

The oration in commemoration of the ninety-first anniversary of the Medical Society of London, delivered at Willis's Rooms, St. James's, on March 8, 1864 / by J.L.W. Thudichum.

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THE ORATION
IN
COMMEMORATION
OF THE
NINETY-FIRST ANNIVERSARY
OF THE
MEDICAL SOCIETY OF LONDON,


DELIVERED AT
WILLIS'S ROOMS, ST. JAMES'S,

On March 8, 1864.

BY
J. L. W. THUDICHUM, M.D.

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THE
NINETY-FIRST ANNIVERSARY ORATION.

MR. PRESIDENT AND GENTLEMEN,

WE are assembled to celebrate the ninety-first birthday of the Medical Society of London. Such great age is eminently a matter of congratulation to individuals no less than to corporate bodies. But to you, Sir, as the individual expression of the life of the Society, it must be doubly grateful to bear such high honours already in the hey-day of your existence, when with strength and wisdom at their highest, you are able to encourage what may be good in our wishes, or to modify the extravagance of our joy. On our part also the occasion calls for twofold gratitude; once because it gives us the opportunity of being thankful for a life accomplished; and, secondly, because it contains in itself the guarantee of a continuous future existence.

The Annual Oration was appointed to give expression to such feelings, and by pointed argument to raise them to a conviction. It could not on this occasion swerve from the appointed line or overreach the mark placed by so many laudable precedents. It had to be a commemoration, a reminding each other of what seemed worthy of note amongst our successes or our duties. But it had also to be a celebration in form and spirit or an expression of thoughts and feelings which animate us all when we lay aside the clouts of our working attire, and take a walk in the gymnasium.

Such an errand should be refreshing to us all. To make it so requires but an effort of the imagination. Let the blue sky open above us, and the sea-borne breeze convey the fragrance of the hyacinth; listen to distant waterfall and nearer nightingale; let our eyes bathe in the golden warmth of the sinking sun. Let our souls travel beyond. Aye! in the moment you wish for wings you have them, and try them in the unaccustomed element. With great spirits for our pilots we sail through the ether of our supernatural existence,

while our lungs breathe and our voices stir the air of the terrestrial spot which supports our bodies.

The ether of our existence is that emanation from God, which we term reason. By means of it we recognise things and their order, and obtain the insight into natural laws, so as to enable us to employ them for our benefit and instruction. Reason in itself can never fail of its object, so long as the senses are healthy and the objects in themselves are pure; so long as the moral side of reason, namely, conscience, is maintained in its place. But reason has two enemies by which it is frequently set aside in common life, and these are fallacy and evil.

We are unanimous in our endeavours to escape the fangs of both. For the avoidance of the greater danger the way was happily marked out for us. But the escape from fallacy seems at first sight less easy, seeing that no special method of thinking and acting has ever taught how to avoid fallacy in the recognition of natural things. Fallacy is the child of preconceived opinion. Preconceived opinion is the pretended assumption by man of godly attributes which he does not possess. Man has no fore-knowledge. Even when he only affects to have any, as for instance when he puts the thesis which he wants to try by experiment, he runs a much greater risk than by the exercise simply of his observing powers. For in the former case he professes to know the conditions of an operation of which he wants to observe the effect, and to bring both into some relation to each other, which is a much more complicated process than that which results in simple observation. Knowledge then being the result of observation only, it follows that all opinions formed before observation have no foundation, as is indeed further proved by comparison of such preconceived opinions with the results of actual investigation. There was a time when a system of preconceived opinions, termed philosophy, could be praised by the best of men, and receive such eulogistic names as world-wisdom. Of such systems there have been many in succession recommended to men, but they have never eased their pains, augmented their means of subsistence, or increased their virtue. "Water," says Schelling, "contains carbon and nitrogen, and so does iron. But while water contains these substances in relative, iron contains them in absolute indifference." In another place he says, "The animal decomposes the iron, the plant the water. The female and male sex of the plant is the carbon and nitrogen of the water." When this was said inductive philosophy was highly praised as a separate and infallible method. But now the term philosophy has become a by-word. It is seen that there

cannot be different methods for the recognition of natural things, that the very word *methodos*, without any modifying epithet, signalises the process which the mind has to adopt to arrive at the goal of its never-flagging desires; that truth is only obtained by going after it, and by following its traces to the limits of human possibility.

From the time that the recognition of this truth began to penetrate the leading classes in the European communities, the import and usefulness of natural sciences rose very quickly. They had before achieved their results, in silence almost, and without controversy with the dominant philosophical schools. These schools now collapsed, being reduced *ad absurdum* on every arena. The year 1848 saw their last disciples fail on the platform and in the council-chamber, and prove that the principles and practice of good government can as little be excogitated in a lecture-room as the prevention of small-pox by vaccination can be invented in an anatomical museum. Reason condemns the dogma of every kind as liable to enchain the mind of the unwary, and to hinder development. Dogmatism, therefore, had no greater enemies than the great exponents of reason, Kant, and in our days John Stuart Mill. The distance which separates these men, marks the progress we have made. The most striking illustrations of the operations of logic in the work of this latter author are derived from the method of investigating natural phenomena, which has led to the discovery of the explanation of the process of respiration. The laws which govern the human understanding cannot contradict the laws which govern the process of respiration, but the deduction of these laws can be made in the strictest accordance with the rules of the human understanding. And this is the case with every natural phenomenon, and never otherwise, and therefore we reject as untenable accounts of alleged natural phenomena which are in contradiction to the rules of the human understanding, or preconceived opinions which are in contradiction to well-ascertained natural phenomena.

This discipline has been administered for ninety-one years by the Medical Society of London. Faithful to its mission of increasing the store of medical knowledge at large, and facilitating its acceptance by individuals, it has seen the sands of schools shift hither and thither, it has seen some of its members swayed in the direction of the leaning of schools and doctrinal loteries. But as a body it has always up held the principles and the practice of Hippocrates and Sydenham, of Galen, Vesalius, and Morgagni, of Harvey and Jenner, of Aristotle, Kant and Mill. It has done so with that amiable tolerance, which bears up with the foibles of individuality,

and conciliates antagonistic elements. But it has never compromised its essential principles by coquetting with tendencies in vogue or fallacies in favour. It has found strength in consistency, and its adhesion to an unchangeable principle will secure to it not only the gratitude of those who have been benefited directly, but also the regard of that wider circle who have been and are the ultimate recipients of the benefits that accrue from its transactions. But above all, this adhesion will be its safe-guard in the times of storms of opinion, and the guarantee of its continuance in the future, until such a time when the purposes for which it was established shall either have been fully attained, or have lost their meaning.

The direct usefulness of every society, for whatever laudable purpose, does not admit of any exact account. It is so manifold that several of its effects may escape observation. Of every medical society almost, it may be said that its members increase the store of human knowledge by contributions, which have the effect of teaching not only, but of encouraging their compeers. Things and opinions then pass the ordeal of the critical minds, which operate behind placid faces and high-drawn eyebrows. The ordeal over, every one relaxes into the intention to contract friendly relations; and as before, in the discussion-combat at respectful distance, so now, when the antagonist is held fast by the button-hole, men apply a training to the mind which has the object and effect of perpetuating habits of politeness.

In the bosom of our society we have effected all these things, and a few more. Altogether, it is only our principles and our actions, shaped in accordance with them which have preserved our good ship, and brought her safe over shoals and sandbanks to the open sea, on which she is now steering. There was at the beginning of this century a great exodus of hands, who said: We do not like the steering of the ship, or the rule of the captain. So they went and had a ship of their own. And proudly they sailed past their old ship, and considered her no more than a useless hulk. And there came other ships and made competition, and some had steam, and cast away the tackle. But the time arrived when those in the proud ship called out for coals, and they could not get any; and then they called out to the small ships: Haul us through the region of the calms. But those in the small ships would not. So the proud ship remained becalmed. Only the "Old Medical" prudently kept her tackle as suitable to her construction, put on subsidiary steam power, and is to the present day the safest vessel afloat.

Let us lay aside the mask of metaphor, and show our

colours. The society which now competes with our own is a colony of our own. The Medical and Chirurgical Society, with its charter, its transactions, its library, its overflowing funds, has troubles of its own. Before its longing eyes there floats the ambitious project of founding an institution like unto the academy of our Gallic neighbours. It clucked like a hen for its chicks when it called upon the special societies to unite their strength with its own. At last it poured out its own life-blood, and set committees to toil in the service of humanity. But it was neglected by the empire; and while three or four societies were comfortably housed in a royal palace, the embryo academy was left to pine over its unheeded ambition.

Next there are two societies, rich in numbers, and fertile in products. Their objects are special, and not permitted to be exceeded in the progress of the work. The one which has for its objects the advancement of morbid anatomy, we housed and warmed in its early days, when it had nowhere to go to. The other, which takes pleasure in easing the pangs of maternity and in healing the inflictions of life upon the early stages of human existence, has not stood in any relation to ourselves; but it has, like the other societies, our very best wishes for prosperity and success. And how could it be otherwise, when we bear in mind that the objects which they prosecute are only part of the objects of our own. That we are medical, chirurgical, pathological, obstetrical, and that we go yet beyond the combination of these programmes, and admit not only physiological subjects, but devote special occasions to the crowning work of all medical science—that is, clinical medicine. Our programme therefore rests upon the broadest basis, and in exact proportion to it is the probability of the continuance of our success. When special societies will have exhausted their attractions, ours will continue; when theirs will be done, it will constitute so much more material for our work. For our work is to uphold or to negotiate the unity of medical science, to be the stem of the tree of which specialities are branches.

What better proof could I adduce of the effectual manner in which unnatural divisions are insensibly bridged over by the beneficent action of our meetings than what occurred at the opening meeting of the session now about to be concluded. On that occasion, you, Sir, came forward with samples from the rich store of your labours, thoughts, and experience, and showed us upon them how an elementary pathological process, a chemical disease of a single part, or of an entire organism, invisible and little felt in its beginning, might cause or afford the opportunity for the production of the most

remarkable mechanical alterations in almost all the organs of the body. You exhibited to us the surgical, that is to say, external or mechanical results of atrophy, omitting none of the internal or, during life, invisible results of this process, which are commonly claimed as forming part of the province of physic. You showed by this most striking example that logically the science and practice of surgery cannot be separated from the science and practice of physic, and you showed that you yourself, although reputed a surgeon purely so called, nevertheless unite with that deservedly high dignity the qualifications and claims of the highest amongst the brotherhood of physic. You showed by practice and by word of mouth the truth of that argument which is contained in the Act of Parliament, which, under Henry VIII., established the College of Physicians—and which the College has been wise enough to act upon during the year which has elapsed—you have shown that the art and mystery of chirurgery is contained in and forms part of the art and mystery of physic.

Logically the proof of this proposition can hardly be said to have been wanted. It is so generally recognised, that in some countries a separation of surgery from medicine does not exist, either in the provisions of the licensing laws or in professional life. But that a practical illustration should have been given of its truth by one of high repute in surgery, deserves notice on the part of this audience, at a time when more than at any other perhaps we are discussing the peculiarities and necessary improvements in our system of medical education.

Before 1858 medical education in this country was regulated exclusively by the licensing corporations. The manner in which this supervision was effected loudly called for measures of amendment. And these were, after a long and laborious struggle, obtained, in the shape of the Medical Act. Under this Act the Government of the empire participated, for the first time, in the control of the education for that important branch of science which maintains and restores the health of her Majesty's lieges. It is well known how much good this control has already effected. But more is demanded, and more is, I believe, about to be exercised at the hands of the Medical Council.

The next effect of this control must necessarily be a modification of the system of instruction now followed in medical schools. The small schools will have to disappear; the great ones will have to be reorganised. And this reorganisation will necessarily be effected entirely in the interest of the student. Care will have to be taken that only such persons are appointed teachers as possess the necessary personal and

scientific qualifications, such considerations as are derived from simple comradeship or collegiate connections being entirely excluded from influencing the selections. The greatest deformity of our educational system, compulsory attendance upon lectures and courses of a practical kind, will have to be abolished. The severity of examinations, on the other hand, will have to be increased. The law will say to the student: You may acquire your knowledge where and howsoever you please; but we demand of you full and sufficient proof of your possessing the knowledge which is deemed requisite for the practice of the medical profession. To the licensing authorities the law will say: It is your duty to satisfy yourself by written and oral examination, by every practical test that can be applied in the dead-house, the sick-ward, or the laboratory, of the competency of the candidate who comes before you to obtain your licence, and in no case are you authorised to assume the competency of a man in any branch of learning simply because he is certified to have sat so many hours on the college benches, or to have walked up and down the wards of an hospital on so many days.

Even though this budget should not prevail for some time to come, the drift of all measures which we may expect will be in that direction. And I have the less hesitation in firmly believing that the system which I have peremptorily proposed must ultimately prevail, as it is already in active operation in several states of Germany, and about to be introduced into imperial France. It is one of the fruits in the shape of university reform which the rise of natural science has effected in Germany, and itself again has become the seed of those rich harvests on the field of medical and general science, which every German with a heart for his country may well be proud of.

While thus drawing your attention to valuable precedents, I must not be understood as being desirous to simply prune a foreign importation upon home-grown elements. I look upon every people as able and willing to adopt that which is good and useful in the habits of every other people, provided only prejudice, that is, preconceived opinion, be laid aside. With such a principle to guide him, a man in my position can be of some slight service in interpreting one nation to another, or the professional institutions of one nation to the professional men of another. In this very hour, perhaps, the legislature of a German state is engaged in discussing new provisions for the maintenance of public health and the relation of the medical profession to the community and the state, and the precedent of this country, in enacting statutes for the protection of the public health, and in other matters of similar

originality and importance, will be held up as worthy of imitation by a member of each, the Church, the bar, and our profession, who have drawn their information from a memorandum, which at their request I had the honour of preparing for their guidance. Nations should cultivate intercourse, not only for the exchange of merchandise, but also for the exchange of those higher goods which are intellectual acquirements, and which are the outflows of favourable national dispositions and peculiarities. But withal they should care to preserve their own peculiarities, so far as they are either good or indispensable, that is to say, founded upon their physical nature.

The past year, Mr. President, has been fruitful in stirring events, both in the sphere of politics and science. Diplomats have been in long and anxious travail, and have brought forth wars and blue-books. If any one should like to know why the nations so furiously rage together, he may find it by the application of the principle which I have above pointed out as the only guide in the investigation of natural things. A man must have the wish to know the right, to do the right, and to admit nothing but the right to be done; he must have the desire to uphold the law of the state, as well as the law of nations, that is to say, the law of his land as well as the law of other people's lands. This may be appropriately termed the knowledge of the physiology of states. If, then, he makes his observations upon the actual condition of many states, he will find that they deviate greatly from the physiological ideal. He will investigate further, and find that some symptoms are immaterial and others essential, and that they constitute a peculiar and hitherto unknown disease, occult in its origin, changing in choice of organ principally affected, and producing great pathological changes of tissue. This disease is the *morbis diplomaticus*. It is characterised by its remarkable insidiousness, for a people may to-day be quite hale and healthy, and dream of nothing but peace and prosperity, and to-morrow it may awake and find itself in the clutches of the new pestilence. It may actually find the form of a certificate of death, in the shape of a protocol or a treaty already on the table. Then the friends send in the national Sangrados, who bleed, purify, stimulate, give tonics, and other preparations of steel, and keep the patient upon a remarkably low diet. When this process has lasted long enough, the poor patient cries mercy, and denounces the would-be doctors as lustily as the malady. Then steps in the champion of the world, the great doctor, who cures with flagellation and the alternation of the hot vapour-bath with Siberia, and says to the patient, "I will cure you! Only see

how comfortably Poland is sweating!" At this the poor patient is palsied with terror; his mind leaves him, and he goes to his own destruction a willing victim. The *morbus diplomaticus* was only a little bit of poison, which the great doctor and toxicologist had administered to the healthy man, in order to make him a sick man, and after due preparation to take him to his great asylum.

The *morbus diplomaticus* is a chronic disease, and affects great people and rich, as well as poor and small folks. It cannot be cured when it has once gained ground, but it can be prevented by not eating the proffered poison. Curiously enough, this poison is black, and served upon paper, and ignorant people believe its use to be a wholesome occupation. But the last words of the sick man before he disappears in the great asylum are always: "Oh! these leading articles in the 'Times' newspaper. But for them I should now be a sane and prosperous man."

Metaphysical diseases have their own difficulties far surpassing those which we meet with in the course of the ordinary physical practice. It is therefore not to be wondered at that astute publicists should allege that our legislature was but ill-informed as regards the last stage of the *morbus diplomaticus*, not only but also as regards lunacy matters in general. And indeed the past year has witnessed some strange occurrences in which lunacy was made to take a part. But our profession, although perhaps furnishing an advocate in one of its members, has shone forth nobly, and has not only rebutted the groundless charges which excitable senators hurled against it, but has fully vindicated its just claim of being the final arbiter in the question, whether a man in the position of a convicted criminal shall, after allegation made, be considered lunatic or not.

When a legislature puts itself in antagonism to the medical profession, it shows how little it is aware of the conditions of the temporary or permanent welfare of states. The medical profession administer some of the highest interests of states. They do not indeed levy taxes or absorb any portion of them in salaries. They do not wield armies or commission fleets; no great palace within the shadow of St. Stephen's is set aside to flatter their vanity or even house the representatives of their council. Yet state medicine is administered, and is administered well. It is embodied in one man, who dwells in a modest office in Whitehall, and advises the Lords of Her Majesty's Council; he represents, he is in a manner the pulse of the body medical. When he speaks through his Annual Report, the loudest senators wax timid, and exclaim: "After all, it concerns as much our own bodies

as those of the vilest amongst the community." Then is the time for a home thrust, in the words: Not only your bodies, but everything you have and cherish. State medicine is the foundation of the happiness of nations in any form, for state medicine is national economy. State medicine is the application and enforcement of the laws of reason to physical life, as justice is the application of the laws of reason to civil life.

State medicine is indeed primary government, and no civil government can exist for any length that does not administer state medicine as well as justice. This is proved by all history when investigated by the light of the following four propositions:—

1. The foundation of all human existence, of society, is the power of production of food necessary, and a surplus.

2. This power must be permanent. It can only be so by due regard to natural laws. This attention constitutes husbandry.

3. The natural law is that we must return to the soil what we have taken from it in the harvests, the mineral matters which the atmosphere does not supply.

4. This necessitates the utilisation of excretory matters, the only possible measure by which on the one hand the deficiencies of the soil can be supplied; and on the other, these matters be made permanently and at all times innoxious to health.

Who amongst you has not been upon a hundred errands of charity, asked to heal sickness, and found himself unable to afford more than momentary comfort? The source of all the suffering was poverty, and disease was only the product of this latter. Of course you acted upon impulse, which, like obedience to natural religious law, is always beneficial to some degree. You gave or obtained relief. But you considered the evil incurable. Truly for this evil there is no remedy in the pharmacopœia, but it is nevertheless contained in the code of state medicine, which says: Utilise waste! The waste of one man carried to the soil will afford the condition for growing the food of that man, and nature adds a surplus from her inexhaustible store. Thus you will have cheap bread. Its surplus will buy the cheese. You will not want to carry grain from all quarters of the globe, and pay for it in calico and hardware. Your productions and manufactures you will use at home, and not make war upon others to compel them to trade with you. Cheap bread means prosperity, prosperity means cleanliness and comfort, cleanliness and comfort mean health. But these altogether mean virtue.

State medicine therefore promotes the temporal and eternal welfare of man. It inflicts no penalty but acts constructively. There are, however, penalties for the neglect of its behests, and no one can escape them. In a conflict with the laws of nature man is certain to be worsted; and to be ruined not only civiliter, as it is termed, but to be exterminated from the surface of the earth that can no longer feed him.

Our administrations to the sick are manifold and greatly differ in kind. We have to deal with man metaphysical and man physical. The physical for our present purpose includes the chemical man. To the disordered chemistry of the body we apply various correctives or supplementary substances, and these we term medicines. We do not prepare them ourselves, but rely for their preparation upon persons who make a special calling of it. We sometimes dispense them to our clients, but that constitutes really only a process of sub-division or of compounding what is already prepared. In order to ensure the efficiency of these chemical agents we are obliged to take the greatest care to make certain of their constant purity. We therefore issue a code of prescriptions to our coadjutors, the pharmacutists, in which we enjoin certain processes for the preparation of medicines which are not at present chemically defined, and certain other processes for well defined chemical substances, which the pharmacist may or may not follow. In any case, however, it is his duty to produce, and to sell when we prescribe, medicines, the properties of which are in strict accordance with the standard which we have established in our pharmacopœia.

The necessity and convenience of such a code require no further argument. The safety of the public and the reputation of our art are both thereby guaranteed against dangers from that side. But while we make the law, we do not sufficiently provide for its being rigorously upheld in practice, and there is actually no control over the dispensers of medicines. The power possessed by the College of Physicians to examine apothecaries' shops is scarcely ever exercised, and such as it is can perhaps not be exercised in sundry establishments, which are somewhat inappropriately termed chemists' shops. The proprietors of some of these shops go a step further, and make themselves so far independent of the medical profession as to practise the art of healing upon the basis of their presumption. There are then here great abuses in the midst of our dependencies, which it is one of our foremost duties to rectify. The national pharmacopœia we possess. Our next duty is to obtain an enactment, which shall make it obligatory upon every medicine vendor to possess the remedies prescribed by the pharmacopœia in the quality pre-

scribed by the pharmacopœia. The medicine vendor must therefore be subjected to a control, regulated by a law similar to that which conferred a privilege of visitation upon the College of Physicians. He must next be bound over to confine himself to his business, that is the preparation and compounding of medicines, and to abstain entirely from assuming any of the functions which by every right of law, or what is the same, of common sense, belong to the medical profession.

Such enactments for the regulation of the pharmaceutical body exist in most continental states, and operate to the advantage of the public and the medical profession. For many years the pharmacutists were great gainers by them, and as it was supposed that they earned very large profits, to the amount nearly of one hundred per cent. upon their outlay, they were popularly called the Ninety-niners. They had a privilege, but were restrained by a tariff fixed by the medical councils. Now it is this privilege and this tariff which have lately operated to the disadvantage of the apothecaries. There can be no doubt that both are the result of that meddlesome kind of government which is now everywhere expiring. So it is to be foreseen that both privilege and tariff will be abandoned, as the public tariff of the price of meat and bread which existed at Paris and elsewhere up to a recent period has been abandoned. This circumstance we can bear in mind while framing our own measures. There should be perfect free-trade in drugs, but every drug-seller should be qualified, as proved by an examination before a competent tribunal, and his medicines should always be according to the standard recognised by the state, and this standard should be upheld by the representatives of the state and the profession, as expressed in the Medical Council.

The necessity of a strict control regarding the identity and purity of medicines, is strikingly illustrated by the following occurrence, which, as it concerns the memory of one of your predecessors in the chair, Mr. President, who unhappily is now no more, will, by being here related, act as a kind of posthumous justification of his skill and conscientiousness. It is well known that the late Dr. Snow, after having for many years administered chloroform to a large number of patients without any of those fatal accidents which unhappily now and then ensue from this now indispensable agent, occurring to him, determined upon employing amylene for anæsthetic purposes. He read a paper on the subject before this Society, and amylene was very soon largely employed by at least a portion of the medical profession. It happened, however, that two patients of Dr. Snow's successively died

under his hands during the administration of amylene, and these melancholy accidents at once put a stop to the further use of amylene by any one. Not long ago a chemical friend of mine informed me, that after the downfall of amylene, he had purchased a lot at a cheap price from one of the first manufacturing houses in London. "I wanted," he said, "to prepare a chemically pure specimen of amylene, and commenced redistilling my material. I have been distilling for a week, thermometer immersed, and how much amylene do you think that my mixture contained?" He looked into my face with placid expectation, when I answered, "Let me guess, 90 per cent." "Not any!" was his reply. Not the smallest portion of material passed at the boiling point of amylene, and the mixture consisted of undetermined hydrocarbons and of amylic alcohol. There was here no question of fraud or mistake. It was some of the same reputed amylene which had been sold and used largely, under the impression that as it had been prepared according to the prescription given by its discoverer, it was pure and fit for use. It is now probable that the accidents which Dr. Snow had the sorrow to experience (and I believe that this sorrow contributed to the shortening of his useful life) were due not to amylene, but to amylic alcohol, the poisonous properties of which are well known, and that the properties of amylene, with regard to the production of anæsthesia, are really as safe as deduced by Snow, from his original experiments made with amylene of undoubted chemical purity.

The British Pharmacopœia, if properly enforced, will avoid the occurrence of similar accidents by any of the agents which it enumerates. I therefore believe that it constitutes an achievement of the profession with which they may be well satisfied. I do not share the petty complaints which we now daily encounter as to the alteration of names, weights, or strength of solutions. These are formal matters of memory as easily acquired as laid aside. Improvements can be introduced as time advances, but I believe that they will be few and far between. This work is a practical necessity, and a compromise between three elements, each of which has good grounds for enforcing claims of superiority in at least some matters. It has been done by persons than whom none possess better qualifications for the task, and I am certain that the work has been well done. And as to the plaint that it has cost a few thousands of the funds paid by the profession for the maintenance of its representative organisation, I should stigmatise that as mean and below notice, and on the contrary rejoice, that in a profession which makes such continuous sacrifices in the shape of gratuitous services, a

good work should have been amply rewarded. The circumstance that the English language was employed in its composition, is undoubtedly a convenience to most persons concerned, and will be influential in gradually causing a substitution of the English language for the obsolete Latin in physicians' prescriptions. The British Pharmacopœia stands on a level with the latest edition of the Prussian Pharmacopœia, which was published last year, and is superior to the American Pharmacopœia, also published in 1863, by the judicious exclusion of galenicals, which have no claim to any scientific recognition whatsoever. I hope that we may soon be unanimous in the opinion, that by the production of the British Pharmacopœia the Medical Council have deserved well of the profession.

The progress of practical medicine during the past year has been very great, and has been particularly signalled by the discovery of the prevalence of a disease hitherto unknown. I allude to trichiniasis, or fleshworm disease. It made local outbreaks in northern Germany, and while affecting with greater or lesser severity several hundred persons, upwards of a hundred persons died of it. The prevalence of that disease in the parts just mentioned may certainly, in part at least, be attributed to the habit of the population of eating pork in a raw or underdone condition. But as the disease is by no means confined to those parts, but occurs in South and North America, as well as in this country, where it was originally discovered, and where the habit of eating raw meat does not prevail, we are constrained to assume that there are peculiar facilities by which the parasite in question escapes the protective operations of the culinary art, and insinuates itself as an animated poison into the human body. It is necessary to have counted, as I have done, twenty worms in a small piece of flesh no larger than a mustard-seed, in order to form an idea of the ravages which these animals commit in cases of infection of a high degree.

This result is due to the united efforts of morbid anatomists, zoologists, and practical physicians, and could not have been attained by the single-handed energies of any one of them. It illustrates forcibly one of the methods which we employ to better the condition of man. We find out the causes of diseases and teach the way to avoid them. Provided the precautions are effectual, there is no longer any necessity of searching for drugs to stay the disease, or destroy the animated poison. It becomes childish temerity to disobey the behests of science and risk a danger of such magnitude by eating improper food with less enjoyment than it would confer in a state of proper preparation.

Amongst the successes of the last year we may count the establishment of an institution which is not only of great hygienic value, but promises to be a useful instrument in the hands of the practical physician. Having taken an early interest in the introduction and therapeutical study of the Turkish bath, as evinced not only by a special communication which was read and discussed before this Society, but also by the active share which I took in the establishment, by Mr. Urquhart and a body of supporters, of the Hamam in Jermyn-street, I should be the more anxious to report to you, did time permit, the nature and amount of success actually to be obtained by this agent in the treatment of disease, as the most exaggerated and unfounded preconizations of its universal healing power are now put forth by persons who have neither sufficient knowledge of that branch of natural science commonly termed physics, nor such insight into physiological and pathological processes as would qualify them to make objective therapeutical observations. Of a considerable number of observations which I have made, I will however show you two extremes.

In all cases of dropsy, particularly those forms which are connected with that form of kidney disease in which a large amount of albumen appears in the secretion, the bath acts as a curative, in so far as the dropsy is concerned, in all cases without exception. It is however necessary that hot air should be applied sufficiently long and sufficiently often. Some of the persons whom it has been my pleasure to advise from time to time, found this necessity so urgent, that they constructed baths near their own dwelling-houses. These they entered at least twice a day, and one of the patients at a critical period entered his hamam eight times in twenty-four hours. The application is equally beneficial in acute and chronic nephritic disease; but while in the acute forms, which do not rarely recover by the ordinary diaphoretic and other medical treatment hitherto in use, the albumen speedily disappears, in the chronic forms of some standing the albumen remains, notwithstanding the speedy disappearance of anasarca and ascites, and all hydræmic conditions. Whether or not recovery will take place in these cases has to be learned by future experience. It is sufficient meanwhile to know that these persons need not die of the symptom termed dropsy, but may, on the contrary, enjoy life and attend to business.

In all cases of paraplegia, however, which proceed from structural disease of the spinal cord or brain, the bath is useless, so far as the progress of the disease is concerned. But in cases of reflex paraplegia, in which the starting point

of the irritation, which by reflex action produced the paraplegia, was on the surface, say on the skin of the feet, the immediate effect of heat was not only not inert, but highly injurious, and in one case which I had the opportunity to observe, though not to treat, through the courtesy of one of our foremost physicians, it brought on a distinct attack of hemiplegia. It must be satisfactory to know that this hemiplegia was symptomatic, and yielded to treatment without leaving any traces.

I could multiply the evidence on either side, and adduce cases of phthisis, cancer, neuralgia, hydræmia from chlorosis, and others, in which considerable symptomatic relief or a great improvement of the general health, without any abatement of the essential disease, was obtained. But I could also point out a considerable number of cases of the above categories in which no particular change was effected, and others in which, on account of injurious consequences, the use of the hamam had to be discontinued.

What then becomes of the vaunts put forth in advertisements, that this hamam will relieve, when it does not cure, all disorders? That if it be serviceable in any case, it is serviceable in every case? Such vaunts, to use the words of Boerhave, are empty smoke and idle ostentation. They have no better foundation than the assertions by which they are accompanied, that the faculty had met the discovery of the circulation with indifference, or made undue opposition to the introduction of the practice of inoculation, or that the practice of inoculation came from the Turks. The faculty honoured the discoverer of the circulation with the highest favours which it was in their power to bestow. The faculty properly opposed the introduction of inoculation, as although it benefited individuals, it damaged the condition of the community. And when the faculty relaxed in its opposition and divided into opposite camps, it was because the labours of Dimsdale and of the Suttons had removed many of the objections to inoculation, which up to their time unquestionably existed. And as to the origin of inoculation, it is not even a tradition, much less an invention of the Turks, although Lady Montague brought it from Constantinople to England. It was at the beginning of last century practised in the East by Greek physicians, who had received it from the Armenians, who had in their turn received it from the Hindoos, who again had received it from the Chinese. Lockhardt, in his translation of an ancient Chinese work on inoculation, has shown twenty years ago, that about the year 1,000 after Christ inoculation was a common practice amongst the Chinese. Thus while the Turks, with great good sense, pre-

served the Roman bath, they were by no means instrumental in bringing inoculation from Asia to Europe, and I know sufficient of them to believe and to say, that they have a more correct appreciation of the value of their bath and of the value of inoculation, than many of their occidental apologists.

I take this opportunity to point out that the practice of the hamam as existing in England, is by no means the practice of the Turkish hamam only, but includes the addition of Irish hydropathy, in the shape of cold douches or plunges in cold water tanks. Now many may, and several do actually like this Frankish addition; others only suffer it with heroism, and because they believe it orthodox; some do not like it, and to not a few it is injurious. Upon sick persons it should, as a rule, be omitted, and applied exclusively with due discrimination. And I will give you this private hint, that if you want to know the actual practice, upon their own bodies, of those who most insist upon the necessity of this cold plunge, you should pry a little about the hot chambers of their haunts. There the old foxes will sit and smile at the shivering plungers, while they themselves will not, as true pharisees should, allow cold water to touch their bodies by any chance.

Mr. President and Gentlemen,—The practice of medicine includes the knowledge and practice of so many sciences,—among them that most difficult of all acquirements, the knowledge of the world,—that it can hardly be termed a science of itself. It is not in its nature that its practice should be exact, in the sense in which we apply this adjective to the physical sciences, for it is necessarily conjectural in many instances, especially in the recognition of mental conditions, even in sane persons, and of their influence upon the body. It is however, daily becoming more exact, by the application to the chemical and physical man of chemical and physical methods of inquiry. And this application will constitute the work of the future, and to its results we have to look for a solution of those questions which, like that of the curability of consumption, typhus, cancer, and other plagues of humanity, have so often been agitated in vain. But results can only be achieved by a combination of dexterity and knowledge, such as is only obtained by special training of special ability, and that ability in the possession of an ample fortune. Even such facilities have hard conditions of success to satisfy, and it is to some of these that I will shortly draw your attention, by an extract from a manuscript which has never left my desk:—

“Of cancer, the poisonous ferment is developed everywhere in Europe, and at all times; it is handed down through a

century from generation to generation; its advent is insidious, because imperceptible, and even the local outbreak which first fixes the attention of the sufferer, betrays itself by pain only after having reached a certain degree of development. From this affliction there is no escape in the ordinary succession of events; death is certain, and its pang is inflicted hundredfold, being ever impending, but long deferred. The frequent spark of hope is as frequently extinguished. To call life so encumbered a martyrdom, might be termed a mockery, for it is made up of suffering without an object, and has not got the redemption of a holy cause which martyrdom implies. Ten thousand deaths in every decade of years, indicate the cotemporaneous existence of many more thousand lives made miserable by this affliction. To poisons there are antidotes, to fevers specific medicines; a fatty tumour may be removed for good, gallstones be discharged, jaundice subside, dropsy may yield to remedies, even consumptive lungs may heal or cease consuming life; to cancer only there is no specific, nay, not even symptomatic, relief. Defying alike the physician's drugs, the surgeon's knives and caustics, and all ingenuity of empiricism, it stands unfeeling and masked, like an executioner on the scaffold, unmoved by the anguish of the victim, or the terror of the beholders.

"There is, however, a consideration affording relief, and it is one which will present itself to the eyes of science alone. It will bring no solace and no night's rest to the sufferer; it affects not his particular case. It is presented to us by geography, and is collected by the statist. It consists in the knowledge that particular spots are included within the reign of the disorders, while there are independent regions of the earth not acknowledging its supremacy. From the moment, therefore, that we have ascertained that there are countries where this malady does not prevail, it is impossible to avoid the conclusion that its presence is coincident with or dependent upon particular causes not inherent in our nature. Doubtless they will not obtrude themselves upon observation, since they must be coincident with, or consist in, habits that are common. It therefore remains, first to ascertain whether the distinction be real, and in that case to examine the habits of the countries, and of the times where cancer has either been unknown or is unfrequent, in order, by the aid of the contrast, to get at those habits from which it springs.

"The keenest imagination, in its wildest flights, could not have fallen upon the extraordinary relations of this disease which have been brought to light in this attempt, by a patient combination of testimony. A comparison of the frequency of cancer in Europe, with the numbers in which it is

observed in the other four continents, has yielded unshakable evidence, that in the former a greater proportion of the population are victims to this disorder. That leading portion of the ancient world which is brought within the scope and observation of therapeutic science by being ruled from London, presents to us at once the largest field on which to establish the comparison, and the accurate means to establish it. A population equalling, if not surpassing that of Europe, is here under the direct observation of the medical officers of an army scattered over the whole country. Frequently appealed to for relief by the natives, the representatives of European science had here frequent and splendid opportunities for observation. Yet few were the opportunities afforded to them of removing cancerous tumours. Even the capital of this empire, where the offsprings of the mixture of races are more numerous than elsewhere, does not either in private practice or the practice of the hospitals, furnish any exception to the rule, that cancer is extremely rare in India."

Such preliminary results have at once shifted the inquiry after the nature of the agent, which causes such a prevalence of cancer in Europe from the confined field in which it has hitherto been kept, upon higher and wider grounds. Before this we have searched the history of the life of individuals, for prominent incidents which might throw a light upon the mystery of their suffering. But the causes which were alleged by the one were contradicted by the very next analogous case; one after the other the anamnestic suggestions had to be abandoned. Cancer was found not to be caused by want, nor by luxury; it did not owe its existence to destitution of clothing, nor to superfluity; whatever share drunkenness might have in the production of the deterioration of our race, cancer could not be brought home to it; as little did ample food and exercise appear either to cause or to prevent it; the palace and the lowest hovel harboured alike the conditions of its production.

Cancer is a disease to which a certain constitutional degeneracy makes most liable; it is a disease of degeneracy, not of individuals only, but of races. But this degeneracy is itself a result required to be accounted for by ulterior causes, and these causes we must ascertain by a direct study of the circumstances which result in our suffering.

Walshe has given words to his apprehension, and has identified the agency which produces cancer with "the more wasting influence of the higher state of civilization." Such an influence would make civilization by no means a desirable condition, even were civilization without it a definition of an existence. But things cannot be explained by abstractions,

much less by terms of such compound meaning, as that conveyed in a graduation of civilization, and we have, therefore, to dismiss the phrase, as we have also to dismiss the hallucinations of that verbose pathological system, which describes terrestrial yellow fever and hooping-cough as "cosmic diseases," as if they had been espyed among the inhabitants of distant worlds, and were common to them all; as if the shortcomings of human life had not each a terrestrial ascertainable cause; as if scourges were ruled by the stars, diseased minds by the moon, and the destinies of man were determined by passages of planets.

Some pathologists, who derive their notions of disease from the study of morbid anatomy,—foremost amongst them James Paget,—having scrutinised cancer and allied malignant tumours, and having recognised that they all seem purposeless or hurtful, and by violences against nature lead to early deaths, have taken refuge to "faith in Divine purposes, consistent and continuous, stretching far beyond the horizon of this life," and have even expressed their ability that "amongst the certainties of the future" they could "see fulfilled the intention of the discipline of sufferings that only death might mitigate." But as they did neither reveal the intentions of Providence nor the nature of their fulfilment, they by such a sentiment simply made confession of a kind of fatalism, which conveniently substitutes God's will when their means end. I have known a religious spinster of a much more consequential mind than those medical fatalists. Her argument was, that as all suffering was sent by God for the discipline of His creatures, it was impious, because perversive of his ordinations, to oppose in thought or act any corporeal affliction whatsoever. To her the physician's calling was ungodly, if it amounted to the exercise of more than prayer by the bedside of the patient. Though living with her nephew, a physician, she never used any remedy for the relief of a terribly painful cancerous tumor, which tortured her for many years. She was entangled in the same primary fallacy as the religious martyrs of their own will, the Hindoo Fakirs, as the despaired men of science; but unlike them, she carried her conviction to a consequential issue. If God dispenses cancerous tumours to lead men to godliness by pain or early death, or to warn others by untimely deaths to become timely wise, then all those processes which surgeons adopt to prevent, extirpate, remove, change, diminish, or reduce these dispensations or mitigate their pangs, are in direct violation of God's commands, and a mockery of His omnipotence. Not one of the followers of this doctrine have drawn any other

limits to human help than human ability ; but they confound their inability with especial acts of Providence.

If I have thus in aphoristic fragments, upon a complicated problem, pointed out the nature of the inquiry which we shall have to institute and also the direction which, in part at least, it has to take ; and if I have exhibited upon the essence of the labours and thoughts of two of our most illustrious authors and practitioners some of the difficulties which are in the way of a chemical and physical inquiry of cancer, as of disease in general, I have done so for the only purpose which could justify it in your eyes, namely, to clear the way for the work to come. Thousands of busy hands and brains will have to join in the work, and not a small share of it will fall to the lot of members (present and future) of the Medical Society of London. May the number of these future friends be legion ; we will receive them all with open arms. United then we shall meet the coming day, and give them a fair start upon the way of leading our time-honoured institution into a second *sæculum* of success.

Mr. President and Gentlemen,—If the raw levies of my thoughts have failed to satisfy you by their substance or performance, you will only pardon the temerity which has allowed them to perform. But if you are aware of any grounds upon which their shortcomings might in some degree be excused, you will give me the full benefit of them. For my part, I shall ever cherish the memory of, and be deeply grateful for, the confidence and consideration which prompted you to call upon me to commemorate, by an Oration, the 91st Anniversary of the Medical Society of London.

