How did the gas get into the pleural cavity? The usual cause of pneumothorax is perforation from without, most commonly by the giving way of the pleura over a phthisical deposit in the lung; the symptoms then are generally sudden in their onset and sure. But, in this case, the absence of any such sudden attack indicates a gradual production of the condition. What did the *post mortem* evidence say? The lung had been compressed for a long time, and there was no evidence that there had been perforation from this organ; here there was what was apparently a healthy lung before it became compressed, with no pathological cause for perforation. If, then, we can find no cause external to the pleura, we are led to consider whether the gas may not have originated within the cavity itself, by decomposition in an old empyema. As to the possibility of such decomposition, authorities differ widely; for, while most English writers recognise it as a rare occurrence, Fraentzel, on the other hand, in Ziemssen's *Cyclopadia*, says: "No distinct proof has ever been adduced of the origin of pneumothorax in this way—indeed, it appears clear, from the researches of Ewald, that no development of gas can ever take place in such a manner." Notwithstanding this, I am disposed to regard this case as one in which the gas did result from decomposition without access of external air; there was no evidence whatever of any other source, while the history and the *post mortem* appearances alike pointed to a chronic course and a gradual accumulation of gas.

Lastly, with regard to the unfortunate sequel to aspiration—escape of the pleural contents into the subcutaneous tissue—this is an accident which, as far as I can ascertain, has not been met with before. Although there was only the puncture of the aspirator-trocar—usually so harmless—yet there was extensive passage of the very irritating secretions into the planes of connective tissue. As the result showed, it would have been better to have opened the pleural cavity freely at first; but the complication that occurred was one that has not hitherto entered into our calculations. In a similar case, if I decided on aspiration, I should be disposed to watch narrowly the site of puncture, and make a free opening into the pleural cavity if there was any evidence that its contents were passing into the subcutaneous tissue.

Of the foregoing cases, the first two, instances of empyema with bronchial fistula, tell strongly in favour of an antiseptic free opening. The third ended in death; but that could not be attributed to the aspiration, as it was simply the necessary result of the physical conditions present—the tapping itself having again and again prolonged life. And yet, in a table of statistics, the fatal result would be put down as occurring after tapping for simple pleurisy. The last case, so far as I have been able to discover, stands alone as an instance of a complication of aspiration not before met with; but even here, although death must be attributed immediately to the unfortunate accident, yet, if nothing had been done, the patient must inevitably have died, and that very speedily. These two cases illustrate how little is the value of bare statistics without those accompanying details that may entirely alter their apparent significance.

EXTRACT OF AN ADDRESS ON SOME CURRENT MEDICAL TOPICS.

Delivered at the Annual Meeting of the Birmingham and Midland Counties Branch.

By JOHN TIBBITS, M.D., Warwick,
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RECENT legislation has given our profession a potent auxiliary in the appointment of special Medical Officers of Health. Through them a bond of communication is created between the Government, the public, and ourselves, enabling all three to work in unison in promoting and enforcing sanitary improvement in all its ramifications. Already, who can fail to observe some of the results apparent throughout the kingdom? The regret we occasionally feel on hearing of unfortunate collisions here and there between the Officer of Health and the private practitioner are, let us hope, only incidents arising out of a somewhat novel order of things. When our relationships are more thoroughly comprehended, such misunderstandings will no doubt cease. The admirable and exhaustive reports continually brought before us by sanitary officers aid us individually by pointing out the conditions of each of our particular localities, imparting to us a knowledge of facts, and acquainting us with the state of unobserved places, which escape the attention of those whose opportunities of vigilance are restricted within narrower limits; while the constant publicity of the more prevailing causes of death proves a most effective weapon in the armoury of preventive medicine.

In too many parts of the United Kingdom the alarmingly high rate of infant mortality calls for careful investigation and prevention. Some

of its causes are deeply rooted in social defects, perhaps almost beyond the reach or control of the sanitary officers. They can point to the figures revealed by the death-registers, but possibly in many instances can do little more; but it is in the power of all who are actively engaged in the practice of medicine to cast more responsibility upon the coroners than generally falls to their share in this momentous matter. Who amongst us is not painfully familiar with the half-fed, strumous, or syphilitic infant, brought for the first time before the physician's eye, when the heedless, incapable mother, or, still worse, the indifferent hired nurse seeks aid, not through affection or a conscientious sense of duty, but because of the fear of not obtaining the certificate of the cause of death, which is often too good-naturedly granted? Indirectly, we may thus be aiding and abetting the neglect we are so anxious to suppress. We are consulted in these cases, not on account of the good we can do for the sufferer, but for the satisfaction, as it is called, which we can give, and the veil our observation, however slight, may serve to draw over indolence, ignorance, or even crime. Besides all this, the actual infantile deaths only represent one part of the national evil. The incalculable number of those who do not die, in spite of unwholesome and insufficient food, bad nursing, cold, disease, and neglect of every possible description, goes on adding fearfully to the degenerated stock of our urban population. This especially concerns each one of us most deeply, as the custodians of their mental and physical development. Commonplace as these well known facts may appear to us, their incalculable importance induces me to call attention to them on this occasion.

Another important subject which suggests itself to us, as guardians of the public health, is the often imperfectly understood management of children of all ages in schools. The simple and self-evident proposition that during growth a proportionately much larger and more frequent supply of wholesome nutriment is requisite than in the fully developed adult, is too frequently ignored altogether or practically unknown. The disastrous results are manifest in the irretrievable damage so commonly inflicted on originally robust constitutions. The arrangements of many of our public schools and institutions for the young undoubtedly require improvement.

Probably very few instances would be found in which the earnest remonstrances of the responsible medical officers would fail to produce the necessary reforms. If only care be taken that such remonstrances are supported by physiological facts, with common sense arguments, no governing bodies can be so stubborn or so devoid of humanity as to disregard the well-considered suggestions and efforts of the medical philosopher. Too many of us are well acquainted with the lean, stunted, feeble, dyspeptic, strumous subjects, worn into premature adolescence by excessive brain-worry, insufficiently sustained by commensurate aliment to supply material for thorough development. The commonly prevalent system of commencing tasks in the early morning, occupying from one to two hours or more before breakfast, to be quickly followed by sustained mental effort until 12 or 1 P.M., with only an hour or two allowed for relaxation, and the most substantial daily meal; then again close application until 5 P.M., to be followed with the preparation of tasks for the next day, is far too much for young and rapidly growing children. Besides, in many cases, the only meal remaining is the one about 5 P.M., consisting generally of tea and bread and butter. Thus an interval of about fourteen hours elapses between the last repast in the evening and the first the following morning. We should reflect that the process of digestion in the healthy stomach is so rapid, that an ample meal consisting of animal and vegetable substances may be almost entirely converted into chyme in about the space of one hour, and the stomach left empty in two hours and a half. This was conclusively demonstrated some years since, in the case of the man St. Martin, in whose stomach an aperture remained after a gunshot wound, by means of which aperture experiments on the period of time occupied in the digestion of various aliments could be performed with unerring precision. Nutrition is in most active progress during repose, and man in his natural state, like most, if not all animals, would sleep when replete with food. Because the human economy early in life tolerates insufficient food, it does not follow that a more generous supply is not wanting for perfect development. For the errors to which I have alluded, the public mania for cheapness is in some degree responsible. How some scholastic institutions can possibly be remunerative at the present price of provisions, if children are properly fed, appears incomprehensible.

Many other problems suggest themselves to the medical mind, now that the State has decided that every child above the age of five years shall be educated. Neither the public nor our school-boards appear to grasp them yet. The primary principles of mental and physical health in children are imperfectly understood. How often are the sleepless conditions of the overwrought brain overlooked or misunderstood. Sensi-

tive children are permanently injured by fear or cruelty, while kind inquiries of the teacher into the mental capabilities of their pupils are too often omitted. How much secret misery there is which children are incapable of expressing! In my own experiences, I have met with many instances where the conclusion has been forced upon me, that phthisis and varieties of scrofulous disease have had their origin in bad or insufficient feeding in schools. The welfare of the rising generation demands our vigilance in this matter. While no rational man decries the wisdom of mental culture, let no one purchase it too dearly or destroy the capacity he is ambitious to create.

Here it may be well to look a little homeward, and be careful, lest in our extreme eagerness for advanced knowledge in medicine and surgery we overshoot our mark, and, by exacting too high a standard of intelligence at all our examinations, we exclude those who, while unable through defective memory and the powers of rapid apprehension to reach the required standard, would, if admitted to practice, prove admirable servants to the public and the profession. There is a tendency in special teachers to expect and to exact the same proficiency attained by themselves, while practically they forget the futility of almost any mind attempting to grasp the whole of the sciences of medicine, surgery, and obstetrics, with their collateral branches. The manuals of to-day, compared with those on the same subjects twenty-five years since, are enlarged into encyclopedias. How varied is talent! How often is the accomplished chemist an indifferent surgeon, the dexterous operator a man who could hardly solve a problem in Euclid, the mathematician a most sorry physician! Yet, admitting all this, we continue practically to insist that no one shall be admitted to our ranks unless he is endowed with unusual aptitude for every kind of intellectual labour.

Undoubtedly, the true object of ordinary examinations should be to secure reasonable and requisite acquirements. Let us by all means have honorary tests, severe enough for the ambitious and the unusually gifted. Let such have their due reward, but do not let us exclude those practical, industrious, and useful men who, while fitted by every real requirement for most honourable and worthy practitioners, could never occupy or wish to reach the position of professors. Besides, is it not true that the very refinements of the highest scientific culture may render some minds almost unfit for the hard drudgery of many a medical practice—a practice, too, whose conductor may render services as valuable as the most popular or best paid consultant or professor in the kingdom? More than thirty-five years of experience have taught me that there are isolated practitioners who, when wholly cast upon their own resources, prove themselves equal to the most trying emergencies. They are self-reliant and decided, while the practitioner of a large city, with a specialist for everything at hand, often becomes dependent upon another.

The plausible theory that unlimited division of labour must be necessary in ours as in all other scientific vocations, is far too readily accepted by those who, from a lack of knowledge, fail to perceive that the human body must be treated in its entirety, and comprehended as a whole, or all efforts to correct its diseases must be full of fallacies and misdirections.

Another subject appears to my mind well worthy of our careful consideration to-day. I allude to an oft-discussed one—the bone-setting quackery. While educated practitioners of surgery so often express an opinion that this and other modes of irregular practice should be dealt with in some powerful way by legislative enactments; may we not fail to realise that the evil is one for which we ourselves are in a large measure responsible? The subject of some more or less serious accident, filled with anxiety about the diagnosis of his injuries, and harassed by perpetual suggestions from many of his friends and acquaintances as to the fallibility of his medical adviser, in his perplexity flies naturally, though perhaps reluctantly, to any well-reputed quack, who too often gains the confidence of his dupe by pretending to show what is presumptuously designated the ignorance and incapacity of his regular surgical attendant. Immediately, of course, a new plan of treatment is adopted, while the sufferer is informed of his extreme good fortune in having secured the services of a natural genius who by intuition understands anatomy and the repair of fractures and dislocations, and has never required to trouble his intellect with study or his hand with dissection, or to prove to mankind that he knew something of anatomy, physiology, and surgery, by undergoing an examination and obtaining a diploma from those authorised by acquirement and by law to grant it.

Well known as this may be, it cannot occasionally be unprofitable to consider in what way the public and the profession can be best protected from bone-setting charlatans, and the evil reduced to its minimum. It has always been my own practice, when first introduced to a case of fracture or dislocation, if I felt the least suspicion of want of

confidence from my patient, to positively refuse accepting it on any terms unless the treatment throughout be confined to my own hands, with or without the aid of legally qualified members of the profession. But having undertaken a case, I have for many years made it an invariable rule to place before the patient and his friends specimens of the corresponding bones or joints to those injured, and with these so clearly to place the true condition of the patient before himself and those about him, as to bring the case within the compass of any ordinary understanding. By such means, it becomes evident to the persons interested, not only what the injuries actually may be, but by what rules of common sense they are to be treated most advantageously. I hold that those who trust us in such momentous matters deserve this consideration, and by showing it them a mutual benefit is conferred. One human skeleton, at least, with as many osseous specimens as can be collected, is, I believe, as necessary an equipment of a true surgeon as the microscope, the thermometer, or the stethoscope; and I am convinced that if we took the trouble and the time to make these important cases as clear to our patients as practicable, we should have very little of the form of quackery in question.

Before concluding, I venture to suggest the propriety of taking a wide view on the delicate question of admitting ladies to our Association. Whatever may be our individual opinions on this matter, I venture to express a hope that no further obstacles may be offered to our lady coadjutors. Whatever changes we can imagine in the future, a preponderance of the female element in the profession can never prevail; and admitting the peculiar aptitude of many of the gentler sex for study, and their acute perception, aided by the absence of many of those temptations in early life which so often mar the bright career of many a man, no one will be bold enough to deny that the medical body politic may derive benefit from the admission of duly competent women. Under any circumstances, let us avoid that pertinacious spirit which always really aids the opposed.

What would have become of the homœopathic nonsense at this period if, three or four decades of years ago, the profession had treated with a smile that which it met with violence? Probably, at this time, young students would have been looking into their dictionaries for the word homœopathy, and would have joined in the laugh at all the pathies of a past generation. But what has been the fruit of an unwise opposition? Why simply that we still see a few men calling themselves homœopaths, who pander to a public delusion for the remuneration it affords.

Socially, and in relation to other learned professions, there has never been a period in the history of human civilisation when our opportunities as pioneers in the intellectual and moral development of the human race were so varied and so extensive. Trained as a body in literature, science, and art; numbering in our ranks scholars, mathematicians, chemists, botanists, as well as physicians and surgeons; necessary in every civil, military, or naval expedition; the companions and friends of all, our influence is as boundless as our opportunities are infinite; and I believe the time approaches rapidly when all this will be more felt, and as knowledge is more diffused, will be more appropriately recognised. Trusted, as we are, with the keys which unlock the mysteries of Nature; reasoning from facts, not accepting unfounded propositions on trust from any source or authority, we are not liable to the errors and superstitions so rife around us, nor are we censorious in our judgments and criticisms on those who have not our physiological education nor our psychological knowledge. We read and hear of the impracticability of reconciling the modern discoveries of science with theology. The recognition that they are one is what is wanted, not their reconciliation. As our conception of natural phenomena enlarge, in the same proportion do our ideas of an infinite Creator expand; and all that affords a further insight into the designs of the Author of the Universe, gives us a more profound conviction that whatever is true in science cannot be detrimental to theology.

SURGICAL MEMORANDA.

THE DILATABLE TAMPON TO ARREST HÆMORRHAGE AFTER LITHOTOMY.

HAVING to perform lateral lithotomy out of town a short time since, on a patient sixty-five years of age, with a large prostate and deep perineum, I provided myself with one of Mr. Buckston Browne's instruments. The operation was performed on a curved staff, and the patient was soon comfortably in bed. After a short time, a little bleeding occurred; and, as I had to return to London, I introduced the tampon and stopped it. One of my dressers, Mr. W. Whitford, remained in charge, with the acquiescence of Dr. Wolston, the medical