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 pluming 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.

By T. CLIFFORD ALLBUTT, M.D., LL.D., F.R.S., ETC.,
Commissioner in Lunacy.

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

through the gate of Hercules; we have touched sometimes on the happy islands; we, like the great Ulysses, shall lead you through our experience, "whither gleams beyond an untravelled world." Every hour shall save "from that eternal silence something more, a bringer of new things." Would it be well, then, when we see you upon the threshold of our house, that we should not step forth and give you welcome; that we should leave you to file silently into dusty lecture-rooms, and to stand in tail to inscribe your names on the roll? That would be as dreary a setting forth as a marriage at a register office; and, if I have but a boxwood flute, I will pipe to you to-day.

Gentlemen, your eyes are to be fixed, not to-day only, upon men; now upon your teachers, who are to be men and not pumps. Those who would set aside all commemoration to-day would to-morrow set aside all courses of lectures. Why, in the name of goodness, say they, is the student to be brought to the lecture-room to hear words drawn from sources open to all; to fill laborious notebooks with facts already printed in their manuals? If a lecturer is but a pump doubtless you would do better to go to the springs for yourselves. But, surely, that which impressed us in our lecture-room days was far less the facts of our profession and far more the character and influence of the men who awakened and liberated our thoughts. I carried away, not rows of notebooks—dead arid things—but an impregnation. At St. George's my lessons were the fire, the rapidity, the impatience of fallacy of Bence Jones; the deliberate sagacity of Fuller; the methodical learning and rectitude of Barclay; and in these I speak only of the dead. In Paris I admired the marvellous flexibility, acuteness, and urbanity of Trousseau; the heroic industry and penetration of Duchenne of Boulogne; the philosophic breadth of Bazin; and, if last not least, the great erudition of Daremberg, an erudition which his critical insight and catholic temper enabled him to wield so easily. He happily is yet spared to us, as are the teachers of Cambridge—my Alma Mater—as life-giving to me, but so near me that I cannot here speak of them as I would.

Your lecturers shall, in like manner, inspire you with fervour of spirit, shall teach you the way to handle our materials, the methods of our investigation of them, and the kind of ideas which we think will interpret them. Of finite knowledge we have nothing to fix in you, of finite mental form we have nothing, of systematic doctrine we should offer but a temporary scaffolding. You will not, indeed, have to go over all the ground that we have done. Our fathers saved us many a weary march in barren lands, and you will shorten the labours of your children. Knowledge, you remember, has no royal highways; she may be hidden beside the feet of the humblest wayfarer, and has revealed herself to him whose eyes are open when finer pilgrims have pressed haughtily on. In knowledge there is no great and no small; nay rather, accuracy in what you call small things is not only a virtue of method but also of morals—an ethical and vital sense of the infinity of creation, and of the patient unsleeping instantaneity of things; on the other hand, what the world calls great things may be to the eye of wisdom as nought. Of this pride and this humility the lives which we live before you should be an example. Do not think that all this is vague declamation. If it be so, I fail indeed; for, to my mind, the idea of a university consists in a true conception of the force and value of personal teaching. How can an impersonal board be a university? A university is the collective soul of its dead and of its living teachers, an abiding inspiration, a *mater alma philosophia*. A university will teach you not to regard your studies within her gates as ends in themselves, but to regard them as progymnasmatia or exercises; and if it cannot give a liberal education to every one of its sons it can, at any rate, teach them all to know that there are such things (as ideas, and to conceive the need of them. A university is a permanent embodiment of the ideal of wisdom as opposed to technical furniture—of the ideal of mental culture as opposed to the collection of "tips" and devices in the memory. Lectures, therefore, should not be comprehensive so much as stimulating, individual, and even discursive. They should aim rather at the illumination of life than the direction of study, and cordial engagement to thought rather than the exhibition and transference of acquirements. Fresh and novel perceptions may be welcome, even if precocious or unfounded, if also they are broadly conceived and keep the mind of the student alert:

.....The blossoms of Eternity lie hid
In the dim kindling buds of dreams that keep
A fluttering pulse within Time's broken sleep.
Dreams are not idle, dreams have saved the world.¹

¹ *Afterthoughts*, by Joseph Truman.

Again, it is as much the duty of a lecturer to mark off the gaps and crudities in his knowledge as to set forth realised truth. If I seem, in this way, to be addressing myself more to teachers than to disciples this is but a seeming, for my first purpose is to reveal to the newcomer of to-day that he comes, not as a subject, but as a junior fellow and colleague. The youngest of you can at any rate beat the bushes for us. *Multi pertransibunt et augebitur scientia*.

Dr. Pusey used to say that "Truth often depends more upon the character of him who enforces it than on its own," and this, gentlemen, is true not only of your lecturers, but of yourselves. All of you will go forth soon, some of you are now going forth, to teach others, not, it may be, from such chairs as this, but each from his place in the world. What mental habit will you take with you, how will you practise, how will you teach? The humblest of you will have some teaching to do, formal or informal. It has so happened that few men have had the opportunities which I have had of forming judgments of our profession as a whole. On the one hand, in London and in the old universities I have not ceased to associate with the leaders of medicine; and, on the other, I have in the north of England laboured incessantly with the rank and file. Among the leaders of our own, as of all other callings, we find men of great and varied endowments, who have each their own mastery and faculties too strong and individual to have owed very much to methods of education; but in the rank and file I must say that a certain lack of mental training and impenetrability to ideas too often makes itself seen. I am not now speaking of those practitioners who fulfil no more and have aimed at no more than common usefulness, but I speak of men who should be more than this.

On another occasion I have said, and to-day I repeat, that for personal virtues, for a certain ethical habit, which, in its loftiness, simplicity, and unselfishness, is perhaps incomparable, the general practitioners of medicine offer a noble example to all other men; for they carry their high standard of conduct with a humanity, a moderation, and a modesty which do not invariably adorn the righteousness of other men. Yet with all this breadth of practical ethics we do not generally find a corresponding breadth of mental culture. The master mind of Western civilisation has drawn a distinction between the *τεχνικὸς* and the *φρόνιμος*, between the man who is well equipped as a craftsman, trained to quick observation and ready dealing with the things of to-day, and the man who may or may not be so well skilled in practical matters, but whose knowledge is far wider and deeper; who has, in a word, a training in philosophy. The mere practical man, valuable as he is, has but a simulacrum of knowledge, a kind of sham or surface instruction, and having no knowledge of principles, he tends to routine and is unprogressive and wasteful. He is a man of opinions, and as science undermines opinions and treats opinions with some irony and sarcasm, perhaps indeed with some injustice, the practical man tends to wince from science, and will even thank God that he is not a philosopher. His usefulness, then, great as it may happen to be, is essentially temporary and provisional.

It is far otherwise with the man whose mind is opened to ideas, who is moreover prepared for life not merely by the appropriation of the thoughts of others but by the enlargement and development of his own intellect; for indeed we should not only become familiar with the laws of phenomena within our own pursuit, but also with the modes of thought of men engaged in other discussions and researches, and even with the laws of knowledge itself—that highest philosophy. Now this mental training, although it happily exists in a few, is not by any means the note of English medical practitioners as a class. This defect is to be referred to two causes: first to the want of leisure and of contemplative life among them, and secondly to the lack of university education.

The duties of the family practitioner are all abroad. Unlike the lawyer, he has not to put his thoughts to the test of pen and paper; and so complete is his divorce from the desk, that even his few spare hours are dissipated. In course of time, the ability even to write a letter becomes atrophied. Happily, however, there are compensations for us. Law and medicine both are liberal pursuits, and promote mental and ethical elevation, as opposed to trade, which, when untempered by the arts of invention, is an illiberal pursuit; and in these days of small profits and close industry, when commercial men can no longer find leisure for self-culture, may be, and often is, actually degrading. Indeed, medicine has an advantage over law in this, that it is more in contact with positive truths, while at the same time it is no

less in contact with civil and moral phenomena. Hence the practice of medicine, as we see every day, tends especially to cultivate that kind of critical spirit which we call "common-sense." Nevertheless, I repeat, the English doctor too often lacks reasoning power, breadth of view, and flexibility of mind. So, you may retort, does the common run of all men. But, gentlemen, on the whole, we have greater advantages in the kind of our calling, and should stand better. Moreover, I am setting no abstract ideal before you. You will observe that I have spoken of English practitioners—of those educated in England, but not at universities. Now by English I mean not the Scotch, whether practising in England or at home. When called in consultation by a Scotchman, I expected to meet a man of philosophical mind; when by an Englishman, I expected to meet an honourable man, a shrewd man, a practical man, but not a man of philosophical mind. Now, why is this? Because the Scotchman has been educated at a university; his knowledge has been tested in his own university, and at Scotch universities philosophy is held in honour; whereas the Englishman has usually been educated only at a technical school, and his acquirements tested haphazard in a sort of wit combat with a viewless Board wholly unconnected with his schools. Indeed, the very existence of philosophy—the *mater studiorum*—has been unrevealed to him. And now my old friend Mr. Wheelhouse—the President of that young giant the British Medical Association (the only organisation of our profession which is based on broad principles and formed for a great future), member of the Medical Council of Education, and whose personal abilities mark him out as one of the most powerful men in our profession at this day—Mr. Wheelhouse proposes to make this state of things ten times worse than before. By submitting youths to a five years' apprenticeship to working doctors at a time when their minds are expanding and impressionable, at a time when an ardent love for higher study and a yearning for ideas spring up in the heart, he would send them not where they can feel the influence of great men present and past, not where learning is seen in all her variety and in all her provinces, not where he may associate with men of his own age whose minds are occupied with other forms of culture and in training for other callings, but he is to be confined to one mind, however able; to one profession, however honourable; to one set of ideas, however fruitful. And as a matter of fact, we know that the ruling mind will often be something less than great, the set of notions too often commonplace, and the teaching at best a teaching, and not a cultivation.

Gentlemen, this is but to perpetuate the common-mindedness which I suggest is already our danger—a fault due in part to our defective education, in part to our lack of leisure. I say we are already too narrow and channelled in our thought, and too shoppy; and we are to improve our education by intensifying this very habit of mind! We are to make our education more comprehensive by shutting up our students with individuals; we are to strengthen their reasoning powers by therapeutical drill; we are to substitute the ideas of the middle-class parlour for the traditions of a university!

But, says Mr. Wheelhouse, your university student comes into practice so confoundedly ignorant; my purpose is, above all things, to make him an efficient practitioner, to teach him how to manage patients and how to recognise German measles. If, Mr. Wheelhouse would say, after doing this he can chatter about Shelley and Herbert Spencer, he is welcome to his accomplishments; but the bread studies must be complete. Certainly; with this I wholly and ardently consent. No one can be more opposed than I am to superficial *Schöngeisterei*—to literary fribbling and dilettanteism—in the place of solid attainments and practical skill. But one may get roast pig without burning down one's house, and I contend—with an exception to be hereafter discussed—that a man whose mind has been enlarged and strengthened by a university course will, after a briefer drill, make a more skilful practitioner than one whose technical craft is gained by routine and is not vitalised by a comprehension of principles. It is no truism, gentlemen, to repeat in this place that knowledge is one and indivisible, and that he who is content to pick up isolated chapters of learning has no living knowledge at all.

The medical journals of late years have been infested by letters from qualified men, who, although not "M.D.s," desire to use the title of "Dr." They say, with a not quite ingenuous play upon words, that, being called "doctors" in a colloquial sense, they should be entitled "Dr." in the academic sense. They add with more truth that all practitioners approximate in qualification should have an equivalent nomenclature. It is difficult to see

where would be the ultimate advantage of holding the title when it had ceased to be distinctive, and the disadvantages of carrying a professional label into general society seem obvious. It would be better that we should all return, like other gentlemen, to the sweet simplicity of misterhood. Meanwhile, however, the grievance is an acute one. A good student is admitted into one of the guilds of the higher class, which, knowing that they have no academic quality about them, honestly decline to allow their craftsmen to use university titles; while an inferior student slips into the profession by way of one of the guilds of the lower class, which may have no such honesty, and are said to have connived at the irregular use of university titles. Straightway the worse man puts "Dr." on a red lamp by the side of his better brother, who has to content himself with "Mr." on his more modest brass-plate. Nay, further, some universities have degraded themselves *pro vice* into mere examining boards, ignoring the truth that a university degree signifies a formation of mind, a habit of thought engendered by living within the influences of an organisation of all faculties; ignoring the truth that graduation signifies a life, and not a mere register of proficiency. These universities have given degrees without the residence which alone can give character to the student. The mischief all this does is not yet fully seen, although the more thoughtful men of our profession are now aware of it. Not the least of its harm is the baneful effect which it has upon the older universities, which, as at Cambridge, are driven to compete for medical students, not only by the most excellent method of enlarging and improving their apparatus and cheapening costs, but also by the less excellent method of narrowing the scope of their training.

Everywhere an endeavour is made to pursue two incompatible courses, namely, at once to keep up with the vast extension of professional studies, and at the same time to shorten the student's career. To strive with this impossibility, men are brought into special studies at an earlier age, and a due civil and philosophical training is denied to them. I am not one of those who regard the classical as the only real education, any more than I so regard the scientific; neither alone suffices. An educated man cannot become so on one study alone, but must be brought under the influence of natural, civil, and moral modes of thought. The late Rector of Lincoln, to whose paper on Oxford Studies, published in 1855, all educational reformers are deeply indebted, then spoke as follows: "The necessary tendency of advancing civilisation is to divide and subdivide the applications, as of labour, so of thought. The professions tend to split up into branches, and skill in one becomes more and more incompatible with skill in another. The more a subject has been explored, the more time does it take each succeeding student to follow the steps of his predecessors. To prevent the disabling effects of this speciality of pursuit, it becomes the more requisite to secure at starting a breadth of cultivation, a scientific formation of mind, a concert of the intellectual faculties..... Clear-sightedness, sagacity, philosophical reach of mind, are to a great degree communicable by training.....The difficulty is to get mental cultivation recognised at all by those who have it not. Cleverness, talent, skill, fluency, memory—all these are understood and rated in the market. A cultivated mind, just because it is above all price, is apt to be overlooked altogether. It argues some discernment and a considerable degree of education in a society in which such gifts are even appreciated as useful. And let it once establish itself, even under false pretences, such is its marvellous ascendancy, that, like refined manners, it will conquer, and propagate, and extend itself by sympathy, by imitation, and, above all, by education. In this subject, eminently, it is true that the beginning is everything." These, gentlemen, are words of rare wisdom. Lay this foundation first, put your trust in this, and technical training will come far more rapidly, far more efficiently, and far less wastefully afterwards.

I have hinted, however, that there is one special case in the teaching of our students—a seeming exception to the common rule of mental training first, and technical training second—namely, in respect of the practice of surgery, not in its more abstract functions, but as a handicraft. It is a commonplace in the profession that a philosophical surgeon and a fine operator do not always coexist in the same person. No doubt manual skill must be taught from youth; and in the education of a surgeon, therefore, if not of all persons, some means, not necessarily anatomical, are to be taken from an early age to confer delicacy and dexterity of handling.

But you will say we cannot afford all this; *il faut vivre*, and we have neither time nor money to spend on real studies; we must

go for bread. Well, then, gentlemen, you may have to take a back seat. But is this so? In the first place, excuse my rudeness, but it may be with you as with the *ewig weibliches*—the eternal womankind—you are lovely, but there are too many of you. The meshes of the net may be too large. As was said of the profession of the law, there is some room in the upper storeys, but the basement is crammed.

I am sure we could ill spare any one of the ingenuous faces I see before me; but, when you have well sped, you will come over to my side as regards the propriety of largely extending the curriculum, both in respect of preliminary and of special education, even at the cost of lessening our numbers. As it is, we make ourselves, by our very numbers, the prey of the hucksters who too often form the majorities of our local councils, and who are able to point triumphantly to piles of applications from highly qualified men driven by the increasing competition in the ranks of the profession to find rest in any quiet place outside it, however meagre the pay.

Urban or district councillors, conscious of their ability to be as good doctors as any of us had they not better avocations, say publicly that any handy man can do the sanitary work of a city or a province. They decline therefore to pay for supererogatory qualities. The greatest danger in the future of democracy is its blind hatred to payment for special mental ability; men of but a little more than average ability are scarce; they are a natural sport, and should be selected. They should be secured for the public services at the price of their scarcity and of their profits in private adventure, for none is more wasteful than a dull official person. Your vestryman, however, values all other men at a rate a little under his own. He will boast one day of his success in cutting down the doctor's salary, and on the next expends £1,000 upon the researches of Mr. Mullins. In Bunyan's dream, Messrs. Simple, Sloth, and Presumption lay asleep, a little off the path, with fetters upon their heels. Unhappily they are now awake, their fetters are struck off, and they are put upon the jury of Vanity Fair; and that brisk lad whom the pilgrims met coming down the crooked lane from the country of Conceit, and whose name was Ignorance, is the justices' clerk. Public bodies dare not evade the charges of the lawyer. Both at home and in the city good law means money, and bad law is too soon found out and Demas discredited. But the evils of bad sanitation are not instantly obvious to the people. Pestilence and death are good old customs with which it is rash to meddle in an innovating spirit. Collectively we call them Providence, and it may be blasphemous to talk of evading them. In any case our sanitary mistakes are soon buried underground, and by the widow and the orphan are remembered in silence. So unchidden the tradesmen who too often govern us can satisfy their jealousy of scientific men, and boast in the market place of their penny wisdom.

Now, gentlemen, what is our defence? To turn a saying of Coleridge, we must create the taste by which we are to be appreciated. We must lay hold faithfully of Mark Pattison's words that "such is the marvellous ascendancy of mental cultivation that, like refined manners, it will conquer and propagate and extend itself by sympathy, by imitation, and, above all, by education." But you may say it is not an impertinence in me thus to preach a university education to students who cannot as yet all enjoy it? Is it not an unkindness as well as an impertinence?

I trust not. It is in no play with words when I say to you that you are all members of that chief university—the world. This world-university has indeed one drawback. Like Peruvian bark, there is much husk in it, and it needs two stomachs to digest it. The university of the world, gentlemen, has much husk in it and needs the time of two lives for its digestion.

In local universities, therefore, we form microcosms; we select and compact the properties of the world in alkaloidal forms, so that worldly wisdom may be taken in more readily and less wastefully. When these local universities cease to represent universals—are no longer of the essence of the living world from which they draw their being—they grow sterile as Oxford in the last century. You have then in the world at large that education of which a university is a compendium. This all of you have; it may be less convenient, but it is even more efficacious if you can use it economically. Now of young men, the world means for one Ouida and the Vaudeville; for another Mr. Burne Jones, Mr. Oscar Wilde, and Ballades in Blue China; while for a third a pair of whitelegged chestnuts and the prescription of bread pills for old ladies make life itself. Charming things all of them, but not universals. If the world is to be your university, your selection

must be early and rigorous. Virility, imagination, and intellect must come first, and, if then you retain a taste for trappings and pedlery, they may come afterwards.

When I began to practise, or rather to offer to practise, I had a large share of the contemplative life, and by good luck I turned it to account. I read three books to enlarge my medical mind, namely, Grote's *History of Greece*, Gibbon's *Decline and Fall*, and Mill's *Logic*. Rather by accident than by design, I fell upon these three, but if to these can be added some great work of imagination (every man who has been at school can keep up his Homer with but a little trouble, and in any case has Shakespeare at his side), I think no finer culture could be had. This every student can do. This, and far more than this, an old friend of mine determined to do and did in the spare hours of a practice perhaps the most exacting and unrewarding I have witnessed. So, gentlemen, you may attain to the university mind even if you have not been rubbed against university bricks. But ere long I trust the largest and the richest city in the world will do what Yorkshire and Lancashire have done in their degree—will establish the largest and richest university in the world. Those who see farthest are now calling for it, and it is coming; but, I fear, not during your curriculum. What a chance now for a millionaire, or even for a demi-millionaire, to evade oblivion!

Acquit me, then, of any charge of shrewishness in the words I have spoken—words spoken in sympathy. I trust, indeed, when with returning steps you issue from these gates again into life, that you will show yourselves men as practical as the President of the British Medical Association can desire. It shall be no fault of St. George's if you do not. Nevertheless, I agree with Mr. Wheelhouse that an apprenticeship to the domestic side of your work, a familiarity with its lesser marks and byways are necessary. These we cannot teach here. After your faculties are trained and strengthened in their main branches, your lesser shoots shall be duly laid in. But, with capacities thus enlarged, one year's apprenticeship would do the work of five in earlier age; and an obligation upon young men thus to apprentice themselves before the completion of their studies would have my approbation and active support.

At Cambridge, there used to be a step called the Licence to Practise, which was not granted until a year had elapsed after first graduation; this step, now disused, might well be revived in the manner I have indicated. And, thus apprenticed, you would not only receive, but give also. The practitioner who received you would, while finishing your dexterities, learn, in his turn, the freshest ideas of the schools; an ever new and eager young graduate, year by year, would quicken his thoughts, and not permit them to become atheromatous. Fancy yourselves, gentlemen, not bottle-washers, but missionaries *in partibus*—ministers of light!

Man, like an ant or a rook, is a social animal. Alone he withers, in society he organises himself, and compasses his ends. Mind impregnates and quickens mind, none suffices for itself. Men say, and say ungenerously—not regarding the kind of our art, not regarding the temptations of our calling—See how these doctors differ, see how they love one another! We, and not we alone, gentlemen, give cause for these gibes; let us give cause for gibes and japes no more. We differ from each other in part because progress depends upon differentiation, but in part because we are not large-minded enough to see the principles of things. We have gone through a fixed routine of education which hampers us. We do not see that, if a man really understands his subject, he is able to make that understanding clear to intelligent laymen. We too often pronounce opinions rather than enlighten our subject. "Knowledge and opinion," says Hippocrates, "are two things; the former begets knowledge, the latter ignorance." Where the remedy for this lies I have shown at too great length already. Then we mistrust each other. Why? Because medicine, of all callings, demands the most sensitive personal honour, the most vigilant regard to others, the closest brotherhood; more than divinity, because it is practised for gain; more than law, because it is practised in the closet and not in the forum under the eyes of men. In no profession is selfishness more tempting, in none is detraction more easy and more secret, in none is smartness more immediately rewarded, in none is a vulgar ideal so glittering, or worldly success so near the hand of supple and talented persons. Nowadays we "manufacture our celebrities as we go on," and the pet of the penny papers and the monthly reviews, always something less than the best, is run after by the public with ovine sequacity.

I, who have been in the thick of the fight, now standing aside, may speak more plainly to you than I could do when my own

gain or emulation might have seemed to disturb my vision and to warp my sentiments. *Spectatum satis et donatum jam rude queris.*

I will venture, then, before we part, to offer some advice to those of you who will soon enter life. You will find that, both in respect of competition and of consultation, the elements of mistrust are not inactive. The temptation to score off another man's openings seems to some persons irresistible in spite of the certain turn of the wheel against themselves another day. Perhaps they hope to win on the average. How mean it is! How mean even between rivals! But for a consultant to act thus by word, or even by look or gesture, is cowardly and base indeed. At the moment the consultant has enormous power, and should therefore err on the side of generosity, especially in the absence of his brother practitioner. And yet who does not know the raised eyebrow, the shrug, the "I could an I would" air of the fashionable consultant, as he listens condescendingly to the patient's report of his own doctor's opinions. *Salus egrotantis suprema lex*, the patient's safety is before all else; that must be clearly posited; but his safety rarely comes even into pretence. The occasions are very rare in which the safety of the patient involves a breach of consent between his doctors. In my experience a family attendant is always very glad to try any plan of treatment which seems reasonable, and it is the duty of the consultant, where treatment is manifestly changed, to speak of the change, not as dictated by himself, but as the result of a joint consultation. In most cases he can truthfully add that a change would not have been made unless the previous treatment had been well tried in vain. Changes of diagnosis, except in case of grave error, can usually be developed gradually, so that sudden declarations of change of opinion are avoided. But the public may say, Is this reticence fair to us? Certainly, if the patient's interests be safeguarded—that is, if the doctor in charge be not an ignorant fool or a shifty knave, and in these cases, the consultant must, by letter or visit, keep a sharp eye on the progress of the case—the reticence is not only harmless to the patient, but of the greatest value to him. Nothing does a sick man more harm than to have his confidence shaken in his doctor, and to chop horses in midstream is rarely desirable. Even where a difference between two medical men is irreconcilable—and such cases have occurred to me from time to time—the difference can be amicably arranged. In thirty years I never had to supplant my brother on this account. The family doctor must be charged with the duty of setting forth the difference to some sensible friend of the patient, and in my experience this has always been done most conscientiously. Such cases are usually obscure and difficult, and it becomes the consultant in his turn to point this out, and to express a willingness to call in a third physician to aid in the decision. If all parties are straight and unselfish, these difficulties are readily adjusted. Indeed, with seasoned practitioners, consultations are always smooth, and nearly always welcome on both sides.

It is you touchy young men, just out of the schools, who give us the trouble—who bridle up at the suggestion of a consultation, and declare that nothing more can be done. An older man knows that a good talk over a case is, at any rate, a pleasant meeting, and probably valuable to him at least in bringing about an orderly revision of the symptoms and in refreshing the confidence of his patient. He knows, too, that when a doctor is sick himself he calls out for a consultation sooner than a layman does, and runs from one doctor to another in defiance of all convention. I never knew a sick doctor who failed to consult at least three London physicians in a forenoon, usually concealing from each his visit to the others. The fact is life is dear not to doctors only: to me it is marvellous, not that patients slip off to consultants, but that, with the fear of death before them, they are so loyal to their own advisers.

Always, then, welcome consultations. Anticipate, if possible, the patient's wishes in the matter, or, at any rate, the wishes of his friends. Never repeat the silly boast, "My patient has such confidence in me he does not want a consultation." I used in secret to hear rather too often the other side of that story, and if the patient should not want it you ought to want it. The public is right in regarding a consultation as at least a tribute to the sacredness of human life, and it keeps doctors up to the mark. For these reasons, if I had my way, no man, not even a pauper, should die of acute or obscure disease without a consultation. State clearly always whom you consider would be the best consultant for the case, but, having done this, meet any honest man the patient really

wishes for. In the height of my practice I gladly met any of my juniors—even my own pupils—if things pointed to it; and very pleasant consultations we used to have. At the same time, it is better that professed consultants should not only, of course, never visit any patient alone, but should even discourage frequent calls at chambers if the visits, losing the feature of consultations, begin to merge into sole charge. Under such circumstances I always regarded it as my duty to suggest that an ordinary attendant should be selected, and consultations held as occasion required. But I regret to add that often I never saw the patient again.

I cannot wonder that an honourable reticence has less attraction for us, that a calm and patient temper seems too slow for us, and that the bonds of fraternity are weakened when self-seeking, ostentation, and *finesse*, if they do not take men into the first rank of our profession, at any rate make a very good thing for very many of them. The spirits of the faithful have thus been tried, not in our day only, but in all times of luxury and pride. But perhaps in all ages, certainly in our own, I am thankful to say that purity, disinterestedness, and devotion not only bring peace with them, but even in the world itself surely win that success which a wise man would seek.

We of our generation prevailed over our fathers, you in your turn will prevail over us, and a mightier reaper shall prevail over us all. Our fathers called us into these halls, and set before us the record of a noble tradition, the example of noble life; we call to you, and you shall call to your children, and thus so long as sickness and sorrow abide amongst us, we frail men of a day shall still raise our eyes to that lofty conception of our duty which Hippocrates himself set forth in the first chapter of his scriptures, a conception which, with all our shortcomings, I trust and believe has been handed on by his successors undimmed and undefiled to this day.

ABSTRACT OF A POST-GRADUATE LECTURE ON THE VARIOUS POINTS TO BE CON- SIDERED IN THE SELECTION OF AN ANÆSTHETIC.

Delivered at Charing Cross Hospital.

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It is always a matter of importance, and often one of considerable difficulty, to decide what anæsthetic should be employed in a particular case. We have not only to take into account the length and nature of the operation about to be performed, but we have also to carefully consider the general condition of the patient who is about to be entrusted to our care. Putting aside highly exceptional cases, clinical experience has proved that general anæsthesia may be safely induced and maintained in all subject provided that the anæsthetic which is most suitable under the special circumstances be employed; and, conversely, it may be said that if the general state of the patient and other points be overlooked or disregarded and an inappropriate anæsthetic administered, difficulties and dangers will be liable to arise. At one time the choice of an anæsthetic for ordinary surgical operations lay between ether and chloroform; but with the knowledge we at present possess it is obvious that the question is not as simple as it then appeared to be. Ether possesses advantages in many cases, chloroform in others; and there are other agents which, under certain conditions, should be employed in preference to either of the foregoing. Thus there are some cases in which nitrous oxide alone will suffice for producing anæsthesia; in other instances this gas, followed by a small quantity of ether, should be employed; in a third series of cases ether will be found to be the most appropriate agent (usually preceded by a small quantity of nitrous oxide); in a fourth section the A. C. E. mixture will be tolerated better than any other anæsthetic; in a fifth set of cases chloroform diluted with alcohol should be administered; and in a comparatively small number of instances undiluted chloroform must be given.

The accompanying table represents the results of several years' practical work in the operating theatre and elsewhere, and it is submitted, not with any wish to dogmatically insist upon the