not now so desirable as it used to be. To die in peace is better than a few months of added misery.

BACK TO THE BEDSIDE

Nature may be expelled; insensibly she returns. Happily, the tide of practice is now turning again to the bedside. The voice of Sydenham is being heard anew. To a patient clamouring for drugs and operation David MacKenzie said: "The quickest and cheapest way to recovery is lying in that bed." Sydenham said to Locke: "You will best cherish yourself by keeping to bed; it will contribute more to your relief than can be imagined." Dean Martin instructs his students that the educated hand and ear will tell the average physician enough, and all he can understand, towards treating a patient with heart disease. Electrical machinery is for the expert; he alone can tell if the fibrillations that appear upon the photograph are really in the heart or are due to extracardiac electrical currents induced by a nearby radio or vacuum cleaner in the hands of a ward-maid. John Meakins

informs his students that the one question that really interests a patient is how soon he can resume his usual employment. Francis W. Peabody, six years ago, expounded to the students of Harvard the complete care of the patient.

Sydenham was a Puritan; he believed that scientific truth came as a revelation from Heaven; or, as we would say, by an act of intuition in a creative mind. Experiments were of no avail, unless there was a mind to interpret them and discern the end to which they led. All else was mere research, searching for the already seen, or an aimless wandering in the mazes of nature. He made no objection to these experimenters. They might be as abstract and finical as they liked; he merely insisted that they know what they were trying to do, and above all keep out of the field of practical medicine, and not lead the minds of the young away from the bedside. There is a lesson in that for the laboratories.

Fame enough has come to Sydenham; but he had "long since weighed in a nice and scrupulous balance, whether it were better to serve men or be praised by them."

TREATMENT OF BURNS AND SCALDS WITH SPECIAL REFERENCE TO THE USE OF TANNIC ACID*

BY

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Before dealing with the mortality of burns and scalds there are two important factors to be considered irrespective of the method of treatment used.

The first, as pointed out by Donald,¹ is that the improved social conditions in the homes of the poor, and the disappearance of the open light and open fire, have done much to diminish the number and severity of burns coming for treatment to the great hospitals of the metropolis. Taking the figures from 1899 to 1903 at the London Hospital, he has shown that the mortality from the 999 burns and scalds admitted during those years was 25.3 per cent., whereas in 1924-28 the number of admissions had diminished to 286, or rather less than one-third, and that the mortality had dropped to 6.6 per cent., although the treatment used was practically the same during both these periods. This he attributes largely to the passing of the Children's Act in 1908, which made it a punishable offence to leave a child alone in a room containing an open fire-grate insufficiently protected; and he pointed out that in the years 1909 to 1913, immediately following the passing of this Act into law, the number of burns admitted to hospital diminished by 50 per cent.

At St. Thomas's Hospital the figures are by no means so conclusive, for though the number of burns and scalds treated in out-patients is slightly smaller, the number of burns and scalds admitted to the hospital has remained very steady throughout a number of years, both before and after the passing of the Children's Act in 1908, and has been approximately sixty per annum from the year 1894 onwards until 1930, since when the numbers have risen to about seventy per annum. It is, however, of interest to find that, whereas in the years before the passing of the Children's Act the number of burns to scalds averaged 3 to 2, the proportion of burns to scalds has now reversed to 1 to 2.5, while in children under 10 years of age it is approximately 1 burn to 7 scalds. Donald's figures give the ratio as having changed from 1 burn and 1.5 scalds to 1 burn and 2.3 scalds in children under 6 years in the same period. This is a complete reversal of the type of injury, and, as we shall see in

* Extracts from a Hunterian Lecture delivered before the Royal College of Surgeons of England.