INTRODUCTORY ADDRESS: A PLEA FOR THOROUGHNESS.

*Delivered at the Opening of the Medical Department,
Yorkshire College, Leeds.*

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to the Queen in Scotland.

SOME few weeks ago I read in a newspaper somewhere a paragraph which, whether written in jest or in earnest, I thought at the time might be made the text for some remarks more or less suitable to the present occasion. You will, perhaps, laugh at me, or suppose that I am laughing at you; but, at all events, I will pray you to laugh *with* me when, in the presence of this august assembly, I venture to read the said paragraph. Here it is:—

"An Automatic Doctor.—A Dutch apothecary has just taken out a patent for a novel automatic machine in the shape of a wooden figure formed like a man. The figure will be covered with compartments labelled with the names of various ailments. The sufferer has only to place a piece of money in the compartment upon which the name of his illness is inscribed, and forthwith will appear a pill or powder suited to his case. The machine is constructed upon the same principle as the ordinary automatic chocolate and bonbon machine. A Dutch paper predicts a brilliant future for this very original doctor."

Now I am not going to ask such of the young men now before me as are applying themselves to medical study. Is this your ideal? That would be not only too absurd, but even (but for its absurdity) insulting to an audience whom I am desirous above all things to attract and to please; but I am entitled at least to ask, Why is this *not* an ideal form of medical advice and prescription for a considerable proportion of those who may require such aid in sickness? In the attempt to answer this question I believe we shall find a few nuts to crack which may occupy us profitably for some portion, at least, of the time usually devoted to an address such as this. Think, in the first instance, of the immense comfort and convenience of the proposed arrangement. Why, you might have these machines at almost every railway station, always ready for use just as you pop your penny into the slot when in quest of a cheroot, or of the wax vestas to light the same. Only, let us hope, for the sake of the poor doctors who are not automatic, that the "piece of money" to be automatically administered—the fee, in fact—would never degenerate lower than half-a-crown. With this proviso, one seems to see how the thing might work tolerably well in some cases. There are a good many of the "thousand natural shocks that flesh is heir to"—perhaps even a majority of them—very easy to name, and very well defined, indeed, to the sufferer. And some of these are, moreover, very easily put a stop to, if you take them at the very beginning. *Principis obsta* (here you have it all made clear to the most ordinary capacity) no trouble, no nervousness, no hesitation nor procrastination, no embarrassing or uneasy confidences with a man of skill; only half-a-crown in the slot, and there you are—liver, stomach, heart, lung, brain, biliousness, colic, blood-spittings, rheumatism, neuralgia—all under control, without a moment's delay, and by the most approved remedies in each case, at every railway station and in every public place. Surely there is something to be said, *primâ facie*, on behalf of such an arrangement as this.

I am pleading, you observe, the case of the "automatic doctor" as against the living flesh-and-blood doctor, in these words; and some of you, who are readers of Carlyle, may be reminded (*longo intervallo*) of the severe, almost savage, irony (worthy of Dean Swift) of his proposal to substitute "cast-metal parsons" for our spiritual guides and instructors. In both cases the suggestion proceeds upon the lines of economy and convenience; and, further, on the assumption that the automatic is nearly if not quite as good, for certain purposes, as the living article. But it might further be maintained, in the case of the "automatic doctor," that it is by no means a necessary part of the case that the machine-made should entirely supersede, or even replace, the living doctor

of medicine. If some more or less fastidious persons object to be prescribed for anonymously, why should there not be an acknowledged, even a distinguished, living authority behind the dummy, or even more than one? Fancy a well-organised group of "automatic doctors," perhaps with some distinctive uniform, literally doing the work of Sir William Jenner or Sir Andrew Clark, so far at least as prescriptions go, in every railway station in England, by carrying the most famous and successful of their acknowledged recipes, ready made up, in the most economical way possible, to almost every sick person who can define his own ills to himself sufficiently to profit by their skill thus imparted. I am assuming, of course, that there will be a copyright in the recipes thus used, and that the law will protect the authors of them from piracy, so that an "automatic doctor," who may represent a great physician by using his recipes, shall do so only by previous arrangement with him. Can there be a doubt, do you think, that very considerable professional incomes might be made in this way, and that hundreds—nay, thousands—of comparatively poor persons would eagerly avail themselves of the help that could thus be had at every man's door, without a visit to London, or from London, and a correspondingly heavy professional honorarium?

You will allow that I have argued the case of the dummy or automatic doctor at least as well as the newspaper from which I derived my information; and indeed, so as to present it with every possible advantage, and in the most really professional form attainable, or perhaps imaginable.

I will now proceed to inquire, a little more seriously, what it is that hinders a manner of treating disease like this from being habitually adopted, or, at least, admitted frankly as in accordance with an enlightened medical opinion; for we may take it as certain that the "automatic doctor," carrying the authority of Sir William Jenner or Sir Andrew Clark, is just as remote a contingency as would be Carlyle's "cast-metal parson" doing the work of either Canon Liddon or Mr. C. H. Spurgeon. Why is it, in other words, that in matters of health and disease, there is not only no possible substitute for the living man as a counsellor, but that even the living man, to satisfy the just expectations of an enlightened public opinion, must undergo the training, acquire the experience, and generally go through the hard and life-long discipline alike of intellect and character, which you, my young friends, are now only beginning to appreciate, and which finds its final expression in some of our greatest physicians and surgeons?

Had it been even possible to formulate adequately any considerable portion of the medical art in the manner required for merely mechanical prescription, not only would this have been done long ago, but the progress of the ages would have given such stability to the results that the treatment of disease in this nineteenth century would have been mostly stereotyped, as one might say, beyond the possibility of change or revolution. Instead of this, we have the curious fact evidently before our eyes, that in no previous age of the world has so little importance been attached to formulæ, or so much to the labours, experience, and opinions of individual men dealing with disease, as in the present. I am not speaking, observe, of disease as matter of doctrine, or as treated of in books, or in the lecture-room; but of disease as occurring in the sick chamber, or hospital. You will find it, I believe, to be the simple truth, that at no time in the world's history have the medical advisers of the sick been so little hampered by traditions as at present; at no time have the methods, the formulæ, the remedies of past ages undergone more revolutionary changes; and yet at no time have the living influence, the character, the personal status of the physician and surgeon been more adequately maintained than precisely in this latter end of this nineteenth century of ours. So much is this the case, that if you take up a book which represents the traditions of even less than half a century ago, you will find these traditions almost entirely superseded, and even hopelessly out of accord, on many points of the first importance, with the matured opinion of almost everyone of our greatest masters of the art at this present hour, either in England, or in any part of Europe. Not one in a hundred of the medicinal formulæ so copiously scattered over the pages of Copland's *Dictionary*, for instance, obtains any considerable amount of favour or support to-day; not one acute disease probably is treated as he and the greater number of his contemporaries would have treated it; nor is there a single article, perhaps not a single page, of that immense and voluminous work, on which the merest tyro of to-day would not be amply justified in writing numerous emendations and improvements, founded on the instructions and

experience of a four years' medical curriculum; and yet medical opinion, as such, and especially individual medical opinion and influence, far from losing in weight owing to this prodigious amount of destructive criticism and revolutionary change, are of wider scope and further reach than ever before. On all this, considered as historical fact, I have had to expatiate a good deal of late years in various addresses and papers, some of which have lately been collected into a volume.¹ I am therefore the more disposed, in the present instance, to forego the argumentative defence of this position, and to assume it as proved, in order to make its consequences instructive, if possible, for you.

One consequence of this state of things I have already foreshadowed, or rather affirmed; namely, that real knowledge, by which I mean something quite different from learning, or hearsay evidence of mere opinion, about disease and its cure, counts for more in the individual man, even in the most ordinary general practitioner, than it ever did before. Not so very long ago it was possible for any man, with a very ordinary amount of industry and scholastic attainments, so to saturate himself as it were with the doctrine of a particular teacher, or school, as to command a certain amount of attention and respect for opinions enunciated in terms of that doctrine, however remote they might be from the facts of a case under observation at the moment. The fever in this man, an actual patient, was, on very slender evidence, adjudged to be a "malignant," or a "putrid," or a "low nervous" fever; it arose from this or that deprivation of the humours, this or that *matrices morbi*, this or that entirely supposititious or hypothetical change in the blood, in the nervous system, in the solids of the body, according as the man speaking to you was a humoralist or a solidist. A very few obvious indications sufficed here for the diagnosis; that is, to enable the fever to be placed in the nosology, and so to get a name. The treatment followed almost as a matter of course from the name, or rather from the theories or hypotheses connected with the name, according to the school, or system of doctrine, in which the observer had been trained.

Now, I am far from saying that this method of viewing and treating disease is altogether extinct, even at the present day; but I am free to affirm that it has been very much modified. Any one of you, gentlemen, after even a four years' curriculum, will be in a position to form a far more direct, sounder, and less ambiguous judgment upon many cases of fever and acute disease than any man who wrote at large upon them, even in the first third of the present century, because you will have to apply tests and to use methods of observation and physical means for the detection of local changes which were then almost unknown. Do not let this assurance, however, make you conceited, or contemptuous of our forefathers; there is still plenty of room to say that neither they nor we have anything like a complete knowledge of any fever or any acute disease.

When I hear a man talking at large and dogmatically about "biliousness"—a term of Abernethy's, which neither Abernethy nor anyone else has been able to explain further than that it requires blue pill; or about "congestion of the brain," or anæmia of the same, which he cannot have seen and does not know at all as really existing; or about "irritation of the mucous membrane"—so beautifully vague that it may mean almost anything; or about "hyperæsthesia," or "hyperæmia," or, to use a more modern phrase, "neurasthenia," I know that he is in the stage of mental progress represented by those old theoretical views of the fevers to which I alluded a moment ago. He is using words, not to set forth knowledge, but to conceal and gloss over essential ignorance; his diagnosis, and prognosis, and treatment will probably all follow the same lines, and be based upon some intangible theory, or current hypothesis of his own or someone else's invention, and not upon the plain facts and carefully-studied details of the case before him. Therefore it is that I urge upon you, young men, to get into the habit of steering clear, if possible, of all such mere vague and misleading phrases. Try to think of diseased phenomena as men do who have and who use, up to a certain point, the means of knowing them as facts, and not merely speculating about them; men armed with the stethoscope, and ophthalmoscope, and laryngoscope, etc., and with chemical and microscopical tests at hand, and the thermometer, sphygmograph, etc., to give the exact indication of fact which should place you out of the bearing altogether of these survivals of ancient, sometimes even of mediæval, theory, which may for a time usurp the place of medical science, but are no more closely related to real knowledge—that is to say, the true science—of

disease than the atoms of Democritus or Lucretius or the vortices of Descartes are entitled to rank as physical science in the modern acceptance of the words.

Now, the attitude of mind which I am commending to you—for as a mere attitude of mind it is of more value to you than oceans of "cram," or even of crude information about disease in respect of your future career—must be cultivated; and it must be cultivated early if it is to rule in any considerable degree your education as medical students or practitioners. This is all the more necessary to be said—indeed, to be insisted on—because the opposite attitude, which for distinction's sake I will call the "automatic" attitude, is still widely prevalent, and is much more easily learnt. It did not require the suggestion of an "automatic doctor" to teach us that much of our casual prescribing is, as it were—or was not long since—done by machinery or by rote.

It is very easy to lay hold of one or two leading symptoms or complaints, and to call them a disease. It is very easy then to take down a little book of formulæ, it may be the recipes of very distinguished physicians—to look out the appropriate name of the disease supposed to exist, and then to have a shot at it with the first recipe that comes to hand. That is what I am calling the automatic method. But the true physician knows that the diseases of our poor humanity in their ever-varying aspects are not thus to be formulated; and further, he knows that what he has got to treat, and to cure if he can, is not the disease, as regulated and named by custom, but the man who is afflicted by the disease—the whole man, and not only a part of him; all his disordered functions or altered structures, and not only the particular point where he feels the pain. Therefore it is that the "automatic" method, easy as it is in many cases to learn and to apply, will not do even for this nineteenth century, and will be thoroughly exploded in the twentieth. Easy? yes, but just because it is easy, it is correspondingly fallacious. It ignores, or sets aside without due consideration, all that a more carefully disciplined modern physician places in the front rank of importance—hygiene, the inquiry into causes, and treatment of the highest order depending upon these. It recognises only the disease and its assumed antidote, and thereby for the most part fulfils Voltaire's well-known sarcasm, that the art of medicine consists in putting a number of drugs of which one knows little into a body of which one knows even less. There is a fatal facility in this method, which has made it specially appropriate for quacks in all ages. To use the words of Hamlet to his faithless friends Rosencrantz and Guildenstern, when the latter declares his inability to play upon the pipe: "Tis as easy as lying: look you, these are the stops. Do you think that I am easier to be played upon than a pipe?"

I do most earnestly trust, gentlemen and students of this medical school, that between these two contrasted attitudes of mind as respects disease and its cure, you will decide early, and be safely guided by your teachers as to which you are to choose; for upon the choice you make depends almost entirely (apart from mere individual, moral, and intellectual characteristics) whether you will be found really advancing the art and science of medicine, or whether you will be of those who sink deeper and deeper into the ruts of routine practice and retrograde theory, as life goes on. But I cannot persuade myself for a moment that in a school which can boast of three or four generations of such distinguished and progressive surgeons as the Heys and the Teales, and which even to-day and yesterday has, or has had, such leading spirits as Clifford Allbutt and Wheelhouse, there can be a moment's doubt as to your decision. With such traditions and such examples before you, it is morally almost impossible that you should become, or wish to become, "automatic doctors."

I will only in a few words point out to you what is, in my opinion, the most important kind of discipline for enabling you to tread successfully the strait and narrow way that leads, not to the attainment of a high and varied medical culture (as to which you must, in the main, depend upon your teachers and on the authorised curriculum), but rather to the state of mind which alone makes such attainment possible; for you must take it from me that at every step in your career the "automatic doctor," in one insidious form or another, will stand athwart the path of progress, and may even with some of you tend to stifle the nobler impulses by proving how very successful he is—with the public. From the merely lucrative point of view, there are but few even of our most successful physicians who could compete with the highly automatic money-making machinery of Holloway's pills and ointment, or Old Dr. Jacob Townsend's sarsaparilla. From

¹ *The Physician as Naturalist*. 1889. Glasgow: James Maclehose and Sons.

any other than the merely lucrative point of view—and happily, in the end, with most of you, I trust even from the point of view of a reasonable worldly prosperity, it is most undesirable that you should yield in the very slightest degree to this insidious form of temptation.

Now, it is at this point that I find it needful to have a very few words with my friend, Mr. Wheelhouse, not, I trust, inappropriate to the present occasion, concerning some of the remarks which he made here a few weeks ago in that most admirable address of his as President of the British Medical Association. I do not suppose at all that we differ greatly in essentials, or perhaps even in details; certain I am that we have both one object at heart, the advancement of our profession, alike in its essential usefulness, and in the good opinion generally entertained of it, which, indeed, forms a part, and a large part, of its usefulness to the public. But some of the remarks in that address appear to me to be open to an interpretation which possibly is not the one intended, but which, at all events, I desire not to allow to pass current without a *caveat*.

It seems to be assumed or suggested that, in order to keep a medical education upon what are supposed to be practical lines, it is necessary that every student before getting his name on the *Medical Register* shall have had opportunities of seeing, handling, and, in a certain sense, treating almost every kind of common disease and every ordinary type of infectious fever. By parity of reasoning it would equally be necessary, as a security to the public, that every man admitted to the *Register* should have done every minor, or even possibly every ordinary major, operation, so that nothing should come to him hereafter so as to find him quite devoid of previous experience.

Now, while I am as anxious as Mr. Wheelhouse or anyone else can be, to improve, in every reasonable sense, the practical side of a medical education, I venture to say that what I have now put into words of my own as being suggested by the address referred to is not, to my mind, even a good practical ideal. Moreover, if any such ideal is to be carried out or attempted, it will be absolutely necessary for the General Medical Council to go back on their late resolutions with respect to the "covering" of unqualified medical assistants; for, without some sort of "covering," lawfully or unlawfully, how is this extent and variety of practical experience, which is regarded as essential, ever to be attained by the majority of students or of undergraduates? It will be conceded that in order to make an experienced as well as a properly instructed practitioner, it would be requisite that he should have had opportunities of setting fractures and reducing dislocations; of performing venesection; of passing the catheter, not only in the normal subject but through strictures and other difficulties; of treating and of observing throughout, with a certain amount of responsibility, cases of measles, pneumonia, typhus and typhoid fevers, phthisis, small-pox, rheumatism with and without cardiac complications. Why not also of performing operations in strangulated hernia, tracheotomy, ligaturing of arteries and veins, and other cases of emergency, which, according to the programme just referred to, ought, if possible, to form a part of the training necessary to fit a man completely for all the necessities of general practice?

I apprehend that it is only necessary to put the case in this form in order to show that there is a fallacy somewhere, I do not say in Mr. Wheelhouse's argument, but in the conclusions to which I suppose his argument will, if carried out logically, apparently lead. I will, therefore, here affirm that my own view of what is essential to a practical medical education differs in some respects from that which I have presented above, using (it may be erroneously) the name of Mr. Wheelhouse. Speaking from my own experience as a teacher, I hold that the hitherto unsolved problem of a perfect medical education is to be sought in a direction nearly the opposite, or converse, of that just indicated—namely, not that the student or candidate for a diploma should have seen and done personally almost everything, or even many things, but that he should have seen and done comparatively a few things in such a way as to give a proper foundation, or leverage, as it were, for attempting successfully others which have necessarily lain outside the possibilities of a young man's experience; and accordingly I have come to regard it as of far greater importance that every case observed or dealt with in any way by the student, or in his presence, should be thoroughly observed, and its treatment thoroughly understood, than that a much greater number and variety of cases should be so observed and so treated as to beget habits of imperfect observation and loose

thinking—in short, the habits which, in their developed form, give origin to the "automatic doctor" aforesaid.

This general principle being affirmed (for it would be out of place, I think, to go further on the present occasion), I am content to leave the practical questions arising out of it for settlement by wiser heads than yours or mine, with only one additional remark. It has been several times affirmed by way of criticism on the present curriculum of the schools, that a young man may have gone through it all, most carefully and well, and yet never have actually seen a case of measles. Well, that is a misfortune, and to the extent of my own personal influence, under the difficulties arising inevitably from recent sanitary legislation, I have always done my very best to remedy it, or even to render it impossible in the case of my own students. But I hold it to be far less of an evil that a man should go out into practice, not having seen a case of measles, than that he should have seen and handled and treated hundreds of cases of all manner of common diseases after the frisky manner of Mr. Robert Sawyer and Mr. Benjamin Allen, the undying literary types of the *ancien régime*, under the system of compulsory apprenticeship. And I sincerely trust that if any attempt is made, as seems likely, to restore to the medical curriculum whatever may have been good in that system, it will be under such wholesome regulations as to time, place, and manner as will effectually give substance and reality to the instruction afforded, and avoid perpetuating in a new generation, or perhaps in two or three of them, the routine practice and the slovenly and hasty diagnosis which could alone make the suggestion of an "automatic doctor" a possible thing.

These, however, gentlemen, are considerations not for you (at least in this stage of your career) but for your seniors, and especially for the General Medical Council, and Mr. Wheelhouse as an influential member thereof. I trust I have not in any way exceeded the bounds either of duty or of courtesy in submitting to you and to him these remarks (somewhat longer, perhaps, than I intended) on this most important subject. What remains for you is to avail yourselves fully of the splendid opportunities that lie open to you in this medical school and in your magnificent hospital, for laying the foundations, both broad and deep, of a medical discipline that will stand the strain and support the weight of the responsibilities that will by-and-by be laid upon you. How this is to be done in detail I have already considered in several of the addresses included in the volume I spoke of, of which this is in part the echo in a somewhat different form. The gist of it all is that the instincts of the naturalist, the love of Nature and of fact, the reverent study of the laws of biological science, and of the physical sciences which underlie the phenomena of living as of all other matter, form the salt which redeems all our professional work alike from barrenness and from falsehood in principle. You first encounter these laws and phenomena in your study of chemistry and anatomy, zoology and botany. I advise you to lay the foundation well there, and by no means to lay the flattering unction to your souls that any of these are useless studies, because they seem not to be immediately practical. Apart from their manifold applications in practice, they are of untold value as a discipline. And, as I have insisted elsewhere, this discipline at an early stage of your medical career is of special importance, because it is of a kind almost overlooked in much of your earlier school education. What you learn in these scientific departments—always supposing that they are taught practically, and not only in books and lectures—is to come to a closer grip with Nature and with fact, and not to be deceived and deluded either with false shows or learned philosophies and philosophisings. And this is a kind of knowledge—the knowledge of things as opposed to words and abstract ideas (for so Michael Faraday called it)—which is often greatly deficient even in educated minds, and the want of which is felt at every stage of a medical career. Let thoroughness, therefore, enter into all your dealings with these earlier studies—those of your first and second years. It is not merely that you are gaining information, but that you are forming habits.

Then, as regards the application of the habits so formed to your studies in medicine and surgery proper, I will ask you to-day to receive and to ponder only one or two suggestions from a teacher, some of whose early pupils are now grey-haired practitioners. I do not propose to speak of doctrinal instruction, the value or even the correctness of which depends largely on the teacher, but only of clinical instruction. In this, as in everything else, there is a right way and a wrong, and the difference between the two ways consists almost entirely in what I have called thorough-

ness. If you learn thoroughly to know even one case—diagnosis, prognosis, and treatment, and all about it—in a humane as well as a scientific spirit, you may rest assured that you have got something which will remain with you all your life. If you learn otherwise than thoroughly to know after a fashion a great many cases, you have also got something that may remain with you as a life-long possession, but that something is simply a bad habit of working; while in the other case it is a good habit, and, over and above this, a valuable addition to your positive knowledge. I can remember now single cases seen by me forty years ago, and some of them are so printed in the memory that they have all the vividness as well as the value to me as though they were of yesterday. Now I am going to say to you what may seem to be, but is not, a reflection upon particular teachers or pupils. There is a way of perking and plumping one's self upon a diagnosis, as who should say: "See how rapidly and surely I can do it. A single glance at the expression, a moment with the stethoscope, a word or two of conversation, and the thing is done, and the whole case is before my mind." This, according to my experience, is a very fatal bad habit both for the teacher and the taught. No doubt rapidity of diagnosis comes with experience, and is not without a certain value; but, in teaching, the first and the last lesson is always, or ought to be, thoroughness; and thoroughness, in the sense in which I am using the word now, is not consistent with aiming at these lightning flashes of intuition. A true diagnosis risks nothing; it aims at being exact, not at all at being wonderful or rapid. Therefore it is never a thing to make a show of, or to boast one's self about; and he that does it in that boastful spirit is, in the very act of doing so, setting a bad example and teaching a bad habit.

What shall we say then of those out-patient rooms where twenty, thirty, or forty cases are disposed of in an hour, not only as to diagnosis but also as to treatment? What again of those immensely busy practices, where the mere multitude of the cases, or the distance to be traversed, make it well-nigh impossible ever to complete a diagnosis. Can these be considered as fit fields for gathering sound clinical instruction, or for maturing the crude experience of young aspirants whose chief desire is, according to the programme I mentioned a little while ago, to have personally seen and treated almost every common form of disease? I do not stop, as you will observe, to argue out these questions, for I have no time to do so; but I state, without the slightest hesitation, my own sincere conviction, that for sound clinical teaching and for the formation of correct ways of observing, and thinking about and treating disease—such habits in short, as will be serviceable for a lifetime—the first and absolute rule is thoroughness; there must be no hurry. An hour, or even more, spent over one case (always supposing that the state of the patient admits of this) is out of all calculation more valuable than five minutes each over twelve cases, or even ten minutes each over six cases. And therefore I say again that the maxim which should guide our superiors in laying down the law of practical instruction is *non multa sed multum*; not a great multitude of cases just seen, or very superficially observed; but a smaller or much more moderate number, the deliberate and careful observation and management of which in detail may form, as Tennyson sings, the stepping-stones on which to rise to the higher levels of a more rare, or a more difficult, or a more advanced experience.

Gentlemen, I have done. I had a good deal more that I should have liked to say to you, but the lapse of time warns me that there will be some of you, at least, waiting anxiously for the end of my sermon. It now only remains for me, as an outsider, to wish you all possible success, and all possible happiness and efficiency, in the studies of this medical school during the present session. I have endeavoured to indicate to you only the broad lines on which such success and such efficiency are to be sought. It is for you, so far as lies in you, to make the application.

FRANCE AND ITS BEVERAGES.—The consumption of coffee in France during 1888 amounted to 66,969,246 kilogrammes, being 1,752 grammes for each inhabitant. The consumption of tea was only 516,834 kilogrammes, or 13½ grammes per head. In the same year, the production of alcohol amounted to 2,162,000 hectolitres, which gives a consumption of nearly 4 litres per head. Taking individual towns, the consumption at Rouen averaged more than 16 litres, at Havre 15½, at Amiens 11, at Brest between 10 and 11, at Paris 6½, and at Lyons a little over 5 for each inhabitant. From this it would appear that, roughly speaking, the South of France is three times as temperate as the North.

INTRODUCTORY ADDRESS ON THE NEED FOR A LIBERAL EDUCATION IN MEDICINE.

Delivered at St. George's Hospital at the Opening of the Medical Session.

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GENTLEMEN,—The delivery of an address on the anniversary of a school of medicine is an old custom, and one honoured by distinguished men, yet neither age nor distinction has protected it from some adversity of modern criticism. With this royal water the spirit of our time assays all things great and small, lowly and exalted, and by this test accepts, changes, or rejects them. I believe, however, that a true economy will approve these addresses and use them still. A bare contract may answer the wit, but will not fill the hearts of men, nor kindle the fire of young disciples. To hundreds of young men to-day is a great day, not only because on this day they enter upon a new calling, but even more also because to-day is to them the first day of freedom. How vividly I remember—nay, how keenly I still feel—the emotion of that day in my own life—the day when I first entered my own sitting-room, sat beside my own table, and took my life into my own hands! I took up my life, as now you take up each of you your own, with a joy beyond words and laughter—that joy in the possession of my own faculties, for better or for worse, which is the birthright of certain races of men. We know not then the burden of life, so easily we carry it—so easily that for the first few years we are apt to knock it about a good deal and even to make some lasting dints and scars upon it, not always in very honourable conflict. Still, with all that, the freedom of the city within ourselves is a priceless boon, and one which no brave man would give away, whatever the burdens and hardships that freedom brings with it. Indeed, to take our freedom in both our hands, and to step forth into vacancy therewith, would be a cruel irony; we should be as one that beateth the air. There are adventures before us, work to break our strength upon, olive and wild parsley to win, great captains to follow, and a mistress to worship. Your mistress, gentlemen, is the Art of Medicine, and your freedom is her service. *Studia libertate proveniunt*. You will not begin work with gestures and vociferations, but, as English boys begin a great cricket match, with a seriousness, even a solemnity, of bearing consistent with the deepest intensity of purpose and the hope of standing side by side with the best of us. All men conscious of strength are calm enough to wait till they know where to use it, and will bide their time. The best soldier best loves discipline, and looks most loyally to his commander. He knows his powers are too good to waste, and the stronger he is the deeper his devotion. Those of us who are growing old, whose fires burn lower, whose limbs are laggard, involve ourselves in our wisdom and try to avert our envious eyes from your precious gift of youth. I try sometimes to comfort myself in my age by remembrance of my tingling resentments when, in the former years of my practice—and they seem but as yesterday—I was politely postponed as too young for confidences. My dear young friends, we who pride ourselves on the price of experience, on our sagacity, the gift of time, would give them all twice over for your boon of youth. Some day, when it is gone, you will wistfully look back for it; but when a man looks back his Eurydice is gone! And what of all qualities of youth is the most precious? That which we older men try to breathe again from you, try to rekindle by the light which is upon your young faces—the quality of enthusiasm. To-day I, unworthy, am to many of you the first teacher of medicine, and the first words you hear in the porch shall be these: Work with us and keep us young. If you keep us young, we shall not destroy the spontaneity of your life; we shall not limit the range of your outlook by the bounds of our dogmatisms. You shall keep our minds flexible, and we will temper your energies. Above all things, know that we call you not here to run your minds into our moulds. We call you here on an excursion, on an adventure, on a voyage of discovery into space as yet uncharted. We have passed before you