# THE DUBLIN MEDICAL SCHOOL AND ITS INFLUENCE UPON MEDICINE IN AMERICA[1]

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THE Irish, a mixture of primitive pre-Celtic peoples and of Goidelic Celts coming from the European continent, developed in the early Middle Ages, out of their own resources and untouched in any marked degree by the all-pervading influence of Rome, a remarkable indigenous culture. In particular they elaborated a native type of Christianity which with characteristic energy and wandering spirit they carried to Scotland, to Northern England—to Northumbria—to France, to Belgium, and to Switzerland. St. Columba, of Iona, and St. Columbanus, of Luxeuil, stand forth as the great militant missionaries of that first flowering period of Irish civilization. Although they and their successors had to succumb to the greater might of Latin Christianity,[2] they left dotted over Europe a number of large monasteries which became active centers of learning for the medieval world.

Unfortunately for civilization, the age of learning in Ireland was of short duration. I have not the time nor is this the place to discuss the causes for the decadence of Irish culture. Those who are interested will find a keen analysis of the factors involved in Henry Osborn Taylor's "The Medieval Mind" and in Oman's "History of England," Vols. I and II. Suffice it to say that for nearly 1100 years Ireland's influence upon European culture was negligible. Barring an occasional poet or essayist or a universal genius like Robert Boyle, Ireland did not produce a perpetuating body of learned men who made their influence felt beyond the confines of the Green Island.

Of the history of Irish medicine in the Middle Ages, little is known and the subject is largely an untilled field. Norman Moore (*St. Barth. Hosp. Rep.*, 1875, ii, 145) has resuscitated a few of the original manuscripts in the Irish language. Most of them are translations from the works of Bernard de Gordon, especially from his "Lilium Medicinae"; of John of Gaddesden's "Rosa Anglica"; of the works of Avicenna, of Averroës, of Isaac, and of the Salernitan School. Much space is given to the writings of Isidorus. This Isidorus is the famous Spanish churchman, bishop of Seville, who not only was a master of theology but a writer upon every branch of knowledge of his day. The fourth chapter of the twenty making up his "Etymologiae," perhaps the earliest encyclopedia extant, deals with medicine.

In one of the manuscripts (Arundel, 333), the date of which is 1514, a number of ancient and medieval authors are cited, among them one Philaretus, of whom little is otherwise known. His treatise is on the pulse and is based upon the teachings of Galen on the same subject. Philaretus, however, describes only ten varieties of pulse, while Galen classifies twenty-seven different kinds as regards size and twenty-seven as regards rate. What a memory task for the student of medicine of early days!

It appears that in ancient Ireland physicians commanded a high respect; thus Diáncécht, who cured the wound of Naudhat after that chieftain had lost his hand in battle and provided him with a silver hand

[1] Read before the Section of Medical History of the College of Physicians of Philadelphia, November 30, 1921.

[2] The chief contentions had to do with the method of determining the annual Easter festival and the mode of tonsure and a few other trivial differences. All were smoothed out eventually at the Synod of Whitby in 664.

and thereby with a kingdom,[3] is said in the ancient law books to have given "judgments which were the first."

It is evident from the most cursory review of Irish history that the great Italian Renascence which fired the dormant mind of France and Germany and paved the way for the Elizabethan period in England, somehow failed to cross the Irish Sea. But eventually Ireland had a Renaissance which, though late, was noble. It began with medicine and spread to literature and physical science, indeed to all departments of learning. The revival, as far as it concerned medicine, was in every way remarkable and gave the Dublin Medical School in the first half of the nineteenth century a place of the highest importance and made of it a center whence the continent of Europe and the schools of this country drew inspiration.

WILLIAM STOKES.

We shall better understand the position of the Irish school if we review briefly the history of the medical schools in Europe. The first to emerge from the undifferentiated scholasticism of the Middle Ages was that of Salerno, whose influence, though short-lived, was enormous while it lasted. Montpellier took its place and is remembered among other things as the school where the great Sydenham studied. Next came the University of Paris and that of Padua; the latter though not disputing even remotely the palm with Paris, nevertheless was the alma mater of many great men. Paris from the time of that great Franciscan friar, Roger Bacon, of Albertus Magnus, and of Petrus Hispanus never lost its high place except during the delirious period of the French Revolution. The University of Leyden came next as a Mecca and then Vienna, which brings us down almost to the latter half of the eighteenth century.

About this time, the Edinburgh School emerged upon the horizon and became a steady beacon light, shining with special warmth upon the American Colonies and soon after upon the young independent nation. It is no part of my task to discuss at any length the influence of the Edinburgh School upon American medicine, and I am referring to it merely because it is closely connected in aim and spirit with the Dublin School; and also because, in the formative period of our national life, a greater influence was exerted upon medicine by Edinburgh than by any other place. In a very real sense, medical education in this country is a heritage from that of the Athens of the North. The period of Edinburgh's greatness coincides with the life of Cullen, the Monros, Drummond, Gregory, and the strange, enigmatic John Brown. As an index of the

[3] There was an ancient law in Ireland that a man who was not perfect could not be king.

popularity of the Edinburgh Medical School, we have the fact that between 1768 and 1788, sixty-three Americans studied there. Curiously, only one of these came from New England (Alfred Stillé: "Life of John Dickinson," quoted by Packard: "History of Medicine in the United States," Philadelphia, 1901). A minor reason for the strong trend towards Edinburgh was that one could obtain there the degree of M.D., while London bestowed only that of M.B.[4] The preeminence of the Edinburgh School endured about seventy-five years; then it waned, partly from a cyclical decline in the greatness of its men, partly because of keen competition, mainly from two quarters, Paris and Dublin. Dublin's fame as a medical center was created by a few men, and had no continuity. With their death, died its renown; yet although its life was short—a span of scarcely twenty years—it had an influence that endures in this country until the present day.

Three striking features characterize the early development of medicine in this country. The first is an instinct for travel, as indicated by the large number of doctors from the young country, who went abroad to study. It would not be altogether to the advantage of American medicine if the habit of going abroad were to die out, as some ultra-patriotic citizens fondly hope; but even if the practice should become rare, there is no reason why men should not go from one medical school to another in this country during their undergraduate years.

The second feature is the previously cited influence of the Edinburgh School. The Medical School of the University of Pennsylvania, the oldest in the United States, is the direct descendant of Edinburgh University, having been founded by John Morgan on his return from Edinburgh in 1765. Samuel Bard, the co-founder of the College of Physicians and Surgeons in New York, was likewise a student at Edinburgh.

The third feature is the early age at which men ripened into prominence and leadership. Not only was this true of medical men; it was also true of statesmen, scientists, and artists. One reason why men matured so much earlier in those days is because the institution of a rigid four years' college course had not yet attained the sanctity of a canon law or the inviolability of a constitutional enactment. Men's progress depended on their abilities, and not upon the accumulation of a certain number of units of credit.

The fame of the Irish School began at about the time when that of Edinburgh was beginning to wane. What made the School of Dublin suddenly great? It was principally the work of two men, Graves and Stokes, master and pupil, who are in a large measure responsible for the type of clinical teaching prevailing in this country today. I have elsewhere sketched the history of clinical teaching ("The History of Clinical Teaching," *Annals of Medical History*, 1920, ii, No. 2, 136–147); how slight and hesitating its beginning in 1574, in Italy; how, after a time, it disappeared completely; how, in this country, less than one hundred years ago, men were graduated without ever having examined a patient,—in proof whereof, I would refer you to that most fascinating of autobiographies, J. Marion Sims'.[5] As Graves states in one of his brilliant lectures, even in France at that time the teaching in the wards was expostulatory rather than practical, the professors indulging in long harangues to large groups of students. Only in Germany did Graves find the right method employed. He praises the gentleness and humanity of German physicians, who, not to shock the patient's sensibilities, would put unpleasant diagnoses in Latin; contrary to the practice in France

[4] It may be remembered that at first the University of Pennsylvania granted only the degree of M.B. in course, while Columbia University bestowed the more popular M.D. at graduation.

[5] See also "The Great Irish Clinicians of the Nineteenth Century." *Johns Hopkins Hosp. Bull.*, 1913, Vol. xxiv, No. 270.

of discussing in the vernacular the worst possibilities in the presence of the sick man or woman. He had little patience with his own countrymen, who had "one language for the rich, and one for the poor."

In their influence upon internal medicine in America, Graves and Stokes compare with John Hunter and Astley Cooper in theirs upon surgery. To be sure, in making this statement, I do not intend to class Graves and Stokes with John Hunter, who through his genius and originality stands by himself as the mark of an era in the history of medical science.

Graves whom Alfred Stillé classed among the great of the earth, was the son of a clergyman, and illustrates what I have said about early maturity. At the age of twenty-four, he delivered an introductory clinical lecture, in which he pointed out, as one writer says (Kirkpatrick: "History of Medical Schools in Trinity College, Dublin," 1912), those basic principles of medical education which were destined to change the clinical teaching, not only of the Dublin School, but of the medical schools throughout the world. Under the old method, the majority of students never came in contact with the patients at all, but had to trust solely to their ears for information. This information was, until the year 1831—at least in Dun's Hospital—given in Latin; as Graves says, "I have called the language Latin in compliance with the generally received opinion of its nature."

It is an interesting commentary on medical examinations of the day of Graves that he states with much amazement ("System of Clinical Lectures," Graves and Gerhard, Third Edition, Philadelphia, 1848, p. 22) that it was not unusual for the Italian clinician, Tommasini, to spend more than two hours upon eight or ten cases. That was of course before history taking had become an art; before percussion and auscultation had been incorporated into the routine of physical examination; and before the laboratory had made a place for itself in medical practice.[6]

Graves, in the Meath Hospital, taught medicine at the bedside and gave the students themselves an opportunity to examine patients. Physical examination at that time had barely emerged from its age-old chrysalis. Percussion was still in the hands of the few, notwithstanding the fact that Auenbrugger's great discovery was more than fifty years old; and the translation of his book by Corvisart, the method's second father, about twenty. The stethoscope was looked upon by many as a toy; even as a harmful one, as is shown in Oliver Wendell Holmes's facetious poem "The Stethoscope." As long as the advantages of percussion and auscultation were not realized, physical examination was considered of minor importance; and just as men today inveigh against the laboratory as stifling the older methods of careful physical examination, so men in the day of Graves and Stokes and of Gerhard and Jackson decried the Laënneckian method and that of Auenbrugger as threatening to cause a neglect of the study of symptoms.

Graves, as well as Stokes, of whom I shall speak more fully later, while not the first to make use of bedside teaching—Boerhaave had done it 100 years earlier—did it so consistently and so successfully that it was adopted by clinical teachers elsewhere and especially in this country where the lectures of Graves had been published in repeated editions and had been read with avidity. Moreover, the Americans who studied in Dublin brought back with them the methods of bedside teaching, to learn which had been, as Moreton Stillé states, their chief motive for going to Ireland.

It is hard to estimate the influence Graves exerted upon medicine in this country through the publication of his clinical lectures, many editions of which were

[6] During the Yellow Fever epidemic in Philadelphia in 1793 Benjamin Rush saw from 100 to 120 patients a day, not to speak of those who stopped him on the street to seek advice.

brought out by Philadelphia publishers. Trousseau's comment on these lectures is such a remarkable tribute that it deserves to be quoted:

> For many years I have spoken well of Graves in my clinical lectures. I recommend the perusal of his work; I entreat those of my pupils who understand English to consider it as their breviary; I say and repeat that of all the practical works published in our time, I am acquainted with none more useful, more intellectual.

What clinician is living today of whom such words of praise may be spoken?

I shall not refer in detail to the specific contributions of Graves to medicine; his name is, of course, enshrined in Graves' disease, which is described in his "Clinical Lectures" (Philadelphia, 1838, p. 136) and in his "System of Medicine" (Philadelphia, 1848, p. 570). He points out clearly the goiter, the rapid heart, the exophthalmus, the lagophthalmus, and the nervousness.

Keen and penetrating as was the mind of Graves, he did not realize the imminence of great discoveries in the field of medicine; otherwise he would not have indulged in dangerous prophecy which led him to write as follows in the *Dublin Journal of Medical Sciences*, viii, 136:

> It is true that we are—and I fear shall ever remain—ignorant of this poison (of fever). We know just as much of the nature of the febrile miasm or the virus of syphilis as was known in the very infancy of medical science; the mode in which either acts still continues among the impenetrable arcana of nature. All we can do is to observe their effects, and, from them, draw practical conclusions which may be rendered available to treatment; to study their phenomena with attention, and to employ such remedies as observation and experience have proved to be most applicable, without expecting to be able to explain their effects in the majority of instances. Fever is, in a strict sense of the word, a general disease; and there is, in the case of a fever patient, no one point on which the physician can lay his hand and say, "Here is the local habitation of the disease; if I can succeed in removing this, I am certain of success."

Little did he think that on the Continent Henle's scientific imagination was dreaming of a *contagium vivum*; that Virchow was patiently and quietly elaborating his revolutionary theories of cellular pathology; and that the anthrax bacillus was nearly ready to have itself discovered.

Graves' share in the differentiation of typhus and typhoid fever is, in a sense, passive and indirect. There was apparently little typhoid fever in Ireland, so that his experience was limited largely to typhus. Yet he must have seen typhoid fever on the Continent. Moreover, it is highly probable that cases of the disease came to the Meath Hospital but Graves, believing firmly in the essentiality of fever and looking upon fever as a disease entity, did not make the distinction drawn by others.[7]

The first to draw attention to the radical differences between typhus and typhoid was H. C. Lombard, a physician of Geneva. In two famous letters dated June 13 and July 18, 1836 (*Dublin J. M. Sc.*, 1839, Vol. xiv) Lombard pointed out the pathological and clinical differences of the two diseases. His letters apparently made very little impression in Europe, and it was left for W. W. Gerhard, of Philadelphia, to establish the differences for all time. Although Gerhard was never in Ireland, he was thoroughly familiar with Graves' description of typhus fever and used that description, as well as an experience with a few cases seen in Scotland, as the primary basis for his work. Graves, though not appreciating the full value of Gerhard's signal contribution, reciprocated, as did the other members of the Irish School, the good will of the American clinicians. When Gerhard published a description of typhus fever as he had observed it at Blockley, Graves at once accepted it as an accurate description of the same disease prevailing

[7] "In the whole range of human maladies, there is no disease of such surpassing interest and importance as fever." "Clinical Lectures," edited by Dunglison. Philadelphia, 1858, p. 254.

in England and Ireland. Gerhard delivered his lecture at the Philadelphia Hospital and published it in the first number of the *Medical Examiner*, a Philadelphia publication of ephemeral existence (Stewardson, *Transactions of the College of Physicians*, 1863–1874, iv, 473).

Stokes (1804–1878) although younger than Graves, was even more conservative—probably because he came of a long line of eminently respectable ancestors. His father, Whitley Stokes, was Regius Professor of Medicine in Dublin for many years and a distinguished scholar in various fields. Though Stokes outlived Graves by many years, he never gave up his belief in the unity of fever—in fever as a disease with different forms of anatomic manifestations. Only one who deliberately shut his eyes to the evidence could maintain such an outworn creed.

The relation between Graves and Stokes was admirable, and helped to strengthen their influence upon their immediate pupils and upon the world at large. Whenever an important issue arose, as, for instance, the defense of stethoscopic auscultation, they entered the lists together, neither jealous of the other. They must be credited in a large measure with popularizing the use of the stethoscope in this country as well as in Great Britain. The opposition to this instrument was more intense than anyone of the present day can conceive. Indeed, the attacks made by some contemporaries of our own upon the laboratory are but a feeble echo of the antistethoscopic storm.

As an illustration of the attitude, in the year 1838, of Graves and Stokes, and a now forgotten writer named Clutterbuck, I will quote the following letter published by the two Irishmen in the *Dublin Journal of Medical Sciences*, 1839, xiv, 138:

DR. CLUTTERBUCK *versus* THE STETHOSCOPE. DR. HOPE, ON AUSCULTATION IN VALVULAR DISEASE. In the heading of this notice, we have connected the names of the above gentlemen; because, although they are in no way related as authors or colleagues, they have (no doubt, unwittingly) joined to injure the cause of auscultation and of science in their late publications; the one, by attempting to detract from its value; the other, by ascribing to it powers which it does not possess. In the *London Medical Gazette*, for July 28, 1838, we have a lecture of Dr. Clutterbuck on the Treatment of Periodical Asthma and on Blood-Letting in Specific Inflammations of the Chest. In this lecture this irritable effusion appears:

"I may take this opportunity of adverting to the method of investigating diseases of the thorax by auscultation; that is, by listening attentively to the sounds emitted during respiration and also by sounding the cavity by tapping with the ends of the fingers on different parts of the chest. This mode of examination has always been resorted to more or less by physicians; though, from the employment of a load of new terms invented chiefly by our ingenious neighbors, the French, and introduced by some of our own practitioners, who have enjoyed the advantages of the Parisian schools, one would be led to suppose that a new region of science had been discovered, not inferior to mesmerism or homeopathy. As a specimen of the new language introduced on the occasion, I may enumerate the following, indicating, it is supposed, as many various conditions of the organs in question: Thus, in the compass of a few pages, you will meet with the following: Pectoriloquy, perfect and imperfect; bronchophony; pneumothorax; rhonchus; crepitation, fine and coarse; vocal resonance; tinkling echo; metallic tinkling; amphoric, or bottle-like, sound; clicking; bubbling; gurgling; snuffling; whiffs of a cavernous respiration, fistular resonance, like that of a pan-pipe or key; pectoriloquy, forming a little island of voice; *cum multis allis*."

Dr. Clutterbuck seeks to destroy the fame of Laënnec by the worn-out system of denying his originality. Can he point out a single author who used auscultation as Laënnec did, from the time of Hippocrates to the discovery of the stethoscope? He cannot. He is strangely ignorant, when, combining the modes of auscultation and percussion, he states that "this mode has always been resorted to by physicians"; and his joke about auscultation as equal to mesmerism and homeopathy comes with bad grace from one himself the author of an unphilosophical and exploded theory of fever.

But Dr. Clutterbuck is an auscultator. He can tell by "the tone of the cough, whether there is not a great cavity in the lungs, the result of suppuration or ulceration." He can tell with "tolerable precision whether a quantity of mucus lies loose and flooding, as it were, in the air tubes!" He can judge of the state of the larynx by the sound of the voice; and ascertain whether the lungs are pervious to air. His powers of diagnosis are certainly great; his power in chest disease must be equally valuable.

We suspect Dr. Clutterbuck's sense of hearing must be injured; for to him, the "ear-trumpet" magnifies, but distorts the sound, rendering it less distinct than before. He holds that it may be classed with the telescope and the microscope, and includes all three in his anathema, and he adds that "the information thus acquired, supposing it to be correct, comes too late, in general, to be of any practical use. It serves to indicate the consequences of disease, rather than disease itself; and that, at period when they are far beyond the power of art to remedy."

It is not true that auscultation only detects fully formed diseases. Its chief value is the facility with which it enables us to recognize the true nature of pleurisy and pneumonia, often a few hours after they have commenced; and consequently, at a time when the knowledge thus obtained leads to the almost instant arrest and cure of the disease.

We would ask Dr. Clutterbuck whether it is of no practical use to discover an apyrexial hepatization; to distinguish between this and a circumscribed pleuritic effusion? to discover whether, in a case of laryngeal disease, the lungs are healthy or diseased? to distinguish between an empyema with or without a pulmonary fistula? to detect a foreign body fixed in the bronchus? to distinguish, in a case of stridulous breathing, where tracheotomy is apparently called for, between tracheal disease and the pressure of an intrathoracic tumor? to detect the existence of effusion into the pericardium? or to discover latent disease of the mucous membrane, parenchyma, or serous structures in a case of typhus fever? We might add an hundred more of such instances.

Let us be clearly understood. We write these remarks for the junior student, who might be deterred from studying an important and now indispensable part of his profession by the statements above quoted. We seek not controversy with Dr. Clutterbuck. His opinions can only affect the uninformed.

In the next number, Dr. Hope, of whom we wish to speak with the respect which his labors have earned for him, has authorized the publication of a series of diagnoses made by his pupils after a ten minutes' lecture on the most difficult part of medicine, namely, the valvular diseases of the heart. The pupils were inexperienced and, as far as we can learn, availed themselves solely of physical diagnosis. Their conclusions in thirteen out of fifteen cases were correct; "although they had, amongst others, to deal with the rare diseases of the pulmonic orifice."

That the pupils, after having been instructed in Dr. Hope's views of the causes and situations of valvular murmurs, should have come to conclusions such as he would have done, is not wonderful; but that these conclusions were correct, we have only Dr. Hope's word for. We shall not examine into the evidence of the conclusions, for we know it to be insufficient; but we object to the whole proceeding as calculated to revive the often repeated and refuted objection to the advocates of auscultation, that they neglect the history of the case and vital phenomena. The following considerations, we wish to impress on the pupils of the Meath Hospital:

First, that the physical signs of valvular disease are not yet fully established; second, that taken alone, they are in no case sufficient for diagnosis; third, that even in organic diseases, the nature and situation of murmurs may vary in the course of a few days; fourth, that all varieties of valvular murmurs may occur without organic disease; fifth, and last, that organic disease of the valves may exist to a very great degree without any murmur whatsoever. Of this assertion, we shall hereafter bring abundant proofs. R. J. Graves and W. Stokes.

All this is advisable and good advice at the present day.

Stokes had already published a small octavo volume of 239 pages, entitled "An Introduction to the Use of the Stethoscope, with Its Application to the Diagnosis of Diseases of the Thoracic Viscera, Including the Pathology of these Various Affections."

He was only twenty-one at the time—another illustration of early maturity. This is the first work on the subject in the English language; for it he received the respectable sum of £70.

While Stokes' name will be forever remembered in connection with Adams-Stokes disease and Cheyne-Stokes breathing, his contributions to medicine are greater than is indicated by the two conditions to which his name is attached; for the English-speaking world, at least, he helped to carry on the work of Graves and to give physical diagnosis the place that it deserves in clinical medicine. This he did through his direct teaching, and also through his magnificent work on "Diseases of the Chest and Aorta," which, for its wealth of observation, its clarity and accuracy of description constitutes a classic in medical literature. It was translated into German soon after its appearance, the translator, Gerhard von dem Busch, speaking of it as follows:

> Since the publication of Laënnec's great work, which formed an epoch in medical history, many valuable treatises have appeared in France and England on the same subject, but none of them can bear comparison with that which has lately emanated from the pen of Dr. William Stokes, of Dublin.

All in all, Stokes must be looked upon as a pioneer in clinical teaching, and the second great cardiologist in the history of medicine, Corvisart being the first.

In yet another direction was the Dublin School a pattern for America. The first Pathological Society in the English-speaking world was established at Dublin in 1838, with Graves as its first President. The following year, and probably as a direct consequence of Dublin's example, a Pathological Society was organized in Philadelphia. This is not the one now existing, which was not born until 1857. On some other occasion, I hope to give an account of the earlier society, of the existence of which I was ignorant until some years ago I found it mentioned by Pennock in his edition of the works of James Hope, and was led to trace its short career through the medical journals and other publications of the day.

I have said nothing, so far, of Corrigan and of Cheyne, who are also luminaries in the Irish galaxy, but who do not rank with Graves and Stokes in influence upon American medicine. Both were unusual men, nevertheless. Corrigan, by his article on "Permanent Patency of the Aortic Valves" (*Edinb. M. J.*, 1832) has given us an example of a classical essay produced by a man who had a hospital of but six beds to supply him with the necessary material. Although not the first to describe this disease,—the French claim that honor for Vieussens; the English, for Cowper or Hodgson,—his account is by far the best; and justice is not violated by preserving his name in connection with the disease. Corrigan also gave the first description of chronic fibrosis of the lung, which he called cirrhosis, in analogy to Laënnec's cirrhosis of the liver, preferring, as he said, to "add an additional fact, rather than a new name, to our science."

Of Cheyne—he of Cheyne-Stokes breathing—little need be said with respect to the relation of Irish to American medicine. He was a good observer, but preferred a large and lucrative practice to teaching and medical writing. In consequence, he had an extraordinary income during the most active ten years of his life. Then he broke down physically, and apparently mentally, giving himself over to fantastic religious and philosophical speculations.

Much might be written of the Dublin surgeons during the Golden Age of Irish Medicine—of Colles; of Adams; of Carmichael; of Macartney; of William Wallace, who introduced the use of potassium iodide in syphilis; and of Francis Rynd, who first employed hypodermic injections for the relief of pain, using the gravity method. They were all conspicuous men, but of less direct influence upon teaching and practice in this country than their more highly gifted medical contemporaries.

Many Americans must have gone to

Dublin to sit at the feet of Graves and Stokes; but although I have searched diligently, I have found definite records of only four. I am speaking, of course, of the formative period of medicine in this country. In later times, the Rotunda Hospital has probably attracted a goodly number, more for the sake of gaining a wider experience than for the purpose of getting inspiration.

The first to visit Dublin was apparently John Y. Bassett (1804-1851), of Huntsville, Alabama, whom Osler, in one of his most charming essays, has rescued from oblivion as the "Alabama Student." Bassett was a rare personality—fearless, intelligent, philosophical—who must have had a powerful influence upon his contemporaries, but who died too young and wrote too little to have made a permanent impression upon American medicine. He went to Europe in 1836, visiting Edinburgh, Glasgow, Belfast and Dublin, where he must have come under the influence of Graves and Stokes, and where it appears he thoroughly enjoyed himself. After leaving Dublin he spent two miserable weeks in London, made miserable by the atrocious weather. The fortnight ended, he "shook the mud of England from his feet at Dover, and departed, hoping never to be soiled with it again." He went to Paris, and although he does not mention it, probably attended classes at La Pitié with Bowditch, Jackson, Oliver Wendell Holmes, Shattuck, Gerhard and Stillé.

It is regrettable that we know so little of Bassett. His wonderful "Credo," one of the finest things of its kind in medical literature, stamps him as a man of the loftiest ideals. This "Credo" deserves to be quoted:

> I do not say that the study of nature, human and comparative, as far as it relates to medicine, is an easy task. Let anyone undertake a foreign language, and, when he thinks he has mastered it, let him go into its native country and attempt to use it among the polite and well-informed. If he succeed, let him go among the illiterate and rude, where slang is current; into the lunatic asylum, where the vernacular is babbled in broken sentences in the mouth of an idiot, and attempt to understand this. Should he again succeed, he may safely say that he knows that language. Let him then set down and calculate the cost in labor, time and talent; then square this amount, and go boldly into the study of physiology; and when he has exhausted his program, he will find himself humbly knocking at the door of the temple, and it will be opened. For diligence, like the vinegar of Hannibal, will make a way through frozen Alps. It is the "Open Sesame" of our profession. When he is satisfied with the beautiful proportions of the interior, its vast and various dimensions, the intricate and astounding action of its machinery, obeying laws of a singular stability, whose very conflict produces harmony under the government of secondary laws—if there be any secondary in nature!—when he is satisfied (and such are not satisfied until informed), he will be let to his ultimate object, to take his last lesson from the poor and suffering, the fevered and phrenzied, from the Jobs and Lazaruses,—into the pest-houses and prisons, and here, in these magazines of misery and contagion, these Babels of disease and sin, he must not only take up his abode, but following the example of his Divine Master, he must love to dwell there;—this is pathology.
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> When such an one reenters the world, he is a physician. His vast labors have not only taught him how little he knows, but that he knows this little well. Conscious of this virtue, he feels no necessity of trumpeting his professional acquirements abroad; but, with becoming modesty and true dignity, which constitute genuine professional pride, he leaves this to the good sense of his fellow citizens to discover.

Many of us fail because "the world is too much with us." For the lonely "Alabama Student," this was evidently not the case. Writing in April, 1851, shortly before his death, he says: "This world has never occupied a very large share of my attention or love. I have asked but little of it, and got very little of what I asked." He died at forty-six, his work and mission unfulfilled, but assured of perpetual renown through the labor of love of Osler's understanding spirit.

Perhaps no one was more influenced by his Dublin teachers than Alfred Stillé,

the last representative of a vanishing epoch whom I have seen with my own eyes. Born in Philadelphia in 1815, of Swedish ancestry, he was graduated at the University of Pennsylvania, and had the good fortune (or the best of luck, as Osler says) to become House Surgeon at Blockley under W. W. Gerhard. He also studied with Pennock, a man whom he found of finer character, though possibly less intellectual, than Gerhard. Under these two physicians, Stillé saw typhus in Blockley. Afterwards he made a special study of typhoid fever in the wards of Louis; of Paris, and had the opportunity, also, of observing typhus with Vulpes in Naples, Tweedie in London, Allison in Edinburgh, and Graves in Dublin. Graves made a profound impression upon him, and no doubt helped to determine his future career, sharing this influence in some degree, with that idol of American students—Louis, of Paris. Stillé's writings contributed to make Gerhard's differentiation between typhus and typhoid accepted in Europe. Probably his greatest work is his essay on "Cerebrospinal Fever," based on the study of a virulent epidemic at Blockley Hospital.

Another worshipper at the Dublin shrine was Moreton Stillé, brother of Alfred, who, in the tragic unfulfillment of his ambition and in his early death, reminds one of John Y. Bassett. On starting for Europe he wrote:

> I go abroad with a determination, made neither hastily nor without reflection, to be up and doing, and to profit by the privilege I enjoy to the utmost. If I know myself, I shall not be content with a place in the crowded middle ranks of the profession.

His plans were to pass some time in Dublin, that he might avail himself of the numerous advantages it then offered to the medical student; but more especially to improve himself in physical diagnosis, "for the cultivation of which many of its teachers were justly celebrated." The remainder of his time abroad, he expected to pass principally at Paris. Unforeseen circumstances caused him to modify his plans, as his last winter was spent in Vienna.

After a winter in Dublin, Dr. Stillé repaired to London. His time had been so profitably and pleasantly spent in the former city that he left it with much regret. The circle of society into which he was admitted was not only refined and intellectual, but, for one constituted as he was, possessed even a higher attraction in the ease and informality of its intercourse. He had also become acquainted with several of its most distinguished physicians, among whom were Drs. Stokes, Graves, Churchill, Hamilton, Law and McDonnell, from all of whom he received many civilities and attentions. He was in particular treated with marked kindness by Stokes, who evidently appreciated his good sense and the earnestness with which he devoted himself to his studies. In his last letter from Dublin, he mentions with pride that for two of his most precious and flattering letters of introduction to Dr. Todd, of London, and Louis, of Paris, he was indebted to Dr. Stokes.

He had been greatly attached to Stokes, in whose society he was much thrown from his daily attendance at the hospital; in his correspondence he gives frequent utterance to an enthusiastic admiration of that great physician's character.

In June, 1849, cholera broke out in the Philadelphia Almshouse—that is, in Blockley. The care of the patients was at first undertaken by the Resident Physicians; but the number of sick so rapidly increased that it was considered necessary by the Poor Guardians to institute a separate cholera service. To this, Dr. Moreton Stillé and Dr. Edward R. Mayer, were appointed in connection with the Medical Board, consisting of the Chief Resident Physician, Dr. Benedict, and the Consulting Physicians of the Hospital, Dr. Page and Dr. Clymer. Ten days after the commencement of his duties, Stillé was himself attacked by cholera and narrowly escaped with his life.

Moreton Stillé's fame rests chiefly on his book on "Medical Jurisprudence," written in collaboration with Francis Wharton. It is the first American work on this subject.

In practice, Stillé failed of the success that it was his ambition to achieve; he died, a rather disappointed man, at the early age of thirty-three. His older brother outlived him nearly forty years.

Meredith Clymer, the fourth of the Dublin students, although born in England, was the grandson of George Clymer, one of the Signers of the Declaration of Independence. He was graduated from the University of Pennsylvania in 1837, at the age of twenty-one, and studied in Europe, at London, Paris and Dublin, from 1839 to 1841. Besides filling several teaching positions in Philadelphia, he was physician to the Philadelphia Hospital from 1843 to 1846, and Consulting Physician until 1852. As an index of his early ripening, I may make mention of the fact that he was Editor of the *Medical Examiner* of Philadelphia in 1838, at the age of twenty-one. He resumed its editorship in 1843, on his return from Europe. He was one of the pioneer neurologists of this country, and after removing to New York, limited his practice to nervous and mental diseases. After a very active career as a practitioner and as a writer, he died in New York in 1902.

And now summing up in conclusion the influence of the Dublin School of Medicine upon medicine in America, we find that it was exerted in two ways: (a) through the direct contact of the great Irish teachers with American pupils, walking the wards of the Meath Hospital and Sir Patrick Dun's Hospital with them; (b) through the extraordinarily able books and articles from the pens of the Irish masters.

As to the result, it manifested itself primarily in the method of clinical teaching. The practice of Graves and Stokes of having the students examine and follow the cases in the Hospital became the American method. It is the one obtaining everywhere in this country today. Incidentally the Irish School contributed to the popularization of the new methods of physical diagnosis, percussion and mediate auscultation—methods brought back to this country in the main from Paris by a group of brilliant young men from Boston and Philadelphia. It is quite probable that the earliest and strongest interest in the use of the stethoscope in this country was aroused by the famous essay of Stokes.

In the vivid consciousness of our obligations to Edinburgh, to London, to Paris, to Vienna and to Berlin, let us not forget the more modest, yet important debt we owe to Dublin.