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LAENNEC—ONE HUNDRED YEARS AFTER

ADDRESS IN MEDICINE

BY WILLIAM S. THAYER, M.D.

Baltimore

AT the outset, let me tell you how deeply I appreciate the honour that you have done me in inviting me to address you—with what happiness and satisfaction I appear before an audience of Canadians. That broader sense of patriotism which links us all to the Mother Country which is as much mine as yours, has suffered much in the five years that have passed. But despite the noisy discord of ephemeral politics, that which has happened has, I think, drawn closer about us the bonds of a common ideal and a common inheritance which we cannot and would not escape; and the aureole that to-day surrounds Canada in the eyes of every American who deserves the name, can never fade.

“μέγα δὲ μέρος ἡγεῖσθαι τῆς τέχνης εἶναι τὸ δύνασθαι σκοπεῖν”

“The power to explore is to my mind a great part of the art.”

—Hippocr. epid. III.

These words appear on the title page of Laennec's "*Traité d'auscultation médiate*," which appeared just an hundred years ago. It is fitting for more reasons than one that we pause on this notable anniversary and consider, for a moment, the man and his work, for there are lessons therein which we may well take to heart. René-Théophile-Hyacinthe Laennec was born on the 17th of February, 1781, in a stone house which fronted on the charming quai that

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borders the little port of Quimper in the Department of Finisterre in Bretagne.

His father, Théophile-Marie Laennec, was a light and airy personage—a lawyer by profession, a courtier by nature, a furious framer of mediocre verse, through which he curried favour with the great and the fair, an indefatigable office-seeker, a prolific professor of lofty and exemplary sentiments and advice of which he himself was a sufficiently poor exemplar; a futile but withal an entertaining person—a singularly anomalous and ill-chosen father, however, for a serious and distinguished son.

Laennec had two uncles, one, Michel, a prelate, who died an émigré; the other, Guillaume-François Laennec de la Renardais, a physician of Nantes, to whom Laennec owed much. His mother, Michelle Gabrielle Félicité Guesdon, of Quimper, of whom little is known, was an Angevine by descent, and came from a family of some literary distinction; she died five years after his birth.

After his mother's death, Théophile was sent with his brother by his happy-go-lucky father first to his uncle Michel at Elliant, and a year later, on the latter's removal to Tréguier, to his uncle Guillaume at Nantes. Guillaume Laennec was a fine and sturdy character, a graduate in medicine at Montpellier, who had studied previously in Paris, and with John Hunter in London. He was at this time rector of the University of Nantes. The two boys were taken into his house and cared for as members of his own family. For Théophile especially his uncle grew to have a deep and lasting affection, which was manifested throughout his life. Laennec's early instruction was gained at *L'Institut Tardivel* and the *Collège de l'Oratoire*, which, for the year '91-'92, was under the vigorous direction of no less a personage than le P. Fouché de Rougerolles, then on the threshold of his eventful career. In August, '92, he gained the accessits of two prizes of honour, and a first prize in composition—French translation.

At this time, to the dismay of his uncle, Théophile was already writing verse. In these days when the air is rent with protests at the burden and the waste of time involved in the acquisition of a smattering of Latin by our boys who are to pursue a career requiring knowledge of the natural sciences, it is not uninteresting to read (Rouxau) a charming metrical translation of the first eclogue of Virgil, written by a boy under twelve years of age.

But rhyming was not his only distraction; he appears to have been a boy in every sense.

The Revolution followed its course. The guillotine was set

up in the square under the Laennecs' very windows. Uncle Guillaume became a surgeon in the army. But Théophile tranquilly pursued his studies, and graduated in 1795. At about this time, his father married for a second time, Geneviève-Alice-Julie Urvoy de St. Bédan, the widow of an émigré. Renouncing the temptation to which he almost surrendered, to join the engineers, Théophile began the study of medicine at *L'Hôtel Dieu* of Nantes.

Here, actively engaged in the lesser duties of military surgery, he became deeply interested in natural history in all forms, roaming about the country and devoting himself to his collections. He had also developed an enthusiasm for Greek, to which he gave special attention. Alert, active, ambitious, he was filled with the desire to perfect himself in various arts and graces, such as riding, dancing, music—studies, the pursuit of which was difficult with the scant means afforded by his scatter-brained parent.

In 1798, he passed through a severe illness, which may well have been a typhoid fever.

In the insurrection of 1800, Théophile took part in the military expedition of General Grigny in le Morbihan. While stationed at Vannes and at Redon, he composed a long poem, humorously describing the expedition. This was supposed to be the product of an ancient Celtic bard, Cardoe, translated after years of effort, by its discoverer, Cenneal (Laennec), and was entitled "*La Guerre des Venêtes*." On his return, Laennec entered the military hospital as an army surgeon of the third class.

At this time his uncle had long been struggling to induce the recalcitrant father to supply the funds necessary to enable the boy to pursue his studies in Paris, but it was not until April, 1801, that Théophile joined his brother "Michaud" at 947 rue St. Dominique d'Enfer, and entered the *Ecole spéciale de Santé*, as the *Ecole de Médecine* was then known. The two main schools of clinical medicine in those days were that of Corvisart at the Unité (Charité) and that of Pinel at the Salpêtrière. Under Corvisart, Laennec began his studies. It was a fortunate choice. Corvisart had a well-organized clinic where (Rouxau) "each morning in groups the students were trained in the examination of patients, while the observation was completed wherever it was possible, by those careful and methodical necroscopical examinations, the taste for which Corvisart contributed so much toward spreading in France." Here Théophile found himself thrown with Bayle, for whom he developed early a warm attachment.

From the outset, Laennec was a marked student, and was soon

made a member of the *Société d'instruction médicale*. At twenty he was an accomplished student of English, German, Latin and Greek, and beside following the clinic at the Charité, and the last inspiring course of Bichât, on pathological anatomy, he found time to attempt to perfect his Greek at the *Ecole Centrale des Quatre Nations*. In 1801, he was also admitted to the *Ecole pratique*, where he studied under Duméril, Chaussier, Fourcroy, Deyeux, Hallé, Pinel, Bourdier, Peyrilhe, Richard, LeClerc, and Cabanis. He also worked with Dupuytren, in his studies in pathological anatomy.

From the outset Laennec kept careful and detailed notes of all his observations and lessons, and among his papers is an interesting shorthand record of the celebrated debate in connection with Bayle's inaugural thesis.

His first medical communication was published in the *Journal de médecine de chirurgie et de pharmacologie* for June, 1802, entitled, "*Observation sur une maladie du cœur, ossification de la valvule mitrale, dilatation du ventricule droit, avec affection de la poumon et du plèvre gauche.*" A month or two later, Laennec published an analysis of Bell's work on gonorrhœa and venereal disease, and in the same year, an account of a group of cases of peritonitis. This last publication marks an epoch in medical history, setting forth clearly and sharply the clinical and anatomical features of the disease touched upon by Bichât, but as yet unrecognized clinically. This remarkable work was the beginning of a series of contributions, anatomical and clinical, which have been equalled by few men in the annals of medicine.

At the time his labours were especially devoted to the study of normal and pathological anatomy. In association with Bayle, he began to work with Dupuytren on his treatise of pathological anatomy—work which was soon to be broken off, owing to misunderstandings with the former. From this time on his publications were frequent and important. In February, 1803, there appeared a "*Note sur une capsule synoviale située entre l'apophyse acromion et l'humérus*", the discovery and accurate description of the sub-deltoid bursa, the surgical importance of which has been recognized in such recent days.

A little after this he described the fibrous capsule of various abdominal organs, especially that of the liver, which was as yet unknown as distinct from the peritoneum. In the distribution of prizes to the "*Ecoles spéciales de Paris*," in September, 1803, Laennec obtained the first prize in surgery, and shared the first prize in

medicine with Billerey. Later, at the *Concours* of the *Ecole pratique*, the announcement of his candidacy had so disturbing an effect in preventing others from coming forward, that at the special request of his instructors, he withdrew his name, and took a position "*hors de concours*". Already his success was so great that he started a small course in pathological anatomy on his own account, and determined to write a treatise upon the subject.

A member, at its inception, of the *Société anatomique*, he was a constant contributor, his most important communication being his "*Mémoire sur les vers vésiculaires*," etc.

As ever, the careless father was negligent in providing for the industrious son, and Laennec's work was associated with constant worry as to matters of finance. But finally, in 1804, he was able to pass his examinations and present his thesis, which was entitled, "*Propositions sur la doctrine d'Hippocrate relativement à la médecine pratique*." In this interesting document, Laennec showed his familiarity with the Hippocratic writings, which, happy man, he read more or less fluently in the original. The thesis is replete with wise observations. He begins with the quotation: "Medicine is not a new science. For a long time its principles have been established and its path traced. By following these through long years, many valuable and useful discoveries have been made, and every one who, endowed with the necessary qualities, knowing that which has been done before him, starts from this point and follows the same route, will make new contributions. But he who rejects the work of his predecessors and disdaining all, pursues his studies by another route, and with another point of view, and thinks he has found something, he deceives himself and deceives others."

He points out the necessity of the proper classification of disease on a basis of pathological anatomy, of the vital importance of the study of diagnosis by careful observation and correlation, not only of the general symptoms on which prognosis depends, but of the special symptoms associated with each disease process. "The only method by which one can acquire solid knowledge in medicine depends on avoiding the adoption of any principle which is not proven by many individual facts, by studying with care the characters and the course of diseases, and by treating them according to the indications drawn from the observation of that which has succeeded in like cases. This is the method which Hippocrates asserts to have been known long before him, which he regards as the only way by which one may make real discoveries."

He ends with the words of Klein (*Interpres Clinicus*): "I

assert that medicine is free. I place myself neither with the ancients nor the moderns, and I follow the one (party) as well as the other when they cultivate the truth; yet more often, I repeat, myself, their observations." Wise advice for the day in which it was written, wise, if not taken too literally, for all time.

Théophile Laennec had already won the recognition of his masters and associates. He was made a member of the *Société de l'école de médecine* and became an editor of the *Journal de médecine*, etc. He took up the torch from the hands of the dying Bichât, and his studies of pathological anatomy were worthy of his great predecessor. The work on peritonitis was a classic both anatomically and clinically. In 1805 he published a note on pathological anatomy in which he sought to set forth a system of classification of organic changes—an interesting and valuable communication which led to a long dispute with Dupuytren. At about this time he came chiefly interested in the study of the Celtic dialect of lower Brittany, of which eventually he acquired a considerable knowledge. He published frequent critical reviews and an annual summary of the diseases prevailing in Paris—a duty which brought him into close touch with the Hôtel-Dieu and the St. Louis, as well as the Charité. But already his hard work had told upon him seriously. That which he called his "asthma" disturbed him greatly, and the rest he needed he could not take. A happy vacation of several weeks in 1805 with his cousin, Madame de Pompery, at Courcelles, near Soissons, did much to freshen and strengthen him. Roux publishes a number of amusing verses and extracts from plays which Théophile seems to have written during this short vacation with surprising facility and spontaneity.

In 1808, Laennec retired from the *Journal de médecine*. He was beginning to acquire a practice of his own.

In 1809, the *Ecole de santé de Paris* became the *Faculté de médecine*; Laennec was a doctor of the new school.

In 1812, he was named Alternate Physician "médecin suppléant") at the Beaujon.

In 1814, he was at the Salpêtrière, where his knowledge of Gaelic was of the greatest help to him in caring for and consoling the young Breton conscripts, who, unable to make themselves understood, were distressingly homesick.

He had become the great authority on pathological anatomy, and in the *Dictionnaire des sciences médicales*, he wrote on "*Anatomie pathologique, Ascarides, Cartilages accidentels, Crinon, Cucurbitains, Dégénération, Dégénérescence, Désorganisation, Ditrachyséros ou*

bichorne rudy, Encéphaloïde, Fibreux, Fibro-cartilages accidentels, Filaire, Furie infernale."

In 1816, Laennec was appointed Chief of Service at the Neckar, where he gathered about the bed-side a group of devoted students. It was here at the Neckar that his great discovery was made. Every one knows the story; how one day in 1816 he noticed boys at play in a court of the Louvre who, with the ear applied at the extremities of long pieces of wood, listened to the transmission of the sound of a pin scratch at the opposite end, how, on the following day, he rolled a notebook tightly, and placing one end against the chest of a patient, was delighted to find that he could hear the heart beats more clearly and distinctly than he had been able to hear them with the naked ear. Soon he devised his simple wooden cylinder and began his researches. It was, after all, a natural step. Up to the time of Bichât and Laennec, despite the work of Morgagni, little had been known of the pathological changes in organs. Laennec, a great observer, imbued with his new knowledge of pathological anatomy, had his eyes wide open for something more than that which percussion and inspection and mensuration could give; and the acute mind found the way.

What Laennec did with his discovery is a model for all time. In the three years that followed, he had brought before the world the characters of normal respiration and voice sounds, and their variations, with different physical changes in the constitution of the lungs as clearly as they may be taught to-day. But more than this, he had described anatomically and clinically the various forms of bronchiectasis, emphysema, pulmonary œdema and pulmonary apoplexy.

The description of pneumonia from an anatomical standpoint is almost as admirable as the demonstration of the method by which its presence could be determined clinically. Again, his description of the different forms of pulmonary tuberculosis, in ward and laboratory, the recognition of the possibility and manner of arrest of the disease, are models of acute observation and understanding. His contributions to the diagnosis of diseases of the heart are not upon the same plane, owing, doubtless, as Saintignon points out, to the circumstance that the physiological explanation of the heart sounds and their significance was at that time unknown. Starting with the false hypothesis that the second sound was auricular in origin, he never found his way out of the jungle.

This was a wonderful work for one man. How was it done? Laennec tells in his own words in the preface to his book: "When

a patient enters the hospital, a student is given the task of collecting from him what anamnestic information he can give as to his disease and of following its course. As I examine the patient myself, I dictate the principal symptoms that I observe, those, especially, which may go to establish the diagnosis or the indications as to treatment, and I give my conclusions, subject to amendment, if it be necessary, by later observations. This dictation, which is made in Latin for obvious reasons, is taken down by the pupil in charge of the patient, and, at the same time, on a separate notebook, which I call the "diagnostic sheet, which it is the special duty of another pupil to keep in order that he may hold and read it to me, if necessary, at each visit. When any new sign appears, such as may modify the first diagnosis, I add it also. If the patient dies, the protocol of the necropsy is taken by the pupil in charge of the observation. I re-read these observations before all those present at the necropsy, and if there be occasion to make any correction, I do it on the spot, and after having taken their counsel."

Laennec's visits, according to one of his pupils, Toulmouche, lasted from an hour to an hour and a half. He invited his colleagues and friends to interesting necropsies, and he always committed himself before the necropsy in the presence of all as to the changes which he expected to find. There could be no better model for study and instruction.

In May, 1818, Laennec spoke before the *Société de l'école* on auscultation, and finally, in August, 1819, just a hundred years ago, the famous "*Traité d'auscultation médiate*" appeared. It made a great impression, and although seriously criticized by some, it was soon taken up by the world.

Laennec was small and delicate of frame. "Little Laennec," "the little Professor," his fiery adversary, Broussais, called him. But he was spirited and devoted to outdoor sports, especially to hunting, for which some of his rich patients gave him opportunities on their estates. During the winter he practiced in his apartment with an air-gun. Frail as he was, he was especially proud of his prowess in athletics of all sorts. "He was but a breath of air," says Pariset, "and he thought himself a Hercules." He was musical, and played the flute. He drew fairly well, and amused himself at other times at the turner's table. But the scant recreation that he snatched from his work was of little benefit. He burned the candle at both ends, and it is probable that he was already suffering from the malady that had carried away his master, Bichât, and his companion, Bayle. He had wounded himself during a necropsy and

developed an anatomical tubercle on his finger, which persisted. Finally, in 1820, worn out, he retired definitely, he fancied, to his beloved Kerlouarnec, in Brittany. There with his faithful companion and housekeeper, afterwards to become his wife, he lived for two years by the sea. The blessed solace of solitude, the joys of hunting and roaming about his lovely native fields, the opportunities of leisure to renew his studies of the classics and of the dialect of his people, rest and peace, gradually brought new strength, and after two years, duty called him again to Paris.

On his return, he found new and wearying tasks thrust upon him in the shape of an appointment as physician to Her Royal Highness, the Duchess de Berry, and shortly afterwards as professor of the *Faculté*.

At this time, Broussais, with his so-called physiological doctrine, held considerable sway—that strange doctrine which ascribed all the vital processes to that which he called “irritation”, and all diseases to its excess or deficiency—the excess meaning inflammation, the default, debility. For him there was no essential difference between diseases, which are distinguished only by the degree of irritation and the particular *sympathy* of one organ for another. The physician must occupy himself only with the organ primarily affected, which was, in most instances, the gastro-intestinal tract. The terms “*gastro-éternité*” and “*gastrite*” played a large part in the “physiological doctrine” with which Broussais believed he had revolutionized medicine. All that had gone before could be thrown aside, and treatment was reduced to the simplest terms. It was another system like that of Hahnemann or Brown or Gall—words—championed by a convinced, fiery, spirited, vain, intolerant advocate.

In his opening lecture at the *Collège de France*, Laennec warned against the fallacies of the new “doctrine” in a clever parable of the life and work of Paracelsus. And from this time on there was war between the clinic of Val de Grace and that of the Charité, to which Laennec had moved with his new chair—war in which the acute and well-considered criticism of Laennec easily triumphed over the fiery diatribes of the modern Paracelsus. His clinic was soon sought by physicians from all countries, eager to learn his methods. In 1823 he was made a member of the Academy of Medicine.

In 1824, he married his companion, Madame Guichard-Guégen, *veuve* Argou. In the same year he was made a Knight of the Legion of Honour.

From 1824, when the first edition of his treatise was exhausted he had been working assiduously, in addition to all his other duties, on a second edition, the form of which he had entirely changed, making the work in reality a treatise on the diseases of the heart and lungs. This was completed and published in May, 1826.

It was his last effort. The strength that he had gained in his long rest in Brittany had soon given out. His cough had increased. In April he developed fever and dyspnoea and, soon, a persistent diarrhoea. His voice grew hoarse; he became profoundly emaciated, and in June, himself unconscious of that which all others could see, he left for Kerlouarnec, where he died on August 13th. Two hours before his death, he removed his rings and laid them on the table by his bed. To the queries of his wife, he replied; "Some one else will soon have to do this for me; I would save him the trouble." He was forty-five years old.

In the ten years that had passed since his discovery of auscultation, he had brought the art of physical diagnosis of diseases of the lungs from a state of the utmost crudity almost to the point at which it remains to-day. He had done this not only through the introduction of his new method, but through the study and analysis of the changes in the organs themselves, and through the careful application to diagnosis, not only of auscultation but of all other methods then known, and by a conscientious objectivity which is a model. In his opening lecture at the Collège de France, he says that, if he presents hypotheses, "I hope to present them in such manner that one cannot attach more importance to them than do I myself, and I hope that I shall never give that which I think, that which I suppose, my point of view, my theory, in a word, for that which constitutes the true science, for *that which one knows*."

That which Laennec had done for the lungs was later extended to the heart with the growth of our knowledge of physiology of the circulation, by Bouillaud, Hope, Stokes, Corrigan, Graves, Flint and others.

It is just one hundred years since the appearance of Laennec's book. Since then great things have happened in medicine. The advances in our knowledge of the natural sciences, the associations which attach medicine to a firm scientific basis, have increased rapidly. The developments in the domain of pathological anatomy, of bacteriology, of chemistry, of physics—to mention only the applications of electricity in exploration, and of the x-rays, have

given us a deeper insight into the nature of the processes of life and of disease, and have augmented our powers of control and recognition and prevention, and, happily, in some instances, our powers of relief and conquest of disease.

The refinements of diagnosis and the possibilities of treatment demand to-day an increasing mass of knowledge and experience which we struggle, often in vain, especially in the United States, to crowd into an insufficient period in our universities and schools of medicine. All the new methods of research, however clean-cut and valuable their results may be, are of use only if they are exercised by one who has mastered them by practice and experience. A new instrument of precision, a new method of surgical procedure, in the hands of the inaccurate or the inexperienced, is of no advantage; it may be misleading and harmful. Refinements of method must themselves be studied and practiced carefully. But even then they are in themselves rarely final; they are but additions to our basic armamentarium, new bricks for the edifice of diagnosis and treatment, useless if the foundation be deficient—nay, more than useless—dangerous. In the domain of diagnosis, the simple procedures of Auenbrugger and Laennec remain the basic essentials of the art. No man is fit to profit by modern refinements of diagnosis who is not experienced in the study of pathological anatomy, familiar with the changes in organs, and well trained in the fundamental methods of physical exploration, who has not gained through practice at the bed-side a skill and experience in the art of auscultation and percussion which has made him familiar with the physical manifestations of the activities of heart and lungs in health and in disease. How variable these manifestations may be in the normal subject should be known by all physicians.

"The power to explore is to my mind a great part of the art."

This familiarity, this training, this power, is to be gained only in the necropsy room and in the ward. Books cannot teach it; it cannot be learned in the lecture-room; no magic power of inheritance can transmit it. "There are," says Laennec, "some things which one can transmit well only by experience and practice; . . . however, it is precisely in these points that I count on training the students at the clinic; such are the distinctions of the various nuances of crepitant, dry and moist râles, the (distinction of) deep and superficial phenomena, . . . of the manner in which, in the most difficult and uncertain cases, in pericarditis, for example, one arrives at a definite diagnosis through comparison of the signs and by a process of exclusion."

The experiences of the last few years have made it painfully clear that a very large proportion of our American physicians, and I understand that, to a certain extent, the same is true in this country, are sadly lacking in the essential foundations of a training in diagnostic methods. In the army there is apparent a widespread tendency to reason and act precipitately and without control on information furnished by the laboratory. Physicians forget that laboratory reports are in few instances final, that their value depends in great measure on their relation to the clinical aspects of the situation—that at every point the human element comes into play, that a laboratory report from an unreliable source is worse than worthless.

It is becoming easier and easier for the physician to obtain *x-ray* plates or fluoroscopic examinations of his patients, examinations of sputa and excreta, cultures, agglutination and complement deviation tests, which come back to him as short and definite reports. Too often the *x-ray* report especially, is written so as to convey to the practitioner a sense of finality which is generally unjustified. To the physician who is not wholly familiar with the clinical aspects of the case, this is a danger—a trap into which he falls in too many instances. To him who is incapable of controlling it, an *x-ray* report is often a liability rather than a help. In the army in France the greater part of the unjustifiable diagnoses of pulmonary tuberculosis were dependent upon the blind acceptance of an *x-ray* report. The same is true in connection with many laboratory tests. I have seen the most obvious ulcerative endocarditis regarded and treated as typhoid fever because of the report from a health department of a positive typhoid agglutination test.

It is, alas, too common in private practice to meet with men who have almost abandoned the examination of the patient, and depend on the reports of consulting specialists and on laboratory tests. Not long ago, as I told my students this spring, I saw in consultation, a gentleman who was said by his physician to be suffering from cardiac disease; he feared, angina pectoris. I asked the physician what the symptoms had been. His reply was that at first *he* had thought that the patient had indigestion, but that Dr. X. had found his heart enlarged, that Dr. Y. had made a Wassermann reaction which was negative, that Dr. Somebody Else had looked into the conditions of the stomach and given the patient a test breakfast without notable result, that a differential blood-count had been made; that the urine showed no abnormalities. I asked if the patient had had pain. He had, over the heart. Did

it radiate into any other part of the body? No. Was it associated with exercise? He thought not. After a little questioning, I realized that the doctor had practically no information to give me as to the symptoms or physical signs manifested by the patient. I then spoke with the patient, and in a few minutes learned that his pains did follow exercise and eating; that they did radiate into his arms in a characteristic manner; that the history alone was such as to justify a diagnosis of angina pectoris. The doctor had neglected all ordinary methods of investigation and had contented himself wholly with the reports of laboratories and experts on this, that, and the other detail. This is not to practice medicine. But, though a rather exaggerated picture, it is an example of what one met too often among younger as well as older officers in our hastily gathered together medical corps.

In one ward of one of our army hospitals in America during an epidemic of pneumonia, the Chief of Service discovered thirteen unrecognized empyemas among thirty-two patients. One hundred years after the publication of Laennec's book, the commonest event of my visits to camp hospitals in France was the discovery of unrecognized pleural effusion, pleurisy regarded as unresolved pneumonia.

Who is to blame for such conditions as this? Is it that the men who enter medicine to-day are incapable of acquiring the foundations of the art? I think not. On the contrary, in those hospitals in the United States Army where courses of instruction were instituted, it was surprising to find the avidity with which medical officers, young and old, grasped the opportunities offered, and how quickly some acquired proficiency in methods of physical examination, which, in the medical school, they had not properly been taught.

The fault lies in our methods of medical instruction, and here again I fancy that you, in Canada, have been less at fault than we. Nevertheless, I am disposed to believe that the general interest in bacteriological, serological, chemical, and the newer physical methods of exploration have in many schools led us to forget the necessity of prolonged and systematic training in laboratory, ward, and out-patient department, in pathological anatomy and in physical diagnosis in its more restricted sense, in auscultation and percussion. Training in diagnostic methods is useless if it be not preceded and accompanied by experience in the dead house. The student must be familiar with the anatomical changes in organs which he seeks to recognize in the living subject. He must follow the patient from the ward to the necropsy table. More than this, proper instruction

in auscultation and percussion demands careful supervision of the student—instruction in small groups. The student must be led to make his own discoveries, to solve his own problems—he must be directed to a proper course of reasoning. Physical diagnosis can be taught only by the bedside. Again, this early instruction in physical diagnosis should not be relegated wholly to the young instructors. One of the most important duties of the professor of medicine is to give his personal attention to the students who are for the first time approaching the patient. It is at this point in the career of the student that the wise and experienced clinician can exercise his most important and lasting influence. It is, I believe, the attempt to teach the diagnostic art didactically that is at the root of the inefficiency of so many practitioners to-day. If, at the outset, the student be encouraged to read books or to listen to discourses on diagnostic methods, he starts with a handicap of preconceived ideas which he may never overcome. Again, the necessity of familiarity with the normal is too often overlooked. No student should leave the medical school without appreciating the frequency, position and character of the sounds heard so commonly on the expansion of atelectatic borders of lungs.

No man should be allowed to enter the practice of medicine who has not, by experience, made himself familiar with the auscultation of the normal heart and with those murmurs which are the rule, rather than the exception, in young individuals, especially cardio-respiratory murmurs. If he be not familiar with the normal, he will be a poor judge of the significance of deviations from the ordinary.

"The power to explore is to my mind a great part of the art."

In epitomizing the life of a great physician, I have desired to emphasize the thought that the kernel of the art of medicine lies in the power to explore. This power is gained only by experience and by practice.

The last century has perfected the art of diagnosis in many ways. But proficiency in the basic methods of exploration which we owe to Auenbrugger and to Laennec is as vital to-day as it was an hundred years ago.

In those parts of this paper which deal with the life of Laennec, the author has drawn largely on the works of Saintignon (Saintignon, Dr. Henri: "Laennec: Sa Vie et Son Œuvre," Paris, J. B. Baillière et Fils, 19, rue Hautefeuille, 1904), and Rouxeau (Rouxeau, Alfred: "Laennec avant 1806," Paris, 1912).



