An address, introductory to the session 1884-1885, delivered in the theatre of the Meath Hospital and County of Dublin Infirmary / by Rawdon Macnamara.

AN ADDRESS,

INTRODUCTORY TO THE SESSION

1884-1885,

DELIVERED IN THE

THEATRE OF THE MEATH HOSPITAL AND COUNTY OF DUBLIN INFIRMARY,

BY

RAWDON MACNAMARA,

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REPRESENTATIVE ON THE GENERAL MEDICAL COUNCIL, AND PAST PRESIDENT,
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"ACUPRESSURE IN THE ARREST OF HÆMORRHAGE;"
ETC., ETC.

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1884.

John Marshall Esq
with the kindest Regards
of the Author.

TO

THE EARL SPENCER, K.G.,

LORD LIEUTENANT AND GOVERNOR GENERAL OF IRELAND,

THIS ADDRESS

IS (BY PERMISSION) INSCRIBED,

AS A

HOMAGE OF RESPECT AND TRIBUTE OF ADMIRATION,

BY

HIS EXCELLENCY'S OBEDIENT SERVANT,

RAWDON MACNAMARA.

My Lord Mayor and Gentlemen,

The honorable duty devolves on me of opening, to-day, this the 131st Session of an Hospital of which Ireland has good right to be proud. Proud, whether we reflect upon the benefits conferred, in years past, upon the sick poor resident within its walls, or whether we take into consideration the important contributions made, from time to time, by members of its staff to the recognized fame of the Dublin School of Medicine and Surgery! To the newcomer, I bid welcome; to the older student, I hold out the hand of hearty recognition; but what am I to say to those former students, who, in their subsequent career, having won fame for themselves, thereby reflecting honor on their *Alma Mater*, revisit, this morning, the scene of their earlier professional labors. In feeble accents I can but thank them for their encouraging presence upon this occasion, and, on the part of the Medical Board of this Hospital, I can assure them that we take both pleasure and pride in their well-merited success; and though their present labors may seem to be, to a certain extent, if not antagonistic to, at all events in rivalry of, ours, I can truthfully say that most heartily do we welcome such rivalry, for we recognize the fact that they, as we ourselves, are but laboring for the common weal, and we know that such zealous and

honorable competition can but result in that which is equally dear to us all—the maintenance of the reputation of the Irish School of Medicine and Surgery, and, more important still, the more effectual alleviation of the sufferings of the sick poor committed to our charge.

There is, however, one other section of my audience to whom, for their presence upon this occasion, the thanks of the Medical Board are pre-eminently due. I allude to the members of the Standing Committee, and the outside friends of this Institution; without their earnest, continued, enlightened, and disinterested co-operation all our labors would have been in vain, and were I to attempt to describe the value of their services, I would but use the single word, years ago employed as descriptive of the merits of the architect of St. Paul's Cathedral in London, "Circumspice." With limited means much has been done, and it remains but for the public more liberally to open their purse strings to enable our Standing Committee to carry out those further improvements which I understand they have in contemplation, and which are so urgently needed to enable this Hospital to uphold, in the future, the reputation and position which it has so worthily gained in the past.

Whilst upon this subject I may be permitted to mention, as a matter of historic interest, how it came about that we should be in possession of the fine Theatre in which, at present, we are assembled. In the year 1830, a Roman Catholic patient of my

father, the late Professor Macnamara, bequeathed, in trust to him, a sum of £500 to be applied, at his discretion, to any charitable purpose. Up to that time the Operating Theatre was what is now known to us as the Grattan Ward, so named in grateful recognition of the sum of £4,728 bequeathed to this Hospital by a noble benefactor bearing the honored name of Grattan. It occurred to my father that a worthier use could not be made of the money than to build an Operating Theatre. He had plans prepared, estimates furnished, and, as the result, ascertained that the lowest estimate exceeded the fund at his disposal by £400. The Medical Staff at that time consisted, as it does at present, of eight members; he convened them together, laid his plans and estimates before them, and suggested that each member of the Staff should contribute £50 to supplement the deficiency. This was agreed to, the works progressed, were completed, and the contractor naturally looked for his remuneration, when one of the Medical Staff repudiated his responsibility. Upon what grounds? Upon grounds that reflect honor upon the Governors of this Hospital, for they were true then as now, "That the management of this Hospital was conducted upon strictly non-sectarian principles, but that the legacy was left to Mr Macnamara by a Roman Catholic, and that, therefore, he should have devoted it to strictly sectarian objects." Upon these grounds the gentleman in question repudiated his previous engagement, refused to pay,

and what was the outcome? I shall tell you the tale as it was told me by the late Mr. Parr, for years the honored and efficient Medical Resident of this Hospital. "'They tell me, Parr,' said Sir Philip Crampton, 'that that rascal will not pay up his quota.' 'No, sir, he will not, and the builder is pressing for his balance.' 'Parr, can you make a "back,"' said Sir Philip, 'and taking out his note book, and making my back a desk, he wrote a cheque for £50 extra, and thus was the debt discharged.'" The individual who so acted contributed unconsciously more to the true interests of the Hospital than had he subscribed hundreds to its revenue, for he endorsed a principle, from the foundation of the Hospital up to the present, recognized by the public, that the management of this Hospital is *not* influenced by creed; that the Governors, to the fullest extent, have adopted as their motto, that of Dido of old, "*Tros Tyriusve mihi mullo discrimine agetur.*"

Few who have not essayed the task can adequately estimate the difficulty attending one who attempts to address a mixed audience such as that which I have the honor to appear before this day—an audience comprising the lay and the professional element; the latter consisting of neophytes, advanced students, and professional compeers. To the last of these I cannot hope to advance much, if anything, that is of interest; but I feel assured of their kind forbearance whilst I address a few words of kindly welcome, of sympathy and of advice, to those about to join our ranks. To

these gentlemen we must look for our successors. To their conduct must we hereafter entrust the upholding of the reputation of the Irish School of Medicine and of Surgery, and it is to them that I would, in the first instance, address myself.

Young gentlemen, proud am I to say that the day has long since passed when the name of "Medical Student" was synonymous with that of a juvenile scamp. Formerly any young fellow getting into mid-night trouble announced himself a Medical Student when "hauled," as it is termed, before the magistrate; of later years, however, a Register of Medical Students has been established by the Branch Medical Council for Ireland. The police have access to this register, and frequently has it been ascertained that the *soi disant* medical student has been self-decorated, and to have no claim to the distinction. For the institution of this list we are indebted to the General Medical Council, and had this body conferred no other boon on our profession, they, in establishing this register, would have deserved well of us. In thus expressing myself, however, I think it but due to the Students of this Hospital to place on record the fact that they have been singularly free from such like imputations of misconduct; we are justly proud of the reputation of our Medical Students; and when, some time ago, I heard it boasted of in another institution that it was "the home and centre of Irish Surgery," I could not but feel that if such (which I am not free to admit) were the truth, it could not be questioned that I, on

the part of our Students, was in the position of asserting that this is the "home and centre of gentlemanlike demeanour, so far as studentlife is concerned."

Whilst so expressing myself as to our Meath Hospital Students, I may be permitted to say one word on behalf of Medical Students in general. As a class, they come to us for the first time free from restraint, fresh from school, young, full of animal spirits, and perfectly unaccustomed to the temptations of a city life. Rough, selfish, thoughtless, unsympathetic, they may appear to be on their first entrance within our wards. Yet, after a very short time, let occasion arise, who so gentle, who so thoughtful, who so sympathetic, who so self-denying, who so tender-hearted? What a wonderful transformation!—a transformation only, as I believe, to be seen in our ranks, and only to be accounted for, reverentially let it be said, by the Divine Afflatus breathed upon our class, through the person of the Patron of our order, St. Luke the Evangelist.

As to the manner in which you should approach the discharge of these duties, I may be permitted to say a word. The regulations of our several licensing boards leave nothing for me to say as to your preparatory studies beyond this, that in the majority of instances such regulations look upon such studies as being final. A more unhappy result cannot be well conceived—one more calculated to deprive you of many a future hour's enjoyment. I could well conceive a test examination as to whether the young man is fit at all to commence medical study—this of an

elementary character, necessarily so; but of a final character—no; and I cannot too strongly express my view that the only true way to establish our profession on a solid social basis is to require some such academic position as would be evidenced by an equivalent at all events to a Degree in Arts, as conditional to admission within our portals. It may be utopian to look forward to this outcome of medical legislation, but, nevertheless, it is that for which we should agitate in the true interests of our profession.

Well then, gentlemen, passing those matters by, not that I conceive them to be of minor importance, I come to the question, why are you assembled here this day? Is it not to commence the Clinical study of the profession you have selected for your future? It has been well asserted that the gateways to knowledge are five in number—a number corresponding to the number of our "senses"—"seeing, hearing, tasting, feeling, and smelling." In pursuit of the study of your profession, each of these gateways must be successfully stormed if you would be a successful practitioner; individually each one or other of these may be misleading; collectively they are proof strong as of Holy Writ. A few illustrations of this statement may be permitted me. I shall take the sense of smell first, as being perhaps that least recognized as of importance by the general public. When I was, as yet, in my pupilage, filling the post of Resident Surgical Pupil in this Hospital, carrying my revered teacher, the late Professor

Porter's, prescription book, we came to the bed-side of a patient, who was under mercurial treatment. I may remind you that Professor Porter was the illustrious father of a distinguished son, your honored teacher and much trusted friend, Sir George Porter. Professor Porter stood, for a moment at the bed-side of the patient, drew down the clothes, pointed to an eruption, saying, "I knew it," described its nature, and prescribed for it. To me his conduct seemed little short of inspiration; subsequently he explained to me that such cutaneous affection was invariably accompanied by a most offensive odour, pathognomonic of the disease. Again, you will meet in your Medical Wards two patients suffering from profuse perspiration arising from two different causes. Your Clinical teacher will, from the smell, point out to you how different is the source of the perspiration in these respective cases. Other and even more striking illustrations will be afforded you as you pursue your Clinical studies.

The sense of "tasting" has been superseded by chemical research. So I shall pass on to that of "feeling"—by this sense you derive knowledge that cannot be imparted to you—lose no opportunity of cultivating this sense, thereby alone can you obtain that which is most properly styled the "tactus eruditus," the importance of which can never be adequately estimated until you come into practice on your own account. As to the sense of seeing, much can be said. The public themselves have been

educated in this respect. How often do we not hear the observation that "so and so bore death in his face." From physique alone are we often able to make a correct diagnosis. Were it my purpose, I could weary you with illustrations of this statement ; suffice it for me here to impress upon you the importance of such study, a study which may yet have a most material influence on your future success in life.

The remaining sense, that of hearing, will often—too often—be appealed to, but not in the manner I would wish. You will be *told* that which you should see, feel, and hear for yourselves. Contented you pass on from bed to bed, eagerly listening, it may be, to the words of the so-called Clinical teacher, but deriving therefrom, so far as the education of your senses is concerned, no practical knowledge. Far better were it for you to have spent your time in the lecture theatre of one or other of our Medical schools, where such subjects would have been discussed in an exhaustive manner, than, I say it advisedly, to have wasted your hours in a make-believe Clinical study of disease after this *dilettante poco curante* fashion. The Medical Clinical teacher does not sin in this direction to so great an extent as does, I fear, the Surgical. He tries, so far as possible, to develop the student's senses, whilst the Surgical members of the hospital staff depend too much on Clinical lecturing, to the exclusion of Clinical teaching. In making these remarks, I do not allude to any one hospital more than another—I believe this statement to be of general

application. To a certain extent the Surgical teacher may excuse this conduct by the fact that Surgical cases, predominating in our wards, demand greater expedition on his part; that were he to devote more time to such kind of instruction, as that which I would here advocate, the interests of the sick *hoi polloi* should suffer. This may be so; but the neglect, in this respect, of such a teacher can only be combated by a greater amount of, shall I say, inquisitiveness on the part of the student. Let me illustrate this statement. Three Surgical cases, amongst a multitude of others, present themselves for treatment; each has a scrotal tumor. No. 1 is asked by the Surgeon, "Did this swelling follow the cessation of a discharge from the urethra?" No. 2 is asked, "When you lie down does the swelling disappear?" No. 3 is asked, "Has this swelling ever been tapped?" If the Surgeon contents himself with the information so acquired, and proceeds to treat the case, without volunteering further information to the Student, he should seek to know what was the gist of such enquiry. Bear always in mind, gentlemen, that "he that questioneth much, learneth much." But above all things remember that if you rest satisfied with the statement as to the physical character of disease conveyed to you by word of mouth of your Clinical teacher, and if you do not seek to verify such statement by the exercise of your own senses, the information thus acquired will be quickly forgotten. That rare old philosopher, Horace, tersely enunciates, to a

certain extent, this axiom—

"*Segnius irritant animos demissa per aurem*
"*quam quæ sunt ocalis subjecta fidelibus.*"

The observations I am now about to make to you I would wish to prelude by what to my mind is a most interesting anecdote. In this Hospital the Medical education of two of the most remarkable men known to us in modern times was conducted—one of these, Dr. Stokes, after 49 years' earnest labor in our wards, during which period he shed undying lustre on the Irish School of Medicine, has gone from our midst, to receive in another and a better world his reward. The other, the Revd. Professor Haughton, I am pleased to state, is present here this morning, and it is from his lips I have that which I am now about to relate. "Dr. Stokes," said the Revd. Dr. Haughton, "you don't seem to have much faith in medicines." "You are wrong, Haughton, I have great faith in certain medicines, but I see great danger to the progress of medicine as a science in the growing tendency in the minds of my younger professional brethren to run after new remedies, trusting to the remedial treatment of disease, rather than seeking for means to prevent its occurrence. I feel that as vaccination, if properly and universally carried out, must eventually rob small-pox of its terrors, even if it did not stamp it out altogether, so may means yet be found to palliate, if not altogether to prevent, the invasion of diseases which at present are regarded as the 'opprobria' of medicine."

Those who were familiar with the features of that true, noble-hearted medical philosopher, can picture to themselves the expression of prophetic inspiration which must have illumined his countenance as, seer like, he sought to rend asunder the clouds which obscured his mental vision, and tried to pierce the darkness which he firmly believed would yet be dispelled by the light of Genius. Vaccination and its results were an open book to him; what lay beyond he could only conjecture. How stands the record of to-day? To approach in a true spirit the consideration of questions such as these, it must be borne in mind that certain diseases confer immunity, so far as subsequent attacks are concerned, on those who have once suffered from them. So wide-spread, so universally accepted, is this doctrine, that it would be idle for me to enlarge upon it. Some of these invade their victims in such a slight form as almost to be with difficulty recognized; yet does immunity follow such attacks. Reasoning upon this well-known fact, did Jenner base his announcement that cow-pock was a protection against Small-pox. It would be entirely foreign to the object I have at present in view to follow out the persevering and painstaking labors of this benefactor of the human race. Suffice it for me to state that our great Stokes's forecast appears to have been realized with regard to another disease, truly the opprobrium of Medical Science! Only those who have watched the sufferings of a patient afflicted with hydrophobia can realize the

horrors of the situation. The physical sufferings, intense though they be, are far transcended by the mental anguish of the patient; he looks with suspicion upon each one who approaches him, and the dearer, the nearer in blood or domestic ties to him they may be, the more convulsively does he repulse them—and why? Because wide-spread through the lower orders is the conviction that all so afflicted should be smothered, and that to the nearest and dearest should be confided this duty. And it admits not of question that in times happily long since past, not unfrequently recourse was had to this summary method of putting an end to the unfortunate patient's sufferings. Hitherto this terrible disease has baffled medical treatment; to the illustrious Pasteur are we indebted for a prospect of the more successful treatment of this fearful malady—a prospect, never let it be forgotten, due to the guiding genius of Jenner. What Jenner has done with respect to Small-pox, Pasteur proposes to do with regard to Hydrophobia. Following in his footsteps, he has subjected 23 dogs to the protective influence of a modified hydrophobic virus. In company with these he has placed other dogs not so protected, and exposed all to the attacks of undoubtedly rabid animals. With what result? That three out of six of the unprotected dogs bitten became hydrophobic. He then inoculated, by intravenous injection, eight unprotected dogs—all became hydrophobic—and other dogs by different means were subjected to the hydrophobic virus, with similar results; whilst no

matter how exposed to the virus the 23 protected dogs exhibited no symptom of the disease.

Whilst bringing under your notice these most important investigations of this most distinguished Biologist, I consider it also to be my duty to place before you an extract from what may be well considered a "Classic" on the subject, from the pen of my most respected and talented colleague, Professor Foot —"In artificial attempts at inoculation, from two-fifths to two-thirds of the animals inoculated or bitten were infected. From causes which cannot be explained, inoculation is often unsuccessful, even when performed under the most favourable circumstances. Many dogs resist all infection; nine different attempts, in the course of three years, to inoculate the famous poodle of Hertwig, were ineffectual, while other dogs in whom the same poison was implanted were infected." In justice to Pasteur, however, it must be stated that the commission charged by the French Government to investigate his assertions seems fully in their report to endorse his statements.

Receiving, therefore, as I do, Pasteur's statement thankfully, "that at last the prospect of some protection is afforded us for that which can not be questioned as being the most fearful malady to which humanity is subjected," I must be permitted, from my standpoint of view, to assert that, important as it is with regard to Hydrophobia—fortunately a preventable disease, a rare disease, one requiring direct inoculation—it is more valuable still as an

analogical confirmation of the supreme value of Jenner's immortal discovery of Vaccination. Young men can listen with patience to the arguments of anti-vaccinators; they see nothing but smooth, comely visages in the persons of those around them. I beg of any one listening to me to count up, on the fingers of his hands, the number of people of his acquaintance seamed with the ravages of Small-pox ; long before his fingers would be exhausted would be the enumeration. Appeal to our seniors, what would be the answer ? Disfigurement, complication of diseases, death--a catalogue longer than that of Homer's fleet ! And to what is due the present condition of affairs ? Undoubtedly, to the protective influence exercised by Vaccination.

The opponents of Vaccination, if not a very numerous certainly a very clamorous class, lay to its charge the superinduction of numerous injurious results in the persons of those subjected to its influence. I do not quarrel with the fact that the majority of the opponents belong to the lay element, who cannot be supposed to be possessed of that amount of Medical training enjoyed by the supporters of Vaccination; but I do think that they should attach some weight to the fact that the most eminent, the most philosophical, the most experienced, the most scientific, members of the Medical Profession, not only are advocates of the measure, but actually practise it on the persons of those dearest to them in this world—their own offspring ! The opponents of Vaccination point to

the occasional untoward results that follow the operation. But can they pretend to the same amount of knowledge on the important point, the heredity of disease, possessed by us? I firmly believe that most of these untoward results are rather to be attributed to the recipient of the vaccine virus than laid at the door of the original source from whence the virus was taken. No amount of trouble is considered mis-spent by the anxious parent to secure a healthy donor of infection, a child with what they term "a healthy pock." How little trouble do they expend upon ascertaining the condition of health in which their own offspring may be! It is more than probable that they are ignorant that their own child may carry, lurking in his system, requiring but a ferment to set them in motion, the seeds of some loathsome disease, without which ferment, sooner or later, the disease is safe to present itself, "latet anguis in herbâ." The ferment, however, is supplied, and lo! quickly the charge is brought against the innocent party—all the blame is laid upon the "pock." I have had but too much experience in watching the hereditary character of disease not to be impressed with the truth of the views that I am now enunciating; and this heredity is by no means confined to one disease alone, but includes a large number of those ills to which flesh is heir, a fact, indeed, of pretty general acceptance by the public at large, but not sufficiently brought to bear by them upon this question.

It appears to me also that the opponents of Vac-

cination do not attach sufficient importance to the undoubted fact that whilst many millions are subjected to the operation, and thereby enjoy unquestionable benefits—benefits self-evident to those who watch the masses—but a miserably small percentage suffer therefrom the untoward sequelæ laid to its charge, sequelæ, as I believe, otherwise to be accounted for.

Gentlemen, the finger of scorn has been pointed at me; I have even been dubbed a "fossil," because from the period of its first introduction, up to the present moment, I have sternly set my face against the use of the Carbolic Acid Spray. Why I have done so, I shall briefly explain. Introduced as it was with the view of destroying those germs which favor suppuration, I knew that to do so effectually the spray should be made of a strength which in itself would destroy the tissue to which it was applied. The strength in which alone it could be, with safety, so applied would be to these germs but a happy hunting ground in which they would fertilize and multiply. These views, entertained by me from the first, have since then been so amply corroborated that we find Lister, its suggester, publicly stating that it would not "break his heart" did he hear of the thorough abandonment of the spray; whilst at the recent Congress, held in Copenhagen, but one surgeon was found its supporter, whilst all the others were found expressing their opinion that it was either useless or absolutely injurious! Years since I have placed on record, in a standard work, my views as to disin-

fectants and deodorizers; even in this latter and much inferior rank Carbolic Acid occupies a very poor position. Whilst thus expressing myself with respect to the Carbolic Acid Spray, I should regret more than I could possibly convey to you were it to be for one moment supposed that I am antagonistic to any procedure that would favor the union of our wounds by what is called "First intention." My anxiety in that direction has been frequently illustrated by my practice in these wards, and many of our pupils are in a position to bear testimony to the success that has attended my efforts. In the after-treatment of our surgical operations, Hygiene must always occupy a foremost place, and it may almost be accepted as an aphorism, "The sounder the Hygiene, the more successful the result."

My kind young friends, not content with thus stigmatizing me, in consequence of my want of faith in the "Spray," go even further lengths, and charge me with want of orthodoxy in respect of the theory of the germ origin of many forms of disease. Gentlemen, before, so to speak, they were professionally born, I had recognized the importance of this theory, and of the truth of this statement I shall give you convincing proof ere I bring these remarks to a close. Before doing so, however, I should wish to direct your attention to a most important, yet intensely difficult, problem upon the attempted solution of which scientists are at present engaged. The problem is no less than the capture and identification of the microbe or germ

upon whose presence depends the production of the disease under investigation. How difficult that must be you can well imagine when you picture to yourself the minuteness of the molecule, invisible to the naked eye, requiring high microscopic power for the investigator to see. I shall attempt, in rather a coarse manner to be sure, to realise for you this difficulty. Physiologists recognise that the sense of smell depends upon the impingement of minute particles upon the lining membrane of the nostrils, of the odorous substance, no matter what it may be. I advisedly state this fact in these broad, general terms. Pharmacists know that the odour of musk will permeate a large chamber, and that so thoroughly as to be perceptible in every part of it, no matter how remote from where the musk may be situated. This odour is due to the impingement upon the mucous membrane lining of the nostrils of minute particles of the musk; and yet the strange fact remains, no matter what weight of musk be originally employed, the most delicate balance will detect no diminution in weight, even after the lapse of a long period, during which the musk has been giving off these odorous particles. Bearing in mind this fact, you will not be surprised to hear that which I am now about to relate. You must be well aware of the painful state of tension in which is the public mind with reference to the probability of the advent to these shores of Asiatic cholera. Within a very short time it was announced by an eminent scientist, Dr. Koch, that he had discovered the germ which

gives rise to the disease. He has minutely described its character, mentioning *inter alia* a remarkable fact, *that acids destroy its vitality.* An equally eminent scientist, Dr. Klein, however, throws doubt upon the theory that these microbes are, in truth, the *materies morbi* of cholera; whilst the members of the commission sent out by the French Government to Egpyt, where cholera was raging, reported that in some cases of undoubted and rapidly-fatal cholera, after most painstaking search, they failed to discover any such microbe as that described by Dr. Koch. But more remarkable still are the statements of Surgeon-Major Timothy Richards Lewis, Assistant-Professor of Pathology in the Army Medical School, who asserts that the microbes described by Dr. Koch as being characteristic of cholera, are to be found in the saliva of healthy individuals, and winds up a most masterly memorandum upon the subject in the following words :—

"Persons who have not been in the habit of examining dried saliva-films will probably be surprised at the number and variety of the organisms which are, more or less, constantly to be found in the mouth, and especially at the number of spirilla with which the fluid is generally crowded.

"The alvine discharges in cholera sometimes swarm with precisely similar spiral organisms, and, indeed, as has long been known, the fluid exuded into the intestines in this disease is peculiarly suitable for the growth of these and allied microbes. But, so far as my own experience—dating from 1869—of the microscopic examination of such a fluid goes, all the microphytes ordinarily found in it are likewise to be found, to a greater or less extent, in the secretions of the

mouth and fauces of unaffected persons. And with reference to the comma-like bacilli found in cholera, to which such virulent properties have been ascribed, I shall continue to regard them as identical in their nature with those ordinarily present in the saliva until it has been clearly demonstrated that they are physiologically different."

More recently still that eminent biologist, Dr. Ray Lancaster, has expressed himself in language, I may be permitted to observe, more vigorous than courteous, in support of Professor Lewis's views, pointing out the direction in which Dr. Koch falls short of establishing the truth of his assertions with respect to the identity of the cholera microbe. In justice to Dr. Koch, however, I would wish to mention an important fact that, in my opinion, bears upon the subject. In the two last invasions of cholera in this city I found the premonitory diarrhœa more controllable by astringent mixtures, in which sulphuric acid played a prominent part, than by other remedial measures. Contrast this clinical experience with Dr. Koch's statement as to the action of acids in destroying the vitality of his microbes, and I think we may attach to it some importance.

Be all this as it may, I firmly believe that microbes are great factors in the production and dissemination of disease. Nay, more, I believe that individual diseases have their special microbes. So far as present research goes, we must admit that microbes are prime factors in the production of tuberculosis, the disease so well known to us under its popular synonym, "Consumption." This germ, under the name of the

Bacillus Tuberculosis, has been microscopically and chemically described, and experimentally proved to be capable of superinducing, by inoculation, tuberculosis, establishing the truth of the doctrine that "Consumption is a contagious disease"—a theory years ago strongly upheld, as the result of clinical observation, by the late Sir Dominick Corrigan. How this knowledge may yet be availed of in the treatment of patients already phthisical is not very apparent; but its importance, in a prophylactic point of view, cannot be over-estimated. Criminal, indeed, would be the medical man who, aware of these investigations, could sanction the joint occupation of a bed by a healthy person and one laboring under consumption. How those other germs are to be identified, how their dissemination can be best combated, I am not in a position to state; but of this I am certain, that if sciolistic fanaticism does not bar the way, a great future is open for the scientific progress of our profession. It has been well said that that man is to be considered a benefactor of his race who makes two blades of grass grow where but one had grown before. In like spirit may it be said that that man is even a greater benefactor of his race who permits but one germ of disease to exist where previously two had flourished. This is not the place, nor am I the person, further to pursue this theme, but I think that I may be permitted to congratulate the citizens of Dublin upon having at their command the services of so distinguished a scientist as Professor Cameron,

a gentleman, *primus inter pares*, occupying the very highest position amongst sanitarians, from whose exertions in the past our city has reaped such benefit, and to whose future labours we may look forward with such pleasing anticipations.

I promised you, gentlemen, that, ere I was done, I would give you convincing proof that from an early period I believed in the germ theory of disease. Long since I recognized the fact that the germs of disease reached the citadel of our body by more channels than one, some by the respiratory organs, some by the alimentary canal, some requiring direct inoculation—a type of this latter form of infection is Hydrophobia. Several years ago I was asked to see the Officer commanding one of our Highland regiments, at that time in garrison here; six months previously he had been bitten by a dog unquestionably laboring under Rabies. The wound was cauterized, healed up, and, until a very few hours before my visit, gave him no trouble, caused him no anxiety; but in the early morning of the day upon which I visited him, he felt some peculiar painful sensation, of a pricking, tingling character in the cicatrix, extending upwards along the forearm and arm, which induced him to examine the scar, which he found red and inflamed. I saw him within a few hours in consultation with the Regimental Surgeon, and, upon enquiring, ascertained that he had been suffering from restlessness, loss of appetite, and great depression of spirits. After an earnest study of his

condition, I strongly advised the immediate and complete excision of the cicatrix, to which he consented, making but one condition, that he might be permitted to smoke a cigar during the operation, for he declined the employment of any anæsthetic. I carefully dissected, from the back of his hand, a flap about two inches in length, and one inch and a quarter in width, including therein every vestige of scar; he bore the operation without once flinching, and the wound healed up, after some time, in a most satisfactory manner. Subsequent to the operation I had the great advantage of the late Dr. Stokes's assistance in consultation, and he expressed himself to the effect that to the active treatment adopted alone was to be ascribed this gentleman's escape from Hydrophobia.

Had I been, gentlemen, the "fossil" I have been represented, had I not been alive to the possibility of the germ disseminating itself with fearful rapidity through the system, once that the cyst in which I believed it to have been imbedded so many months had permitted its escape, would that gallant officer be, as I believe him to be, this day, alive and well?

Gentlemen, fortunately for my audience, I am now about to bring these observations to a close. In the commencement of my remarks I alluded to the difficulties attending the task of addressing an assembly comprising several grades of listeners. That which remains for me to say, however, is equally applicable to the most senior as to the most junior of those by

whom I have the honor of being surrounded. My ideal is that to constitute a perfect physician a rare combination is essential—wisdom and experience. A man may be very wise, yet, lacking experience, will be but a poor practitioner; in like manner, he may have great experience, yet, wanting wisdom, he never will carve for himself a niche in the temple of science. Inseparable from wisdom is truth—without truth all is vain in science, for in it lies the foundation of all science. The grand characteristic of truth is its capability of enduring the test of universal experience, and of coming unchanged out of every possible form of fair discussion. Experience and wisdom, walking hand in hand, alone can add to our stock of Medical knowledge; wisdom will suggest that which experience will test, and the outcome is knowledge. But, gentlemen, above all things, and before all things, bear in mind that—The fear of God is the beginning of wisdom, and the abjuration of sin is the truest outcome of knowledge.

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