The improvements in modern surgery : being the oration delivered March 8, 1854, before the Medical Society of London, at the eighty-first anniversary / by Henry Smith.

THE

IMPROVEMENTS IN MODERN SURGERY:

BEING

THE ORATION

DELIVERED MARCH 8, 1854,

BEFORE

THE MEDICAL SOCIETY OF LONDON,

AT

The Eighty-First Anniversary,

BY

HENRY SMITH,

FELLOW OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND; FELLOW OF THE MEDICAL SOCIETY OF LONDON; SURGEON TO THE WESTMINSTER GENERAL DISPENSARY; VICE-PRESIDENT OF THE MEDICAL SOCIETY OF KING'S COLLEGE; AND CORRESPONDING MEMBER OF THE PARISIAN MEDICAL SOCIETY.

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THE ORATION,

&c.

Mr. President and Gentlemen,

The feeling uppermost in my mind on the present occasion is one of a most pleasurable kind, imbued as I am with a deep sense of gratitude for the honour which has been conferred on me, in having been appointed to deliver the Annual Oration before so many of my professional brethren, now met together to celebrate the institution of the oldest Medical Society in London. But although I cannot suppress my feelings of pleasure and pride, the melancholy thought is forced upon me that my appearance before you on this occasion is due to an event which arouses the most solemn and mournful sensations. But a short time ago, one amongst us, who was then in the vigour of bodily and intellectual health, was most worthily chosen to give the address on this anniversary, but it was ordained that the accomplishment of this event should not take place—our esteemed and highly gifted friend was hastily summoned from this earthly scene in the midst of an active and useful career. William Frederick Barlow's "praise is hymned by loftier harps than mine;" still I cannot in this place avoid paying a brief testimony to his worth and talents. All of us are acquainted with the results of his persevering inquiries after scientific truth, results, indeed, which he was most actively developing when he

was so suddenly taken from us. Most of us have listened to his eloquence in debate, which shone forth in such clear and forcible language, and I need not say how well he, above all others, would have accomplished the task which it is my duty this day to fulfil. It is, however, a mournful satisfaction for us, whilst reflecting upon his premature end, to know that death found him earnestly following his scientific pursuits, and engaged in acts of philanthropy and true heroism. His early decease was a loss to the whole profession, but more especially to this influential Society, of which I may truly say he was one of the greatest ornaments. You will, I am sure, not think it unbecoming in me to make this brief allusion to our departed friend, and probably you will be the more indulgent towards myself when you consider in whose place I now stand, and how unworthy I am to hold the position which he, had life been spared, would have this day occupied, and the duties of which he would have so gracefully and so ably fulfilled.

I shall dwell no longer upon this melancholy topic, but at once proceed to the task which has been more especially imposed upon me; and here I must express to you the difficulty which besets me on choosing a subject worthy of the occasion; and I am sure you will give me credit for speaking the truth, when I state that the difficulties I labour under are great and peculiar—great, on account of my deficiency and inexperience, peculiar on account of the composition of my audience, which contains many who are eminently versed, both in theoretical and practical skill, and whose professional tastes and inclinations widely differ.

Every follower of medical science has one common object in view, and this is to do all he can to relieve human suffering, and to combat the ravages of disease in whatsoever form the many-headed foe presents itself. The cultivator of pure medicine, the obstetrician, and the surgeon who heartily engages in his own particular sphere, follows the same profession, which is in reality one and undivided, and each must necessarily feel an interest in what the other undertakes; for the studies which form the basis of all medical knowledge are identical. Some here present are engaged more especially in pure medical science and practice, others follow the no less important path of obstetric medicine and surgery, and a third class belongs to those who combine both of these with surgery, or whose tastes

and opportunities incline them to the almost exclusive pursuit of the last-mentioned department of science. My own opportunities and inclinations have led me this way, and on looking for a subject for consideration on this occasion, I have thought it would be most appropriate for me to request your attention to some of the great improvements which have been made in this direction of late years, and more especially to refer to the labours of those belonging to the Medical Society of London, who have contributed to the advancement of surgery.

The present age is, perhaps, the most remarkable the world ever saw, and at no other period has the spread of science been so great as at present. Most truly have the words of the inspired prophet come to pass, "Many shall run to and fro, and knowledge shall be increased;" and he who thinks seriously must feel it a privilege to live in such an age. In our own science these great improvements are as well marked as in every other department of learning, and more especially, perhaps, have these advances been made within the last few years, and all who are acquainted with surgery, as practised by our forefathers, will admit that the most rapid strides have been made towards rendering it more scientific, more simple, and more effectual.

It would be out of the question for me to refer to the majority even of the improvements which have tended to simplify and render more accurate the science and practice of surgery; I must content myself with a reference to those which are most marked, and especially those with which the names of Fellows of this Society are connected.

In the first place, I may state, that guided by more correct physiological and pathological data, we have, within late years, arrived at a much better knowledge of the phenomena of inflammation, and of the treatment which is best adapted to prevent it, and to subdue it and its results. Inflammation is not now looked upon as merely an accumulation of blood in the part affected, or an excited action of vessels attended by a more vigorous state of the circulation at large. Not many years ago the opinions entertained upon this point were unsound and unscientific, and were consequently followed by erroneous practice. To combat inflammation of any kind soever, whether simple, erysipelatous, or traumatic, the use of bloodletting and

of other powerful lowering remedies was employed to a great extent, and the fact that the resources of nature were required in order that the various processes connected with inflammation should be carried out with safety to the patient, was lost sight of.

Of late years, however, pathology has taught us that in by far the greater number of cases of inflammatory diseases and injuries, some morbid condition of the blood is working as the direct or indirect cause of the manifestations observed, and that the abstraction of the diseased fluid, or the violent lowering of the nervous and vascular energies, by active medicines is dangerous and unscientific treatment. The surgeon, when called to a case of inflammatory disease, does not content himself with studying and combating the local manifestation alone, he looks further, and endeavours to ascertain what is the precise nature of the cause producing it, and if he finds this out, as he generally will, his line of practice will be more scientific, and will tend to greater success, than if he were led by a mere empiricism, or looked alone to symptoms.

It is impossible to overlook the great improvement connected with the local treatment of inflamed and ulcerated parts. Simplicity indeed, is now the order of the day in the application of surgical remedies, instead of the complicated dressings which were formerly used to such diseased parts, the clean, simple, and effectual water dressing is now employed by most surgeons; and although this fact may appear to be almost too insignificant to mention here, the improvement is a great one, and we are especially indebted to the late Mr. Liston for having so strongly advocated this simple appliance.

Not only is inflammation, with its consequences, much better understood and more correctly treated than it was a few years ago, but a more extended knowledge of its pathology, and of the conditions and circumstances under which various attacks of inflammation arise, has led to the prevention of it in a great degree. The records of surgery, both at home and abroad, have shown that a very considerable number of those who were brought together in hospitals, as sufferers from injuries or operations, became attacked by inflammation, erysipelatous, or gangrenous; it was ascertained, after diligent investigation, that this unfortunate result was caused by overcrowding, and by an insufficient attention to ventilation and cleanliness. The re-

medy was obvious, and the result has necessarily followed upon its application, for we no longer hear of violent outbreaks of hospital gangrene or of uncontrollable erysipelas requiring whole wards to be closed, and consequently a much greater proportion of patients, who have undergone operations, or have received severe injuries, recover from their effects.

It is true that even now, with our advanced knowledge and means of preventing, to a great extent, the supervention of such serious complications, many patients in our public institutions die annually from that poisoning of the blood, properly termed pyœmia, which, indeed, is merely an aggravated and unhealthy form of inflammation coming on after injury is inflicted by accident, or by the surgeon's knife. Nevertheless it has been made the subject of special investigation by an earnest inquirer after truth, Mr. Henry Lee, a Fellow of this Society, and I believe that its true pathology has been explained by that gentleman. We are taught by these researches, that the best mode of preventing this dreadful affection is to do everything to fortify the system, and keep the blood in as healthy a condition as possible. I think that Mr. Lee has, by his researches on pyœmia, contributed really to surgical science.

All must admit that it is the characteristic of the surgery of the present day, to place a greater reliance upon the resources of nature, in bringing back the restitution of parts, which have been injured or diseased, to a sound condition. This is eminently observable in instances of compound fracture and inflamed and ulcerated joints. This is mainly due to our knowledge of pathology being more advanced, to a clearer recognition of the powers of nature, to a more simple use of the means of art, and especially to a more suitable employment of mechanical appliances; and possibly in the whole round of surgical means and adaptations for the treatment of disease or injury, there is not a greater improvement than that afforded by the use of the suspending splint in cases of fracture. Mr. Luke, I believe, chiefly introduced this method into this country; but, perhaps, the most ingenious and most useful apparatus of the kind is that invented a few years ago by my old fellow-student, Dr. James Salter. By the use of the swing splint, in instances of fractures, I believe many limbs and many lives are saved, for the injured parts are kept at perfect rest in the the most comfortable position, consequently there is much less likelihood of

the occurrence of that local and general irritation which has so often rendered the efforts of the surgeon quite nugatory.

In connexion with the surgery of diseased joints, great progress has of late years been made, and here, more than elsewhere perhaps, it is seen how much the success of our treatment depends upon an acquaintance with the true pathological conditions of diseased textures. Our illustrious fellow-countryman, Sir Benjamin Brodie, has signalised himself by his researches in this quarter, his masterly descriptions of the affections of joints must be familiar to us all, and to him must, in a great measure, be ascribed the improvement which has taken place in the treatment of articular disease, for he has strongly pointed out the great importance of keeping an affected joint at perfect rest, and it is well known that in many of those instances where the cartilages alone are ulcerated, or where with this condition the subjacent bone is only superficially diseased, perfect quietude of the joint, together with the use of those means which improve the general system, and a patient reliance upon the resources of nature, will bring about recovery, and prevent those measures of mutilation which were so frequently put in force, before the pathology of these diseases was so well understood as it is at present.

It is the subject of remark, that the surgery of the present day is highly conservative, or rapidly tending to conservatism, in the true meaning of the word, so far different, indeed, from the term as employed in a political sense; and we see, in the present improved method of treating diseased joints, an admirable illustration of this great and satisfactory truth; and, in connexion with this matter, I refer with the greatest pleasure to the researches of one of the most intelligent and most painstaking surgeons belonging to this Society, Mr. Gay, who, imbued with the spirit which should animate a cultivator of surgical science, has thoroughly investigated the pathology of certain affections of the joints, and basing his views upon sure and certain pathological data, has adopted a mode of practice in the treatment of these diseased conditions, which must, indeed, be ranked amongst the great improvements in surgery of the present period. He has shown that in many cases the bones are only superficially diseased, and that in such instances, by making free incisions into an ulcerated and suppurating joint, the *débris* of the diseased tissues will have an opportunity of

coming away, and the parts be thus placed in a condition to escape further mischief. That this practice, based upon these views, is correct, I have not the slightest doubt. Every surgeon almost, of the present generation, has been educated in the idea that it was a hazardous procedure to make an opening into a joint when filled with matter, but Mr. Gay has now shown us that a free opening into a diseased knee or hip joint, is not only not hazardous, but is likely to be followed by the very best results. It is when a small opening only is made into a joint that mischief is likely to ensue.

It is impossible for any one taking a sketch of some of the more striking achievements of modern surgery, to overlook that department which relates to the treatment of deformities of the human body. The present generation of surgeons has seen a vast revolution take place here. The practice, by division of tendons for the cure of the various deformities to which the extremities are more especially liable, first advocated by Delpeck, and practised by Stromeyer and Dieffenbach abroad, has of late years been brought almost to a state of perfection, mainly by the efforts of some of our own countrymen, amongst whom I may mention the names of Dr. Little and Mr. Tamplin. It is impossible to view the results of the treatment of club foot by the division of the contracted tendons, and the subsequent use of mechanical appliances, as also the beautiful effects of the division of the internal rectus muscle in strabismus, without feeling that the resources of surgery, when wielded scientifically and skilfully, are very comprehensive. It is a subject of pleasure to me to be able in this place to refer to the labours of a distinguished Fellow, and late President of this Society, in connexion with the subject of deformities; for although the views of Mr. Bishop are at variance with the majority of those who more strictly practice orthopœdic surgery, it is impossible to acquaint oneself with his opinions, and not observe that he has laboriously investigated this difficult subject, and that he has applied to this investigation the resources of a philosophical mind. He is strongly opposed to the section of tendons, not only in distortion of the spinal column, but also considers that tenotomy, as a remedy in instances of club foot, is unscientific and inexpedient, inasmuch as it deals with effects instead of causes. This reasoning, as applied to the treatment of disease in general is doubtless correct, but there

are certain instances when the surgeon can only get at the effects of disease, and in some kinds of distortion, this, I believe, more particularly obtains. However, it is not my purpose to discuss the views of Mr. Bishop, but simply to state that he has done good service to surgery by his patient and philosophic researches, and has shown that the very beautiful expedient of tenotomy may be carried too far, and that in many cases deformities, both of the spine and of the extremities, may be effectually remedied, in the former by attention to position, and by the combination of extension with position in numerous instances of the latter.

Whilst on the subject of deformities and malformations of the body, my mind naturally reverts to one of the most beautiful discoveries which have of late years occurred in connexion with that department. I allude to the discovery of the true condition of the parts in cleft palate, and consequently of an improved and certain method of effectually remedying this sad deformity, in endeavouring to ascertain which, the research and skill of many great surgeons and anatomists were baffled. It remained for Mr. Fergusson to point out the real condition of the parts, and to indicate the remedy as well, and it is with feelings of great pleasure and pride, that I can refer so happily to the labours of one, to whose teaching and to whose patronage I am so largely indebted.

After a careful dissection of the parts in the cleft state, Mr. Fergusson discovered that certain muscles of the palate had such an influence over the moveable textures, that it was useless to attempt a cure by operation, unless the action of such muscular fibres was first paralysed. Before his researches, the proceeding adopted consisted in making haphazard incisions through portions of the palate, and subsequently paring the edges of the cleft and bringing them together by sutures. Here however obtained what Mr. Bishop complains of in the treatment of certain distortions of the extremities, effects and not causes were merely looked to, and attempted to be remedied, for the very simple reason, that the real origin of the influence on the moveable flaps was not understood, consequently the operation could not be expected to be attended with success. Now, however, Mr. Fergusson has clearly ascertained by his beautiful dissection of the parts in the cleft condition, that the levator palati muscle acts powerfully in drawing the soft palate

upwards and outwards, and thus materially prevents that state of quietude which is so necessary for the accomplishment of union after the edges of the cleft have been brought into contact by sutures; in fact, these powerful muscles on either side continually drag upon the moveable palate. The determination of this fact, caused at once the solution of the difficulty by which Graâfe, Roux, Dieffenbach, and Liston were arrested, for it was seen, that in order to insure success, the muscular fibres which acted upon the palate must be divided prior to the attempted union of the edges of the cleft. The operation has been adopted upon this principle on many occasions, and by several surgeons with the very best effects, numerous instances have been under my own observation, and in by far the majority of cases, an admirable cure has been the result. I think it would be difficult to point to an operation in surgery which may be more truly called scientific, for the deductions which Mr. Fergusson had arrived at, were the result of investigation and reasoning, founded upon the most accurate physiological and anatomical data.

I cannot leave this subject, without referring to the improved means which a Fellow of this Society has adopted of remedying these sad accidents from which some females labour under. I allude to the ruptured pernineum and prolapse of the vagina. Mr. Isaac Baker Brown has practised a most ingenious mode of treatment for the latter affections, consisting in a series of operative proceedings, by which the circumference of the vagina is contracted, and the posterior portions of the labia are united, so that the relaxed parts may have a better support. In instances of ruptured perineum, Mr. Brown has been very successful, by practising the method previously adopted of dividing the sphincter ani before uniting the parts. By his investigation into these deformities and his successful practice, Mr. Brown has done good service to surgery.

In the entire category of surgical diseases, it would be difficult to point to one to which more interest and importance has been attached by surgeons, than obtains in the instance of aneurism. A malady, whose pathology and right treatment were little understood until the illustrious John Hunter applied his powerful mind to its investigation. He both pointed out the reason why the treatment ordinarily employed in his day proved so abortive, and at the same time taught the profes-

sion the way in which the cure of an aneurism might be effected; and this discovery must be looked upon as one of the greatest events in the history of surgery; but admirable and beautiful as was the suggestion of Hunter, which has been acted upon with the greatest success for many years, there yet remained to be pointed out a method of treating aneurism, which, based upon the same views is even more simple, and probably will prove to be more effectual. It is only within the last ten years, that the treatment of aneurism by compression can be said to have been placed in our list of surgical remedies. It had, indeed, been tried by others, but it was not until some of our eminent brethren in Dublin had investigated the subject, that it was brought prominently forward; the results, however, of their trials of compression, soon convinced a portion of the surgical world, that the treatment was worthy of confidence, and although from some quarters much opposition has arisen, it has been found that it is a more safe mode of treatment than that by the ligature, and one equally as effectual. A very large number of published cases proves this, and although compression cannot be employed in many instances, such as aneurism of the carotids of the subclavian, and of the external or internal iliac, it is likely to supersede the use of the knife and ligature in the majority of cases where the vessels of the extremities are diseased. This must be looked upon as a great achievement in the surgery of the present age; and the names of Hutton, of Cusack, and of Bellingham, will ever be honourably connected with the modern treatment of aneurism.

Much interest and importance is attached to hernia as a surgical disease, on account, in the first place, of its extreme frequency of occurrence in otherwise healthy and able-bodied persons, and secondly, because so much of the success which results from treatment, depends upon a correct appreciation of its anatomy and pathology, and upon a right and timeous use of those measures which are at the surgeon's disposal. The researches of Pott, of Sir Astley Cooper, and of Lawrence, went far to simplify the subject; and a vast deal of light was thrown upon the true anatomy and pathology of hernia by their investigations, and the treatment of the disease under its varying conditions was greatly improved. At a later period, the excellent surgeon who is now the official head of the surgical profession, showed that the results of operations performed for

hernia in a state of strangulation, might be rendered more satisfactory by a modification of the process ordinarily employed; this consisting in the return of the tumour into the abdomen, by dividing the stricture, and not opening the peritoneal sac. This method of treatment has now been adopted by many surgeons, and with very advantageous results. Still, very lately, there has been another step in advance in connection with this procedure, and it is with great pleasure that I can again refer to a Fellow of this society, as having improved the operation for hernia.

Mr. Gay considered that the operative proceeding might be still further simplified, and that much greater success would attend it if it were adopted much more early, and if the manipulations necessary in the employment of the taxis were not carried on so vigorously, or for a period so prolonged as usually obtained. He in fact considered, that prompt reduction of the strangulated intestine with as little interference as possible with the parts already injured, would prove to be the most speedy, as well as the most effectual and scientific method of treatment; he therefore recommended, that after the taxis has once been fairly applied, the surgeon should divide the stricture, but that in so doing, he should make the incision as limited as possible, and that instead of carrying it over the tumour itself, and consequently through tissues more or less diseased, he should make a species of subcutaneous incision by the side of the neck of the rupture, by this means get at the stricture and divide it. and return the hernia without opening the sac, and scarcely interfering with the tumour or the parts immediately covering it.

This modification of the operation which is especially adapted for femoral hernia, must be looked upon as an improvement in the surgery of this disease, for herein is combined simplicity with safety, and if an operation can be rendered more simple, at the same time that it is effectually performed, it is surely an improvement.

In connexion with the subject of hernia, I may also mention the name of another eminent Fellow of this Society, Mr. Hancock. He has instituted some useful researches into the pathology and treatment of hernia, and although his views are at variance with those of his fellow-labourer Mr. Gay, inasmuch as he advocates the old operation of opening the sac, the profession is under great obligations to him for so ably discussing

the other side of the question. Before leaving this extremely interesting subject, I cannot avoid referring to two circumstances in connexion with the treatment of hernia; most surgeons recognize the terrible results which ensue from delaying an operation too long. Nevertheless, it is even now necessary to enforce the great truth, that delay is dangerous, still the more decided average of success after operation for hernia, shows that the truth is practically appreciated.

The other point alluded to is, the treatment of cases after the operation has been performed, and here a great improvement has taken place within the last few years, in consequence of a more correct knowledge of the pathology, and of the treatment of abdominal inflammations in general; the majority of practitioners now recognize the great importance of keeping the inflamed parts at perfect rest, and of tranquillizing the nervous and vascular system; it is no longer considered necessary that a portion of bowel which had been constricted and irritated for hours or days, should, immediately after it has been liberated, be further irritated and exposed to mischief by the action of purgatives, nor is it deemed prudent that large abstractions of blood should be made for the purpose of preventing or remedying peritoneal or intestinal inflammation. Thus, instead of giving castor oil or colocynth soon after the operation for hernia, the surgeon allows nature to take its course, giving time for the injured intestine to repair itself, and if signs of inflammation do come on, he depends upon opium as his sheet anchor instead of prostrating his patient by copious, local, and general blood-letting, or by profuse salivation.

Our knowledge of the pathology and treatment of the surgical diseases of the urinary organs, has been much extended and improved within the last few years, although as yet, neither chemists nor surgeons have found out a method of destroying stone in the bladder, except by operative process; nevertheless, the introduction of lithotrity must be looked upon as an improved means of treating this affection, calculated as it is in a great measure to supersede the apparently more formidable operation of cutting into the bladder. Although surgery is indebted chiefly to Civiale for this great addition to its resources, our own countrymen Brodie, Liston, and Fergusson, have contributed greatly to its adoption in England; but it must be confessed notwithstanding, that we have not yet been enabled to

obtain any satisfactory statistics of the treatment of stone in the bladder by lithotrity, and I question very much whether, in the end, lithotrity is a more satisfactory proceeding than lithotomy; still it must be looked upon as a great improvement, even if it only does away with cutting, and thus removes a great source of dread and anxiety to those who have to undergo operation, and who always attach more real danger to the use of the knife than to any other instrument.

Very lately, much attention has been paid to the study of the pathology and treatment of one of the most interesting and important diseases which man can labour under, viz., stricture of the urethra; this disease has indeed at all times commanded much attention at the hands of surgeons, but at no period so much as at the present time, when one may say, men's minds have been violently agitated upon what has proved to be a bone of bitter contention; but this very circumstance has proved how interesting and how difficult a disease we have to deal with, and how much more we have to learn regarding its pathology and treatment. The subject in question has been ably considered by several Fellows of this Society, by Mr. Guthrie in his Lettsomian Lectures, by Mr. Hancock, and by Mr. Wade. The demonstration by Mr. Hancock of the involuntary muscular fibres surrounding the urethral canal, is an interesting and important fact, whether considered in a pathological or in a practical point of view, for their existence will explain phenomena, which were certainly well known beforehand, but which could not be satisfactorily accounted for.

Various attempts have been made to add to our means of treating stricture; the proposition of laying open the urethra, by an external incision upon a grooved sound previously passed through the stricture, has been recommended by one of the best surgeons in Europe, and Mr. Syme avers, that he has himself had a large amount of success; but other surgeons, and especially those in this metropolis, have tried the plan of treatment, and the results have been such that it is not very likely to be generally practised.

Mr. Thomas Wakley, a Fellow of this Society, has strongly recommended a mode of treating strictures, by the use of some very ingenious instruments, capable of effecting dilatation very rapidly.

My colleague, Mr. Wade, has devoted a great deal of attention to the investigation of the merits of potassa fusa, as an agent in the treatment of certain obstinate cases of stricture; and it is my sincere conviction, after a considerable trial of this remedy, that if it were more fully used, there would not have been any occasion for the prolonged and angry discussions which have of late been carried on regarding the merits and demerits of the perineal section.

It now remains for me to speak of the progress which has of late been made in that department of the art, which is appropriately termed operative surgery; for here indeed have the most rapid strides been made, and in some instances it appears as though we had arrived almost at perfection, as far as this term can be applied to anything that man undertakes.

It is impossible for one who has rendered himself familiar with the history of operative surgery of bygone years, and who contrasts it with its present condition, not to feel that it has been eminently advanced by the surgeons of the present age. It is true, that the operative is looked upon as the coarser and less scientific branch of surgery, and it is the habit among many to decry it, and to deny to those who have been and are most distinguished in using the knife, those mental endowments which are so necessary in a man who wishes to shine in any walk of the medical profession. It must be confessed, that for the mere purpose of executing operations, the higher qualities of the mind are not called into play so much as when the attention is directed to the investigation of the more abstruse points of pathology and medical practice, but those who look upon operative surgery as a mere handicraft, forget that the skilful wielding of instruments alone is not all that is necessary in one who wishes to be a good operator, in the true sense of the word. Far from this, he must not only make himself thoroughly acquainted with the principles and practice of ordinary surgery, if I may so speak, but with this knowledge he must be possessed of certain endowments and characteristics, which are more the gifts of nature than the results of his own seeking; much indeed may be acquired by practice, but the quick eye, the cool temper, and the imperturbable presence of mind, are truly gifts of nature, and if to these qualifications are added a sound knowledge of anatomy, and a ready appreciation

of the differences between healthy and diseased structures, the possessor must be looked upon as one, who is in the best possible position to undertake the cure of surgical diseases.

I have not time to dwell at any length upon the particular improvements in connexion with this department of surgery within the last few years, and I have already referred to some subjects, but I may just call your attention to the manner in which the various amputations are now performed, to the simplicity and precision which are observable in the process. The introduction, or rather revival of the flap operation, must be looked upon as a great improvement over the old circular method, although, as regards the ultimate formation of the stumps, there is a difference in opinion as to which method is followed by those which are most serviceable.

I may here refer to amputation of the foot at the ankle joint, which operation has within the last few years become recognised, and justly considered as a great improvement compared with the old method of amputating through the leg, and taking away a considerable portion of healthy structure, and leaving the patient a most insufficient means of progression. To Mr. Syme the profession is entirely indebted for this. The principles upon which the operation is adopted are strictly in accordance with the spirit of conservatism which is now so happily the characteristic of the Surgery of the present day.

It is chiefly as regards the operative treatment of diseased joints and bones that there has of late years been so much progress in true conservative surgery. Amputations are now rarely performed in comparison with their frequency of occurrence in former years. Excision, and resection of joints and bones, the removal of disease alone, without taking away healthy structure, are now-a-days by good surgeons substituted for amputation in all cases, where, formerly, such extensive mutilation would have been deemed expedient and necessary; by these partial and limited operations disease is thoroughly removed and lives are preserved, at the same time that useful substitutes for the original joints and members are left. How beautiful are the results which have followed the excision of the elbow joint, which has now been performed upon a very large scale! The same mode of proceeding has been adopted in the instance of all the principal joints of the body; there has been

much difference of opinion regarding the applicability of excision to the hip and knee joint; but the experience of numerous surgeons has proved that resection of the head of the femur is a measure which is followed by most excellent results in certain instances of disease of the hip, and it has now become a recognised operation, thanks, chiefly, to the efforts of Mr. Fergusson, and to others who have investigated the merits of this proceeding.

Excision of the knee joint is looked upon by the profession as a more questionable measure; the propriety and expediency of this operation has been much discussed, but experience has shown that it is a measure which should not be hastily rejected, and further trials will, I hope, prove that the results attending the operation may be as fortunate as those following amputation of the thigh. In connexion with this subject, it gives me the greatest pleasure to refer to the labours of my friend, Mr. Jones, of Jersey, who has operated no less than five out of six times with success, and who, indeed, has contributed more than any provincial surgeon of the present day, to advance Conservative Surgery.

I think it may be stated that, in what may be called "Bone Surgery," to use a familiar expression of one of my old teachers, there has been more improvement in practice than in any other department.

This is exemplified by the many instances of excision, and more especially by the effectual operations, now-a-days, performed for the removal of dead and diseased portions of bone, in cases too, where, not many years ago, it would have been deemed necessary to remove the whole member, or suffer the patient to drag on a miserable existence.

Much improvement has been effected within the last few years in the surgery of the jaws, the excision of the whole, or of portions of the upper and lower jaw, is now readily undertaken by the surgeon with complete success, in instances where not very long ago such operations would have been thought unjustifiable or impossible. We are indebted to Mr. Lizars, to Mr. Syme, and to the late Mr. Liston, for the introduction of these truly formidable operations. Mr. Hancock has distinguished himself by his skill and success in these cases; and Mr. Fergusson has had many most remarkable in-

stances of excision, both of upper and lower jaw, and has made a great improvement in the operation for the former, by so planning the external incisions, that very slight deformity is produced after the parts have cicatrised.

In the more special department of the surgery of the eye, much has been done of late; in former years, Travers, Lawrence, Guthrie, and Mackenzie, investigated the pathology and treatment of diseases of the eye; and more latterly have there grown up men who have become equally energetic labourers in the same field. Dalrymple, Bowman, White Cooper, and an honoured fellow of this Society, Haynes Walton, who, in the operative surgery of the eye especially, is, I believe, *nulli secundus*. His discovery of the true condition of the parts in entropium, and of the method of remedying this very troublesome affection by the operation of removing a portion of the highly developed orbicularis palpebrarum muscle, may, perhaps, be considered next in importance and beauty to the division of the internal rectus muscle in squint.

With reference to the surgery of the ear, those who have more especially distinguished themselves by their researches in this department, are Fellows of this Society. Much of our knowledge of the pathology and of the treatment of the affections of the ear passages, has been contributed by the laborious investigations of Mr. Pilcher, Mr. Harvey, Mr. Toynbee, and Mr. Yearsley.

Having just spoken of the progress which has been made in operative surgery, it is impossible for me not to make some reference to *the* great discovery of late years, viz., the use of chloroform. Most of us can recollect what used to take place in the operating theatre of an hospital before the occurrence of this great fact, and can contrast the present state of things with those dreadful scenes; and although the weekly and almost daily experience of the use of chloroform has made us familiar with its effects, it is to be hoped that this familiarity has not deadened our appreciation of its vast benefits, but has made us more sensible of one of the greatest blessings which has been vouchsafed to suffering man. It is impossible that we can be too grateful, for not alone is the subject of a severe surgical operation the recipient of this blessed boon, but the operator himself is wonderfully assisted by it, and he can now set about the most terrible operations without doing violence to those

feelings which will always animate the really good surgeon; who, although he must occasionally show an apparent insensibility, is, at the same time, conscious from his own and others' experience, that the greatest firmness of purpose is not incompatible with the most generous and most gentle sympathy.

It is true, that to Dr. Simpson, of Edinburgh, the profession is indebted for the introduction of chloroform; and with its discovery, as an anæsthetic agent, his name must ever be honourably connected. But next to Dr. Simpson, I hesitate not to say, that we owe the deepest debt of gratitude to a Fellow of this Society, Dr. Snow, for he has most laboriously investigated the action of this most powerful agent, both upon man and upon the lower animals; he it is who has taught us the exact nature of its peculiar effects, and shown us how to exhibit it with the greatest safety. Too much commendation cannot be given to Dr. Snow for his valuable researches upon the employment of chloroform, for experience has shown that it is an agent which is powerful for evil as well as for good, and that unless the utmost caution is used, the most disastrous results might ensue; but that, if employed with care, it may be inhaled with comparative safety. The introduction of anæsthetic agents must be placed side by side with the discovery of the circulation of the blood, and that with which the name of the immortal Jenner is connected.

I might say much more on this interesting subject, but must now bring this imperfect sketch of the progress of surgery to a conclusion. I trust, however, I have shown that much, very much has been done, to improve the science within the last few years, and that this improvement is advancing day by day; for we have amongst us yet the Nestors of surgery, the men whom we look upon as the great teachers of the present generation. It is impossible that surgery can do otherwise than progress whilst such men as Brodie, Travers, and Lawrence, are leading in the van, and their doctrines are being disseminated by those who are worthy to be the pupils of such masters of their art and there need be no fear of surgical science retrograding so long as there is amongst us a Paget capable and willing to direct his powerful mind to the investigation of the most abstruse and interesting points of surgical pathology, and whilst there is a Druitt able to analyse and sift conflicting

doctrines and opinions, and by his masterly use of the English language, to hand down to all seekers after truth, the richest treasures of surgical lore.

Before bringing to a close the very desultory and imperfect observations which I have brought before you, I cannot omit a reference to the condition of the Medical Society of London, which has now been instituted upwards of eighty years. All of us have reason to rejoice at its present prosperity, both in a financial point of view, and as regards the numbers of those belongin gto it, many of whom are men who have taken a high position in their profession, and amongst whom can be found those devoting their best energies to the investigation of disease and the furtherance of science. I need not mention the names of these gentlemen, in fact they would be too numerous. To some of those, who have done much service to surgical science, I have already referred; there are many who have striven equally as well in the other departments of our noble profession. With reference to the number of those who compose this Society, I may state that there are on the books upwards of two hundred and fifty ordinary Fellows, and that during the last two sessions the increase of new Fellows was considerable; but, in addition to these, there are upwards of sixty honorary Fellows, amongst whom are found most of the names which at present form the muster-roll of the most distinguished physicians and surgeons of this mighty city, and many amongst these are not merely content with allowing their names to adorn our books—for although, in years gone by, they took as active a part in the affairs of this Society as any of the most energetic now belonging to it, they rest not yet from their labours, they still come amongst us, assist us with their presence, and give us the results of their mature experience, being probably not unmindful of the benefits which they themselves, at an earlier period of their own professional career, received from the counsel and teaching of those who at that time were in the same exalted position which they themselves now hold.

It is the more pleasing to find that there have been so many additions to the numbers of the Society, as some two or three years when the amalgamation took place between the London Medical and the Westminster Medical Societies, it was conjectured that that measure would be in some way detrimental to our interests; but those few who held this opinion have been

happily disappointed, for the sphere of the Society's usefulness has been much extended since that period, and there is every reason to believe that it will long maintain the very high position which it has for so many years held amongst the great scientific assemblies in the metropolis of the world.

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