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THE RELATION OF UNIVERSITIES TO MEDICINE.

GENTLEMEN,—At the request of my colleagues in the Medical Faculty of this institution, I have undertaken to address to you a few words this evening, on the occasion of the commencement of another year of medical study. There are some here, no doubt, who are already far advanced in their professional education; others to whom I address myself are this evening on the threshold of that land of wonders and fascination, of delight and despair, of struggle, experience, and revelation, which is opened out by a course of medical study. I feel some diffidence in appearing before you to welcome you at the gate of this new land; for I am not myself what I hope every one of you may become—a member of the medical profession. When I tell you this, I feel sure that you will at first look upon me with distrust and suspicion; you will argue that no one but a medical man is a fitting person to receive you on this auspicious occasion; and that for a mere zoologist to assume this function is, to say the least of it, presumptuous. The anticipation that your minds may be occupied by these or similar reflections has determined me to devote the short space of time during which I would claim your attention to a justification of my position here. I shall endeavour to put before you arguments which will convince you that it is quite fitting for the Medical Faculty of the mother college of London University to be here represented by a zoologist, and I shall further try to enlist your sympathies and support for the effort which is being made to improve and develop medical education in this country in the direction indicated by those significant terms the “Medical Faculty” and the “University”.

I am not, then, about to offer to you advice or warning, to urge you forward in your studies by the promise of golden harvests, nor to attempt to fire you with the ambition of emulating the heroes of the sole profession which has no malice in its work: that profession which is in fact the incorporation of humane sentiment and loving kindness. I ask you rather to consider with me what have been the origins of this great profession of medicine; what is the actual position which it has attained to; and whether its present objects and responsibilities are in this country duly provided for by the arrangements which exist for preparing its recruits: I mean by our medical schools. I am very firmly persuaded that they are not, and I should be glad if I could make you think the same; for now, at the time when you are yourselves passing through the medical curriculum, is the occasion for you to ponder these matters, now in these earnest student days you will form desires, hopes, and determinations for the future, and the action which you will take in after-time in regard to great questions is at this moment being worked out in the elements of your nervous systems.

Briefly, what I desire to put before you is this. The work of the medical profession—its function in the community—is to bring into practical use an immense mass of accurate knowledge with regard to the conditions affecting the healthy working of the human body. Accordingly, two distinct kinds of activity—one dependent on the other, one as important as the other—are to be recognised as essential to the business of the medical profession. The one consists in the accumulating of knowledge relating to the human body and to the conditions affecting its health, the sifting of false from true knowledge, the producing of new knowledge; the other consists in the application of this knowledge to particular cases of disease or danger in such a way that action may be taken, avoiding the disease or danger, or alleviating the suffering which results from them. Both these lines of activity are the business of the medical profession, and both must be carried forward by the same men. There is a most mischievous notion current at the

present time that the first of these lines of work is “theoretical”, and that the second is “practical”; and it is not unusual to separate the “theoretical” from the “practical” man, and to speak of the “theoretical” and the “practical” portion of medical studies. Such a division is a relic from the bad old times. At the present day, we do not expect the practising medical man to be a mere machine with a brain stocked with formulæ which he has obtained from the authorities of the profession. The Royal College of Surgeons, with its library and its magnificent museum, has advanced upon its progenitor the Company of Barber Surgeons of Surgeons’ Hall just in proportion as the surgeons have occupied themselves with what is called the theoretical part of their profession. Theory and practice in medicine, as elsewhere, go hand in hand. The results of scientific investigation cannot be applied in the treatment of disease by the man untrained in scientific method any more than the delicate tools of a lathe can be used by one who has not himself devised them, or a watch be mended by the aid of a treatise on watch-making. This being the case, I contend that the proper homes for medical study and medical education are universities. I hold that, in England, the education of those about to enter the medical profession, being dependent on the voluntary efforts of the practitioners connected with various large hospitals in London, in Bristol, in Leeds, in Newcastle, and other towns, is necessarily defective. Medical education in England has been and still is most shamefully neglected by the rich Universities of Oxford and Cambridge, which have the means—the money—necessary for carrying on the investigations in physiology and pathology, and in the whole range of physical sciences on which medicine is dependent.

As a result of this neglect on the part of our universities, medical education was, in the last century, a thing almost unknown in this country. A few young men about to enter the medical profession sought instruction in the Scotch universities or in Paris or Italy; but, as a rule, men were passed into the profession simply as the customary sequence to a certain term of “apprenticeship” to a medical practitioner, the examinations of the various corporations who had the privilege of giving “a licence to practise” being of the most feeble character. At this time, it is true that some of the physicians to London hospitals were followed round the wards by a few disciples anxious to learn the great men’s receipts, and some of the London surgeons also set up independent schools for the teaching of anatomy. But as for instruction in physics, in chemistry, in comparative anatomy, in physiology, in the general properties and activities of living things, it had no existence in London, and was not in any way required on the part of the licensing bodies. The English universities meanwhile, which possessed rich endowments for carrying on these studies, allowed jobbery and indifference to convert their ancient medical offices into sinecures; the Medical Faculties, which, in other European universities of similar age and foundation, were flourishing and healthy organisations, adding daily to medical science and teaching students from all parts of the world, were in the English universities stifled and buried by the agency of the clergy. At the beginning of this century, the great Scotch University of Edinburgh was the chief resort in the United Kingdom of those who desired something equivalent to what we now call “a medical education”. There the tradition is still maintained, as it is in fifty universities of the continent of Europe, that the function of an university is to be the Alma Mater, the “bounteous mother”, of three great faculties or groups of students: the theological, the legal, and the medical. It was from Scotland, where the torch of true university life was kept burning, that an impulse towards the establishment of better things in benighted England came and set men to work in London. Sir Charles Bell and others had been doing their best in London, where the hospitals, practitioners, and licensing bodies naturally collected a large number of medical apprentices, to import some of the thorough teaching and study of anatomy and physiology which the University of Edinburgh had long cherished, nobly doing her duty to one and all of her offspring. As an outcome of these efforts and of similar causes, all traceable to the utter inanition of the English universities, plundered and perverted to private uses by the clergy and landed gentry, the institution in which we are now gathered was founded fifty years ago and opened as the University of London. The men who founded this institution raised £153,000 to build and set it going (less than half the annual revenue of the Colleges and University of Oxford), and arranged its work in three faculties similar to the faculties which once existed at Oxford and Cambridge, and which exist to-day in the Scotch universities and in the fifty universities of continental Europe. The faculties (as at present arranged) are that of law and arts, that of medicine, that of science. Each faculty consists of a number of professors, to each of whom a definite subject is assigned, which it is his business to teach and to study. Each faculty arranges a course of instruction to be passed through by the students of the faculty, whilst the Senate

or combined faculties and the Council representing the original founders carry on the general government of the institution. The true constitution of an university was thus assigned to our institution; it had its staff of professors grouped in appropriate faculties, and its teaching was to be freely conducted by those professors; it also had a splendid building. But it wanted two things: the first was endowment, money wherewith to pay the professors; the second was the privilege (only to be granted by Royal Charter) of conferring what are called "degrees". Neither of these has it ever obtained. The professors have worked hard, and, by the fees of their pupils, have clothed and fed themselves and contributed to the general expenses of the institution; whilst the privilege of conferring degrees which was about to be granted to this duly constituted university was, in 1836, conferred upon a department of the Government specially constituted for the purpose, which received the title of the University of London. At the same time, this, the original university, accepted the designation of University College. The wisdom of this arrangement I am not here to discuss, nor can I do otherwise than speak with the greatest respect of the valuable influence which the examinations required by the University of London for its degrees have had on the progress of education throughout the kingdom. But I confess that I feel the profoundest regret that the grand old title of "University" should have been in this way completely divorced from the work of study and teaching. The result is that, in this country, you cannot find one man in a hundred, even amongst those possessing University degrees, who knows what an University is. The Universities of Oxford and Cambridge, on the one hand, have entirely departed from the old standard, and ought long since to have been checked in their career and reformed by the power which chartered and protected them in their early days; whilst the admirable body which we call the University of London has precisely the same claim to be called an University as has the Archbishop of Canterbury.

The power of conferring degrees, though a most important adjunct to the powers and facilities of an University, is yet not the essential feature of such an institution. It is the shadow rather than the substance; and, whilst no institution can rightly be called an University (primarily the word merely meant "a corporation") unless it possesses this privilege, yet the more solid attributes of an University may exist in its absence, and its possession is not alone sufficient to justify the use of that honourable title.

The Medical Faculty constituted at University College nearly half a century since, under the circumstances I have just narrated, offered to medical students a curriculum which consisted of lectures by a series of distinguished teachers who accepted chairs in the newly founded University. Sir Charles Bell represented Physiology and Surgery; Turner, Chemistry; Lardner, Natural Philosophy; Lindley, Botany; Jones Quain, Anatomy; Grant, Comparative Anatomy; Thomas Watson, Clinical Medicine; Anthony Todd Thomson, Materia Medica; Gordon Smith, Medical Jurisprudence; Conolly, Therapeutics; Carswell, Pathology; and Davis, Midwifery. For the first time, a course of instruction was offered in London to medical students which had the thoroughness and the wide scope which only an University, or a college modelled on University principles, can be expected to offer. The physical sciences—chemistry, natural philosophy, botany, zoology, and physiology—which were not taught at the hospitals and private medical schools, were here recognised as the necessary studies for men who desired to become worthy members of the medical profession. The old notion of learning a practical profession from practical men—of contentedly letting medical training go on as a mere tradition in rule-of-thumb—was once for all set aside. The words which Theodor Billroth, the eminent Professor of Surgery in the University of Vienna, made use of only a few months ago in a letter addressed to me, will serve to exhibit the spirit which animated those who founded our Medical Faculty on a wide basis. "I belong", he says, "to those who cannot allow that there is any distinction of real value to be drawn between the study of natural phenomena and their laws on the one hand, and of the diseased human body on the other. There is, in my judgment, but *one* method of investigating Nature and her laws, and this finds its application equally in the analysis of a mineral, in the study of a plant, in the investigation of the healthy and the diseased conditions of the animal or of the human body. To use this method at the sick bed is the business of the clinical teacher. The 'healing art' is only the outcome—the final result—of observation." This is the spirit in which the great universities of Europe, with the exception of Oxford and Cambridge, have fostered the study of medicine. This is the explanation of the existence of chairs of Chemistry, of Physics, of Botany, and of Zoology, in all their Medical Faculties. Such is the nature of his work that the medical man needs instruction and training in all the great branches of physical science; and from time to time the

methods of investigation, the modes of speculation, and the generalisations with which he has become familiar in the course of these apparently remote studies, render him most efficient service in the attempt to ascertain and to deal with diseased states of the human body. It is thus that a thorough knowledge of the organisation of both plants and animals becomes part of the equipment required by a medical man; but it is even more directly that the progress of knowledge relative to other organisms affects knowledge relative to the human organism. The knowledge of diseased and of healthy conditions of all organisms, all knowledge of living things, including necessarily man himself, forms one compact interwoven body of science termed Biology; and upon this directly the medical art is built, in it all medical practice has its foundation. Therefore it is that, on the present occasion, a zoologist is allowed to occupy the honourable position in which I stand this evening; therefore it is that I feel justified in coming forward as a representative of medical education. The profession of medicine is the practical representative in the commonwealth of all study of living things. That study is fundamental to the more advanced study of disease; and Medicine, though she has been urged by high authority to discard all useless hangers-on—zoology among them—yet cannot refuse to us her protection, nor cease to profit by zoological discovery.

To return to the history of medical education in London: the effect produced by the opening of the Medical Faculty of University College was most extraordinary. Students deserted the old schools of anatomy and surgery and flocked to the new university. At that time, a very much larger number of medical students attended here than we have ever had since. No sooner had this effect been produced than the old hospitals organised medical schools in imitation of the Medical Faculty of University College, with more or less success. New schools were opened in connection with new hospitals, and to-day we have, as a result, eleven Medical Faculties in London, connected with eleven different hospitals, and competing with one another for the fees of medical students. In the whole German empire, with its fifty million inhabitants, there are only twenty-one Medical Faculties; in London, with four million inhabitants, we have already eleven. Thus the Medical Faculty of University College, which at one time promised to be a very remarkable success, has, after producing its effect in reforming medical education in London, lost its unique position and become only one amongst eleven competitors. Nevertheless, the Medical Faculties of University College and of King's College have in their constitution certain characteristics which give them an advantage over the schools conducted by the medical men forming the staff of the London hospitals. In their constitution, they are essentially the same as the Medical Faculties of true Universities. They are governed by a body of men representing all branches of science and learning, and form part and parcel of an institution devoted to the interests, not of any one profession, but of knowledge generally. Hence they are not liable, as are the hospital schools (I do not say that there is more than a liability), to neglect the broad scientific bases of medical education; nor is it possible for them to sacrifice efficiency and independence in deference to professional crotchets.

Whilst, then, I think, we may congratulate ourselves on the constitution of the Medical Faculty of University College, and whilst we may feel resigned to the teaching being carried on here and the degreewise being determined in Burlington Gardens, I must now point out one great deficiency under which we suffer in common with all the medical schools of London. We have no money to speak of—no endowments. I must make exception for one chair—that of Physiology—which is to a certain extent supported by Mr. Joddrell's foundation. This is a delicate subject, but one of such vital importance to the progress of science, and therefore of medicine, that I am anxious to take this opportunity of laying it fully before you.

I have already pointed out to you that it is the business of the medical profession not only to apply the results and methods of scientific research to the alleviation of human suffering, but by continued investigation to produce new knowledge. The production of new knowledge is a most absorbing and arduous business. Men who have anything else to do except a small amount of teaching can do very little—only a bit here and there—in the production of new knowledge. Men who are earning their livelihood in the practice of a profession can do very little at it. Men who are preparing students for examination all day all the year round can do but little at it. Only men with fortunes, or men who are paid by the institutions especially founded and meant for the production of new knowledge, can be expected to do much in this way. The institutions especially founded and designed for this production of new knowledge, and richly supported by large annual grants of money in the form of salaries and stipends, are abundant on the Continent of Europe; they are the Universities. In London, we have no such institution; there is no University of London

in this sense of the word. The medical profession in England, though it has eleven "Faculties" in London and other "Faculties" in provincial towns, is almost totally devoid of those splendid opportunities for profound investigation—for the production of new knowledge bearing on medicine—which the appropriation of public money and ancient endowments to the payment of the Medical Faculties in Germany, for instance, provides.

It must at first sight be a matter of astonishment to you that we laborious, hard-headed Englishmen, the countrymen of Harvey and of Darwin, should have to go to Germany for so much of our new knowledge. You have perhaps wondered, as I once did, why so large a proportion of the names you see in text-books of physiology and pathology are those of Germans. When you learn that the German university system, consisting of twenty-one universities and 1,250 salaried professors, is carried on at an annual expense of more than £600,000, you will cease to be surprised. At the least, half of that sum and half of the number of salaried workers are devoted to the branches of science connected with medicine. Your next questions, I do not doubt, will be—How is it that we have not something of the same kind? Can we not obtain something of the same kind in England? This is the point to which I have been hitherto leading you, and I want you now to determine to use every effort in the future towards obtaining something of the same kind in England. The production of new knowledge cannot go on without the assistance of endowments or their equivalent. It is impossible to name a single case of a man who did not enjoy either a private fortune or an endowment and yet has added greatly to scientific knowledge. Medicine and the sciences which she protects have most urgent need of endowment for the purpose of supporting men who shall chiefly occupy themselves in the production of new knowledge.

It is a disgrace to English civilisation that a true university—an endowed university, an university in which new knowledge is continually being produced, and in which men are trained for this work of production as the work of their lives—does not exist in London and in each one of our large cities. I can briefly tell you some of the circumstances which have prevented the foundation of such desirable institutions in this country; and I will further indicate to you what we may hope to see done in this direction in the future. But first let me give you a sketch of one of these German universities which we so much admire and envy. I advisedly select one situated in a small town—the University of Heidelberg. Heidelberg is one of the two universities of the Grand Duchy of Baden, Freiburg being the other; whilst at Karlsruhe, in the same State, is an important technical school. The town of Heidelberg numbers but 22,300 inhabitants. The University has 61 professors, and by the last returns, 834 students. Of these, 23 professors and 106 students belong to the Faculty of Medicine. The Government of Baden, by which the salaries of the professors are paid and their number determined, does not consider that this proportion of one professor to every five students is an excessive proportion on the side of the professorial staff. This University was founded nearly five hundred years ago (in 1386), and, like all the German universities, was remodelled and greatly improved at the beginning of this century; whilst since that time its wants have continually been provided for with ever-increasing liberality by the State Government. There are now four Faculties—that of Theology, that of Law, that of Medicine, and that of Philosophy. The professors are divided into the ordinary and the extraordinary. The ordinary professors receive a stipend of about £400 yearly, besides their fees, which in some cases bring their incomes up to £1,000. When a vacancy occurs in a professorship, the State minister invites the members of the Faculty in which the vacancy has occurred to name two or more individuals whom they would recommend for appointment. The Faculty meets and the name of a professor in some other university is proposed. He is written to and asked whether he will come; he probably replies that he would require an increased salary and a new laboratory; very usually his terms are agreed to by the State minister on the recommendation of the Faculty, and he is installed in the vacant chair. Sometimes, of course, a younger and less known man is appointed at a lower salary. As an example of the way in which these things are managed in Germany, let me give you an actual history of what recently occurred at Strassburg. I quote from an American journal. "After the transfer of that city to Germany, neither pains nor money was spared to make the University a success. For the chairs of the Medical Faculty rising men were selected, all of whom were known for original research and had practically proved their ability as teachers and writers. The chair of Pathological Anatomy was given to Von Recklinghausen, one of the most brilliant of Virchow's pupils, who vacated a similar position at Würzburg in order to accept this new position. When the chair of Pathological Anatomy at Vienna became vacant by the retirement of

the veteran Rokitsky, it was offered to Von Recklinghausen, and the salary proposed was 25,000 francs (£1,000), or about three times the usual salary of such a professorship. But the Prussian Government was quite as anxious to retain Professor von Recklinghausen as the Austrian Government was to obtain him, and asked him to say what he wanted. His reply was to demand, as the condition on which he would remain, that there should be constructed a large pathological institute, in accordance with his plans, and in connection with the hospital—an institute which will cost something like £50,000, and will require a change in the fortifications. His demand was acceded to, and he is hard at work now in Strassburg."

Such being the constitution of the professoriate and the consideration with which it is treated, let us look at the arrangements for teaching—the buildings designed for the purposes of medical research and education—which exist in Heidelberg. At one end of the long straggling town is the new hospital, a handsome building in red sandstone, consisting of numerous isolated blocks, and admirably fitted with all the latest sanitary appliances. Here Professor Czerny has his surgical clinic; and Professors Friedrich and von Dusch their medical clinics; the ophthalmic department under Professor Becker is also carried on here. In the grounds of the hospital stands the pathological institute, where Professor Julius Arnold and his assistants and pupils are continually at work. The Professor of Morbid Anatomy in a German university is not, as in our London schools, distracted by the incessant demands of private practice. He devotes his whole time to the microscopical and experimental investigation of diseased conditions. The institute at Heidelberg consists of several large apartments, fitted, one for dissections, another for chemical work, another for microscopical work, and others for experiments on live animals. Close to the general hospital, we have the hospital for diseases of the brain, and a lying-in hospital. In another part of the town, we come upon two independent, handsome, but simple buildings—the laboratories of chemistry and of physiology. In the one, the celebrated Bunsen has for years carried on his researches and trained some of the most eminent of living chemists, our own Roscoe among them. In the other, recently completed, Kühne the physiologist, whose text-book, translated by Professor Gangee, is in the hands of every English student, has his private dwelling, his working rooms, class rooms, and lecture hall. Here last year were carried on by Kühne and his pupils those remarkable investigations on the purple colouring matter connected with the sense of sight, besides a variety of other investigations on the functions of the pancreas and similar glands. Not a quarter of a mile from these two institutes, we come to the building devoted to the all-important study of anatomy, and the related studies of zoology and botany. The anatomical institute is to be enlarged; but, large or small, it can nowhere find its rival in Europe, for its director is Carl Gegenbaur. Year after year, first from Jena and now from Heidelberg—whither he has only lately been called—the most important contributions to anatomy have been produced by Professor Gegenbaur and his numerous pupils; the far-reaching speculations of the master having guided the researches of an army of willing disciples gathered round him by the strong force of genius. The zoological department is about to enter on a new phase of activity under the care of a young professor, this year appointed to the post, Bütschli, whose researches on the reproduction of the infusoria and on the nature of the union between the spermatozoa and ova of other animals, have marked an epoch in our knowledge of the process of generation, and tend to establish what I just now maintained, viz., that zoology is entitled to claim a position as one of the medical sciences. Botany has its garden and its institute under the care of Professor Pfizer. Here not only the general phenomena of vegetable life are studied, but those very difficult problems relating to the life-history and properties of the lowest plants, the bacteria and the fungi—of the uttermost importance to medicine—are investigated with all necessary appliances, and by men who are in no hurry to leave their laboratories in order to earn their daily crust of bread. They are paid by the university. Concerning this matter, I need hardly remind you that, though in this country our great surgeon Lister has done more than any other living member of the profession to gain new knowledge of those dangerous and ubiquitous plants, the bacteria, and has, by that antiseptic method of treating wounds, which will place his name by the side of those of Harvey and Jenner, abundantly and in the most striking manner demonstrated that the only sound medical practice is one founded on a thorough knowledge of living things, the lowest as well as the highest—yet all our recent knowledge of these deadly enemies of humanity, these omnipresent agents of putrefaction and fever—I mean the bacteria—comes from a German university, from Professor Cohn of Breslau and his assistants. I have not time now to tell you of the laboratory for experimental physics, under the care of Professor Kirchhoff, nor of the

various arrangements for study and research connected with the other Faculties of the university.

This outline of some of the arrangements for the work of the Medical Faculty must suffice. But now let me beg you to remember that all this goes on in a little town of 23,000 inhabitants; and that there are twenty other universities in the German Empire, not including those in Switzerland and Austria, where the same kind of arrangements exist. A few of these are in towns smaller than Heidelberg, and have smaller laboratories and smaller salaries for their professors. But many are in the chief cities of the empire and have far more costly and magnificent establishments than you will find at Heidelberg. Berlin possesses laboratories and museums on a palatial scale, and a perfect army of investigators and students supported by State endowments. Leipzig, again, Strassburg and Munich, are larger and more richly provided than Heidelberg. All the twenty-one German universities, the eleven Austrian, the four Swiss, and six or more Russian universities (I do not speak of those in Scandinavia, France, Holland, Belgium, and Italy), are fitted out and carried on in the same way. In all, medicine is being advanced and developed by the never-ceasing production of new knowledge. We, in England, benefit by this knowledge; we, in common with the rest of mankind, reap the rewards won by the activity of these noble corporations; and yet, it is neither more nor less than the fact that we Englishmen do not possess, throughout the length and breadth of our land, a single institution of our own where such work is done. Do not misunderstand me, nor think that I am overlooking the existence of the College of Science at South Kensington, or of the Physiological Laboratory of the University of Cambridge, or of the Brown Institution at Vauxhall. Worthy as have been the efforts of the zealous men who have conducted those establishments, the resources placed at their disposal have been sadly below the requirements of their work. To speak of these excellent institutions as taking the place in this country of the vast machinery and resources of the Medical Faculties of Germany would be about as reasonable as to compare the pleasure boats on the Lake of Geneva with the British navy.

There surely can be no one here present who would not desire to see in England, were it possible, something equivalent to the German University system—a well endowed group of Faculties in each of our great towns, and in London a series of laboratories and professors devoted to the cultivation and teaching of medical and other sciences—as amply provided with endowments as the wealth of England would permit. In order that we in England may some day obtain the pecuniary support for science which is given to it in impecunious Germany, we must clearly understand what is the history of university endowments in this country, on the one hand, and in Germany, on the other. Five hundred years ago, we had two universities in England—Oxford and Cambridge—similar to those of continental Europe; like their model, the University of Paris, each had its Faculty of Theology, of Law, and of Medicine. All these old Universities were set on foot by Royal personages, sometimes converting a private school or college into a chartered university with public duties and subject to State control, sometimes starting them *de novo* in great cities. The great universities all had their triple Faculties, but Salerno in Italy and Montpellier in France were exclusively medical. Others were exclusively legal, but these incomplete universities as they grew added the absent Faculties. In Oxford, the Jews in the earliest times conducted medical teaching: everywhere in the middle ages medicine and physical science were derived chiefly from Oriental sources. The universities were in all cases the special care of the State; as centuries passed over them, they acquired considerable wealth and received fresh protection and endowments from successive kings. Within the Universities of Oxford and Cambridge, benevolent and enthusiastic persons founded colleges independent of the Universities, and endowed them with money, which was in most cases expressly assigned by the written will of the founder to the support of persons engaged in studying the sciences connected with theology, law, and medicine. The persons indicated were not the younger students, but those who intended to devote long years to investigation and the production of new knowledge. In fact, the so-called "Fellows" of the Colleges of Oxford and of Cambridge were intended to play the same part as do the professors of the modern German University system. These colleges, which were so well meant, ultimately caused the destruction of the Universities in both Oxford and Cambridge. Happily, in the foreign Universities, very few colleges were founded and no *imperium in imperio* grew up to hamper and pervert their development. Both abroad and in England, the king or his government claimed the right of interfering in the affairs of the University from time to time, and it is simply to this interference, iniquitous and destructive on the one hand, beneficent and intelligent on the other, that the contrast presented at the present day by English and German Universities is due.

In England, the Government at the time of the Reformation, and then again at the Restoration, laid hold of the richly endowed corporations—the colleges and the Universities of Oxford and Cambridge—and made use of them for the purposes of political intrigue. Instead of making it its business to see that the valuable offices of the colleges and University were given to persons fitted to promote learning and science, the Government deliberately threw the interests of knowledge, of education, of the learned professions, to the winds, and inaugurated a system of diverting the funds of the colleges and Universities to the payment of their political supporters, which is actually in operation at the present moment. From that time, English ministers have never ceased to regard Oxford as a fair field for plunder, and have prostituted the "mother of sciences" to the purposes of political and religious party. By legislative enactment, the enjoyment of the college and University endowments was restricted to members of the reformed and established Church of England. Nearly all the valuable offices—for instance, the headships of colleges—were restricted to priests of that Church, and thus commenced a system, which, in the course of time, completely destroyed the character of the Universities as such, and made them the possession of the ecclesiastics and the political wire-pullers of the day. The property which was thus consigned to the tender mercies of the Church was, even at that time, of enormous value; it is now estimated to produce yearly in each University over £300,000. Whilst the valuable possessions of the colleges were thus placed in the hands of one profession—the clerical—the government of the University was placed entirely in the hands of the clerical heads of colleges. The whole power and authority of the place, instead of being retained by the professors constituting the triple faculties of Theology, Law, and Medicine, was assigned to the representatives of the Theological Faculty alone, who now swarmed in Oxford to an unprecedented extent. For many years, the Faculties of Law and Medicine struggled on in Oxford, growing weaker and more neglected in each decade, until now, after two hundred years of this usurpation, there is not a single medical student in the place. In Cambridge, the story was very much the same, excepting that there the degradation of the medical faculty has never proceeded quite so far as it has at Oxford, and medical studies are now, we have some reason to hope, being resuscitated in that University by the strenuous efforts of Professor Humphry and Dr. Michael Foster.

At Oxford, shortly before the destruction of its character as an University, the King, Henry the Eighth, had founded a Regius Professorship of Medicine. The office still exists, and is worth about £500 a year; but the present tenant of the office—of whom, personally, I wish to speak with all possible respect—gives no lectures and has no pupils. It must not be supposed that the effect of the clericalising of Oxford was an immediate one. At the very time that the pernicious measures were being carried out which laid the foundations of her ruin, there were medical men and students of the physical sciences in Oxford whose names are amongst the most illustrious in the history of English science. Robert Boyle, and the other founders of the Royal Society, resided there; Halley was Professor of Astronomy; and there Thomas Willis worked out and published his *Anatomy of the Brain*, the plates for which were drawn by Christopher Wren, at that time a student in the University, afterwards the architect of St. Paul's Cathedral. But medicine never flourished under clerical domination. The clergy, who ruled the University, and who allowed no students to come there, excepting as boarders in the colleges kept by them, discouraged in every way the prosecution of medical studies. They failed to provide the means necessary to enable the teachers of medical subjects to carry on their work, and they encouraged the holders of medical offices to neglect their duties and convert those offices into sinecures. As an instance of this, I may mention that Linacre, the founder of the College of Physicians of London, left to Merton College in Oxford (in the reign of Henry the Eighth) a piece of land, the rental of which was to pay a lecturer in medicine. Within a hundred years, the office was abolished, and the money converted to the private uses of the Fellows of the College. Later on, in the last century, there still were medical men amongst the resident College Fellows, as the old medical books in the College libraries attest. The old statutes of some colleges compelled them to elect a scant proportion of students or graduates in medicine; but, at the present day, all have got rid of this obligation, excepting so far as the provisions relating to one fellowship in Pembroke College are concerned. Efforts were made, in the last century, by those who feel, as many of us do at the present day, that medicine is most injuriously treated, and that the University herself is mortally hurt by the suppression of her medical faculty. Confiding benefactors came forward and put down their money, in the hopes of promoting medical study in Oxford. But they did not know—and at the present day you cannot make people believe—how shameless and

unprincipled were the bodies to whom they entrusted their money. Lord Lichfield bequeathed £200 a year for the reading of clinical lectures in the Radcliffe Infirmary to the students in medicine of the University. The office is now held by the Regius Professor of Medicine, but no lectures are given. About the same time, Matthew Lee confided money to the care of the governing body of the cathedral house of Christ Church, for the payment of a teacher of human anatomy, and to buy subjects for his demonstrations; but no such teaching is given; the money is applied to other purposes. Dr. George Aldrich, in 1798, left £9,000 for similar purposes; but, at the present day, the bequest bears no fruit for the benefit of medicine. Radcliffe, the celebrated physician, also left, in 1714, a large sum of money to promote the interests of medicine in the University of Oxford. He himself had studied medicine entirely in Oxford, and then was ejected from his college by the clerical head, who refused even to allow him to retain rooms therein. More wise than other would-be benefactors, he constituted a special board of trustees. The hospital in Oxford was built by them, and bears his name; and the medical library and the travelling fellowships, which his trustees have founded, are solid benefits to medical science.

The state of things which gradually resulted from the complete subjection of the University of Oxford to the clergy of the English Church was this: the only faculty which remained rich and flourishing was the theological; the only professional training which could be obtained in Oxford was that of the parson. At the same time, the colleges which were intended as lodging-houses for poor students, were converted into boarding-schools, into which the Fellows received the sons of the landed gentry and wealthy citizens as pupils, on condition of certain payments. The University was thus closed to the public at large (the same history is true of Cambridge), and only those students were admitted whose parents could pay the fees demanded by the colleges for board, lodging, and tuition. The fees demanded by the college-fellows increased at last to such an extent, and the expense of residing in one of these boarding-houses became so great, that the Universities entirely ceased to be popular or national institutions in function, though they were, so in foundation. They became the exclusive possession of the clergy and the wealthy classes, and so they remain at the present day. Long ago, students ceased to seek the lecture-rooms of Oxford and Cambridge for the purpose of serious study or professional training. Whilst the Scotch farmer's lad can earn enough in the fields during summer to keep him during a winter's session in the University of Glasgow or Edinburgh, whilst all classes of the community contribute to form the student-world of the German universities, Oxford and Cambridge, under the influence of clerical domination, have become simply "finishing schools for young gentlemen" (I quote the words of Professor Max Müller). Men of moderate means—that is to say, the majority of our fellow-countrymen—now only go to Oxford or to Cambridge with the view of sharing in the scholarships and fellowships, which are annually distributed there by competitive examination. In their whole tenour, purpose, and being, these places are as different as they possibly can be from their quondam sisters the Universities of Germany.

In Germany, the political and religious struggles which in England converted the Universities into the tools of party, and ultimately into the pleasant abodes of the clergy and their wealthy pupils, whilst they very generally lead to the spoliation and reconstruction of those institutions, yet benefited rather than injured them, for they became more than ever the special charge and care of the States in which they were situated. Their old constitution was maintained, subject to State control; and, so far from being abandoned to any one religious party, they were held by the State against the repeated intrigues of ecclesiastics, who sought to gain possession of them.

In the last century impoverished, but yet maintaining the historical form and government of true Universities, fulfilling, even as the Universities of Scotland, of Italy, and Sweden, the true functions assigned to them, of training men in the learned professions and prosecuting the studies connected therewith, they were destined to burst forth into a new life at the beginning of the present century. The various State governments which held them in charge awoke to the value of education as a factor in the national life. What was in some cases but a restitution, in others a new endowment of the Universities took place. Money was found for their extension and development; their privileges and the independent self-government of the Faculties were established; above all, the freedom of teaching was accorded to the teachers and the freedom of attendance to the student. No ecclesiastical or other superior was allowed to forbid a professor to teach this or that doctrine; no tutor or director of studies was permitted to force the student to attend any teacher he did not himself choose. From that time forward, the universities of the German States have been more and more favoured by the government. Laboratories, libraries and

museums, liberal stipends for the professoriate, and continuous attention to the details of their administration, are what they have received from the State. As a result, they are the centres of national life and the benefactors of humanity.

In the end, then, we find that the difference between the English universities and the German is due to the mode in which the governments of the two countries have acted towards these institutions. Whilst the enormous endowments of Oxford and Cambridge were being frittered away, our successive governments looked on, without raising a finger to stay the disastrous perversion of the educational resources of the country; in fact, as the inevitable result of party government, the emoluments of the universities came to be regarded as so much material for party warfare. In Germany, on the other hand, governments, with true patriotism, protected and developed the intellectual hearts of the Fatherland.

Twenty-five years ago, the state of the English Universities was such, that at last the government of the day could not escape the demand for interference. Nearly the whole of the endowments of the country designed for the encouragement and support of science and learning were concentrated at Oxford and Cambridge. No new Universities were established in the country by the State on the plea that we already possessed these two rich institutions. No independent effort to start such institutions was allowed to thrive by the jealous and powerful party who held possession of the "old Universities". Just as to-day the ubiquitous partisans of sectarian education are busy in opposing the concession to the Owens College in Manchester of the dignity and privileges of a chartered university, so did they fifty years ago contrive to prevent the same concession to the institution in which I am now speaking. Thus the degradation of the English Universities acted not only directly as depriving the nation of the benefits of £600,000 a year destined for the support of science, but spread its blighting influence over the whole country, and paralysed all the sources of effort after better things. A commission was at length appointed, with powers to reform the English Universities. The reform which they effected took place about twenty-five years ago, and I need hardly tell you that it amounted to very little. The commissioners did but nibble at the mountain of abuses which two hundred years of neglect, following on iniquitous legislation, had produced. So little did they do, that at the present moment another commission is sitting, having been appointed with powers to make further reforms. Owing to the fact that the parliamentary constituencies care next to nothing about universities, it is quite certain that the commissioners now sitting will do nothing towards improving the condition of things. The commissioners for Oxford have definitely and deliberately refused, after hearing a mass of evidence, to do anything towards restoring the Medical Faculty of that University. When you look at the names of the gentlemen who compose that commission, you will not be surprised at their indifference to, or ignorance of, the requirements of medicine and the obligations of the University.

The commissioners of 1854 did to a certain extent remove the restrictions which confined the posts of emolument in the English Universities to ecclesiastics, but only to a limited extent. They further made an attempt—and, we may admit, a very well meant attempt—to constitute a preliminary school of medicine in Oxford. They fished up the ancient endowment of Linacre to Merton College, and made that college pay £800 a year as salary to a professor of physiology; to this they attached other ancient endowments for the teaching of human anatomy. Chemistry, experimental physics, and other branches of natural science necessary to a Medical Faculty were, under their auspices, well provided for; but they omitted to establish in the University a regularly organised Faculty of Medicine with powers to arrange its curriculum, and with full command of a sum of money sufficient for the building of laboratories and the salaries of a staff of professors. The whole power was still left in the hands of a clerical majority, who had complete control of the appointments and the expenditure, and of the admission of students. Thus it came about that a sort of Gothic palace was erected for the teaching of the natural sciences and the accommodation of the new professors; whilst, owing to the fact that no attempt was ever made to offer to students a well considered course of medical study, only a very few ever appeared to profit by the new arrangements. Out of the two thousand students at present in Oxford, there are only a few over one hundred who avail themselves of the teaching in physical science, and not one-third of these are intending to enter the medical profession.

The great science of physiology is one which more than any other, persecuted and misunderstood as it is by the public and the legislature, needs at this moment the support, not only material, but moral, of such a powerful institution as the University of Oxford. The Commissioners of 1854, when they resuscitated Linacre's forgotten gift to medicine, intended that it should be the basis of a Chair of this fundamental subject—physiology. A medical man was appointed

to the new Linacre Chair; but, such is the perversity of fate in Oxford, he continues to occupy the Chair, but does not occupy himself with physiology. Indeed, most unfortunately for the interests of medical science in this country, he has taken, in the recent agitation against vivisection, a part adverse to the interests of physiology. Let me distinctly say that I do not for a moment question the integrity of a man because he holds views with which I disagree, but that I hold it to be unfortunate that the representative of Oxford, the legate of Linacre, should oppose himself to the teaching and prosecution in that University of the subject to which his Chair is dedicated.

I should not think it necessary to mention this detail, did it not appear to me to have a very important bearing upon a subject which deeply affects the interests of all medical men, and especially of those who are studying, or about to study, the sciences related to medicine. The ignorant hostility to physiological experiment, which has recently been exhibited in this country, is largely due to the fact that physiology has been neglected at the old Universities. Had our statesmen and publicists seen physiology treated with respect, and cultivated with enthusiasm, in the University where many of them have studied; had these learned bodies stood forward to protect the cause of physiology as the cause of the commonwealth of science and learning, the recent agitation would have met with an effectual check. It is impossible to believe that those who have assisted in crippling the few students of physiological science in this country can be aware of the fact that, whilst denouncing and abusing the experiments of German and French physiologists, they are benefiting by those experiments, and living in health and comfort in consequence of them. Every man who avails himself of the advice of physician or surgeon is the accomplice of the physiologist and connives at vivisection. It appears to me to be the height of pharisaical hypocrisy to denounce as a crime that by which you gladly profit. The medical knowledge which English physicians and surgeons are daily making use of, for the alleviation of suffering in English bodies, must now be more and more due to the physiological researches carried on in the medical faculties of continental Universities. It would be more honest, not to say more reasonable, were the legislature, instead of hindering physiological experiment in this country, to insist on the endowments of Oxford and Cambridge being employed towards contributing England's share to the common fund of medical science, which civilised Europe gathers for the general use of mankind.

At the present moment, the prospect of obtaining endowed Medical Faculties in England is a remote one. But, in the course of time, the cause in which I hope to have enlisted your sympathies must succeed. What it appears to me we should aim at is, the establishment of a fully developed and amply endowed Medical Faculty in both Cambridge and in Oxford, and, still further, the establishment of one or of two such Faculties in London. There is, I believe, an immediate prospect of a great development of the Medical Faculty at Cambridge, where already Experimental Physiology, Human Anatomy, and Clinical Medicine are taught and prosecuted with energy.

The efforts of those who think with me have as yet failed at Oxford. The governing body of the University will do nothing in the matter; the existing professoriate will do nothing in the matter; and the Royal Commissioners have definitely decided to do nothing in the matter. But, happily, these opposing forces are not eternal; there is such a thing as growth and development; the old does in the end give way to the new. The desire to establish a Medical Faculty in Oxford on a proper basis is shared by a very large number of resident members, professors, lecturers, and others who are under sixty years of age, and a petition expressing that desire was presented by them to the Commission now sitting. In the course of time, these men will, if they live, reach sixty years of age, and then, if the constitution of the University remain as it is at the present day, they will have some influence in its councils, and a majority in legislation.

One word more of explanation before leaving the subject of Oxford University. Those who oppose the establishment of a Medical Faculty in Oxford tell us that Oxford is too small a city to supply the necessary cases of disease, and that it will be sufficient if Oxford concerns herself with the sciences which are studied as a preliminary to the study of disease. The answer to this statement is complete. It is this: firstly, some of the London hospitals, with medical schools attached, are smaller than the Radcliffe Infirmary, whilst the population of Oxford is 36,000, and that of several German towns where there are flourishing Medical Faculties much less—for instance, Bonn, with 28,000; Heidelberg, with 23,000; Göttingen, with 17,000; Jena, with 9,000. The celebrated Faculty of Würzburg is in a town which, fifteen years ago, was no more populous than Oxford is now. Secondly, the complete separation of preliminary studies in the way proposed cannot be successful, unless there is a very close local connection between the preliminary school and the advanced school and a

common government for the two: the separation leads to antagonism. Of this, the present condition of the teaching and study of physical science at Oxford is ample evidence.

And now I come to the final question which I would venture to raise on this occasion, and that is, what can we hope to get established in London in the way of an endowed Medical Faculty? First of all, let me tell you that there are very large funds existing in London upon which medicine has a claim; but it is probably more hopeless to try and press that claim than that which I have urged in the case of Oxford and Cambridge, for the perversion and abuse of the trust has proceeded so far that no legal power can reclaim it. Considerations of justice and public morality may, however, one day restore the funds in question to their proper uses. The trust to which I allude is that of Sir Thomas Gresham. This worthy citizen, who died in the sixteenth century, appears to have been a man of the highest public spirit. To his munificence the City of London owed the old Royal Exchange, which at the time of its erection was a valuable addition to City property. He bequeathed his house and estate in the city near London Wall and Old Broad Street to the Corporation of the City of London and the Mercers' Company in trust to establish a College for the study and diffusion of science. He directed that seven professors should be appointed and lodged in his house, and that liberal stipends should be paid to them from the proceeds of his estate. The professors included one of astronomy, one of mathematics, and one of medicine. The estate bequeathed for the purposes of this College is now estimated to be worth three million pounds sterling. At the least, one-seventh of this belongs to medicine—nearly half-a-million of money. Is this money paid over by the trustees in any way in support of medicine or medical study? I regret to say that it is not. By a conspiracy between the Crown and the City Corporations, Gresham's property was in the last century fraudulently diverted from its legitimate objects. A large part of the estate and old Gresham House were handed over to the Crown in order to build on the site an Excise Office. The City authorities received a consideration in the form of certain privileges as to the raising of dues. The most astonishing feature about this transaction is that, in form at least, Gresham's College still exists. The trustees feel so safe in their legalised outrage that actually there is in the city of London a lecture-theatre, at the back of the premises of the Mercers' Company; and there, in rotation, the Gresham professors, who are nominated by the trustees and are paid at little more than the nominal rate directed by Sir Thomas Gresham, give formally and unheeded their annual course of lectures. Gentlemen, do you not blush for the honour of the English name when you realise the perfidy of which English ministers and London citizens have been capable? Surely, the day will come when the heirs of those who have thus betrayed the trust of their benefactor will seek to make reparation and remove the foul stain which attaches to them through the honoured name of Gresham.

Whether the funds thus indicated be obtained, or others be applied by the Government to the purpose, there seems to be every reason for the eleven medical schools of London to unite as soon as possible in common action to obtain one, or possibly two, fully equipped and fairly supported institutions for the study and teaching of the sciences related to medicine. Instead of a number of ill-supported schools, we ought to have in London at least one thoroughly good school comparable for the perfection of its appliances and the ability of its staff to the best of the German Faculties. The clinical teaching in the various hospitals might remain as it is at present, independent of any University organisation. But the University of London should be empowered by the Government (and provided with funds for that purpose) to unite the teaching of the medical schools as distinct from that of the hospital wards into a great central school of medical sciences. The lecturers who now to a very large extent teach in the hospital medical schools without appreciable pecuniary reward, and solely with a view to succession to a post on the staff of the hospital itself, would be relieved of a profitless and wasteful occupation. The fees paid by the students for these classes, which, when divided among eleven lecturers, amount to very little, would, when all brought to one centre, form a very important source of revenue. How, it may be asked, supposing such a central school to be endowed and started under the auspices of the University of London, would you insure the attendance of students at that school and break up the existing and competing schools? This, I think, might be left, to a large extent, to the spontaneous attraction of the superior arrangements and the improved teaching which a liberal expenditure of endowment would, under judicious hands, insure. But I think that it might be still further insured by a direct agreement and arrangement on the part of the University with the hospital staffs, and also by the special powers as examiners and directors of studies which the University could place in the hands of its own professorial staff.

This is, as perhaps you are aware, the method by which the University of Edinburgh succeeds in defeating that process of underbidding which would otherwise be fatal to its existence as a great school.

In this way, we might have in London, each provided with ample laboratory, museum, and assistants, two Professors of Physiology, one of Surgical Anatomy, one of Comparative Anatomy, one of Embryology, one of Botany, one of Pathological Anatomy, one of Pharmacology, one of Hygiene, one of Forensic Medicine, two of Chemistry, one of Experimental Physics, and others of the History and Practice of Medicine, of Surgery, of Midwifery, and of Psychiatry. The maintenance of such a staff, with their laboratories and assistants, would require an endowment of £20,000 a-year, whilst £100,000 would have to be sunk in providing the necessary buildings. This proposition appears Utopian; but all I have to say further in defence of it is this, that in Berlin, Vienna, Leipzig, and other continental cities the thing is done, and on a more costly scale than I have here suggested.

When such Medical Faculties as I have sketched to you exist in Oxford and in London, England will have begun to do her duty by the great profession of medicine. Until then, we are but hangers-on of foreign nations; until then, we reap where we did not sow, we gather where we did not straw. Until that time, I earnestly beg every man who enters on a medical career to remember that he is joining the cause of a profession deprived of its heritage, and to make it his business to reinstate medicine in her seat, and to secure the restitution of her possessions.

REMARKS

ON

THE INFLUENCE OF OBSTETRIC KNOWLEDGE ON THE MORTALITY OF MOTHERS IN CHILDBED.

*Being an Abstract of the Introductory Address delivered at the
Middlesex Hospital.*

By ARTHUR W. EDIS, M.D.,

Assistant Obstetric Physician to the Hospital.

PREMISING that the medical journals in their "Students' Number" and "Addresses to Students" had taken the place largely of the Introductory Lectures of bygone times, Dr. Edis, after briefly referring to the aims of rational medicine, the objects and method of education, the relations of the profession to the public, the many advantages we possessed unknown to our forefathers, and other matters interesting to the student, proceeded to the consideration of several topics, relating to midwifery and diseases of women and children, of importance alike to the profession and to the public. He adopted the suggestion given by Goethe in his *Faust*:

"Each man learns only what he can,
But he that hath the gift and power
To profit by the passing hour,
He is your proper man."

Of all medical studies that have been objects of scientific research or of practical inquiry, none has met with a more chilling indifference, none has been treated with more unmerited contempt, than midwifery. In its more extended meaning, this comprehends a knowledge of all the diseases to which the female body is more particularly liable; it includes the direction and management of women from the commencement of the pregnant to the conclusion of the puerperal state. It ought to comprise all human knowledge relating to the reproduction of the species. Even in the days of Hippocrates, midwifery seems to have been held in but feeble reputation, judging by his own works. It is easy to account for the great difference observable in these works between the graphic faithfulness by which all his descriptions of disease are characterised, and the crude, meagre, and erroneous doctrines on most subjects connected with practical midwifery. He studied diseases personally, and transcribed with amazing fidelity the symptoms which he himself observed, but depended for his precepts on midwifery upon the vague works of previous authors, or the still less satisfactory source of verbal reports. Celsus was one of the few early authors who treated midwifery with method, and he first exalted it to a state almost worthy of the name of science. To the illustrious Harvey, the discoverer of the circulation of the blood, who devoted much of his time both to the physiological and practical departments of obstetrics, this branch of the profession is greatly indebted. About the commencement of the

last century, the different nations of Europe first considered midwifery worthy of cultivation, and it now began to throw off the cloak of mystery in which it had been hitherto enveloped, and emerged into the light of science. Dr. Murphy, in his introductory address so far back as 1842, observed that it had suffered rather from its misfortunes than its faults; considered contemptible because practised by those who could not command respect, unintellectual and unscientific because it numbered even amongst its successful followers those who gave little proof of intellect and less of science, midwifery had been despised because it was misunderstood. I feel convinced that a cloud of unsubstantial prejudices has obscured its real nature; and that, whether as a subject of scientific investigation or of practical pursuit—whether as containing valuable facts to assist and encourage the researches of the physiologist, or as embracing points of practice which require all the discernment and decision of the accomplished physician—midwifery holds a place in no way inferior to those branches of our profession which have been looked upon with more favour and have received a larger share of professional patronage.

Two circumstances have contributed more than any other to depreciate the study of midwifery: one is the imagined facility with which it may be practised; the other is the want of a distinct obstetric board or centre of education. In the majority of instances, we have but to observe the progress of a natural physiological process, in which we have only the negative duty of avoiding interference unless some unexpected interruption takes place. But in the practice of midwifery there is one fact which cannot be too strongly impressed upon your minds, and which should teach you caution, lest those apparent facilities should beget an indolence of which you may one day repent. It is quite true that in general you will not have difficulties to contend with; but those cases in which they do occur, or where danger presents itself, generally give little time for consideration if your minds are not prepared with the requisite information, and your judgments matured by patient observation, so as to act on the instant with promptitude and decision. You are given no time to seek information; you will become embarrassed and incapable of undertaking the principal duty you were called upon to perform. In failing to secure the safety of your patient, need I tell you the painful situation, the unenviable feelings of the practitioner, who, through his ignorance or neglect, has snapped asunder the dearest tie of society, who has converted a house of joy and anticipated congratulation, where perhaps a happy result was confidently promised, into a house of mourning, in which a desolate husband and an orphan family have to pay the penalty of his presumption and neglect?

The want of a distinct obstetric board or centre of education has been a serious drawback to midwifery taking the position it is entitled to. In the College of Surgeons, the spirit of Sir Anthony Carlisle still seems to rule, who said that the midwifery of the country might be undertaken by the wives of the general practitioners. Although the diploma granted by them confers the right to practise every branch of the profession, obstetrics form no integral part of the examination: they have, in fact, no examiners in obstetrics. All the Council require, as a guarantee of a man's knowledge of midwifery, is a certificate of having attended one course of lectures upon this, with practical instruction, and a certificate of having personally conducted not less than ten labours. Dr. Robert Barnes, in his address on obstetric medicine, delivered last year at Manchester before the British Medical Association, took for his theme, "The Scientific and Political Relations of Obstetrics to Medical Science", wherein this question is ably and fully discussed. He there states that the College has not yet redeemed itself from the reproach it must continue to bear, that it licenses men to practise all departments of medicine whilst it tests proficiency only in part. It still grants its imperfect diplomas; it still licenses to practise what it ignores; it still inflicts a double injury upon the public and upon its members. Can we wonder, then, that the Council fail to recognise merits of which they are ignorant? Men who professedly, almost boastfully, disclaim all knowledge of obstetrics, can hardly be the best fitted to define the limits of obstetric education, to decide upon the amount of knowledge, or the degree of ignorance, upon which candidates for diplomas may be permitted to practise. The College of Physicians alone have had the grace to accord an honourable place to obstetrics; and it is doing the further public service of correcting, to a certain extent, the evil wrought by the College of Surgeons. Men who have for years been practising on the diploma of the College of Surgeons are constantly presenting themselves at the College of Physicians, anxious to undergo the perils of a new examination. To this they are driven by the pressure of public opinion, by the suggestions (more or less disinterested) of rival practitioners, by the disqualification of certain public appointments, and by their own sense of duty; while all concur in declaring that their surgical diploma is an imperfect guarantee of fitness