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.*

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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

to practise, an inadequate claim to public confidence. The time has gone by when the influence of any one corporate body, great though it be in its own estimation, can repress the scientific study of midwifery, though it may studiously ignore the subject for its examinations, and make the practice of it a disqualification for its honours.

The time has come when we must have the courage of our opinions and speak out plainly. When men like Barnes, Thomas, and Farr say the things that have lately been said, we need make no apology for following their example, and endeavouring, like them, to direct attention to the inadequate instruction and the feeble and defective regulations for the study and advancement of the science and art of obstetrics in this nineteenth century.

One reason why the science of obstetrics has not kept pace with the art of midwifery is the fact that we cannot push our investigations with prudence as far as the physician who, puzzling clinically over the mysterious symptoms cloaked in humanity to-day, investigates scientifically the pathological and morbid anatomy of the tissues, the seat of those symptoms, on the morrow in the *post mortem* room. It has been conceded on all hands that the discreet practitioner cannot with safety pursue alike the study of pathology and the practice of obstetrics: a higher consideration even than the quest of knowledge—viz., the safety of his patient—forbids him following up his investigations beyond the point where humanity becomes mortality. Thus far we may go but no further. His colleague the pathologist then takes up the inquiry; but, as a rule, with no preceding knowledge of the clinical aspects of the case, and each feels the arbitrary severance of clinical and pathological sciences.

Before we can hope to place the science and art of obstetrics on the same level that surgery and medicine have attained to, we must not only educate the medical student more carefully in the theory and practice of midwifery, but also afford him more ample opportunities of attending cases under skilled supervision and of witnessing ordinary obstetric operations. This is a question that should engage the earnest attention of our examining boards. That the student labours under great disadvantages in acquiring a competent knowledge of this department cannot be gainsaid. We have no obstetric or lying-in hospital with a school attached for the practical instruction of medical men similar to the Rotunda Hospital in Dublin, the Maternité in Paris, of the lying-in wards in the Allgemeine Krankenhaus in Vienna. A public appeal has been already made for founding an obstetric hospital for the western district of London. Whilst there are 75 general hospitals with 10,760 beds between them for the various accidents and diseases, there are only four lying-in hospitals, the number of beds amounting to 145 altogether. The proportion gives one lying-in bed for every 12,800 of the female population of the metropolis of 1,856,207 female inhabitants.

Much as it seems desirable to have some school of midwifery where students would have an opportunity of observing difficult cases and of witnessing obstetric operations, it is a subject that needs to be very carefully considered whether this would be a safe and judicious plan. The late Sir James Simpson, after due consideration, condemned maternity hospitals without reservation. Although the building be excellent, with all the latest sanitary improvements, the staff of officials numerous and experienced, and everything that kindness can anticipate, experience suggest, or science elucidate, be focussed in these centres, still statistics show that the average death-rate exceeds considerably that of our out-patient maternity departments, and the average results of general practice. Statistics, it is true, may not be infallible data to go upon, but they are, nevertheless, most valuable as guides for the future. Taking the Rotunda Hospital, Dublin, as an example, the maternal deaths of the in-patients, extending over a very long period, have averaged 14 per 1,000. The death-rate of the three London lying-in charities has generally exceeded this, amounting even to 40 per 1000. Now, if we compare these with the out-patient maternity departments, we shall find a great contrast. The deaths of mothers to 9,019 delivered by the Royal Maternity Charity in the three years 1875-7, were 21; the mortality was at the rate of 2.33 to 1,000 deliveries. In the Birmingham Lying-in Charity, the mothers are attended at their own homes by four instructed midwives; 8,607 mothers were delivered in ten years, of whom 20 died. The mortality was at the rate of 2.32 deaths to 1,000 mothers delivered.

The average mortality of the out-patient maternity department of the City of London and British Lying-in, as well as the Royal Maternity, scarcely exceeds 2 per 1,000, and even in the maternity departments of our metropolitan general hospitals with medical schools attached, where the patients are attended in their own often squalid homes, by young and inexperienced students, who are also attending surgical practice, and possibly *post mortem* examinations, the average mortality is only 1 in excess of the special hospitals, viz., 3 per 1,000.

In the middle of the seventeenth century, about 1 in every 40 or 50 women delivered in London died in childbirth or from its consequences; but gradually, as medical science has advanced, that mortality has decreased, till now not above 1 in 150 or 200 die.

In the last annual report of the Registrar-General for the year 1876, we find that no less than 4,142 mothers succumbed during that year to the accidents and diseases incidental to childbirth, not including 1,034 who died after child-bearing from various diseases not referred either to childbirth or to metria in the abstract. The mortality of mothers in England, notwithstanding the progress of the obstetrical art, was higher in the two years 1874-5 than it has ever been since 1847.

In the thirty years from 1847 to 1876, no less than 106,565 mothers died in childbirth, that is, five to every 1,000 children, one to every 200 children born alive. Well may Dr. William Farr append to his report, How long is this sacrifice of lives to go on? This is a deep, dark, and continuous stream of mortality. How can it be accounted for?

Bear in mind we are not dealing with the data of some mysterious disease that baffles our art and bids defiance to our efforts to restrain it, but with the records of what should be the performance of a mere physiological function, at the period when the powers of life are, presumably, in full working order, and where, in the majority of instances, the process is under the supervision of a skilled attendant.

During the last few months we have had to deplore some most terrible disasters at sea. The *Eurydice*, within sight of our shores, almost within ear-shot of home, having breasted the waves in safety from a foreign clime, caught in a sudden squall, capsized, and but two are saved out of a crew of over three hundred to tell the tale. The German ironclad, the *Grosser Kurfürst*, in broad daylight and on a smooth sea, rammed by its comrade the *König Wilhelm*, reels over on its side and sinks in mid-ocean, whelming in the vortex well-nigh three hundred of the crew, out of a total of just upon five hundred. But what appealed possibly even more directly to the public sympathy was the running down of the *Princess Alice* steamer on the Thames only a few weeks since, when, in the course of a few minutes, over six hundred helpless beings sank exhausted, to rise no more. Well might the nation sicken at the recital of such appalling disasters, and express its profound sorrow and sympathy for the friends; and yet the total number of lives lost by these deplorable casualties did not amount to a third of the number of women who die annually in childbirth; and, if the details were but known, numbers of these died far more tragically and endured far more suffering than those

"Who sank into the depths with bubbling groan,
Without a grave, unknell'd, uncoffin'd, and unknown."

In the present state of obstetrical science, a certain number of deaths from diverse causes are inevitable. There are cases which foil the most consummate skill. Then there are difficult cases, which defeat the ordinary practitioner, and where skilled assistance is rendered too late. Dr. Farr, with an earnestness of purpose worthy of all honour, in his Annual Report, says: "I have every year specially dwelt on the causes of death in childbirth for two reasons: firstly, because the lives themselves are at the most precious age; and, secondly, because skill can do more here in averting danger and death than in other operations." No less than 705 cases of deaths from flooding before, during, or after delivery, besides 262 cases of placenta prævia and 71 of retained placenta, making a total of 1,038 cases of fatal hæmorrhage, were registered during the year 1876.

Goethe begins his remarkable *Autobiography* by observing that, through the unskillfulness of the midwife, he was born for dead, and only after manifold efforts of those around him saw the light. Newton also had a narrow escape.

The number of live-born children registered in the United Kingdom in 1876 was 1,155,186, of whom about 173,278 belonged to the middle and upper, and 981,908 to the lower classes of society. Assuming that 30 per cent. of the mothers registered were attended exclusively by medical men, 687,336 will remain among the lower class to be annually attended by midwives.

Let us inquire for a moment what measures, if any, are adopted for the training or instruction of midwives. The Committee of the Society on Infant Mortality says that, in answer to the question, widely circulated, Are the women instructed in midwifery? answers in the negative have been received from all parts of the country, with the exception of Glasgow and Sheffield. From several districts, the replies indicate not merely a want of any special education, but gross ignorance and incompetence, and a complete inability to contend with any difficulty that may occur; and yet the Obstetrical Society of London shows in its valuable report that, in the country villages, from 30 to 90 per cent. of the cases of midwifery are attended by midwives. This Society has done good work in directing the attention of Government to

the necessity of properly educating women to act as midwives to the lower classes. As a result of frequent deputations and continued agitation upon the subject, Lord Derby in 1875 issued a circular addressed to Her Majesty's representatives at Paris, Berlin, Brussels, the Hague, St. Petersburg, Stockholm, Vienna, and Washington, asking for returns of any laws or regulations which might exist in those countries relating to the instruction, supervision, and registration of women before they are permitted to practise as midwives. In reply to this, answers were received stating that, in seven out of the eight countries appealed to, such legislation did exist. The United States alone shared with England the unenviable distinction of caring nothing for the welfare of the community as regards the education of midwives. Although, as I have stated before, some six hundred and eighty-seven thousand women are annually dependent for help in their hour of trial upon this too often ignorant, drunken, and incapable class, the self-dubbed midwife, a large number of whom are a scandal and a reproach to any civilised community, they are still tolerated, if not encouraged. Here and there, efforts have been made to remedy this deficiency in supplying properly trained midwives; but nowhere has the subject received such consideration as its importance demands.

I now pass on to another branch of the question. The fundamental principle of sanitary method being the discrimination of disease, it follows that the fundamental principle of sanitary practice is the discrimination of conditions under which disease prevails. As a corollary, a knowledge of these conditions is necessary to an intelligent adaptation of remedial measures.

The triumph of modern surgery is its conservatism; that of medicine, its preventive aspect; and the direction in which the practitioner must labour to put obstetrics upon a corresponding footing is equally to anticipate the dangers and difficulties likely to beset him, and not merely to attempt to cure the mischief that has been allowed to develop. A day will come—and let us hope speedily—when we shall review with shame and regret the evil that we allowed to overtake our loved and dear ones through ignorance and carelessness on their part, in permitting them to undertake the physical labours of maternity without our watchful supervision and guidance during the months when they were hastening to their doom.

The strange and passionate precipitance of maiden into motherhood presents phenomena to the thoughtful mind that we should do well to consider more carefully. Physiological conditions pass by an almost invisible series of transitions or degenerations into the domain of pathology, almost justifying the dictum of Mauriceau, that pregnancy is a disease of nine months' duration. In any case, the progress of the pregnant woman should be carefully watched, the medical attendant should be expected and required to visit her from time to time during the whole course of her pregnancy, in order to see that everything is progressing favourably towards a successful delivery, and to remove, if possible, any condition which is likely to interfere with this. Many a case of serious uterine disorder would thus be discovered and remedied before the evil had been allowed to go on to a dangerous extent. What should we think of a trainer who allowed a pedestrian, a sculler, a runner, or an athlete, to undertake a feat that would tax his utmost efforts, necessitating stamina, strength, speed, skill, and endurance, without many preceding months' or weeks' training and supervision? and yet we allow the wives and mothers entrusted to our care to go on in ignorance of the necessity of strict attention to hygienic and physiological laws in order that they may with safety bring forth their offspring. *Principis obsta* must be our motto.

Cases of retroversion of the gravid uterus, with impaction in the pelvis, and, as a consequence, prolonged constipation and retention of urine, with all their formidable array of symptoms and the distress and discomfort produced, are too frequently allowed to go on unremedied from the patient being utterly ignorant of anything more than the usual discomfort attending her condition being present; and it is not until the uterus has moulded itself in the cavity of the pelvis and blocked it up entirely, causing complete retention of urine and feces, that we are sent for, and then find any attempt to replace the gravid uterus is hopeless, and only after much patient and intelligent effort are we able to relieve the most urgent symptom and succeed in drawing off over a gallon of pent-up urine. Had proper supervision only been permitted, such a condition would have been recognised before it became dangerous, and never allowed to progress to such an extent.

Miscarriages on all hands are admitted to be as bad if not worse than a confinement as regards their influence upon the economy and the risk of mischief ensuing in consequence; and yet it is to be feared that many a young happy couple have had "their lives put so far apart they could not hear each other speak", through what was considered to be merely a miscarriage, and therefore not worthy of professional

attendance. Had Mauriceau's dictum only been recognised, and watchful supervision been observed, how different might have been the issue! Many a valuable life has been sacrificed, and many years of suffering and unhappiness produced, in consequence of making light of a miscarriage, either wilfully or ignorantly. Even should the patient recover from the immediate effects of the miscarriage, the severe hæmorrhage and suffering, the anxiety, and confinement to the house, call forth inevitably any latent disposition to tubercle or other hereditary disease; and whilst sorrowing for the life thus prematurely cut short, or vainly regretting the blighted hopes of a fruitful marriage, the knowledge that this depended merely upon a neglected miscarriage will prove no solace to the friends or comfort to the sufferer.

It was shrewdly suspected that a young and lovely bride, whose marriage ceremony attracted the notice of the whole civilised world, whose death not long since struck dismay and grief into the hearts of so many, in place of dying from "nervous gastric fever, accompanied by an abundant hæmorrhage of the intestines", as the bulletins announced, perished really from hæmorrhage and septic mischief, the result of an overlooked miscarriage. Well might the suggestion be given that the schools ought in future to have regard to the quality rather than the quantity of men they turn out with warrants of their ability to recognise and treat disease.

Can it be doubted that many a case of extra-uterine foetation might be detected in the early months, before rupture of the cyst, with its appalling consequences, ensued; when treatment might be adopted such as that pursued by Thomas, if only we recognised the necessity of caring for our patients in the early days of utero-gestation? In place of being hastily summoned to attend some fragile bride of but a few months' duration, suddenly struck down by profound syncope, whose pallid features are covered with a clammy cold sweat, as if she had but lately seen the king of terrors, who had marked her for his victim, we might have anticipated this dire calamity and recognised the frequent spasmodic paroxysms of colic or cramp in the hypogastrium, the vaginal hæmorrhage, and even expulsion of the decidua, had we only watched her more carefully. How frequently does it happen that in cases of that terrible condition, placenta prævia, that hæmorrhage after hæmorrhage is allowed to occur, but no skilled assistance is sent for, as the patient is not in labour; and when at length, after many losses, the medical attendant does see the patient, a little acetate of lead and opium pill, or a pretty mixture of gallic acid and infusion of roses is intrusted with the mission of checking what intelligent practitioners regard as the direst accident the pregnant female is subject to, and which generally taxes their utmost skill and intelligence in dealing with.

No patient—if the least deformity of the skeleton exist—should be allowed to go on to the full term of pregnancy without having undergone a careful examination as to the capacity of her pelvis, in order that the question of the induction of premature labour, in place of craniotomy or Cæsarean section, might have been fairly entertained. Doubtless there will be many who will object to any such strict investigation, but when the practitioner himself becomes fully impressed with the necessity of thus anticipating evil, and refuses to undertake the conduct of any case unless he be cognisant of the exact data upon which he may calculate, the public will soon acquiesce in what they will see is intended for their own good. Who that has ever witnessed that formidable operation, Cæsarean section, in some crowded squalid dwelling at midnight, by the help of a few feeble rushlights—sufficient, however, to show to the agonised spectator the ghastly horrors of the scene before him—did not regret that some means had not been adopted to anticipate such a dread ordeal and obviate the necessity of resorting to such a method for delivering a woman from the pangs and perils of childbirth; and yet, had the practitioner but known that pregnancy existed where parturition at full term was impossible, nothing would have been more simple than to have calculated almost to a day the time when delivery might have been safely induced, or in any case the miscarriage brought on.

Not until the consciousness is impaired, and we are hastily summoned to attend our patient, writhing in the agonies of spasmodic and convulsive muscular action, breathing as if some invisible fiend had seized her by the throat and was doing his best to throttle her, or lying in a state of helpless coma, with stertorous breathing, surrounded by her agonised and sorrowing friends, do we recognise that our patient is suffering from eclampsia and ascertain on inquiry that there have been headaches, drowsiness, loss of memory, giddiness, great restlessness, œdema of the hands and feet, and other well marked precursory symptoms of albuminuria for days or weeks past.

Only when our patient is entering into powerless labour do we ascertain that she has not been outside the door for several weeks or months, that her appetite has been defective, her sleep disturbed, her secre-

tions disordered, and her general health in anything but a satisfactory condition for entering into the trying ordeal of labour.

How often does it happen that, after a patient has undergone many weary hours or days of useless suffering and mental anxiety, we discover that the pelvic brim is contracted, or the disproportion between the capacity of the maternal pelvis and the bulk of the foetal head is such, that by no possibility can delivery be accomplished by natural efforts, and that we must either apply forceps, or it may be resort to that terrible necessity of reducing the bulk of the one to suit the capacity of the other. Had we but learned that parturition is a problem in mechanics—a body to be put in motion, a moving power to propel it, and a resistance to be overcome, and that whenever the relation in which each of these three points of the problem stand to one another is in such a ratio that no movement or motion can be produced, the labour is at a stand—and had further taken the precaution to ascertain that the relation of the several forces was such that it was impossible for a natural solution of the problem to be effected—we need not have wasted our own time nor, what was equally if not far more important, occasioned our patient so much needless suffering.

We need not wait for the rupturing of the membranes and protrusion of the foetal arm or impaction of the shoulder at the brim to acquaint us with the fact that we have a transverse or cross presentation to deal with. We trust the day is not far distant when every practitioner, on being called to a case of midwifery, in place of satisfying himself that everything is going on rightly on the mere word of some ignorant untrained monthly nurse, will make a point of carefully examining the abdomen externally, in order to determine whether his patient be pregnant, and, if so, whether the foetus is presenting in a normal direction.

Again, the fact of twin pregnancy may be recognised by external manipulation alone, without waiting for the tedious delivery of the one child, on account of the undue distension of the uterus, before the presence of the other be suspected. The fact of our having ascertained the presence of twins before their expulsion may prove of much service to us in our conduct of the case, and may equally save us from the necessity of being again hastily summoned by the nurse to the lying-in room to attend the exit of No. 2, of whose presence we were sublimely unconscious, whilst we were congratulating the happy father upon the safe arrival of No. 1.

Yet once more we are sent for when what eventually proves to be a tragedy is about to be enacted. Everything seems favourable, but progress is slow. Our patient has come to the birth, but has no power to bring forth unaided by a little timely artificial assistance. Hour after hour is allowed to pass, whilst the patient's feeble powers are becoming slowly but surely exhausted; in ignorant impotence we wait to see what will come of it, until at length, when further assistance is obtained and delivery accomplished by art, nature is so exhausted that she has not the power even to respond, and the flaccid uncontracted uterus allows the life-blood to stream away from the unclosed portal, and all our puny efforts now are but wasted and useless. In place of a happy mother beaming with joy at the sight of her offspring, there is but the pallid corpse concealed beneath the sheet; and the father of the helpless orphan, if haply it have survived its tedious and dangerous transit, can but cry to vacant chairs and widowed walls—"My house is left unto me desolate!"

Can it be doubted that if we had an accurate register of the number of still-born children annually delivered, we should be surprised to find what an incredible number succumb in attempting to make their entrance into this world of ours? It is melancholy to contemplate this massacre of the innocents. If, in our walks abroad, we happen to see some fellow-being attempting a task he is unable to accomplish, in place of standing idly by watching his futile efforts, if we have any heart within us, we lend what timely assistance we can, and thus enable him to overcome the difficulty. And yet, when we are called upon to witness nature attempting to give birth to a new being, and see that assistance is required, we hesitate to render that help so imperatively called for, sheltering ourselves under that old effete adage, the refuge of the ignorant and the incompetent—"Meddlesome midwifery is bad"—and thus allow the fairest and the best of the flock to perish miserably in the transit from its potential to its actual existence. The mother is thus bereaved of her first-born, and has the melancholy satisfaction of knowing that all her labours and suffering have been in vain, her strength has been expended for naught.

The Registrar-General, in his last annual report for 1876, relates circumstantially a case certified as death from "childbirth; extreme exhaustion: from anaemia of the heart (four hours)". On further inquiry, it was ascertained that the patient—aged only twenty-nine—was confined of her first-born at 2.20 A.M., and not until the assistant appeared upon the scene, at 5 A.M., when the patient was all but moribund from profuse and continuous flooding, was any suggestion

made as to the placenta being removed. "Have you not taken it away? Take it away, then, and do not let the woman die with it in her," were the words that grated on the ear of the well-nigh distracted husband, who now for the first time forced his way into the lying-in room. But, by this time, inexorable fate had claimed his victim; and nothing remained but to draw the curtains around this distressing scene. Truly does Dr. Farre observe: Such fearful cases should be judged by the Medical Council. This lady had studied in Cambridge for three years, and had distinguished herself considerably at the University examinations. She had just been appointed principal to a new training college for teachers, at a rising salary of £300 a year. The value of that, calculated at the ordinary rate, was worth little short of £3,000, and that sum might have been claimed from the directors of a railway company for such a life lost by the accidental negligence of one of their servants. What the economic value is of all the women's lives lost annually by uninstructed midwives, or unskilful surgeons, it is impossible to calculate without investigating the facts of each case. It must be large. This is one example.

We speak of that terribly appalling scourge of the lying-in woman, puerperal fever, as being autogenetic; or, in other words, self-produced from some decomposing clot or laceration bathed in sanies. Who shall say that the many fruitless hours expended unnecessarily by the feeble uterus, in its efforts to expel the foetus, before assistance by means of forceps was rendered, was not the exciting cause of the relaxation of the muscular fibres, which permitted the alarming hæmorrhage to take place—proper contraction of the uterus being thereby still further prevented—and thus allowed a clot to form; which, again, being allowed to decompose without let or hindrance from any antiseptic injections or manual interference, produced the so-called autogenetic puerperal fever, which, after much anxiety and suffering, eventuated in death?

Who can tell how many cases of this dire disease are due to decomposing lochia constantly bathing the raw surface of some overlooked ruptured perineum; this itself the result of the imperfectly understood mechanism of parturition, or the neglect of timely assistance when the foetal head was distending the perineum?

Not until midwifery, and all that throws light upon the important changes which occur during the pregnant and parturient condition, receives the intelligent consideration of the medical student, as well as the practitioner, shall we be in a position to recognise the first dawning of the obscure mental symptoms, which, neglected, lead inevitably to the development of puerperal mania, with all its melancholy surroundings. In place of being hastily summoned to restrain some furious maniac, who has but recently precipitated from the window to the street below the offspring, a short time since the object of so much anxious maternal solicitude and care, and who herself is now transformed from the gentle, docile, affectionate wife and mother to the filthy, scurrilous, and raving maniac, we should have recognised the irritability of temper, the inability to sleep, the suspicion, obstinacy, and watchfulness, so unlike the natural condition of the patient; and which, had they only been noted and treated in time, might have saved much misery and anxiety.

When preventive midwifery is understood as it should be, we shall not think of allowing any patient, who has undergone the pangs and perils of childbirth, to resume her place in society, without having first ascertained whether she has incurred more than the ordinary penalties of parturition, and is in a fair way to recover her former physiological condition. A surgeon would not think of dismissing his patient, who has been the subject of amputation, at the end of the week or on the ninth day; without even troubling to inquire whether the stump was healing, and whether the patient herself was going on satisfactorily; nor should we allow our patient, who has undergone an equally dangerous operation, to depart without satisfying ourselves that everything is as it should be.

What facilities has the student for becoming acquainted with the diseases incidental to women? Taking the eleven metropolitan hospitals, with medical schools attached to them, alone into consideration, we find that, out of a gross sum total of 4,280 beds, 155 only are devoted to the diseases of women—a proportion of about 1 in every 27 medical and surgical beds; or, taking the number of beds devoted to females as approximately 2,000, only 1 in 13. That is, in other words, one bed set apart for the diseases of women is available for every 12,000 of the female population of London. When we consider the frequency and severity of these special ailments, and the urgent necessity that so often exists for rest and repose from the fatigues and trials of domestic life, we are struck with the inadequacy of the accommodation, and wonder that no philanthropic ladies have taken up this question, with a view to increasing the number of beds available for their less fortunate and more suffering sisters.

The same chilling indifference and unmerited contempt that have been shown towards midwifery, as usually understood, have been extended to the study of this speciality also. The examining boards ignore the subject; and the student, always keen to follow a lead that lessens in any way the calls upon his time and attention, follows suit, and, with rare exceptions, never gives the subject another moment's consideration. Not until he discovers his ignorance, when engaged in actual practice, and when the facilities for studying it no longer exist; this being the time, not to learn, but to put in practice, knowledge that should have been previously acquired, does he vainly regret his lost opportunities. I have no wish to magnify mine office, but I am in a position to state that there is an enormous amount of suffering endured by the female sex, patiently, and in many cases uncomplainingly, although evidence of the hidden mischief is apparent to any intelligent observer. We cannot but ask: why is it that they are content to bear a life-long burden of suffering or discomfort rather than disclose the nature of their ailment, and seek that assistance from their ordinary medical attendant that would be demanded in any other condition not comprised under the disorders incidental to their sex? We fear it is not altogether a question of female modesty. Want of confidence in her medical attendant, who pooh poohs her numerous aches and pains, and terms them hysterical, or who resorts to violent cathartics for all contingencies, soon prove conclusively to the patient's mind that her sufferings are but ill understood, and her sorrows deemed unworthy of serious consideration.

During the year 1876, no less than 887,968 births were registered, this birth-rate being the highest on record for England and Wales. The proportional number of deaths of infants under one year of age to every 1,000 births was 146; or, in other words, nearly 130,000 of the children born succumbed before the return of their first birth-day—taking no account whatever of the thousands of children still-born from accidents of childbirth, which are not registered.

What are the causes of this fearful waste of life? Can anything more be done by the profession, than is being done at the present time, to check this massacre of the innocents? I feel sure that the mere mention of the subject will be sufficient to ensure its earnest consideration by those who are studying, not only how to cure, but also how to prevent, disease. You may reply: There is nothing special in the study of infantile complaints—different from that of adults.

What facilities has the student for observing infantile complaints? Every facility and ample opportunity, were he only required to utilise them. In the out-patient department of all our metropolitan hospitals with schools attached, the number of children seen annually is immense; but the examining boards requiring no proof of knowledge on this subject, the student ignores it. It is comparatively rare to find students availing themselves of the experience thus presented to them. Possibly they think there is nothing special in the study of infantile complaints different from that of adults.

It is on all hands, however, recognised that the diseases of early life differ in many important respects from those of the adult; that not the frailness of the machinery, nor the imperfect powers possessed by children of explaining their sufferings, nor the smaller doses of the remedies suited to their tender years, are the special points which call for attention; but that also diseases themselves run a different course, symptoms have a different import, the probabilities of death or of recovery are determined by different considerations in the child from those which govern our conclusions in the adult. Remember also that, although your little patient may form but one of many who, it may be, demand your care and attention, that he may be the one sole consideration of some anxious mother, around whom all the parent's hopes are centred, and upon whom all her love and sympathies are concentrated—the one star of her existence, whose rays when quenched bring darkness deep as night and gloom that no love can lighten for a time. The heart of Rachel for her children weeping will not be comforted. Scarcely a more distressing spectacle exists than a young mother bereaved of her first-born; and woe be to you if, through any ignorance or negligence on your part, you have allowed the little stranger to depart to realms unknown without warning the parents of the danger of the malady, or obtaining the assistance of some professional friend to share the responsibility or aid you with his counsel.

Many of the causes of the high rate of infant mortality are apparently beyond our province as practitioners, and yet, unless we as a body attempt to stem the torrent, who will attempt it? In the manufacturing towns, where women are largely employed away from home during the greater part of the day, maternal neglect is unquestionably one of the most frequent causes, together with the administration of opiates and substitution of farinaceous foods in place of breast-milk. In fact, the causes generally may be summed up as,—improper and insufficient food, which produces convulsions, diarrhoea, and atrophy; bad management

on the part of the mother from ignorance, debility, and too early marriages; and the employment of opiates and other injurious agents. But there is still another very fertile source of mischief in the common and pernicious delusion of nursing mothers or wet-nurses, that when suckling infants they require to be "kept up" by alcoholic liquors; and women who are little given to alcohol at other times become for the nonce determined tipplers; this being, perhaps, of all other times, that when alcohol is likely to do most harm and least good. Apart from all consideration of the risk of encouraging the habit of chronic tipping in the mother, the influence upon the child is most injurious. Convulsions are by no means infrequent; indigestion with flatulent distension of the abdomen, attacks of colic and diarrhoea also occur, and to remedy these a few drops of brandy are generally prescribed by the mother or nurse—thus adding insult to injury, and increasing the tendency to emaciation and death.

The several questions arising out of the consideration of the subject may be summed up under three headings.

1. Assuming that the education of the medical student as regards midwifery and the diseases of women and children is inadequate, how can it be improved?

2. How can the present deplorably ignorant condition of midwives be best remedied?

A solution of these two questions will aid us materially in arriving at an answer to the corollary of them—

3. How can the annual mortality of mothers in childbirth be lessened?

Firstly, as regards the medical student. Not until the several examining boards—or the conjoint scheme, if ever it be agreed upon—make midwifery an important integral part of the examination for the qualification, whether diploma, licence, or degree, can we hope that adequate attention will be given to the practical study of the subject by the student himself. The question of establishing a lying-in hospital in London, where senior students and junior practitioners would be enabled to learn practically the art of midwifery under skilled supervision, is one that needs to be very seriously considered. I will not presume to settle this question off-hand, but leave it as it is at present, knowing that it has been taken up by those, some of whose names stand high in our profession, and are sufficient guarantee that whatever is done will be well and wisely done. In any case, opportunities must be found or made for instructing the student practically in the operative department of midwifery, as well as increasing his theoretical instruction in all its several branches, so that he may be in a position to recognise earlier the first threatenings of coming mischief.

Secondly, as to the midwives. If each practitioner would only take the trouble to educate some respectable woman in his immediate neighbourhood to act as midwife to the very poor until Government had arranged some plan of national importance, something would thus be done towards improving the present ignorant and incompetent state of midwives, and it would further have the advantage of preparing beforehand many who would be qualified to register as Government midwives when legislation on this subject was further advanced. The Council of the Obstetrical Society of London have, for some time past, been directing attention to this subject. They suggest that the instruction of midwives might be done by utilising the present lying-in charities and unions. Theoretical and practical instruction might be given by authorised medical practitioners, and practical instruction might also be given by registered midwives. Dr. W. Farr points out in his appendix, that "two things are wanted in every great centre; (1) a society (such as the Royal Maternity Charity) to set midwives to work under an obstetrical practitioner charged with their instruction and guidance; to be followed by (2) a self-supporting society among the independent third class, who would thus provide themselves with all the skilful help in childbirth their means will enable them to command".

Thirdly, how can the annual mortality of mothers in childbirth be lessened? I have attempted to sketch out, though vaguely and imperfectly, the direction in which we should labour, by anticipating difficulties before they occur, exercising a more watchful supervision over our patients during the whole course of pregnancy, and improving in every way the education of the student in this special department, as also by prohibiting any but instructed and skilled midwives presuming, or being allowed, to take charge of patients, whilst performing such an important physiological function.

This is neither the time nor place to offer or discuss a well-digested thesis on the subject. I have but ventured to direct attention to the necessity for some marked educational and legislative improvement being at once proceeded with, and if I succeed in doing this my object will be effectually accomplished.