ADDRESS IN MEDICINE,

BY

FRANCIS SIBSON, M.D., F.R.C.P., F.R.S.,

Senior Physician to St. Mary's Hospital, London, etc.

MR. PRESIDENT AND GENTLEMEN,—Our age is marked by experiment and exact inquiry, directness of aim, and the skilled power to do the work required of us with completeness and economy. The labour of the past surpassed, but not superseded; and while nothing that has been done is lost; invention awakes invention, discovery discovery. Each advance is a fresh starting point for the future labourer. It is, indeed, everywhere taken for granted that good as this or that work may be, better work, more simple and more to the purpose, remains before us.

The ship, the bridge, the rail, the telegraph, and the gun, of the present day, as compared with the past, are types and marks of the skill, precision, and advancing energy of the time.

Medicine, too, partakes of this movement that is going on all around us. The knowledge of disease is becoming, at the same time, more accurate and more large. Each year gives us a better knowledge of what remedies can do, and what they cannot do. If the spirit of scepticism has shaken the belief of a few in the medicinal means at our command, that spirit has aroused inquiry, converted belief, which is shifting, into knowledge which is secure.

Those great old forms of medicine, the tincture of the muriate of iron, the sulphate of quinine, the iodide of potassium, opium, the infusion of digitalis, an occasion shot, but not a battery or running fire, of calomel, that have served our fathers, will serve us better. We know what they can do, when they are wanted and when they are not wanted; and with gathered power we apply them at the proper moment.

When science reaches forth its arms and adds to those recently discovered remedies of the day just gone by, chloroform, bromide of potassium, the newly discovered agent of this very day, chloral acid; so our knowledge of disease ripens, and our aims in its treatment become more precise and vigorous; and men, all men, ask themselves at each step they take, why they do this or that; reason takes the place of routine, and rational medicine becomes the common property of the profession.

Side by side with the use of medicine, and not second to it, is the so-called hygienic treatment of disease—the study and regulation of the vital forces. The influence that the physician exercises over the mind, and through the mind over the body; the soothing or stimulation of the nervous power; the calming of exaltation, or the stirring up of apathy; the quieting of the over-busy brain, or the spurring of the flaccid will; the repose of over-used powers, or the awaking of suspended vital functions; the subduing of the over-sensitive skin, or the stimulating of it when wan, muddy, and lifeless; the limiting of supplies to the over-fed frame, or the repair of the wasted body by the proper kinds of food and stimulants; the bringing into play, and so again into existence, muscle that had become wasted and paralysed by disease; these are among the aims that the physician seeks to accomplish; and these are among the means which he seeks to employ; irrespectively of, but by no means necessarily without the use of medicine. These are among the agencies that you hold in your power, in the treatment of disease, and that you, each of you, exercise daily in coping with the various forms of malady, of ailment, and constitution.

There is a method of treatment, that of rest and ease, belonging to this great class, that I have been employing with deep interest in the treatment of acute rheumatism and acute gout, for some years. I think it not impossible that, as this subject interests me so nearly in its practice, it may interest you in its telling. I shall, therefore, at once proceed to narrate to you my experience in this method of treatment.

REST AND EASE.

During the last four years I have submitted all my patients in St. Mary's Hospital, affected with acute rheumatism and acute gout, to a rigid system of absolute rest, protection from external injury, gentle pressure, equal warmth, and the removal of pain, chiefly by treatment from without. Those two diseases, so often apparently identical, differ essentially, as you know, in this—that, while rheumatism attacks those whose blood and tissues are previously healthy, and is produced by overwork and exposure, gout seizes upon persons whose blood and tissues are already affected, uric acid being found in excess. In acute

gout, therefore, I gave iodide of potassium, and sometimes colchicum, in the hope of getting rid of the special poison. But in acute rheumatism I gave no internal medicine during the active stages of the disease, unless it was called for by some special reason. I gave my patients no coloured or flavoured liquid to make them think that they were taking medicine when they were not doing so. I do not think it quite right; and I do not find it needful to employ such a planned system of fiction. If we do so, we complicate the observations, and we deprive ourselves of the help that the patient will give us when he understands the aim of the method of treatment.

Whatever may be the line of treatment adopted for disease, the influence of that treatment on the disease itself is less than the physician is apt to think. The great majority of diseases tend to get well. They have, so to speak, a lifetime of their own, with its periods of growth, maturity, and decline. They are the passing tenants of the body, which they occupy, often with great injury, for a limited time. Treatment cannot change their nature—cannot expel them at once—cannot quench them—cannot materially shorten or prolong their existence. But treatment can lessen the sufferings of the body occupied by disease, shield it from outer injury, repair its waste, and support and reinforce its powers; while it can ward off those causes that tend to increase or reawaken the disease, and lessen the intensity of its action, inflammatory or otherwise, especially upon the local structures. To watch, then, the treatment of a disease, is to watch, not, so to speak, the remedy and its immediate effects, but the disease itself, and its behaviour during a certain method of treatment.

The thoughtful physician, while taking note of this or that change in the malady, knows that such change is due mainly to the natural growth of the disease, and does not attribute it to the means which he has employed, unless he have good ground for doing so. Having, however, a complete knowledge of the natural changes through which the disease passes, from its beginning to its end, he is able, with something like precision, to say that this plan of treatment has prevented the undue development of the disease, and has lessened its evil effects on the body. In studying, then, the progress of these diseases, acute rheumatism and acute gout, under this method of treatment—by rest and ease—we are studying the disease itself, and the swaying influences upon it that this method may induce.

In the examination of these cases, I shall avoid all comparison of them with the groups of cases of these diseases observed by other physicians, and even with those previously treated by myself in the wards of the hospital. How can you compare one set of cases with another set? Each patient has his own character, and his disease presents its own peculiar features. Cases unduly severe or unwontedly mild are apt to come in groups, extending often over a long period; and the strict comparison of one series of cases with another becomes therefore impossible.

From the summary of the cases placed in your hands, which contains a short narrative of each patient, you will see that, during the two years and a half ending May 1868, I have treated 101 patients on this method; and that of these 74 were affected with acute rheumatism, 23 with acute gout, and 4 with one or other of those diseases, these characters being doubtful. During a considerable period, my colleague Dr. Cheadle joined me in the examination of these cases.

It would be out of place for me to give you here a rigid analysis of those cases; but, taking certain points of interest that present themselves in the series, I shall consider the affection of the joints, and the inflammation of the heart, in its interior and on its exterior, keeping steadily in view the influence of the treatment by rest and ease on the disease.

The Joints.—In a large proportion of the cases of Acute Rheumatism, the swollen and painful joints soon lost their pain, and diminished quickly in size, after the patients had been placed in bed, and the inflamed parts had been drenched with belladonna and chloroform liniment, and had been surrounded by cotton-wool, with a covering of flannel pinned over it, so as to make a comfortable amount of pressure. Over all, the cradle was placed, to prevent the pressure of the bed-clothes; the toes being raised when the ankles were affected, so as to take the pressure of the tendons off their inflamed sheaths. The joints were usually at once relieved by the application of the chloroform, the belladonna keeping up that relief; and, as a rule, the swelling of the structures and the increased amount of synovial fluid diminished steadily from day to day, as you will see in the table illustrating this point, placed in your hands. The facts speak for themselves. In one man (411, Henry T.), the knee lessened from 15½ inches on the fourth day to less than 14 inches on the sixth; in another (424, Henry F.), from 14½ inches on the first day to 12½ on the seventh. I need not mention to you other equally notable instances to the same effect, for they are printed on the table in your hands. I cannot, however,

forbear mentioning one more case that excited some interest in the wards. In this patient, Mr. Salaman, now assistant-surgeon in our Indian Army, made careful measurements of the joints without disturbing them. The right knee lessened in size more than two inches from the first day to the fourth; and, what is still more remarkable, the right wrist measured ten inches on the seventh, and less than eight on the eleventh.

Sometimes the pain and swelling of the joints remained, or even increased, raising the temperature, distressing the patient, preventing sleep, and increasing the action of the heart. Then the application of leeches, or the injection under the skin of morphia, was employed, often with great relief, and with the effect, especially after the application of leeches, of lowering the heat of the joint and the temperature of the whole body, and so of calming the action of the heart.

The inflammation of the joints entirely ceased within eleven days in almost one-half, and within twenty-one days in five-sixths of those patients that were not affected with endocarditis, and in those who were only threatened with it.

But the inflammation of the joints was much more prolonged and tedious in a large proportion of those affected with inflammation of the heart, whether within or without. Thus in less than a third of them were the joints free from pain before the eleventh day, and in almost a half of them did the pain last beyond twenty-one days. Of these last, one-half experienced a relapse, which was often brought on by the too early use of the limbs after they were freed from the fetters of pain. In every case, with the renewal of the inflammation was there a return of the high temperature, the latter being undeniably caused by the former.

The illustration that I have given you becomes more striking if I put it into simple figures. Of 27 cases affected with endocarditis, the joints continued to be inflamed in 13 after the twenty-first day; while only 5 were so affected out of 33 of those who had no endocarditis, or were only threatened with it, as you may observe in the table placed in your hands.

This brings me face to face with the pregnant truth, that if we would treat the heart successfully, we must treat the inflamed joints successfully. By doing so, we remove four distinct causes, each of which requires from the heart a larger and more rapid supply of blood, and increased force of action. We lessen the amount and rate of the blood sent to the inflamed parts; we diminish the temperature of the body, and often the amount of perspiration; we assuage the pain that of itself frequently gives violence to the beating of the heart; and we remove that mental distress, that anxious sense, that oppresses, and may even overpower, the action of the organ.

Before I leave the joints, I must touch upon that class of cases that present the great difficulty in treatment—those, namely, that do not tend to get well—that cannot be classed with the gout series—and that yet differ altogether in their behaviour from those cases that happily form a large majority of the patients affected with acute rheumatism.

Of the 74 cases of acute rheumatism, in 19, or over one-fourth, were the joints inflamed for more than twenty-one days. In one-half of them there was a relapse, which was usually traceable either to the over-use or the exposure of the joint too soon after the passing away of pain and swelling. I find that this relapse tends to come on if the patient use the limb before three or four days have elapsed after the temperature of the body has reached its standard, and after all the joints are free from pain. I now lay this down as a rigorous rule of the ward, founded upon this observation; and of late these relapses have been much less frequent among my patients. And here it is that you must enlist the patients in the treatment. They nearly all desire to use their limbs, and to get up as soon as the pain has left them. When, however, you make them understand that if they do so too soon, they will have a relapse, and that, if they have, the case may become much more tedious, and may, as I have seen, give rise to that tedious and intractable disease, articular rheumatism, they then cheerfully submit to the discipline.

But, besides the relapsing cases, I found a set of patients, amounting to one in seven of the whole, that retained the joint-affection for more than twenty-one days.

Among my patients, I found that the younger the patient, the more rapid is the recovery of the joints. Thus, of those at or under the age of 20, in one-half the joints were well within eleven days; while, of those between 21 and 25, only one-fourth were so within that time. The scale turned after the age of 20; and, while in one-third of those between 21 and 25, the joints were still in pain after the twenty-first day, they were so in only one-sixth of those who had not passed that age.

With increasing years there is a greater tendency to prolonged affection of the joints, and to relapses in those affected with acute rheumatism. I have felt that these prolonged cases, while they belong to the

acute rheumatism group, are partially allied to gout, and that they tend to develop into that disease. This view is supported by the fact that several of my patients affected with gout, whose habits were not such as to engender the disease, had suffered from acute rheumatism when quite young.

I have for some time tended to treat these cases, as soon as they declare themselves, in the same way as I treat gout, giving the iodide of potassium, and sometimes the bromide, accompanied by tartarated iron, with, I think, good effect.

The cases of acute gout, on the whole, did well—all, in fact, but one of them, who died with double valve-disease and contracted granular kidney. These patients derived the same immediate relief from the use of the belladonna and chloroform liniment, the application of cotton, and the protection of the cradle. While, however, those affected with acute rheumatism gained comfort from a moderate amount of pressure over the joints, made in the manner already described, those affected with acute gout could only bear very slight pressure. This pressure was always applied so as to be comfortable to the patient, and, if it ceased to be so, was immediately relaxed.

All the cases improved during the first few days. The joints were quite free from pain and swelling in twelve of them in eleven days, and in five more within twenty-one days. But the tendency to relapse in these cases was great, more so than even in those of acute rheumatism affected with endocarditis. Nearly half (eight out of seventeen) suffered from relapse, of those in whom the joints were well before the twenty-first day. Some of these relapses were caused by using the limbs too soon. The tendency to relapse was less frequent in those to whom the iodide of potassium was given early (usually the first day), than in those who took that medicine later or not at all.

The amount of urine increased somewhat when the iodide was given, but not always, as may be seen in the table. It would therefore appear that the amount of good done by the iodide is more than is accounted for by the increase of secretion from the kidneys.

The results, then, of the observation of my cases of gout, shortly stated, are these: The joints rapidly improve under the influence of rest and ease, but they tend to relapse even when that method is carried out.

The tendency to relapse is lessened by the employment of iodide of potassium. It appeared to me that, when I gave iron with the iodide, the cases did quite as well as when that medicine was given alone. It is, therefore, desirable from the very first to combine the two, which I am now in the habit of doing; for it unquestionably tends to increase the amount of red corpuscles, and we know how deficient they become in acute gout. There is reason also to say that the iodide itself tends to lessen, rather than increase, the red particles, unless by its administration, as in syphilis, the patient is restored to health, and so makes red blood in spite of the iodide. The form that I employ is the tartarated iron. I was desirous of seeing the effects of the iodide on the disease when treated by rest and ease, without colchicum; but the few patients to whom I gave that medicine unquestionably did well, and I feel certain that in these cases it is right to give it for a few days during the acute or inflammatory period.

The Heart.—It will have been seen, from what I have just said, that, when I am looking at the inflamed joints in acute rheumatism, I am thinking of the heart.

How can it be otherwise? You see the limbs powerless; every joint swollen, tender, and painful, and the expression of deep helpless suffering on the face. The first turn of the mind is to find relief for that external pain. But you know that, within a given number of days—you may count them on your fingers—those limbs, now so inflamed and shapeless, will lose their suffering, return to the symmetry of their form, and regain their power, and with it the strong desire to escape from their enforced weariness, and to exercise that power.

But you know that, while the outworks are thus visibly attacked, the enemy is already in the citadel; and that this disease, which in its very nature attacks the limbs, in its very nature attacks the heart also, and at the same time that it attacks the limbs; that is to say, almost or quite at the very beginning of the illness.

In my cases, exactly one-half were affected with inflammation of the heart; and, in nearly every one of these, that inflammation pronounced itself by the immediate language of the heart itself, by pain in its region, by the anxious expression of the face and its dusky or glazed hue, and by the disturbed breathing. All of these may not be present at once, but they come in their order. And I would here say, that the murmur made by the blood passing in the wrong direction through the crippled valve is by no means the first indication in point of time.

In most of the cases of endocarditis contained in the paper now in your hands, the murmur was heard from the first. But some of them presented a much more impressive and more certain chain of evidence

of the inflammation going on within the heart, than if you at once heard over the organ a murmur without that disturbance of the powers of life that always accompanies the disease during its acute stage.

Let me ask you to look at the case of Mary C. (475, p. 6). On admission, tightness in the chest; next day, worse, face dusky; and, on the third day, expression heavy, but brighter; no tightness of the chest; but the first sound was prolonged almost to a murmur at the apex; where on the thirteenth day there was a distinct but feeble murmur.

Then take the very next case (Charles H., 402). On admission, heart's action tumultuous; uneasiness over the organ; prolonged first sound, or slight murmur: but, on the fourth day that murmur spoke out, and was heard at the apex of the heart and towards the arm-pit.

In a third, Harriet R., there was pain over the region of the heart on the fourth day; on the tenth she was better; her face was not so flushed as it had been; there was then no murmur, but on the next day one appeared at the apex, showing mitral regurgitation.

Another instance is presented by Martha H. (469), whose face was flushed on the day of admission, when she presented reduplication of the first sound at the apex. On the sixth day, mitral and pulmonic murmurs were heard; and on the seventh, diastolic aortic murmur.

It is interesting to note the successive variations of temperature of the body in this patient, which was 101.3 on the fourth day, and fell to 99.3 on the seventh, when all the murmurs came into play.

In all of these instances the murmur, which was generated after the cessation of the acute symptoms of inflammation of the heart, disappeared in a varying number of days, and they all left the hospital free from heart-affection. But the result was not so happy in the last case of this class that I shall bring before you. It is that of Mary L. (457, p. 9). On the day of her admission, she was very feverish, breathing was difficult, and there was pain over the heart, but no note of murmur; the temperature was 100. On the third day she was less feverish, and there was a prolonged murmur below the heart. On the following day, when the temperature had fallen to 97, there was less pain over the heart, and she was more animated. But, unfortunately, to overbalance this improvement, there was a mitral bellows-murmur, which was even audible, though feeble, below the shoulder-blades.

It is indeed evident that the first effect of inflammation of the valve would not be to induce regurgitation, which cannot take place till exudation is deposited on the valve, or its structure is softened by the inflammation. This prelude of the murmur—of the crippling of the valve—in the form of pain, and flushed face, and anxious expression, is of great practical value, for it enables us to treat the disease in its infancy, and before it has had time to damage the structure of the valve.

Pain in the region of the heart was present thirteen, and pain in the chest or tightness in five more, out of the total number of twenty-eight who were affected with endocarditis. This is consistent with what we see in affected joints, where acute pain is present in the early stage, but tends to assuage when they become swollen. It was customary, when pain showed itself at the region of the heart, to apply over its seat the belladonna and chloroform liniment, with cotton-wool, or poultice; and if the suffering was great, or was not removed by the liniment, a few leeches were placed over the seat of pain, which invariably produced relief.

These cases were, so to speak, at first dumb, but their very silence of suffering told you more than the loudest rasping or bellows sound, that would by themselves merely say—Here is a heart not now inflamed, but crippled by a bygone attack—bygone, but leaving its work done on the damaged structure of the heart.

In one half of my cases the heart was, as I have just said, inflamed; but, in addition to those, three-fifths of the patients in whom endocarditis was not established, presented unquestionable threatening of that disease; so that only a fifth of the whole number stand apart as being absolutely free from inflammation.

But it is not for me in this place to bring the striking phases of this disease before you, who are so practically familiar with them at the bedside. I will, therefore, at once say what was the result obtained in this series of cases, treated in the manner I have described to you. I have just mentioned those cases, amounting to twenty-two, in which there was a threatening of endocarditis. In all but four of these the first sound was prolonged usually at the apex, being, in some of them, murmur-like, or indeed an actual murmur. In twelve of these cases, this sign was accompanied by pain over the region of the heart, disturbed breathing, flushed face, anxious countenance, or general illness. The prolongation of the first sound, when present, was generally audible on the first day, and it disappeared in most cases on the seventh or eighth day.

In the four other cases there was pain over the heart, and its sounds

were either absent, or unduly loud, or accompanied by pulmonic murmur. In one only were the sounds of the heart absolutely healthy.

Why, then, under these circumstances, do I say that these patients were only threatened with endocarditis, and not actually attacked by it? It is because the suffering and the signs over the heart soon passed away, and the organ was left untouched by disease.

If we turn now to the cases of endocarditis, we shall find that fourteen of the patients, or exactly one half, left the hospital well and free from cardiac valve-murmur. In one or two of them there was a murmur over the pulmonary artery limited exactly to that spot, the second left space. But I need not tell you that this points out no valve disease, but merely too much action, too little blood, and too thin a blood in the right ventricle; and then, as the red corpuscles and the volume of the blood increase, the sound vanishes.

The murmur as it disappeared generally passed into a prolonged first sound. In eleven of the fourteen cases of endocarditis in which the patient left the hospital free from valve-murmur, in three of those cases the prolonged sound preceded the murmur.

These cases show that prolonged first sound is closely allied to a valve-murmur, not merely by the character of its sound, but also by its actual relation to inflammation of the interior of the heart, whether established, as in the fourteen cases just referred to, or only threatened, as in the twenty-two previously alluded to.

Of the remaining cases, we held that seven came in with valve-murmur of some standing from previous disease. This inference was drawn, from the loudness, situation, and quality of the murmur, the increased size and force of the ventricle, usually the right one, and the history of previous attacks, accompanied by symptoms over the heart, and followed by palpitation or shortness of breath on exertion. These seven cases came in with valve-murmur, and went out with it.

The only one of the seven cases that is open to question as to its nature, is that of Mary H. (445, p. 8); but at the time, we made up our minds, that she also had old mitral disease, after considering the many previous attacks, the history, and the murmur, changing with the changing force of the heart, for inflammation is told in these cases by this very variation.

Of the remaining seven cases, four presented, after recovery from the attack of acute rheumatism, faint murmurs or prolonged first sound at the apex, very different from the noises heard during the acme of the disease. These four sustained, I hope, no permanent danger to the valves. The remaining three left the hospital with mitral murmur at the apex; and in them mitral disease was probably established. I say probably, for I have, and many of you must have, in view patients who have left the hospital with a murmur which has disappeared after a time, when they have returned as out-patients.

Pericarditis.—Perhaps one of the most striking peculiarities in the returns of these cases of acute rheumatism, is the very small numbers of the patients who have been affected with pericarditis. These amount to only six. I find that, if I had drawn the line so as to include two more cases, one of those patients came in with pericarditis. From the date on which that patient left the hospital, June 25th, 1869, to this, I can only find one additional case of pericarditis.

The abstract of the six cases is contained in the tables with which you have been furnished. It is, therefore, only needful for me to give a sketch of these cases. They were all males. Three of them were young men, from 18 to 21; and three of them ranged from 28 to 34 years of age. The two more recent cases were also men aged 22 and 29 respectively, the last patient being affected with gout.

It will be seen on examining the tables that a large proportion of my cases, amounting to thirty-two out of seventy-four, were at and below the age of 20, and of these only three men affected with this disease. Besides these, two of the cases of endocarditis—John A. (435, p. 7), aged 20, and Mary L., 32 (457, p. 2)—were affected with transient friction sound as each sustain audible only one day, so that these cannot rightly be included among the cases of pericarditis.

Patients affected with acute rheumatism and acute gout are usually weakened and blanched in a remarkable manner, owing to the lessening of the whole volume of the blood and the diminution of its red particles. I gave, therefore, sooner or later, a proportion of them iron and quinine—preferring, as a rule, the old tried forms of the tincture of the muriate of iron and the sulphate of quinine. To a few patients, who were wanting in colour and strength, I employed the iron at once. I find that I gave it in the later stages of the disease to about four-fifths of those affected or threatened with inflammation of the valves, and to less than half of those in whom that organ did not suffer.

I am almost afraid to express the inference that I am about to draw; for I know that suddenly—to-morrow—I might begin to have a string of patients affected with pericarditis, and with endocarditis, producing serious and permanent mischief to the valves; but still I do feel, after

pondering over it much and often, and weighing in the scale every theory that I could think of, that my inference is supported by the small number of these cases of acute rheumatism that presented pericarditis, and the happy results in those who were threatened and affected with endocarditis, so large a number of whom left the hospital with valves faultless, so far as we could detect. But the inference is, that we do own to a marked extent, the small proportion of cases of pericarditis, especially in the young patients, and the happy result of those threatened and affected with endocarditis to the care which is taken to keep the inflamed joints at rest, to shield them from external pressure, and to give them ease.

ADDRESS IN SURGERY,

BY GEORGE Y. HEATH, M.B.,

Surgeon to the Infirmary, Newcastle-upon-Tyne.

MR. PRESIDENT AND GENTLEMEN,—So many eminent and gifted men have discharged this duty which is now mine, that to have been chosen to succeed them and to address you might well arouse feelings of pride and elation in the minds of the most distinguished. I know, however, that it is not to me personally that this compliment is paid, but rather to the surgeons of this town and neighbourhood, whom circumstances more than any merit of my own have placed me in a position to represent. To them be all the honour arising from the choice of one of their own number to address this important professional gathering; to me the disgrace if I fail to satisfy your expectations and to attain that standard of excellence which the many learned luminous and eloquent addresses hitherto spoken have established.

How am I to interest this great assemblage, wherein I see so many of the chiefs of our profession? A mere gleaner in the great field of surgical experience, I must not expect to tell any new thing to those who reap the full crops; or even to display the present state of surgery with anything like completeness, or in a manner worthy of attention, before those who are the creators of its modern aspects. I may only hope to imitate the painter who puts on canvas a well remembered scene from some popular story, and endeavour to give expression to ideas already existing in your own minds.

In carrying out this endeavour, I propose to confine myself to the subject of Operative Surgery; and, taking some of its main characteristics, to illustrate these from the experience of others and from my own. It will be allowed by those who are most familiar with the matter, that modern Operative Surgery is characterised by the boldness and magnitude of its proceedings; by its respect for the integrity of the human body, and its reticence of the knife; and by the general superiority of its results. It stretches out its hand to regions, and takes within its grasp, organs formerly thought beyond its reach, and grapples not unsuccessfully with diseases hitherto considered incurable by scalpel or drug. Dangers and difficulties do not appal it, nor does it fear to undertake the gravest responsibility, if only its audacity be justified by the well founded hope of destroying a fatal disease, or removing one which, although not fatal to life, may yet render that life a misery, a burden so wearisome to him who carries it, that death itself is not a greater calamity than life so oppressed.

Paradoxical as it may seem, whilst in one direction it is thus acquiring new dominions, and showing itself capable of the most daring enterprises, in other quarters Surgery lays down the knife and employs measures more sure, safer, and attended with less suffering; or it substitutes milder for more severe operations, shrinks from unnecessary mutilation of the human body, and in every way seeks to conserve it and maintain its integrity as complete as may be compatible with the object to be gained.

I claim for it, moreover, that in its bold, as well as in its milder and more conservative measures, it realises a larger and more uniform amount of success, and is thus a more useful and reliable agent than the art of former days—a success which is the more satisfactory, that, though brilliant, it is the result of sound principles, industriously sought after and carefully carried out.

Here, then, are three characteristics, which I think we may consider the chief, or of the chief, characteristics, of modern Operative Surgery. For the sake of shortness, they may be spoken of as its Audacity, its Conservatism, and its Success.

You, gentlemen, among whom are some of the most intrepid operators of the day, will have no difficulty in recalling examples of the

Audacity of modern Operative Surgery. You know that the boldest exploits recorded in surgical annals have been repeated but recently; that, in obstruction of the gullet, the stomach has been opened, and the patient fed through the opening; that the kidney has been cut down upon, and stones taken from it; that the aorta has been tied; that the removal of the whole upper extremity (the shoulder-blade, part of the collar-bone, together with the arm), either on account of accident or of disease, has become a not unfrequent proceeding. Upon the table before you there is perhaps as large a mass as has ever been taken away along with the upper extremity—an immense enchondroid tumour. You know, that operations which but a few years ago were counted unjustifiable, such as ovariectomy, are now established on the firm basis of success; that feats even more startling, which might make even the initiated tremble, have been undertaken in isolated or comparatively rare instances, with a fortunate result; that the spleen has been taken away, the kidney extirpated, as a sequel to ovariectomy; and, not to multiply examples, that the uterus has been removed several times alone, and also together with a large cyst and with all its diseased appendages, constituting a large mass.

But it must not be supposed that, because these great operations are cited as illustrations of the audacity of modern Operative Surgery, they have no other claim to our admiration. Many of them were successful endeavours to save life under the most unfavourable circumstances; and none were undertaken but after a patient investigation of facts, or without a careful and judicious consideration of all the aspects of the disease and of the condition of the patient. All were performed according to sound surgical principles, and for the removal of disease in itself necessarily fatal.

Nor need our admiration of these or similar undertakings engender in our minds a recklessness of human life, any more than their execution indicates the existence of such a feeling. It is, indeed, sometimes said, and even by members of our profession, that the performance of such operations does evince a certain want of respect for life, and that great operators are apt to look lightly upon the deaths of patients where a fatal result ensues. For my part, I entirely repudiate such thoughts, nor do I believe in their existence; and I would appeal to every operator in the room to echo my opinion, and to say if he would not deprecate such a feeling as the worst foe to a really sound operative surgery.

But if in our own ranks there are who believe in such recklessness, we cannot be astonished that we sometimes hear opinions in the same sense expressed by individuals of the non-professional public, and the very virtues of the surgeon, his coolness and self-possession, brought forward to attest his callousness to the sufferings of others and his disregard for the sacredness of life. No accusation could be more unjust. Because, Sir, when the surgeon puts his knife into the palpitating flesh, his hand does not tremble, nor the sight of blood affect his nerves, should he be stigmatised as cruel, heartless, and unfeeling, or regardless of human life? Surely not. This presence of mind is the result of knowledge, not of callousness—of knowledge based on experience, and of forethought. It is the result of a well devised plan of operation. It is, indeed, the result of a true sense of the sacredness of human life, and of the deep responsibility that attaches to him who places his patient's life in possible immediate jeopardy, to rescue him from a certain but distant death. Without such a feeling, no man ever was or will be a truly good and successful surgeon; for more than aught else—more than the love of fame or the desire of success—it impels us to those measures of precaution, of careful preparation, of minute detail, which enable us to bring to a fortunate termination the most hazardous proceedings, and thus to justify the audacity of modern Operative Surgery.

The term Conservative as applied to Surgery is quite of modern origin, and dates from the year 1852, when it was first made use of by Sir William Fergusson. The conservative spirit, however, influenced the practice of surgeons in much more ancient times, as we know from the works of Paulus Ægineta, who distinctly speaks of the excision of the joint-ends of bones, and of the removal of entire bones in lieu of the amputation of the limb.

The story told by Garegeot of the man whose nose, having been bitten off in a drunken quarrel in a wine-shop, fell into the kennel, was picked up, washed and reapplied to the face, and grew there, can scarcely be quoted as exemplifying Conservatism in the special sense which has been given to the term in recent years. A predecessor of mine in this town, some fifty years ago, acted quite within the strict meaning of the term when, in a case of compound dislocation of the ankle-joint, where certainly most surgeons of that period would have amputated the foot, he merely removed the astragalus and saved the limb. The gentleman who had the good fortune to be the subject of